IO-SECI: A Conceptual Model for Knowledge Management

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ABSTRACT

Nowadays the organizations need to increase the efficiency rate of the service support, responding faster occurrences (e.g. in internal support like help-desk or end user support). The use of Knowledge Management (KM) platforms is becoming a solution adopted by most organizations. However, the way how this knowledge is organized and managed together remains a problem that affects the quality of the services provided. To contribute to the solution of this problem, in this paper it is presented a Conceptual Model, in the framework of KM to a telecommunications organization or services, applying best practices as the use of Information Technology Infrastructure Library (ITIL). This framework should help answer questions regarding: How extent to which the explicit knowledge is useful for organizations? Are the employees feedback taken into consideration? It is important to understand the difference between an incident and a problem, and to what extent this distinction contributes together with knowledge management and end user support. With this approach it is intended to analyze the extent to which the information available in electronic document is useful for the organization, taking into account the ever-changing technology markets.

Categories and Subject Descriptors

I. Computing Methodologies; I.2 ARTIFICIAL INTELLIGENCE; I.2.4 Knowledge Representation Formalisms and Methods

General Terms

Knowledge Management Models, Documentation

Keywords

Knowledge Management, Socialization, Exteriorization, Combination, Internalization, Information, Service Operation, Bibliometrics, SECI, Conceptual Model, ITIL, Problem, Incident

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INTRODUCTION

Organizations are faced with a complex problem, as can be possible to manage the information and the knowledge generated within the organization to ensure an effective response, and this technic and explicit knowledge is dispersed throughout the organization? This question is dominant in the aspect of knowledge management, taking into account that is intrinsically linked to the question of communication processes, regardless of the context in which they operate.

Given the constant change from the fast-moving world around us, framed in an age of the global communications, it is understood that information and knowledge are the main competitive advantages of organizations [13].

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This effort is only possible with the adoption of concepts related to knowledge management, with the application of efficient models, where the presence of all stakeholders explicitly it is a basic premise to accept the sharing of this knowledge as something natural. Product of knowing what to do and how to do it, it grows and grows, allowing the evolution through the efficient application of knowledge, innovation generator that allows the optimization of processes and procedures [12].

The idea of 'knowledge conversion' is developed in cognitive psychology, and the creation and sharing of knowledge happens when people cooperate voluntarily [1]. For that reason, the internal culture of organizations plays an important role in which the sharing process between all will be easier and therefore more positive to each individual.

Organizations play a vital role as knowledge-creating entities, this generated through the synthesis of contradictions, and where the progress of this process lies in personal action and the dialectical thinking that synthesizes such contradictions [24].

In the process of translating information into knowledge, quality weighs more than quantity, because this process of knowledge creation added value, which makes knowledge more expensive [21]. In 1970s, Bell writing about a paradigm change of industrial to a post-industrial society, since the 1950s, in which the service sector becomes increasingly dominant [4], leading to what we nowadays referred to as the "Information Society".

In this new era we live in, information technology has completely revolutionized the world as we know it, as well as new energy sources were for successive industrial revolutions [10]. Therefore, the customer support areas are systematically exposed to the stress of the resolution of events, with a high level of visibility, representing the image of an organization, where the culture and values are transmitted through the way it handles the communication, the flow of information and knowledge That can respond to the needs presented by the end customer. In telecommunication companies this phenomenon is observable with great impact, representing a significant part of the success equation of the organization. Many investments are in the area of customer support, either in forming teams like the hiring of experts and consultants [13].

To respond effectively, this explicit knowledge is recorded and saved with access to technology resources for the knowledge information management, becoming indispensable in achieving knowledge sharing [6].

With the need to understand how far the explicit knowledge (in the form of recorded documentary), represents an added value to the organization, it is also urgent to understand how information flows, its demand and applicability. In this way, this paper proposes a dynamic approach, crossing the flow of information generated by events related occurrences reported under the application of ITIL best practices, for the resolution of incidents and problems that arise daily inside organizations with the implementation model of knowledge management SECI, where according to Nonaka, Toyama and Konno [31], knowledge is created through a spiral called a "knowledge spiral" where opposite directions are integrated through a dynamic performance spiral. This article proposes a conceptual model based on the application of the SECI model, as a response to the needs of KM in the areas of telecommunications and services support of an organization.

This paper is organized into five topics, starting with the Quantifying the Explicit Knowledge (sec.2) as an approach to the problem and methodology. In the following section, the Information and Knowledge (sec. 3), by approaching concepts related to information, the process of knowledge creation, the KM in organizations and value of knowledge in the organization. The next approaches is about implementation of the ITIL Framework (sec. 4), and how far can contribute to knowledge management. Reference also to the Bibliometrics (sec. 5) with a statistical tool and in conclusion a Conceptual Model Based on Model SECI (sec. 6), as the model chosen for the presentation of a conceptual model that allows its applicability in the support areas of organizations.

QUANTIFYING THE EXPLICIT KNOWLEDGE

This study proposes the following questions based on the research problem. How is it understood by the organizations the explicit knowledge as a support tool? It is the feedback of organization employees an tool to the improvement?

Organizations need to manage the information that is processed and generates knowledge, that whenever a case is resolved by customer support teams. Is important to measure the information for the organization and how this can generate knowledge. In the end this paper presents a conceptual model that allows the integration of SECI model with incident management tools used by the areas of customer support, crossing with bibliometrics mechanisms. This conceptual model is proposed based on the literature survey or practices of the authors.

INFORMATION AND KNOWLEDGE

For understand how to process the knowledge, first we must address the basic concepts that allow generating knowledge. The terms "information" and "knowledge" are often used, and there is a clear distinction between these terms. We can understand the "information" as a stream of messages or meanings that can add or change knowledge. Therefore, the information that results from the analysis of data are important 'productive factors" for the information and for the understanding when this is understood in the experiment and learning. The "creation" of knowledge is dependent of the development of information and relevant information requires applying knowledge. This dynamic interaction configures the relationship between "information" and "knowledge", where the analytical methods and instruments can influence the knowledge created. Knowledge arises from the process of tacit learning, which is associated with the basic environment and experience of each individual [24].

In epistemological perspective, regarding to the presentation of possession of knowledge, it emphasizes the cognitive aspects, that is, aspects of knowledge acquisition. Here knowledge is seen as only part of the human mind and therefore treated as a mental ability (or cognitive). This feature can be developed and used to improve the effectiveness in the workplace. For those who share and follow this view, knowledge is described as a hierarchical pyramid which includes, from bottom to the top of this, the following elements: data, information, knowledge, and wisdom, which allow us to evaluate the understanding, and why things according to figure 1 [44] [27].

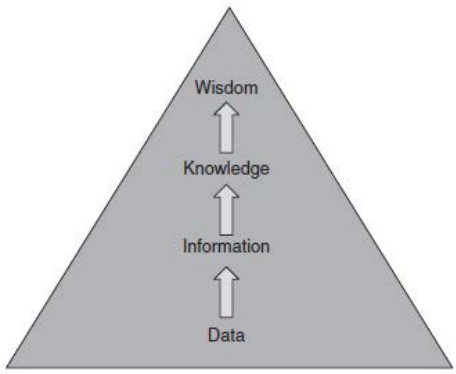

Figure 1. Knowledge 'Hierarchy'

A key point in all definitions is that the data, when worked, generate information that eventually creates knowledge. This way it is suggested that the data is a prerequisite to be able to get knowledge [20]. Knowledge is seen as a dynamic cluster of experiences, values, contextual information and experienced insight, allowing a new basis for evaluating and incorporating new experiences. Knowledge originates and is applied in the mind of the holders of such knowledge [13].

The information between employees

To what extent can represent a constraint on the passage of information organization, restriction policies and the idea that sharing can pose a problem of loss of power, are factors that feed those fears. Junnarkar and Brown [18] suggest that knowledge

management the main interest for IT is not centered in the way it provides information to people but above all how to develop an organizational environment that enables the sharing of knowledge. Newman [28] sees information as a result of monopolistic behavior prevails, one perception of strategic value of information is to the organization.

Davenport and Prusak [13], point out some aspects that are related to cultural factors that compromise the transfer of knowledge, taking into account that values, norms and behaviors determine organizational culture, those defines the rate of successful transfer of knowledge within the organization.

As far as possible organizations have done over the years, investments in their infrastructure to provide them with mechanisms that allows the transfer of knowledge in a safe and controlled way. The implementation of a knowledge management infrastructure enables the recording and storage of information that can later be viewed as a way of generating knowledge. However it is important to ensure that people understand the return, both organizational and personal, of their contribution in sharing common knowledge [9].

Knowledge sharing is often associated by employees as a risk associated with the loss of skills, as presented by Davenport & Prusak [14], as one of the cultural factors underlying position and where the rewards go to the possessors of knowledge. In this way we propose that the sharing of knowledge should be encouraged by the top management in organizations, to represent a parameter in the evaluation of performance and promoting incentives based on sharing.

The process of knowledge creation

Agree at this stage to understand where the idea of tacit and explicit knowledge does. Taylor was the first to suggest that all knowledge can be made explicit that is registered in documentary form, images, among others. But it is Polanyi [34], that make the distinction between tacit and explicit knowledge assumed clear contours through the conceptualization of what is to be tacit knowledge, this is knowledge that the individual generates based on information that assimilates the throughout his life, taking into account how interprets this information [33].

Organizational learning is more complex than the individual, derived from that approach a prospective group rather than the individual, where organizational learning is not just the product of the individual's learning but also the dynamics between individuals in the organization [19]. Thus, knowledge flows in organizations, and can be acquired by purchase, exchange, created discovered and applied to the work. In this way organizational knowledge is dynamic [14].

Since the construction of knowledge is a dynamic and continuous process through which an individual progresses toward new knowledge by accessing a new context, this process can be structured using an organizational model supported by three elements [24]. According to Nonaka, Toyama & Konno [31], the model defined by three elements of the process of knowledge creation, can be presented in the following Figure 2 [31]:

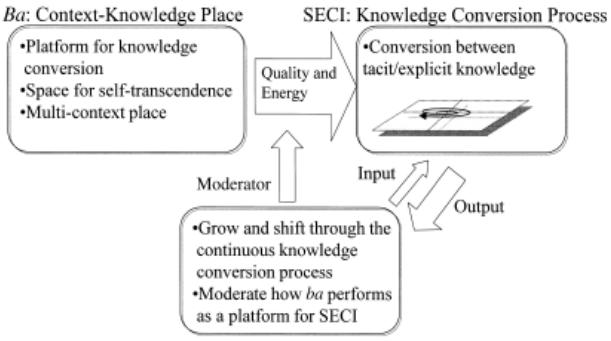

Figure 2. The three elements of the creation knowledge process

In this context, the "*ba*" here takes an important role in determining the characteristics of a business as a social community specializing in the creation and transfer of knowledge.

> "*Ba does not necessarily mean a physical space. The Japanese word `ba' means not just a physical space, but a specific time and space. Ba is a time-space nexus, or as Heidegger expressed it, a locationality that simultaneously includes space and time.*" [31]
>
> *"Ba as shared context in motion" [31]*

The process of knowledge creation requires a specific context to who and how to participate in the generation of the same, where the creation and renewal of "*ba*" power supply, quality and place to be able to perform the individual conversions to advance the spiral of knowledge that complements the SECI model. Therefore the "*ba*" is the time and place where the information is interpreted to become knowledge [30].

There are 4 types of "*ba*", which fall within the SECI model:

a) Origin of "*ba*": that consists of individual interactions and direct, being a place where people share experiences, feelings, emotions and 'mental models', finding themselves associated with a context of "socialization";

b) Dialogue on "*ba*": consisting of direct interactions and collective, is where the skills and mental models of individuals are shared, converted into common terms and concepts as articulated in the context of 'externalization';

c) System "*ba*": consists of virtual interactions and collective, presenting a context of 'combination' of existing explicit knowledge, since it can be easily transmitted;

d) Exercise "*ba*": consisting of individual and virtual interactions in the context of 'internalization' where individuals embody the explicit knowledge transmitted through manuals or simulators;

KM in organizations, and the value of knowledge

According to Chaffey and Wood [11], means for Knowledge Management (KM), as the "*combination of strategies, techniques and tools used to capture and share knowledge within an organization*".

And the value of knowledge is what we can consider as the amount of information obtained or the value we could achieve with its applicability? The following quote answers this question:

> "*The value of knowledge is zero! It's what you do with it that matters!*" [15]

It was Wiig [43], who employed in 1986, the term "Knowledge Management" for the first time in an ILO conference in Switzerland, and defined it as a "*systematic construction, explicit and intentional knowledge and its application to maximize efficiency and return on knowledge assets of the organization.*"

Already, Wilson [41] defines knowledge management as follows: "*The application of management principles to the acquisition, organization, control, dissemination and use of information relevant to the effective operation of organizations of all kinds.*" and any confusion between "knowledge" and "information" as being a synonym, is one of the most common effects of the "knowledge management" fad [42].

The most important point in the management of knowledge is what is possessed by people in organizations and the final product of the application of that knowledge. It is this knowledge that is considered important to the organization, as it allows problem solving, development projects, development of a product or service, among others. Skyrme [37] defines this knowledge as the "vital knowledge". This vital knowledge cannot reside only in the minds of individuals involved in organizations should be outsourced, it is must be made explicit.

Even in recent years, one of the issues that organizations involves understanding the extent to which their knowledge base is productive and therefore essential for the development of the organization.

> "*In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge. (…)few managers grasp the true nature of the knowledge-creating company – let alone know how to manage it.*." [29]

Knowledge is not so much a thing or something qualitatively high information, but the ability to put the data into context [36]. In this higher level data, Schüett [36] classifies as information, and is the basis for most decisions or judgments. In response to these issues, organizations have been investing in solutions that allow them to be more competitive, and respond to the constantly changing, increasingly important adaptive capacity in the shortest time possible. For this purpose, the market offers a diverse range of solutions for Knowledge Management (KM), as shown in the following quote [17]:

> "*Computer hardware and software vendors promote a variety of products as tools for KM. These include browsers, data warehouses, filters, intranets, process handbooks, software agents and yield-management software. Of these, intranets are regarded as key platforms for knowledge sharing and as tools for formalizing distributed cognition.*" [17]

The implementation of Knowledge Management solutions (KM), allow organizations to respond to the need to introduce mechanisms that support the flow of information related to the sharing of knowledge among employees and partners. Here, the figure of stakeholders, like the customer, is considered a source of important knowledge to the organization. As Vavra [39] affirms, maintaining a long-term relationship with clients is increasing their satisfaction and therefore it is good for business. Organizations should take into consideration that the knowledge of their customers is unique and therefore should be taken into account in company strategies [3].

But knowledge can be considered very difficult to manage. According to Wilson [42], data and information can be managed through information resources, but knowledge can never be managed, except by the person as an individual, and imperfectly. The reason for this observation is based on the fact that we often do not know what we know: "*that we know something may only emerge when we need to employ the knowledge to accomplish something*". For reasons as presented by Wilson [42], many authors prefer to call the KM of "knowledge sharing". Drucker [16] believes that productivity gains come from improvements that may occur in knowledge worker, where the transformation of data into information is seen as a necessary requirement. Therefore, we can consider that KM is the process through which organizations generate value from their intellectual assets, the sharing of tacit and explicit knowledge and through the relationship between individuals, departments and organizations.

ITIL FRAMEWORK

Currently organizations apply models that respond to the needs associated with the operation of its processes, minimizing impacts and ensuring quicker response times. Employees apply these tools in their day-to-day work, ensuring the execution of the processes implemented by the organization within the agreed time. This article is intended to propose approaches that pass by application synergy between Information Technology Infrastructure Library (ITIL) and the conceptual model approached in this paper, allowing an organization to determine whether your database knowledge effectively produces the expected result.

Information Technology Infrastructure Library (ITIL)

The ITIL is a framework to IT management services, and was created in the late 1980s by the Central Computing and Telecommunications Agency, now known as the Office for Government Commerce, with the objective of defining a methodology that allows the comparison between the proposals of the various competitor providers of IT services to the British government. During the 1990s, have been adopted by the European private organizations best practices collected in ITIL. This because ITIL was conceived as an open standard, mainly because of the large focuses on quality, by the process definition and implementation of best practices in the IT management services [7] [23] [32].

Incident and Problem Management

The Service Operation carries out operational tasks, techniques for the incidents management reported, allow the recording of events related incidents and problems presented to the respective support teams in an organization [2]. The implementation of specific software for recording these occurrences, allows information management, based on the rating process. Much of the resolution of these incidents or problems occurs with the direct intervention of individuals who apply their tacit knowledge through their experience and intellect, however the use of explicit knowledge is a reality to improve efficient results.

Addressing these two basic components that make up part of the ITIL framework and fit into the present model response, as a main focus on customer support, through a help-desk or an end user support, like a consumer of a product or service, means so:

Incident Management

It is understood by Incident management the quickest way to restore a particular service, to minimize negative impacts, allowing recovery of all or part of the services, thus ensuring that a user can continue your work or use the service. An incident manager must be informed of any change that occurs in the process and may even refer the incident to a specialist team for resolution when the resolution implies this kind of support [2].

Problem Management

A problem is a cause of one or more incidents [32]. Already management Problem's main objective is the final settlement of the occurrence of the incident type, allowing you to return to normal operation by preventing failures that occurred with the incidents [2]. Basically, the key objectives of Problem Management are to eliminate recurring incidents and to minimize the impact of incidents that cannot be prevented. This includes diagnosing causes of incidents, determining the resolution, and ensuring that the resolution is implemented. It is important understand causes, document workarounds and request changes to permanently resolve the problems [32].

BIBLIOMETRICS

Bibliometrics is the study of the quantitative aspects of the production, dissemination and use of registered information [22].

The term "*statistical bibliography*", known today as bibliometrics, was first used in 1922 by Hulme, aiming to clarify the processes of science and technology through the document count. For two decades the use of this methodology was ignored, being referenced again in 1944 by Gosnell, in an article about the obsolescence of the literature. It took more than two decades until statistical term is mentioned bibliography again, this time by Raising, a study of citation analysis. By general consensus among authors, the term statistical bibliography would be replaced by bibliometrics [35]. Although Qtlet who in 1934 first proposed the term bibliometrics (B / Mo + metron), with the aim of measuring the book, thereby recording the number of words per line, per page, the number of letters, among others. Was Pritchard [35] who proposed the use of the term bibliometrics to designate as "*all studies that attempt to quantify the processes of written communication*", passing the word to be adopted by the Information Science.

However the literature does not hold all reality, only reflects the data in the form of a final list, which will be subject to an assessment by the critical query, in the sense that with some additional point of interest omitted [8].

We can then understand why bibliometrics as a set of empirical laws and principles which establish the theoretical foundations of information science. There are three laws that define the playing field of bibliometrics, being [38]:

- Bradford's Law or Law of Dispersion (productivity periodicals);
- Lotka's Law or Inverse Square Law (scientific productivity of authors);
- Zipf's law or the Law of Minimum Effort (word frequency);

The distribution pattern of bibliometric laws and principles follows the maxim: "*with very few and very few with*." This maximum is known as the "Matthew Effect in Science", which says: "*those who have more will be given in abundance, and those who have less, until what they have will be taken away*" [25].

In optics journals, Bradford's law allows us to estimate the degree of relevance to a particular area of knowledge, where the subject is reflected in a greater number of items, thus forming a nucleus of periodicals supposedly higher quality or relevance [38].

The formula presented by the Bradford is represented as follows [5]:

$$\mathbf{1 : n : n^2}$$

Therefore, it is proposed in this paper to Bradford's Law [5] as one of the possible ways to measure the query and disposal of documents in support (e.g. explicit knowledge), making it possible to evaluate the magnitude of bibliographic in particular area and determine the real value that this information is for the organization. Later this information was complemented with feedback regarding the usefulness of the information represented in solving specific occurrence. Note that this feedback is based solely on how the individual understands the information, thus depending on a formulation of the cognitive understanding of it, which varies from individual to individual [33].

CONCEPTUAL MODEL BASED ON MODEL SECI

The knowledge conversion model of Nonaka is based on a matrix consisting of four quadrants, where the epistemological dimension distinguishes itself through the tacit and explicit knowledge that interact on the basis of four conversion stages which process comprise known as SECI, sorted by socialization, externalization, combination and internalization [29]. The SECI model is moving like a spiral, clockwise clock, since the approach of this model is not defined by a closed cycle, thus allows a natural evolution of the collection and conversion of knowledge, which falls in the need for response by organizations to changing [29].

These processes determine the rules of the dynamic knowledge conversion. The process of Socialization refers to how tacit knowledge is acquired and shared. The process that allows to pass

tacit knowledge to explicit is called for, Externalization. This process is approached in two ways, the first being related to the direct registration of ideas in words or images, metaphors or analogies. The second approach is to provoke and translate tacit knowledge of third parties, such as customers, specialist, among others. To be registered and understood as an explicit knowledge of these ideas and experiences. When explicit knowledge is then assumed as the same can be transferred as explicit knowledge. At this stage of Nonaka model, named by combining the information technology is recognized as most useful, using various technological arranged as shares, emails repositories, documents, database and among others. It is also at this stage of the model is performed disclosure and distribution of information throughout the organization. The last process analysis in the test model is styled by Internalization, and determines the phase in which the explicit knowledge of an organization is transferred to the individual, upon consultation, training and assimilation of this knowledge, assuming as tacit knowledge the individual [29].

The information flow in SECI model

Understanding these four key processes in the SECI model, this paper is intended to analyze these stages in perspective of the individual as a generator and consumer of information, and the appropriate flow of information associated with the types of tacit and explicit knowledge, enabling frame ahead modules that define the conceptual model under study. Therefore, it is proposed in this paper, in the light of the model under study, an approach to the individual / group, as an entity that receives (IN) and send (OUT) information, generating knowledge when applied.

During the socialization process individuals share knowledge through the exchange of experiences, through the tacit knowledge, providing a dialogue which is transmitted (OUT) and received (IN) information that makes up this knowledge. In the process of externalizing the goal is to collect information to register this knowledge explicitly. At this stage it is important to know how to listen and collect this knowledge (IN). With the combination process, the diffusion (OUT) that knowledge is the main focus, and the information disclosed in the organization, allowing it to be combined later (IN). Finally the process of internalizing the individual will absorb (IN) this explicit knowledge, such as the upgrade process, thus creating new tacit knowledge, which will enable the continuation of the knowledge cycle.

Conceptual model proposed based on the SECI

It is proposed here a conceptual model that integrates the associating occurrences generated by incidents or problems, under the support of an organization, with the application of the SECI model in (KM), aiming to reach:

1. Register an historical occurrences associated with the flow of information in a knowledge management platform;

2. Determine the effective role of certain documentation while explicit knowledge useful to the organization;

3. Allow to manage more efficiently the knowledge generated by the company;

4. Allow for a more efficient suggestion to take the proposals and mental models of company employees;

Thus we propose the following model of interaction with the model of knowledge management SECI, observed in the following figure 3:

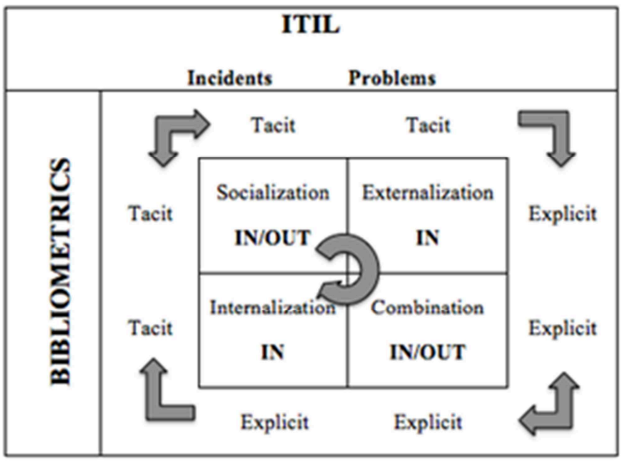

Figure 3. IO-SECI, a Conceptual Model of Knowledge Management based on the SECI Model

The four processes which comprise the SECI model are thus classified by the respective modules and information flow defined in the following table (Table 1):

Table 1. IO-SECI Model Components

Process	Module	System	Description
Socialization	Social Network Module	IN OUT	Module that allows communication between colleagues, exchange ideas, views, explanations and empirical approaches. This module is not necessarily associated with the event log, is considered more as a social network, blogs for clarification and exchange of experiences between colleagues.
Externalization	Input KM Module	IN	Documentary record of tacit knowledge (procedures, operations, settings, manuals, among others ...) associated with the keywords of classification responsibility of those who maintain the data / information and area teacher who prepares the document.

Combination	Combination and Optimization Module	IN OUT	Module-oriented optimization of explicit knowledge. Inherent responsibilities to the different areas that intersect each other relevant information to KM Center area, thereby improving the quality of information stored and optimize access to information resources.
Internalization	Search Browser and Sugest Module	IN	Motor structured navigation and search information explicit, allowing feedback from individuals who internalize the information to generate new knowledge through its applicability.

The conceptual model IO-SECI, applies to the entire organization in a dynamic way, where each area uses the resources of KM (SECI), being coordinated by a central charge of managing this knowledge to meet the organization [40]. This core area or department, as shown in Figure 4, uses the metric analysis (Bibliometrics + ITIL) to determine three key factors in maintaining knowledge:

a) The need to combine (Combination) explicit knowledge;

b) Analysis based on the number of queries vs feedback, the information available needs to be updated;

c) Evaluating the value which represents certain knowledge recorded and maintained in the System;

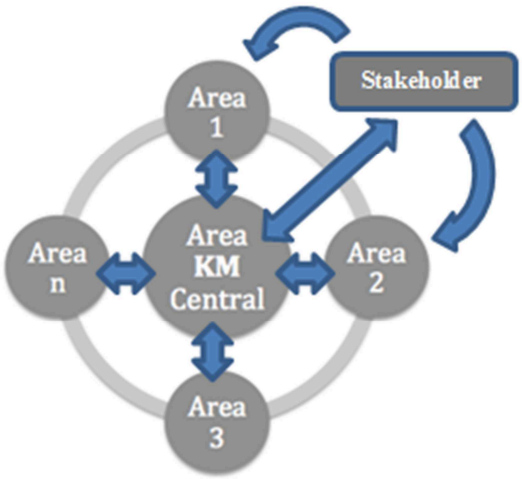

Figure 4. KM Central Area in the organization

The different areas within the Organization, involved in the process of knowledge management, disseminate information relevant to the central area that centralizes and manages knowledge in the company. The process of dissemination of information to the central area of knowledge management fits in the SECI model Combination, where the system "*ba*" [30] has an important expression with the implementation of technological systems that allow proceeding to the combination of gathered information. The Externalization process is presented in this model as being the responsibility of the area that generates the explicit knowledge relevant to the organization, from stakeholders involved in knowledge sharing. The Internalization process is responsibility from KM central area, by disclose or provide the necessary information to generate knowledge. This approach proposes an organizational learning, which promotes the dynamics between individuals in the organization [19].

CONCLUSION

The conceptual model IO-SECI, proposed in this paper, should meet the expectations generated by the need to solve a particular problem within an estimated time (SLA - Service-Level Agreement) that define the service requirements from the business perspective [2], as part of a service contract. To this end the technicians / experts resort to a system of centralized knowledge management that crossing with the flow of information regarding the occurrence, will account for efficiently using resources from explicit knowledge of an organization, thus providing the ability to manage the use of these resources. In support of this measure, the intersection with bibliometrics techniques reinforces the results, allowing greater accuracy thereof.

The four modules proposed in the model IO-SECI may or may not be integrated into a single platform rely heavily on existing resources in the organization wishing to implement a model of knowledge management. However, the organizations want a single platform to aggregate all of their existing information [26]. The ability to adapt organizations with tools to identify and manage explicit knowledge, plays a crucial role to understand to what extent or not such knowledge to be useful to the organization and that results may be due to better optimization of this feature.

The feedback can be obtained by the individual who accesses the information through the search module or browser, is central to the success of this process, since it will allow that the author of this work qualifies as "Critical Knowledge", derived from the applicability of the information obtained through the explicit knowledge and its practical use in solving a problem, thus indicating their perception of value on the information found. In addition to the direct answer, that is, whether or not it is useful to solve a given instance, indication of more "added value" of what can supplement the information is a way of enriching explicit knowledge and improve the efficiency of support area.

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