



ISSN: 2230-9926

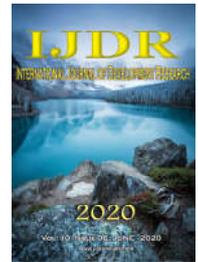
Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 10, Issue, 06, pp. 37155-37159, June, 2020

<https://doi.org/10.37118/ijdr.19066.06.2020>



RESEARCH ARTICLE

OPEN ACCESS

ISO 30401: THE STANDARDIZATION OF KNOWLEDGE

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ARTICLE INFO

Article History:

Received 03rd March, 2020

Received in revised form

17th April, 2020

Accepted 06th May, 2020

Published online 30th June, 2020

Key words:

ISO 30401; knowledge management; knowledge; challenges; standardization.

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ABSTRACT

21st century organizations have knowledge as their main input and / or asset. Although its importance is uncontroversial, its management is still problematic, lacking standardization and reliability. In order to minimize the problems and challenges of knowledge management, ISO 30401 appears. Its implementation is still surrounded by doubts, incongruities. The present work aims to expose the difficulties of the adoption of ISO 30401 by organizations through an exploratory descriptive study based on an integrative literature review. It is intended to portray how the ISO standard guidelines for knowledge management are being adopted and to identify the difficulties of its adoption and to propose solutions so that its implementation and use produce satisfactory results for organizations that choose to use it.

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Citation: Eduardo Zeferino Maximo, Ricardo Pereira, Rosane Malvestiti, João Artur de Souza. "ISO 30401: the standardization of knowledge", *International Journal of Development Research*, 10, 06, 37155-37159.

INTRODUCTION

Knowledge management is a capacity that organizations have to manage their intellectual capital, with the primary goal of adding value to their production chain and guaranteeing them a competitive market advantage (Nonaka and Takeuchi, 2008; Oliveira, Nascimento and Dalkir, 2018). Nonaka and Takeuchi, in 1997, already affirmed that knowledge dynamizes the organization and, therefore, has implications in its entire structure, directly reaching people who have become a specific part to create and share knowledge. Knowledge Management, at this point, makes a difference by providing the management of knowledge identification, creation, storage, sharing and use processes as its main asset (Millar, Lockett and Mahon, 2016; Mahon, 2016; Tidd and Bessant, 2018). Organizations view knowledge strategically, in which their management improves their processes and directs them to solve their challenges. The concern with Knowledge Management is extremely relevant. Given the above, the importance of knowledge and, in particular, its management becomes unquestionable. However, managing this important and strategic asset still lacks standardization and reliability. To ease such complexity and to assist organizations, the International Organization for Standardization makes ISO 30401 (ISO, 2018) available,

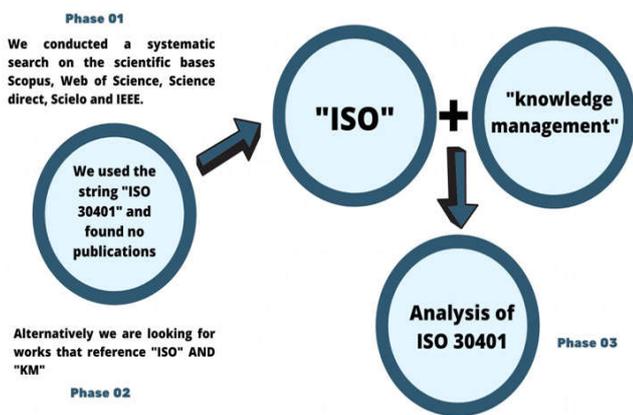
which proposes a set of guidelines and standards for Knowledge Management. The standard is an attempt to help organizations standardize their management actions concerning the knowledge acquired and from which they will still be obtained. It also recognizes knowledge management as a discipline focused on the ways that each organization creates and uses its knowledge. Allowing them to develop a Knowledge management system appropriate to their operational and business peculiarities, thus promoting the creation of value through knowledge. Therefore, the purpose of ISO is to establish guiding principles for managing knowledge, as guidelines for organizations to become competent in optimizing the value of their knowledge and to audit, certify, evaluate and be recognized internally and externally as competent knowledge management organizations (ISO, 2018). Although the standards bring resources that facilitate operations within organizations, the ISO 30401 standard is still surrounded by doubts, its implementation, by the organizations, presents incongruities and doubts. Creating discussions about solutions for implementation and use is of paramount importance for the optimization of knowledge management. Therefore, this study aims to identify the difficulties of its adoption and to propose

solutions so that its use produces satisfactory results, thus stimulating organizations to choose its use.

Methodological procedures

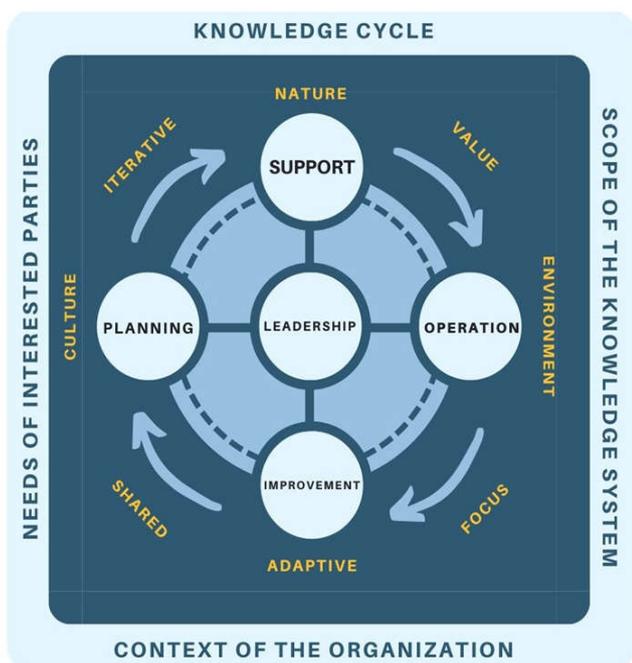
We carried out a bibliographic survey in search of publications that dealt with the ISO 30401 standard in the scientific bases Scopus, Web of Science, Science Direct, Scielo and IEEE. We initially intended to conduct an integrative literature review. However, we did not find, in the chosen scientific bases, publications that would provide an integrative literature review (phase 01). As an alternative to this gap in the field, we sought articles that addressed the knowledge management clause in ISO 9001. From there, we performed an analysis compared to ISO 30401 (phase 02). We identified the motivations for the genesis of a specific standard for Knowledge Management with ISO 30401. Finally, we list the difficulties and / or benefits that organizations can obtain with the implementation of ISO 30401 (phase 03).

The figure below shows the procedures performed in carrying out the study.



Source: the authors (2020)

Figure 01. Methodological procedures



Source: the authors (2020)

Figure 02. Knowledge management system based on ISO 30401.

Knowledge management and ISO 30401

Knowledge is an intangible asset that organizations need to manage like any other asset (ISO, 2018). It is also defined as a justified belief that increases an entity's capacity for effective action. Knowledge may be viewed from several perspectives (1) a state of mind, (2) an object, (3) a process, (4) a condition of having access to information, or (5) a capability. The major implication of these various conceptions of knowledge is that each perspective suggests a different strategy for managing the knowledge and a different perspective of the role of systems in support of knowledge management. "If knowledge is viewed as an object, or is equated with information access, then knowledge management should focus on building and managing knowledge stocks. If knowledge is a process, then the implied knowledge management focus is on knowledge flow and the processes of creation, sharing, and distribution of knowledge. The view of knowledge as a capability suggests a knowledge management perspective centered on building core competencies, understanding the strategic advantage of know-how, and creating intellectual capital" (Alavi and Leidner, 2001). The objective of ISO 30401 is to support organizations to develop a management system that effectively promotes and enables the creation of value through knowledge. Considering what was exposed in the previous paragraph, the ISO 30401 considers knowledge from the perspective of the process. Like this, it is necessary to have its development, consolidation, retention, sharing, adaptation, and application so that workers can make effective decisions and aligned actions, solving problems based on past experience and new insights about the future (ISO, 2018, pp. 04). This is the role of knowledge management. It is a discipline focused on ways that organizations create and use knowledge. Knowledge management has no single accepted definition and no global standards predate this management system standard. There are many well-known barriers to successful knowledge management which still need to be overcome, many confusions with other disciplines such as information management, and many common misconceptions about how to do knowledge management, for example, the view that simply buying a technology system will be enough for knowledge management to add value (ISO, 2018, pp. 04).

ISO 30401 also considers that knowledge management is a holistic approach to improve learning and effectiveness by optimizing the use of knowledge, in order to create value for the organization. The organization that implements knowledge management procedures can better adapt to a constant dynamic and dynamic environment, minimizing business risks. The purpose of Knowledge of an organization is to improve the effectiveness of the organization by increasing intellectual knowledge and organizational efficiency, improving focus and preventing repetitive and unnecessary work. Successful knowledge management allows focus and learning and economic organizational thinking. One of the main objectives of the organization is the creation of capacities for continuous learning, preservation, and renewal of knowledge. Knowledge management allows quick access to the knowledge needed for personal and organizational learning, as well as performance improvement (Bounik and Giat, 2015). The 30401 standard allows knowledge to be positioned as a key organizational resource that can lead to substantial organizational changes. ISO 30401 also considers that to manage knowledge, several aspects related to knowledge must be valued, such as nature (intangible, complex and created by people), value, focus

(organizational objectives, strategies, and needs), adaptability, understanding shared, environment, culture, and interactivity (ISO, 2018, pp. 04). ISO 30401 links the result of the work with organizational knowledge, claiming to be an important differential for effectiveness, collaboration, and advantage. Leading organizations to become active in knowledge or considering their greatest wealth. This certainly leads to the development of people and the organization itself through the processes of knowledge and communities of practice.

Therefore, ISO 30401 promises an effective implementation of KM in organizations and for that to become possible it establishes the requirements and guidelines. The organization has the task of determining its relevant issues for Knowledge Management. For example, (1) recognize the needs and expectations of stakeholders, (2) establish a scope in relation to KM, (3) continuously improve KM, (4) KM should cover the acquisition, use, and maintenance of knowledge and discard outdated ones, (5) transform and transfer knowledge, (6) activate knowledge through processes, human capital, technologies, and infrastructure, (7) develop a culture that supports KM (Annex C, p. 18), (8) Support, Planning, Leadership, and Governance, (9) documenting and protecting information and the latest requirements are (10) Operation, performance evaluation, and continuous improvement. The standard itself further adds that in determining the relevant issues to reach its maximum capacity in favor of the desired objectives, the results of KM become a means to facilitate the achievement of these objectives and "not an end in themselves." (p. 5). Given the above, it can be said that there are many barriers to its success and that need to be overcome. Therefore, the ISO 30401 standard specifically addresses principles and requirements on how to manage knowledge, for example, guiding organizations in order to optimize the use of the knowledge of which it is own and how it can be assessed (ISO 30401, 2018). Knowledge management has a multitude of definitions and there are many known barriers to its successful management that still need to be overcome and many common misconceptions about how to do this management. Each organization will develop a knowledge management approach, with respect to its own environment, reflecting its specific needs and the desired results (ISO, 2018). This brings us to one of the problems we discussed in this paper, which will be covered in the next section, how will such diverse organizations be able to standardize knowledge?

ISO 30401: analysis and discussion and peculiarities of the standard

The standards, established by a recognized body (ISO), are based on an inventory of what exists, in relation to some observations. The second step is a selection process to identify relevant information. This selection process ends with the establishment and registration of a set of solutions to solve corresponding problems (Benezech *et al.*, 2001). The ISO 30401 standard refers to the way in which a company must develop a knowledge management system, providing guidelines and models for its implementation. This document is considered as a code, that is, a common language, which leads to communication and the relationship between the interested parties. The standard, when adopted, can be used in companies to improve the codification of knowledge. Explains the process of implementing standards, considering three main and necessary steps to carry it out within the company: (1) implementation; (2) coding (standardization); (3) the impact of

the implementation (measurement / evaluation). Knowledge must be created, applied and reused quickly and effectively. Organizations depend on it to remain competitive, its dissemination must be encouraged. Considering the challenge of standardizing the Knowledge Management System (KMS), the development of an ISO for Knowledge Management will help organizations to understand and map their processes and factors necessary for its effectiveness. Because it is already structured along the lines of established standards, such as ISO 9001, which focuses on supporting organizations in improving their processes, having a specific section for Knowledge Management. Both have similarities, and organizations that have their predecessor will find it easier to implement. The great difficulty is how to "box" knowledge, so that standardization is fast enough to evolve into a knowledge system. In this way, not casting the process, as is commonly seen in the implementation of other standards. A strong point of the standard is the inclusion of mechanisms to transform different types of knowledge, whether through: (i) human interaction, (ii) externalization (recording, documentation or coding of knowledge); (iii) curation and combination (synthesis, formalization, structuring or classification of codified knowledge), (iv) accessibility and internalization (for easy access and understanding). As well as, there are four steps to the Knowledge Management System: human interaction or socialization (tacit / tacit), externalization (tacit / explicit), combination (explicit / explicit) and internalization (explicit / tacit).

However, the standard does not clearly define the concepts of evaluation of this system, leaving, in a way, subjective and suggestive, as the organization can define what is "right or wrong" before the standard. It is important to note that ISO considers a focus on non-conformities of the system and not on its improvement. According to ISO, the organization must determine the knowledge necessary for the operation of its processes and achieve product and service compliance. This knowledge must be maintained and made available, as necessary. To determine this knowledge, it must be defined in the organizational culture, this being the main pillar to support the development of Knowledge Management. But, how to measure the culture only by evaluating the requirements and not experiencing the day to day of the organization? And yet, how to define the measurement method, realizing to what extent there is the encouragement and commitment of individuals to share knowledge, if in an audit it can hardly be seen if people feel comfortable putting their ideas, if they have autonomy over knowledge and invest time to reflect on learning?

Another important point to evaluate is in relation to the use of the standard, if the standard is not becoming a frequent contraction of the consultancy for its implementation with a low degree of knowledge of the organizational culture. As for the organizational structure, the standard describes that the leadership must develop a structure that has teams with functions directed to the implementation of Knowledge Management, making it difficult for smaller organizations to implement the standard. Many organizations focus on different knowledge outcomes; therefore, each will need different Knowledge Management strategies. The standard does not take this into account. The standard could assist in the development of Knowledge Management levels, not a single standard. One of ISO 30401 concerns is what is documented, not what is being done. For, if knowledge is being used, the

focus will be on non-compliance and not on learning and / or disseminating knowledge, which is the focus of a knowledge management system. Another factor that could have been explored by ISO, are the measurement systems, since there is a gap in several Knowledge Management assessment models. ISO 30401 determines the measurement of everything, but it leaves a gap that the measurement mode need not be a direct metric. The standard also leaves its real need for organizations in doubt. Why should the company certify its Knowledge Management system? What would be the need to have this investment in an audit to measure adherence or not to standard requirements? Likewise, there may be a loss of ISO credibility with certifiers who are not specialists in knowledge management, but in programs of another nature. This is because, many times, the same company that instructs the organization to perform is the one that certifies its standards, and can also create a false impression in organizations that their knowledge is being disseminated and used by everyone. Finally, the new standard does not indicate how to do Knowledge Management. At the very least, it can help ensure that an acceptable management system has been established, and whoever uses it will determine how it will work. As a way of organizing the discussion in this section, we summarize the positive and negative points of the ISO 30401 standard in table 01, shown below.

Table 1. Synthesis of the positive and negative points of ISO 30401. Source: the authors (2020)

Strengths	Weaknesses
Creating a pattern	Is knowledge standardizable?
Guiding principles	It is necessary to invest in a KM audit?
Manage knowledge	There is a need to certify the KMS?
Audit	Expensive consultancies
Certification	False impression of the actual use of KM
Evaluation	Indirect metrics
Recognition	Lack of focus on learning
Unconformities	Lack of assessment of the dissemination of KM
Measuring system	Small business deployment
Knowledge measurement	High investment
ISO dedicated teams	Casting the KM system
Focus on supporting documentation	Lack of control of standard effectiveness

Final considerations

The International Organization for Standardization, known as ISO, charged with establishing international standards for technical standards, has a high responsibility in developing standards for management, specifically ISO 30401. With this standard, ISO hopes to assist institutions to implement a knowledge management system, motivating organizations internally (achieving objectives in order to achieve improved management) and externally (marketing and customer satisfaction), by adding value through the use of organizational knowledge. It is known that knowledge management is a combination of procedures and actions that aim to improve the acquisition, maintenance and administration of an organization's knowledge. In this sense, it can be said that knowledge management is a capacity that organizations have, which streamlines their processes and involves the entire structure, integrating all their functions and especially human resources, as they participate intensively in knowledge processes.

To facilitate this path, ISO 30401 guides the implementation of a knowledge management system providing common guidelines for organizations, in which, the application of standardized practices allows greater agility in the ability to solve problems, develop skills, stimulate creativity, providing greater competitiveness, and still improving the service and quality of services perceived by customers, so that companies can survive in the information economy. However, this is still a complex task, as each organization has its particularities, different structures and cultures, making it difficult to adopt standardized methods for Knowledge Management. In addition to these difficulties, there are other types of challenges, such as the culture of knowledge, the continuous involvement of top management, the awareness of people that knowledge sharing is an activity that is part of their work routine. When analyzing the standard, it was found that a large part of its requirements requires organizational management practices, for example, strategic planning, process chain, performance indicators and internal audit. The requirements for Knowledge Management described in the standard refer to the transformation and facilitators of knowledge that are linked to Knowledge Management practices. Therefore, it is difficult to define a standard criterion for establishing adherence based on isolated items of the standard. In this case, it is possible that the successful implementation of the standard lies in creating a model for the implementation of all requirements concurrently, so that the assessment is complete.

It is worth mentioning that the new standard does not indicate how to manage knowledge, it only helps to ensure an acceptable management system and, each one will choose what best suits them. It is possible that organizations that keep information up to date are more likely to succeed. For them, Knowledge Management is considered one of the fundamental factors for their growth and permanence in the market. Thus, organizations with these characteristics, an ISO 30401 certification starts to add internal benefits, with the systematization of Knowledge Management, with the best practices and internationally established standards, and, externally, becoming a competitive differential recognized by the market and as organizations that have excellence in their management. For future studies, it is necessary to expand the empirical research and evaluate the implementation of the ISO 30401 standard, regarding its real need, associating organizational management practices aimed at Knowledge Management, in order to structure a complete instrument for its implementation. Perhaps creating a framework to evaluate the implementation of all the requirements of the standard, since there are several gaps in the Knowledge Management evaluation models, thus, evaluating what the reality presents in relation to what the standard describes, plus the standard determines the measurements. Because, the standard helps in the development of Knowledge Management in its complete scope.

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