THE ROLE OF KNOWLEDGE GENERATION IN PROMOTING ORGANIZATIONAL INNOVATION

SALIH SALIH

Duhok Polytechnic University
E-mail: salihhsalihh@yahoo.com

Abstract- the appearance of the concept of knowledge management and organizational innovation has repeated in the business management researches. These subjects are significantly interested, because they are challenging different kinds of organizations. It is a necessity in today's business environment to achieve completive features through strategic flexibility. The current intensity of competition requires organizations to be high competitiveness through continuous innovation, which is linked to the rapid access to the markets with new products even fascinates that satisfy customers.
This matter leads organizations to work in two opposite fields which are the dynamic and stability. Organizations need to build sources that have future revenue by maximizing generating ideas that derived from solid knowledge. Knowledge creates the process of innovative processes that provide excellent products and services. In this paper, the researcher tries to shed light on linked aspects and the generated knowledge with creative processes in the organization..

Index Terms- knowledge, organizational innovation.

I. INTRODUCTION

Organizations in the contemporary environment comprehend themselves in front of a hard non-traditional competition. It is not enough to reduce costs and make partial development on products for the success of these organizations. Company's ability to succeed has become subject to a large extent on their ability to generate high-quality knowledge and use this knowledge to provide innovative products and services. To form knowledge capital through qualified human resources requires investment in the human resources through effective training and development operations. In this research, after clarifying concepts the researcher tried to review the creativity process and how to link the knowledge with creativity processes to strengthen the organization's capacity to produce goods that satisfy customers.

Research Problem and its Goals

The researcher comprehended through many studies and observed field that most organizations have weaknesses to generate knowledge and to form real capital knowledge that seriously contributes to promote the creativity by offering superior products and services. At best, top management finds itself compelled to adopt training and developing programs for higher levels of leadership as cognitive balance in the organization.

This inadequate outlook generate frustration and lethargic for the organization human resources. Thus, it can be summarized research problem to the following question (do organizations suffer from weakness in generating knowledge and promoting innovation? Does knowledge generation contribute to the promotion of innovation?)

Research objectives can be summarized as follow

Describe the basic concepts, such as knowledge and forming knowledge capital as well as organizational innovation, its processes and models. These aspects give senior management a bit of clarification to adopt these concepts in management. Select the linked areas of knowledge to the innovative processes of the organization. The importance of forming capital knowledge contributes to generate knowledge with high quality to be reflected on strengthening the organizational creativity by consistently presenting new products and services. Possibility of presenting some ideas and creative visions that creates solution to the problematic generation of knowledge through developing knowledge human resources in organizations.
First: Basic Concepts of Knowledge and Innovation, and What Associated With:

Knowledge:

Today organizations run with the knowledge. Many organizations are trying to capitalize this knowledge and funding to make it rooted in various aspects of its work. The strategic objectives are related to the knowledge which is implicitly contained in its framework, for example

- Generating special expertise.
- Embody and translate the experience in new projects.
- Access to new expertise in specific areas at less cost to the organization.
- Get new business without supplying large amounts of internal resources of the Organization.

Organizations that seriously generate and manage knowledge and use variety of organizational forms such as teams across functions and activities, they

develop and distribute information and ideas very well. Other strategic issues related knowledge, research and development can be indicating as follow:

- Internal competition management on resources between the various project teams.
- Ensure the basic resources being available and with adequate funding.
- Development of cohesion and formation of resources and maintain the difference.
- Develop the learning capabilities across the business.

Thus nowadays organizations turn to base on knowledge. Managers are supposed to get a backbone skillfully knowledge management especially in the framework of dealing with knowledge of individuals. Organizations that produce tangible products become concerned with knowledge, because product innovation is the basis to outperform competitors. This represents the essence of the process of creating new knowledge as one of the operations that turn knowledge into new products, services and new operations. This means that the knowledge is better for the creation of value and generates cash. Many descriptions have made for the concept of knowledge which constantly is a subject of evolution, these explanations put in two groups:

One: Explicit Knowledge

It is subjected by a focus on the nature of information and information technology. [19] Defined knowledge as the experience that can be shared with others, including the processed and ready-made information for use in activity. Whereas [9] explained that explicit knowledge is based on the data and information that are organized and calculated to transfer understanding, experience, perception and accumulated learning to apply on the problems, and activities. While [19] focused on the fact that knowledge is what provides in a way that can be combined and processed by computer. Explicit knowledge assumes turning the organization into the warehouse through a base of knowledge. The information systems play a central role in there.

Two: Tacit Knowledge

Tacit knowledge is a mixture of experience, values and previous information with expert visions that gives the methodology for evaluating and reporting new experiences and information [18].

Explicit knowledge represents standard entrance codification in dealing with knowledge. Whether, tacit knowledge based on the entrance of personalization, which is based on the knowledge of individuals that use high flexibility to solve the differentiated and mixed problems. The knowledge content in the organization is based on explicit and implicit knowledge. Accessing the data and information then sharing, disseminating, analyzing, and generating knowledge provides beneficial cognitive storage for the organization at various levels.

Organization advantage of the knowledge requires preparing the appropriate ground for the exploitation of all types of knowledge, which is located within a range of classifications that dominated by the character of integration. These species do not stray too far from previous classification of knowledge which is implicit and explicit. The researcher would like to mention what [11] reflected that knowledge logically ranging from procedural knowledge accessing to purposes knowledge. Note Figure (1)

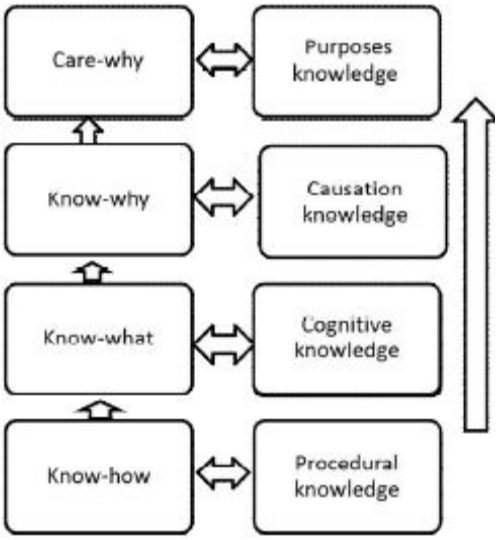


Figure (1) Knowledge sequence

- Procedural knowledge, linked with how things work in practice, within a clear, practical and well-known formulas.
- Cognitive knowledge, focused on understanding the issues or things problem, as the highest experience comes after the basic skills base.
- Causation knowledge, this requires a deeper understanding and more comprehensive relations interfaces across fields of knowledge. The perspective of the systems can be reliable in the decisions making in the light of complex contexts.
- Purposes and objectives knowledge, this requires social contexts direct strategic choices on the different temporal extents.

Innovation

Innovation is the umbrella that urges activation capabilities of the organization through various activities to reach the state of excellence, and continuously provide what is new to generate through sustainable competition features. It is better if innovation efforts directed its programs and

operations to become closer to the demands of the market and customers [12]. Organizational creativity represents the programmed and systematic efforts adopted by the organization for the development or improvements of products, whether goods or services. Innovation signifies operations and procedures for the adoption of inventive ideas and visions to be converted into products, services and useful processes. Innovation is a process of operations which uses skills and resources to develop new goods and services or to develop processes and systems of production [7]. Thus innovation represents embodied operations with new products as output of new innovative ideas.

Creativity and associated with a set of concepts such as innovation which represents case related to finding ideas and new visions of the organization. Innovation is the ability to synthesize ideas in a unique way or installing distinctive and unusual ideas [21].

This means that innovation represents individual or teamwork capabilities to form and to find ideas that can materialize later with new products and services in organizations. Innovation may represent creativity including invention which represents a unique situation [2]. Whereas discovery represents the state recognizing anything found in nature, such as the chemical elements. While Improvement means moving something from a particular case to a better case by increasing the value.

Second: Innovative Operations and Organizational Models of Creativity:

Innovative processes in the organization

When innovation set within entrepreneur context, starting and implementation are considered the two necessary phases to convert this creativity incarnated event on the ground whether to start a small job or develop a new product. Creative operations accompanied with high uncertainty because it is accompanied with ambiguity and lack of understanding of how to link it with another context [20].

Although there is great potential to develop and increase expertise as well as skills, but it is still located in complexity, uncertainty and ambiguity circle. Experience can be useful in the areas of search for information on problems and methods of treatment for such information and data. However, experience pales when associated with personal aspects and essence of creativity processes.

Some researchers tried to put the creative processes in successive stages, [1] put these creative processes in the following phases:

(1) Study the problem area from different aspects.

(2) Saturation minds the information available.

(3) Custody the information, correct and reshape knowledge.

(4) Inspire and predict the emergence of new innovative idea.

(5) Test hypotheses of the idea and evaluate the solution.

Whether [7] stated that the creative processes range within the following stages:

- Find a problem
- Penetration and focus on the problem
- Incubation: this represents a case of retaining information on mind that has been collected about the problem. Subconscious mind plays role in shaping and arranging this information and converting it to knowledge
- Insight: intuition lead role in inspiring and flash the new solution.

Innovative Patterns of Organization:

If the success of organizations associated with the ability of promoting different aspects of creativity, then organizational creativity and operations can be placed within the framework of many of the cumulative content. In spite of the multiplicity of forms of organizational innovation (technological / administrative), the models are numerous by the different focus where on certain aspects of the creative processes. A few examples of these models are mentioned as follows:

1- (Zaltman, et al: 1973) sample

Innovative processes can be a based model on two main stages, proactive or initiative and implementation. This specimen has developed by [6] through a focus on sub-components for each stage to become as follows:

Phase I: - proactive initiative

- Cognitive awareness, the organization aware on the importance of innovation as a practice.
- The attitudes formation, the contribution of members of the organization and present their positions on the upgrade innovation.
- Decision evaluates the inherent innovation and decides to take it to realistic practice.

Phase II: - Implementation

- The initial implementation, the main base for the use of creativity is formed through the first attempts.
- Sustainability in implementation, innovation represents an essential part of the life of the organization; it used to and become familiar with [8].

2- (Narayanan, 2001) sample:

The complementary operations creativity touches solid aspects such as technological structure and production processes. Soft aspects represent the values and culture. There is dominance of the largest of these aspects on the other in many cases.

Innovation on the solid side may not necessarily follow by soft side variables (intangible) and also may get the opposite. Narayanan gave an example of the

patterns of innovation processes in the framework of the value chain as displayed in figure (2).

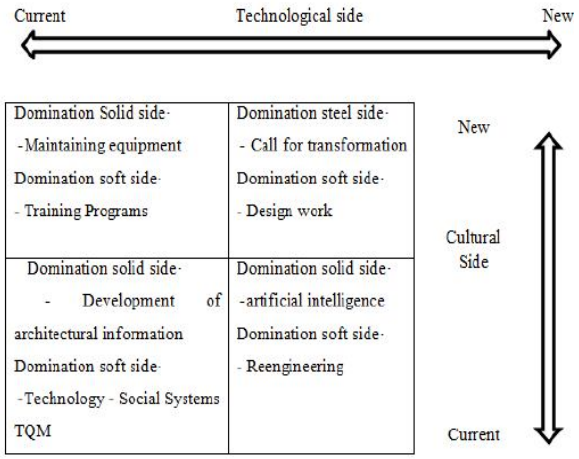


Figure (2): patterns of innovation processes in the value chain framework

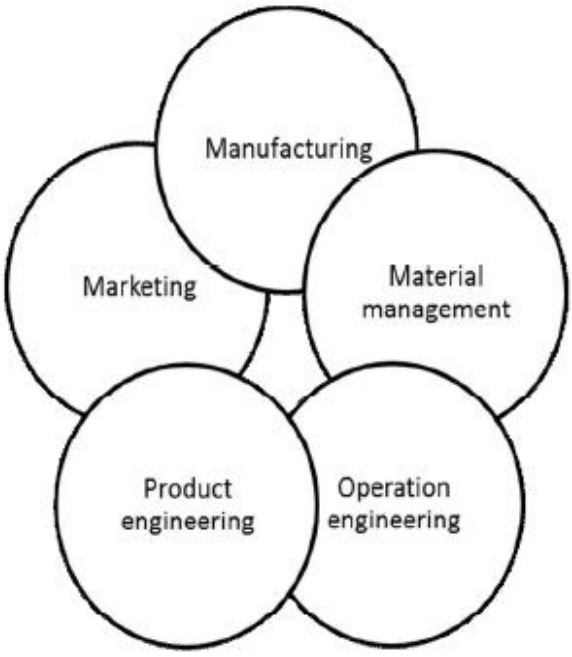
3- (Robbins and Coulter 2005) sample:

The revitalization of innovation processes in the organization requires finding a framework which integrates the entire variables that help to provide a creative environment. The innovative environment contributes in transforming organizational processes towards excellence and raises the level of performance. The two researchers have put all of these variables in the three groups. The figure (3) displays: Figure (3): urged variables and stimulate organizational innovation processes

4- (Jones, 2007) sample

The urge and stimulate creativity requires comprehensive space that integrated as many entrances and platforms, so the creative processes constantly become rooted in the organization. The first supposed work is to create a healthy environment that contributes to generate knowledge at the individual and teamwork level. This knowledge will be placed in suitable contexts for the creation and exploitation of innovative ideas. The context of the generated ideas is a suitable input filter to get to the idea of the level of product and service that fascinates customer. Even giant companies, small creative teams are representing right approach to strengthen aspects of self-leadership in these companies.

Thus, the supreme management works on the study of the competitive context in which it operates and knows competitive characteristics in the area in which its relay [13]. Consequently, Jones stated that it is necessary to make from research and development a link hub between the various activities and events. The research and development represents key hub for innovation and creativity in the organization. Note figure (4)

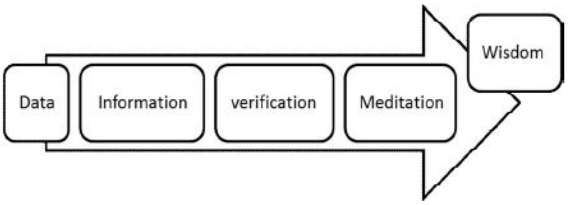


The (Figure 4) displays creative processes in an integrative framework.

Third: knowledge generation in the organization

Global evolution particularly in the field of business proposes having a tremendous accumulation of knowledge-based. Thus organizations became regarded as social cognitive creative entities that not accept to manage models and philosophies of management that does not rise to the level of renewed challenges [15]. Knowledge has become the key to business development and communities, and obligating to search for skilled professionals (administrators and technicians). Organizations also are trying to improve the performance of functions through knowledge, and important functions that have cybernetic nature.

Knowledge management in companies includes scientifically planning on different extents. It is trying to consolidate the strategic thinking, build knowledge capital and take advantage of it in the generation of technological innovation and administrative innovation. Generating operations, transferring and producing knowledge represents a new cycle synchronization of the traditional life cycle of the business. The organizational accumulation knowledge through time enables companies to reach deep levels of understanding and awareness that leads to intellectual business work [4]. If the explicit and implicit knowledge represent important intangible capabilities and resources, it is supposed to be created by organization for use in competition. The coding side represents the data and information. Self-personalization side signifies the ability of employees to convert this information to wisdom and foresight that represents the pinnacle of the pyramid of knowledge [17] and through the following formula:



Some researchers indicated that the two phases of the verification and meditation represent knowledge that utilized in organizations [4]. While [3] pointed that knowledge is embodied in every stage of the previous stages, so data represents a simple preliminary knowledge. Systematic knowledge represents the information by then depth knowledge embodied the verification and meditation and final stage reach the integrated knowledge represented in wisdom. It is noticed that the explicit side interferes with the implicit side in the generation of an integrated and in-depth knowledge, and the role of human resources is very important.

Intellectual cognitive Capital

Human resource is the most important resource in contemporary organizations. This human resource is the basis of knowledge capital formation which gives a real ability to work in competition and achieving success. This concept represents mental ability possessed by organizations which are not easily imitate from others, rare, gives real value and is used within the regulatory formulas that approved by the organization (VRIO analysis) [14]. Knowledge capital embodied to possess elite distinct from workers at all levels, these elite have the ability and flexibility in dealing with different situations. The researcher [10] illustrated that organization possesses resources of knowledge are important because they represent organizational culture, techno knowledge, trademarks, patents (processes and designs) and practical knowledge; shared by workers. Building capital knowledge in an organization is the result of successive and complex operations which need investments in training and development in long time periods.

Organizations have been able to attract some of the intellectual skills directly from the labor market. They need to make this knowledge input for suitable transfer processes to become individual and collaboration knowledge, underpin the organization in generating accumulation knowledge. This knowledge gives great important capabilities to form important aspect of intangible capital cognitive [5]. Note Figure (5)

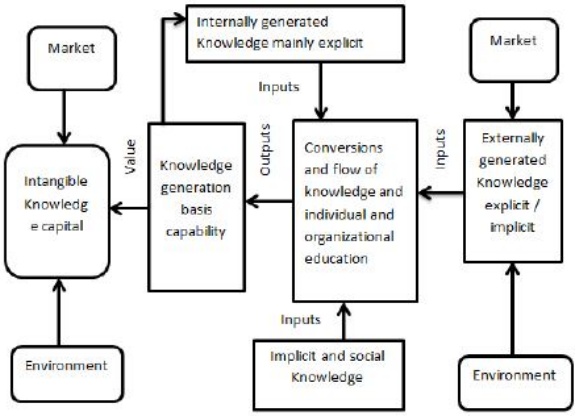


Figure (5) Generate knowledge capital within the framework of entrance system

For the purpose of generating knowledge, it is required from the organization serious contributions in two areas:

- Creating excellent information which can get data and information from multiple sources without the high cost, and have the ability to work in different circumstances. - Building knowledge of highly qualified and valuable human resources to represent basis of knowledge capital in the organization. The human resources management follows-up cognitive and rare staff in the organization for the purpose of attracting and fascinating them as skills and expertise of the organization.

Quality of Knowledge and creating knowledge capital formation

It is difficult to create knowledge capital formation due to the nature of knowledge as a strategic supplier, intangible, difficult to measure, speed of transience and loss. In addition, difficulty of finding people who are willing and ongoing perseverance to carry and use this knowledge for the benefit of the organization. It is necessity to require from senior management to prepare a knowledge capital as strategic subject accounts for special attention by administration. It can be argued that the fundamental treatment contributes to stop the collapse of cognitive located in these treatments:

- Create a suitable ground in terms of information technology, this does not mean more spending with no quality and no clarity of measuring progress.
- Develop diagnostics capabilities for the identity of knowledge assets at the corporate level.
- Consist high rehabilitate for some existing ones such as leading centers of innovation and creating special knowledge associated with the development sectors of the focal economy.
- Focus within each organization to upgrade operations management knowledge that originally exists.

Fourth: use of knowledge to generate innovation

There are no difficulties to link knowledge with creative operations at the theoretical level. The researcher [16] referred that knowledge can be substantial knowledge, advanced knowledge and creative knowledge. Creative knowledge allows the organization to be the leader in its competitive field and the industry in which it operates. This kind of knowledge is linked to the areas of innovation, and what is new that contributes to change business rules and competition in favor of the organization that used to generate innovation.

Generating high-quality knowledge is not a goal, but the need to use this knowledge to advance the creative capabilities in the organization. If the organizational innovation is representing efforts of the organization to find products and services satisfy customers, this innovation stems from the individual, teamwork, organizational innovative capabilities. Explicit and implicit knowledge at employees in the organization are individuals and groups. The availability of real and appropriate knowledge in the organization allows to effectively integrating this knowledge with the entire innovative process.

It may show from the overall organizational innovation models that mentioned earlier, do not work without high potential for the management and human resources in the organization. Under the model of [7], innovation cannot to be a state in the organization without the appropriate ground, creative climate and giving priority cognitive awareness by senior management. Other models showed the need for attention to knowledge human resources to encourage cognitive processes and generate high capacity of the organization to launch products and services that satisfy customers.

Fifth: Conclusions and Recommendations:

In the framework of this research, the researcher tried to review the available literature on administrative on cognitive concepts and innovation. Demonstrate the importance of finding knowledge of quality for the purpose of enhancing organizational creativity. The vision of the organization as a cybernetic contributes to improve the performance of this system and make it able to achieve qualitative excellence in innovation, creativity and incarnation competitive products and services that converges high acceptance by customers. It is necessary to mention some important conclusions and recommendations on this subject as follows:

CONCLUSIONS

Knowledge has become a basic and critical strategic resource for organizations in today's work environment. Organizations that are capable to generate innovative products and services, it is the leading organizations in the field of knowledge generation and use. Senior leadership needs to be aware of the importance of the analysis of what constitutes of a knowledge capital of their human resources, in order to take advantage of them and continuously develop it to make it the basis of the organizational innovative processes. Organization management should reconsider the overall cognitive generating procedures and clarify the appropriate ways and resources to link the knowledge with creativity.

RECOMMENDATIONS

Organizations should be aware in using modern concepts in management such as knowledge, formation of knowledge capital and organizational innovation by the senior management of the organization. Finding appropriate mechanisms to generate knowledge that characterized by the quality in the organization. Link this knowledge with the creative operations, for the purpose of providing products and services that will satisfy customers. This Recommendation presents to senior management in particular, as well as employees in the research and development department. It is necessary from the organization management to be aware that generating knowledge does not mean partial spend on aspects of training and development. However, it requires an increase diagnostic capacity of the administration to identify the presence of cognitive human resources. It is important to activate this knowledge to generate creative products and services. It is required from the senior management to identify the most important problems that stand in the face of the knowledge formation. Find the cognitive human capital and work to be treated according to the requirements of the organization.

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