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Developing an Organizational Knowledge Audit Focused on Core Processes and Professional Development

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ABSTRACT

Objectives: reflect the main elements of a knowledge audit that combines the main processes with professional development indicators that could identify those components of human capital that should be favored.

Methods: the main elements of a knowledge audit that combines the main processes with professional development indicators were analyzed. An approach is proposed that allows the identification of the components of human capital that must be enhanced. No other methodology has been identified with this orientation.

Results: the image of the strengths and weaknesses of the organizations, as well as the knowledge necessary in each process, provide the basis for the regulation of organizational processes and the necessary human and technological components. It contributes to the identification of knowledge gaps as well as the cultural elements that must be addressed. It is a solid guideline for programming professional development actions that could solidify the future design of these processes and contribute to the professional competencies of the members of these communities of practice.

Conclusions: This is a solid guide for professional development practice, oriented towards the future development of organizational processes and contributes to the



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growth of the professional competencies of these communities of practice. The organization's strategic platform has been enriched with the identification of the strengths and weaknesses of its processes from different points of view. This methodological approach will be applied in different cases to possible adjustments analyzed in its design.

Keywords: knowledge management; knowledge audit models; communities of practice; professional development; organizational processes.

INTRODUCTION

Knowledge management as a management approach has been spreading and is evolving to cover many current and fashionable perspectives, but until now it has not been given the impetus or support that would allow it to be promoted to the level it deserves.

Communities of practice (CoP) have evolved and organizations have learned their potential for employee development and growth. CoPs play an important role in sharing knowledge, in learning and as a strategy to improve organizational behavior.¹

Communities of practice are considered a vital component of a people-oriented knowledge management approach.² *Huysman* and *Wulf*³ state that knowledge is inseparable from the minds of individuals and that it is built from the experience of working together in networks. *Hansen* and other authors⁴ refer to a personalized strategy that is linked to tacit knowledge and its transfer between people, with direct interaction between individuals that allows knowledge sharing.⁵

Organizations are made up of workers with different training but who come together based on the processes in which they intervene. That is, it is the



organizational processes that stimulate the interrelation of these people, without their basic training necessarily being the one that intervenes in this objective.

Figure 1 shows how knowledge is exchanged in an organization without basic training reflecting the primary reason for this association. It also shows groups with particular objectives that are linked by their professional functions and responsibilities, while generating an exchange of knowledge. It is possible, as can be seen, that a component is more closely linked to a group to which it does not belong, but that due to certain factors it is presented with greater strength associated with this group.

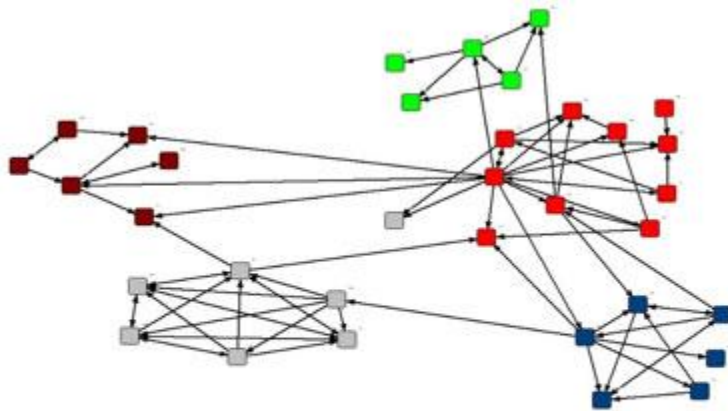


Fig. 1. Representación de diferentes comunidades de práctica y sus interrelaciones.

This article presents a methodology designed to audit organizational knowledge, attempting to deepen the knowledge associated with the main processes and different approaches related to professional development. Although its design was oriented towards an institution that provides information services, its application is viable in any institution in which it not only tries to know the knowledge present in its main processes, but also considers to the same extent the path that is followed



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with a view to the development of its human capital in terms of knowledge, a vital aspect for the future of the institution.

KNOWLEDGE AUDITS AND THEIR ROLE IN STRENGTHENING COMMUNITIES OF PRACTICE

In 1994, *Debenham and Clark*⁶ reported for the first time a procedure they titled knowledge audit. Rather than a sequence of actions, or a process, they referred to "a planning document that provides a structural picture of a section of organizational knowledge, as well as the quantitative and qualitative details of the individual 'chunks' of knowledge within that section." ". Since then, various authors have been delving into this topic and developing this concept towards a process that is developed in an organization in order to gain a deep understanding of the available knowledge and to be able to have elements that allow governing an organizational change where maximum use is made. available knowledge and the development and acquisition of new knowledge is projected based on current and future organizational goals.

A knowledge management program or system should not be implemented without having conducted a knowledge audit. This audit will allow the large investment that the organization must make in a program of this magnitude to be appropriate, and ensure that the tools and approaches to be applied correspond to the type of people who make up the organization. Knowledge workers are the center of this knowledge audit, so no person should be left out during this knowledge audit process and initiative.⁷

Among the proposed approaches, *Choy , Lee and Cheung*⁸ define it as a systematic examination and evaluation of knowledge assets and is mainly recommended to



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industries as a first step before launching a knowledge management program; and *Hylton*^{9,10} defines it as a systematic and scientific examination and evaluation of the tacit and explicit resources of knowledge, including what knowledge exists and where it is.

González-Gutián and *Ponjuán*¹¹ carried out a reflective study of nine methodologies, seven models and one method to audit knowledge in organizations. They established comparisons in relation to twelve of the common aspects that analyze these processes. This study continued the analysis of information and knowledge audits previously carried out by these authors.^{12,13}

Lauer and *Tanniru*¹⁴ proposed a knowledge audit with the objective of designing a sociotechnical system that would allow the development of various knowledge processes within the organizational context. He took into account *Leavitt*,¹⁵ who emphasized four vital factors for this design: the task, the technology, the structure and the people, so that these factors were linked to the organizational processes to recommend a change.

Among the methodologies for auditing knowledge, the one proposed by *Pérez Soltero and others*,¹⁶ oriented towards knowledge processes, is significant. In Cuba, this methodology has been applied by *Salas* and *Ponjuán*¹⁷ and by *Hernández*,¹⁸ and has demonstrated its usefulness to identify and assess the strengths and weaknesses in terms of knowledge present in different organizational processes.

METHOD



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DESIGN OF A METHODOLOGY TO AUDIT KNOWLEDGE ORIENTED TO PROCESSES AND PROFESSIONAL DEVELOPMENT

In order to understand in depth the knowledge present in different communities of practice that coexist in an organization, a methodology was conceived that could provide the institution with what its strengths and weaknesses were in terms of knowledge, and also certain views on specific aspects that raise the effectiveness and visibility of the members of these CoPs.

The considerations of *Gourova*, *Antonova* and *Todorova*¹⁹ regarding the characteristics that knowledge audits should have were valued, especially regarding their implementation. *The methodology proposed by Pérez Soltero* was taken up, applied to the main processes of an organization, applied with excellent results in several Cuban organizations. It was kept in mind that in every information system, changing components and different processes coexist, as well as that in the execution of the processes it is necessary to have knowledge and measures are needed to modify this knowledge to respond to future needs of the institution. Therefore, a methodology had to cover both aspects.

Within these components may be *Leavitt's approaches*.¹⁵ In addition to the processes, those who participate in them had to be kept in mind, and mainly the human capital, which is what integrates a structure, performs tasks and uses technology. This human capital, organized in communities of practice, is the element that moves the organization, so this people-oriented approach had to predominate in the knowledge audit with the intention of obtaining not only a current and real view, but also a panorama that allows predicting and projecting the future behavior of the institution. To assess the components that should be present,

we started from the analysis of the model presented by *Handzic , Lagumdzija and Celjo*²⁰ with the composition shown in Figure 2 .

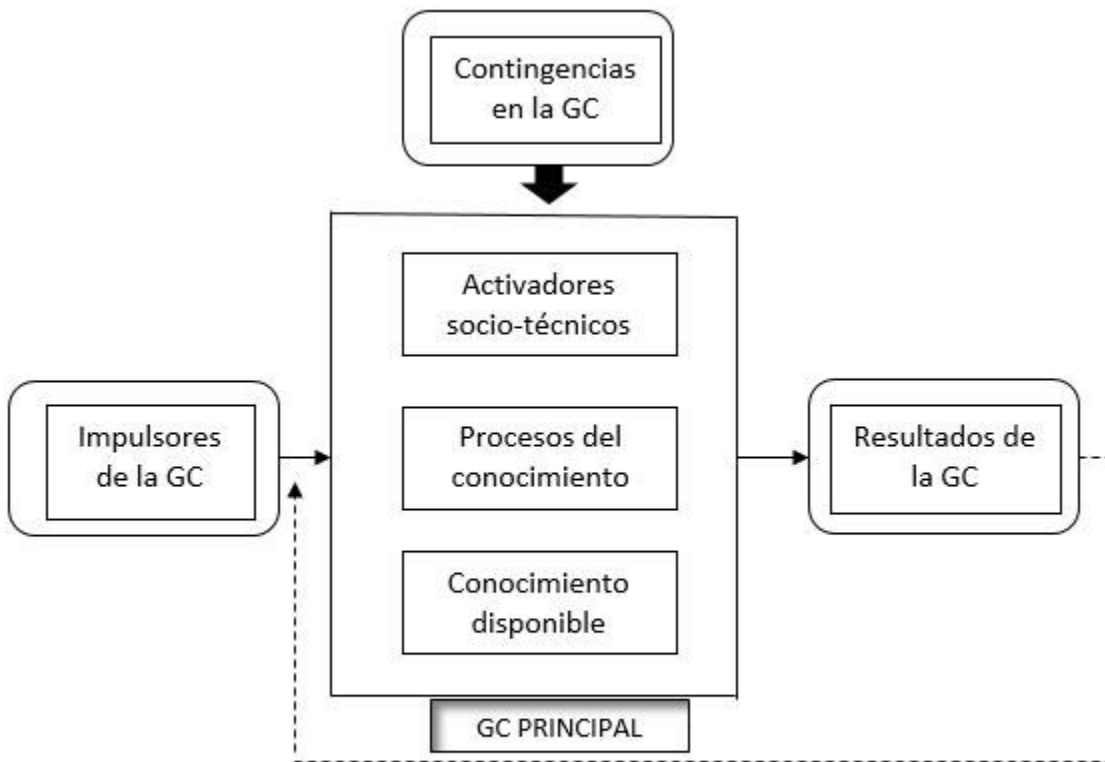


Fig. 2. Propuesta de modelo para auditoría del conocimiento (Handzic, Lagumdzija, A. y Celjo, 2008).

This model recognizes that any knowledge management effort has certain forces that drive it, and that they are generally found in the external organizational context. This assigns importance to particular contingencies, as well as certain factors that drive knowledge management and act as leveling strategic elements, allowing the organization to deliver its planned results, prioritize projects that correspond to the available resources. It must be kept in mind that knowledge management generates results that contribute to creating value in an organization and increasing profits.



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The results of the knowledge management process themselves feed the cycle by incorporating the experience of these studies in the audits which, as recommended, should be cyclical processes. Within the process itself, it contemplates the presence of sociotechnical activators such as innovation, operational excellence and other aspects. The model also includes the results that are derived from these approaches. The consideration of certain contingencies that are present in these knowledge management processes is interesting. Although it is not easy to identify the benefits of a KM initiative, organizations need feedback about the degree of progress achieved with initiatives of this nature. It is not possible to think of uniform behavior in these approaches because their results depend on a set of factors that occur to a greater or lesser extent, in certain conditions, in a specific culture, in objective conditions that allow the available knowledge to be generated, developed. , identify, transmit, retain... in short, that the subprocesses of knowledge management behave in each circumstance and in each context.

In the proposed audit, internal elements are primarily considered, linked to the main processes and a set of factors that reflect the current and future value of human capital, such as professional development with different dimensions. In the case of organizational processes, the following is considered:

- Inventory of the main processes, identified by the members of each community of practice.
- Knowledge required to develop organizational processes.
- Skills and attitudes that complement this knowledge.
- Information that is used to advance processes.



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- Origin and destination of the main processes that will facilitate the preparation of a process map.
 - Knowledge that the members of these communities of practice possess and that they do not use in these main processes.
 - Knowledge that the members of these communities of practice do not possess and that is necessary in these main processes.

To characterize human capital, the following have been considered:

- Years of experience in the institution.
- Years of work experience, mainly in activities similar to those currently carried out.
- Basic and postgraduate training.
- Teaching, research category (if applicable) or certain personal conditions (expert, advisor, or other that implies an intellectual rank).

Special relevance is given to the processes of knowledge socialization, taking into account:

- Identification of the people from whom you receive knowledge.
- Identification of the people to whom you provide knowledge.
- Mention of the people with whom they systematically exchange knowledge at the level of their community of practice, the institution, the sector, the country, and internationally.

Personal growth is a factor to take into account, considering that any knowledge audit aims to project the future evolution of the institution and for this an information culture in permanent renewal is required:



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- Time dedicated to reading for professional updating purposes (per day, week, fortnight, or month, as it is feasible to reflect it).
 - Identification of some authors you have recently read.
 - Professional events in which you have participated as a speaker or delegate in recent years.
 - Membership in professional associations of the specialty.

In case there is a direct link with teaching or research, it is also recommended to analyze:

- Courses of different levels taught in recent years.
- Teaching commitments with other institutions.
- Insertion/participation in research plans.
- Lines of research in which you participate.
- Books and articles published in recent years.
- Participation as referee and/or editor in certain serial publications taking into account the group in which each title classifies.
- Other particular elements that, in the specific case, articulate with these.
- Professional visibility on social networks.
- Impact and visibility index according to Google Scholar.
- ORCID registration number.

This proposal attempts to ensure that the aforementioned elements interact based on the necessary integration of the components of human capital and their characteristics, with the main processes of the institution that benefit and will benefit through the development of informational competencies. On the other hand, the quality and competence of human capital constitutes the most valuable



element that the institution has and constitutes the guarantee of the quality of the processes carried out.

Figure 3 attempts to represent the necessary integration that exists in this approach between the main processes and the representative elements of human capital, mainly in relation to their professional development (all very adjusted to the strategic platform of the institution).

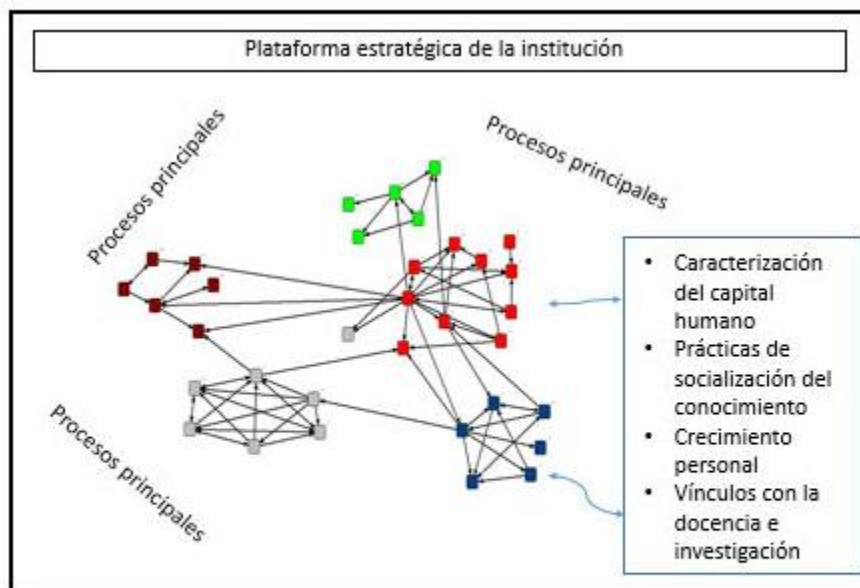


Fig. 3. Modelo de auditoría del conocimiento, orientada al desarrollo profesional y su relación con los procesos principales de la institución.

A knowledge audit that considers the aforementioned aspects allows the institution to delve deeper into the strengths and weaknesses, in terms of knowledge, that the people involved in its main processes have.

The improvement of your processes is guaranteed by having people who have the knowledge, skills and attitudes; that is, the skills that each process demands. Also knowing the information involved in these processes, such as policies, standards,



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procedures, regulations, indications, etc., ensures that these aspects are not omitted in these processes and that their results are in correspondence with these.

Having a complete identification of the human capital involved in the processes ensures being able to use experience, basic training, the level of updating of knowledge that one possesses, and the possibility of comparing it with practice in teaching and research activities.

The elements of knowledge socialization allow us to assess the between these people and others, in terms of knowledge, from those who have learned and those who teach, as well as the professional exchanges that take place at different levels, within the institution, in the country, and internationally. The quality of these spaces may or may not favor the development of these people, and may or may not contribute to the accurate dissemination of an image of the institution. The results of an audit with this approach ensure that a knowledge management program strengthens its subprocesses:

a) *Development of knowledge*: every action of this nature will have the necessary basis that defines what knowledge is needed and where it is needed.

b) *Acquisition of knowledge*: by identifying all the exchanges that originate in the communities of practice, experts at different levels can be identified who can be invited to conferences, courses, workshops, or who can potentially be future members of the institution. By defining the information and technological resources used in each process, the necessary obtaining of new software versions, new methodologies and resources, etc. can be identified.

c) *Knowledge retention*: an analysis of this nature can identify measures to take to retain the most valuable knowledge, trying to make it explicit and recording it in



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videos, documents, procedures, etc. Likewise, it can identify spaces where processes are restricted to one or a few people and it is necessary to share knowledge and transmit it to others.

d) *Use of knowledge*: an audit such as the one mentioned identifies the knowledge that is used, where it is used, and how it contributes to the final results of the institution. It allows identifying other knowledge that is possessed and not used, as well as knowledge gaps that may constitute priorities for the institution.

e) *Knowledge that is shared and distributed*: the analysis of knowledge sharing allows a deeper analysis of the objective and subjective factors that intervene in the socialization of knowledge.

It is the basis on which new goals can be projected in terms of knowledge, as well as adequately project professional development actions at the institution level and the creation of spaces to deepen in-person and/or virtual exchanges.

From the organizational point of view, the scope of the exchanges can be known, since, sometimes, some institutional areas or functional divisions do not participate or are adequately integrated into these institutional efforts.

RESULTS AND DISCUSSION

*The Handzic , Lagumdzija and Celjo*²⁰ model has facilitated the development of what we propose. *As can be seen, Leavitt 's*¹⁵ approaches are also present, when tasks and human capital are the main components of this approach. Technology accompanies every effort, and is a component incorporated into any human activity today. As we have started from the action of the communities of practice, the tasks



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are those that permanently guide their action, and, therefore, constitute the center of their action.

The knowledge audit, oriented towards the main processes, identifies the knowledge, skills, attitudes and information that are present in the work of the different communities of practice. It takes into account cases in which basic, advanced or expert knowledge is required as required. By taking these elements into account and linking them to professional development indicators, emphasis can be placed on the sustainability and capacity of the organization to develop and refine these processes. These factors take into account training, experience, professional updating, individual study, exchange and learning that derives from participation in professional events, the publication of results and the visibility of the organization's components.

The proposed model does not have a known precedent among other studied methodologies.¹³ Recognizes the role of the context, as well as the necessary assessment of certain contingencies that may or may not facilitate this process. It also takes into account certain factors, such as the informational and organizational culture that facilitate and promote these initiatives.

The analysis of results is vital to share the realities presented by the institution and promote new future efforts that allow identifying how an improvement in organizational knowledge processes is being achieved.

The issuance of a final report, as proposed by *Debenham* and *Clark* ,⁶ constitutes an obligation that allows recording the situation existing at that time, the activity carried out and the considerations about the steps to follow.

CONCLUSIONS



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A methodology oriented towards processes and professional development can be very useful to any organization that seeks to innovate, change and improve. By having an image of the strengths and weaknesses of the institution, as well as the knowledge needed in each process, the basis that regulates the organizational processes and the necessary human and technological components is ensured.

This analysis will contribute to the identification of existing knowledge gaps, as well as to identify cultural elements that need to be addressed. It constitutes solid guidance for executing professional development measures, such as courses, workshops and consultancies, that solidify the future evolution of these processes and contribute to the elevation of the professional competencies of the members of these communities of practice. Likewise, the organization's strategic platform will be enriched by knowing in greater depth, from different perspectives, the weaknesses and strengths existing in its internal processes.

Conflict of interests

The author declares that there is no conflict of interest.

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