CalÍOpe: The Knowledge Platform of the Library System of Federal University of Amazonas - Brazil

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Abstract. The globalized world requires organizations to become increasingly competitive. To remain in the market, they are constantly seeking to reduce waste and enhance human capital. The goal of this study is to propose a implementation of a platform the helps in organizational knowledge searching, organization and availability to generate competitive advantage. The Moodle platform will be used as the methodology to capture the knowledge from servers, lectures, workshops, casual conversation classes and awards for the best ideas. The expected results will be the new ideas development, assertive decision-making and rework reduction by means of existing organization knowledge reuse.

Keywords. Knowledge management, knowledge reuse

1. Introduction

With technological advancements it becomes possible to speed the knowledge retrieval to support decision-making processes in a clearly and objective way. Knowledge needs to be accurate and its treatment, storage and access is fundamental to organizational competitiveness.

The organizational information competence depends on the knowledge that it holds [1]. Organizations that value the production and storage of their knowledge will be able to solve problems more easily and to obtain competitive advantage [2]

According to [3] what will determine the organization's success is its ability to convert existing knowledge contained in the employees' ideas into an institutional knowledge application action plan.

This article presents an innovative roadmap, considering that no systematized roadmap for sharing knowledge in libraries was found in the literature.

Based on these research gaps, this study seeks to answer the following research question: what contribution could a knowledge platform implementation bring to the Ufam Library System?

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To answer this research question, a literature review was performed and a knowledge management platform model was developed dedicated to support the Ufam Library System projects.

2. General Aspects of Knowledge Management

In the competitive world of organizations, one of biggest challenges is to capture the knowledge acquired by employees over the years. In this sense, knowledge management establishes a basis for knowledge identification, creation, retrieval and sharing to empower organizations' business processes [4].

Obeidat [5], argues that knowledge management develops a ideal organization environment to map their competences aiming to capture the knowledge they already have, learn and use these knowledge for development of future projects.

There are two types of knowledge: tacit and explicit. Tacit knowledge is that acquired by the person throughout day-by-day experiences. This type of knowledge is considered more valuable due its difficult capture, recording, and dissemination. Moreover, it is also linked directly to people, that is what they learn in their daily lives. This kind of knowledge is difficult to access because it rooted in people [6].

The globalized world of the borderless economy requires organizations to become competitive, for this they need to understand the changes that occur in their environment [7]. This scenario occurs due to the modernization of the industrial era to the informational era in which the competitiveness of organizations is not only in the financial aspect, but in the ability, they have to create, transmit and use their knowledge [8].

For an organization to overcome competition in the market, it is necessary for it to act as an agent that organizes its knowledge, making it applicable to generate new knowledge [9]. The knowledge produced by an organization has become a valuable asset [10]. The only sustainable advantage that an organization can have is the knowledge it possesses [11]. Competitive advantage is only present in an organization that learns, that is, one that knows how to exploit its tacit and explicit knowledge [12].

The authors believe that to face these challenges, organizations must reevaluate their storage infrastructures and to adopt storage policies in which knowledge is organized by a knowledge manager.

To store the knowledge records in a way that it can be retrieved and shared, the organization must have a retrieval system in which documents can be indexed in a simple, objective way and that represents their formal content [13].

Table 1. Most discussed topics in knowledge management organizations Source: Elaborated by the authors.

Topics	Contributions	References
Knowledge retrieval	The lack of adequate infrastructure makes it difficult to recover knowledge	[14];[15]; [12].
Knowledge capture	The human being is the main factor in organizational development	[16]; [17];[18].
Competitive advantage	Organizational knowledge management promotes competitive advantage	[7]; [8]; [1].
Knowledge sharing	Knowledge must be socialized to generate new knowledge and contribute to problem solving	[19]; [20]; [13]; [21].

Table 1 presents the most discussed topics on the proposed theme. In the research carried out, it is perceived that the topics most discussed among the authors are concentrated in four major themes: i) knowledge retrieval; ii) knowledge capture; iii) competitive advantage; and iv) knowledge sharing.

In this way, it is understood that the success of the organization lies in its ability to manage its own knowledge.

In the view of [22], to implement knowledge management, it is necessary to build an organizational culture and create an infrastructure that facilitates learning in the organization.

In this sense, the knowledge platform is a resource that streamlines the recovery of organizational knowledge.

3. Digital Platforms

To remain competitiveness in the market, one of the imperatives for organizations is to stimulate organizational learning and strengthen interaction between people. Knowledge emerges in organizations from events in which employees explain their experiences so that they are transformed into organizational knowledge [23].

An organization's intellectual capital makes the difference in obtaining competitive advantage [24]. That is why organizations are looking for resources to better manage their knowledge to achieve competitive advantage [25].

One of the resources is encouraging the adoption of knowledge sharing between individuals, which can be enriched with new ideas and, from this, generate new knowledge [26].

Knowledge must be easily accessible for use and add value to the development of new projects [27].

It is perceived that the most discussed topic among the authors is the sharing of lessons learned in the day-to-day work of employees. These lessons, when deposited on a knowledge platform, can be reused by new employees to solve problems without the loss of financial resources. This dynamic of exchanging experiences contributes to the development of future projects for the organization.

The MOODLE is free software to support learning, executed in a virtual environment for collaborative work, based on a platform. Used mainly in an e-learning or b-learning context, the program allows the creation of work groups and learning communities.

Therefore, implementing a platform will enable the exchange of knowledge (interaction) between employees so that they can generate new knowledge (record). This can determine the success of the organization through its ability to transform existing knowledge (in terms of ideas) into institutional action.

4. Methodological Approach

The composition of the methodology was defined through a literature review regarding the research topic.

The research protocol defined the following criteria: researched period: 2000 to 2023; peer-reviewed articles in English or Portuguese; Databases considered: Web of Science, Science Direct, and Scopus.

Definition of key words: the following definitions of keywords were made: knowledge + management and digital platform.

The analysis allowed us to understand the scientific development regarding the topic. Organizational knowledge is one of the most valuable assets in organizations.

Knowledge Management is used in organizations. However, it does not have a tool that allows the storage and retrieval of organizational knowledge accumulated in project implementation processes for later reuse.

The research results point to a gap in the literature regarding the lack of a tool to store and retrieve lessons learned by employees for reuse in projects in organizations.

5. Definition of the Systematized Road Map for the Platform

To prepare the roadmap, it was considered relevant to map existing knowledge management practices.

The Roadmap came from [28], which presents a synthesis of the Knowledge Management process: Socialization (acquisition and development of knowledge), Externalization (sharing), Communication (storage) and Internalization (retrieval/learning).

This way, documents with lessons learned can be inserted into the platform: best practice of an activity, reports of experiences in previous projects, meeting reports; Training & Capacity Building Material: Tutorial, Photography, Lesson Plan; Idea Bank: Improvement of a process, Creation of a new product Product improvement, project implementation. The model was tested on the Moodle platform, some servers deposited their knowledge and also consulted on the platform. Figure 1 shows the platform model.
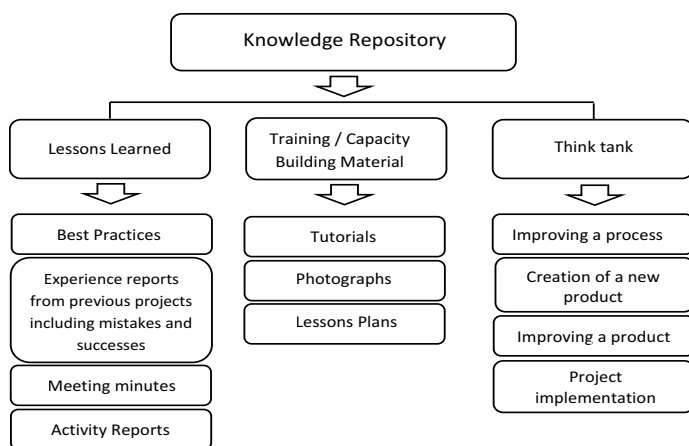

Figure 1. Model proposal for the repository (Source: Elaborated by the authors.).

6. Conclusion

The lack of a model for storing lessons learned in the organizational project development is one of the factors that concerns organizations; the gap was identified during the literature review process.

With a search in the literature, it was possible to observe that there are some platform models to recover existing knowledge in an organization, however, nothing was proposed that could meet specific library projects.

Also, in the literature it was possible to verify that there is a great concern among organizations in recovering and storing their knowledge for reuse in future projects.

In short, the proposed model includes a roadmap with the necessary attributes for retrieving, storing and sharing knowledge on a platform. It is believed that in this way, problems of storage, retrieval and sharing of knowledge in the Ufam Library System can be solved in order to eliminate waste related to organizational knowledge management.

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