Original Article

Concept of Organizational Knowledge in Industrial and Commercial Companies

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A B S T R A C T

This study examines the definition of organizational knowledge in industrial and commercial companies. Knowledge in an organization is knowing the reality or situation of something; however, awareness and understanding is obtained through experience, study, exploration and mental communication and the purpose of knowledge management is to identify and mental assets from the organization when leaving knowledge agents. Knowledge management consists of various elements such as knowledge production, knowledge acquisition, knowledge storage and transfer and sharing. However, it can be said that knowledge transfer is the movement, distribution and dissemination of knowledge between individuals and mechanized and non-mechanized knowledge bases, for which two types of strategies are conceivable, the strategy of person-to-document transfer and the strategy of person-to-person transfer. The role of human resources training and development professionals in the management and knowledge transfer process is critical. These maps can be created through various activities. In fact, education management and human resource development can address the shortage of information and knowledge in a timely manner and lead to the horizontal growth of people in jobs by resorting to knowledge management system along with other resources to meet educational needs.

Introduction

In today's world, the capital of knowledge and wisdom is the only way to create wealth in organizations and societies. Natural and human capital becomes wealth when it is intertwined with the capital of knowledge, information, spiritual assets, expertise, and competencies. Professionals are the tools of wealth production and societies that are considered poor when lack these tools.

Today's ability depends on having capital and knowledge and using a set of creative mental capacities that effectively enable development and progress [1-3] and create practical action in the organization.

Four types of knowledge are identified:

a) Manpower knowledge that exists in the brains of members of the organization,

b) mechanized knowledge that carries specific tasks integrated

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into machine hardware,

c) documentary knowledge, which is stored in the form of archives, books, documents, general ledger, instructions and diagrams, etc,

d) automatic knowledge, which is stored electronically and is accessible by computer programs that support specific tasks. In another classification, knowledge is imagined in two types, implicit and explicit. Implicit knowledge is usually in the realm of personal, cognitive and empirical knowledge, while explicit knowledge refers to knowledge that has a more objective - more rational and technical aspect (data, policies, software, documents, etc.). Explicit knowledge is typically both well-documented and accessible. Distinguishing between two types of knowledge, Polanyi (1996) held that it would be difficult to express tacit knowledge with words. However, organizations now realize that they need to integrate both types of knowledge to do their jobs effectively. From this, they are creating present methods to convert tacit knowledge into explicit knowledge that

canbe compiled and therefore others can record and store it [4].

Jorudz *et al*. (2008) focused on 1086 universities in Taiwan and Australia to examine the direct and indirect effects. There was a positive relationship between innovation and group performance improvement. Information technology systems had the greatest impact on the transfer of organizational knowledge and organizational innovation capability [5].

Other studies have looked at each of the factors influencing organizational knowledge transfer, not discretely, but integrally, including the research by McEville and colleagues (2002), reporting that competency-based trust has a greater impact on individual knowledge transfer. Hans (1999) approached the transfer of individual knowledge and knowledge transfer (Figure 1). The results of this study showed that the transfer of individual knowledge in the process of knowledge transfer is more important than the development of knowledge transfer [6].

Figure 1 Knowledge Management Tools

Knowledge and Knowledge Management

Knowledge is any data, skill, text or information that enables one to make high quality decisions while solving a problem. Knowledge or information management is any process that facilitates the distribution, creation, and application of knowledge and information to

make decisions, involving both formal policy and personal and informal methods.

Hidden Knowledge and Overt Knowledge

Research on knowledge validates the distinction between the two types of knowledge: Hidden knowledge and overt knowledge [7].

Latent knowledge is individual knowledge, based on a specific context, engraved in the human mind, and therefore difficult to communicate and conceal. Conversely, explicit knowledge is knowledge that can be expressed in the form of data and numbers that can be easily transmitted from one person to another through clear language. Obvious examples include data, details, policies, procedures and manuals [8].

Individual Knowledge and Collective Knowledge (Organizational)

When discussing knowledge, it is very useful to distinguish between individual and collective levels. Many researchers believe that without the level of individual knowledge, there would be no collective level. Some believe that the collective level is independent of the individual level. This disagreement is largely born of different views of knowledge. Individual knowledge can be divided into three categories: Information-based knowledge, experience-based knowledge (science of how, special knowledge) and individual knowledge, i.e., artistic abilities [9]. Collective knowledge as a combination of techniques, normal procedures, norms and methods is developed and shared by at least two colleagues, as well as the individual knowledge of each of them that defines his individual information.

There are processes within the organization that affect and shape collective knowledge. Common knowledge is defined among individuals: Collective knowledge spreads throughout the organization and then individuals re-internalize it into their latent knowledge and turn it into collective latent knowledge [10]. Each organization has its own language. This organization is part of the collective knowledge of the organization and the key to access to the decision of the organization's knowledge. One report is not enough; in order to get an accurate interpretation, one needs to contribute to the understanding of the organization. This indicates that even in order to understand explicit knowledge in the organization, one must learn a share of the organization's understanding in order to be able to access explicit knowledge in the organization [11].

Whether pure knowledge exists at the individual level can also exist at the organizational level is still debated. To some extent, this debate concerns organizations that want to know the knowledge of their employees in the ownership of the organization. Since individual knowledge is not manageable, the important question is how to turn individual knowledge into organizational knowledge [12].

On the other hand, believe that organizations have knowledge independent of employees. According to Phi *et al.* (2003), because this knowledge is obtained from the interaction of individuals and groups, it is not leaked anywhere. Knowledge is not meant to be easily transferable to other groups. He argues that in order to use documented knowledge, problem-solving must be done in a group, not the knowledge transferred from it.

According to Argot, knowledge lies at the heart of the three basic factors of any organization: Members, tools, and tasks; members are the people of the organization, tools include information technology such as software and hardware, and the tasks are the same as the goals, objectives and goals of the organization and combine these three factors into a local area network in which knowledge can be incorporated [13] (Figure 2).

The nature of Collective Knowledge

Knowledge management is based on three pillars: Organizations, individuals, and information technology. These three pillars are based on a common culture. To take full advantage of knowledge management, a comprehensive approach is needed to fully address these four factors and open up potential barriers within and between these aspects.

Organization

First, we need to see how a company is organized (e.g., matrix organization), what kind of management structure is in place (e.g., hierarchy) and where decisions are made.

Usually insufficient knowledge is exchanged within a company and between partners. This is because the common denominator of different functions of a company (or among partners) is poorly managed, which in turn is the basis for the existence of out-of-place or very simple knowledge exchange processes, due to the heterogeneous information technology policies used in different units. Therefore, the organization needs to determine the methods of acquiring, storing, converting and redistributing knowledge to business processes. The organization needs to focus on turning people into competent people, providing usable information in the system and creating a culture that provides the conditions for system coordination, in the absence of insufficient knowledge.
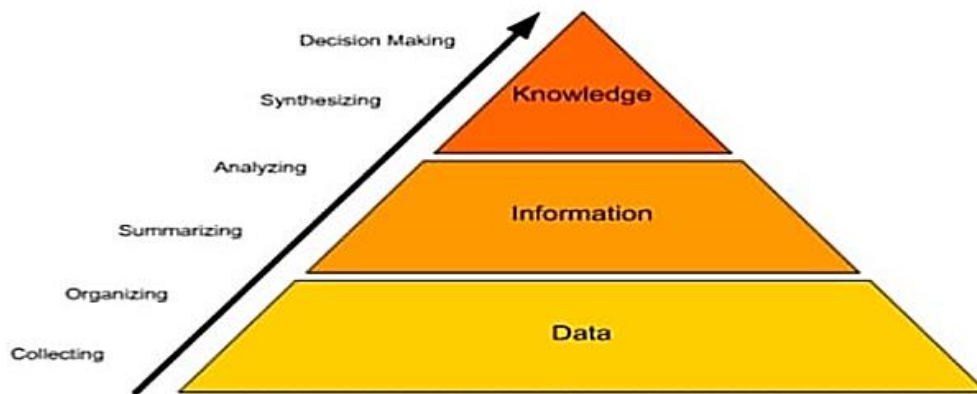
Figure 2 Knowledge management

Individuals

Instead of considering knowledge as a personal asset and a way of exercising power, individuals should want to share their knowledge. Therefore, they believe that the company can benefit from it. By using knowledge management, some kind of reward system should be able to encourage such practices. Human resource management should seek ways to maintain knowledge security in the company when employees leave the company.

Information Technology

The third pillar of information technology is the ability to manage knowledge. Information technology supports the acquisition, storage, structuring and distribution of explicit knowledge, and connects multiple sources of information (Internet, intranet, databases, newsgroups, *etc.*) [14]. More advanced industrial systems provide the opportunity to create new, obvious knowledge by intelligently analyzing and integrating existing knowledge. Technology supports people to acquire and recycle knowledge, share it with others, and connect with others. Obstacles in this area are often incompatible data and structures, and inflexible and heterogeneous systems that cannot keep pace with the rapidly growing business requirements.

Collaborative Culture

The aspects of the above approach are interconnected by an open shared culture, which is characterized by the characteristics of the work environment in which employees cooperate and mistakes are easily forgiven. Such a culture connects the other three factors and at best mode facilitates their interaction. All of the

above aspects in an organization should grow in a balanced way, not one of them being a superior factor.

The methods of establishing and linking tacit knowledge and explicit knowledge in the knowledge conversion process follow four basic elements, which are based on the ideas of Nonaka.

Socialization - from Implicit to Implicit

The first pillar of the knowledge exchange process is the sharing and sharing of ideas. The interaction of tacit knowledge with tacit knowledge is what happens during the dynamics of efficient and low-level teams of colleagues who share ideas. At this stage, people benefit from the thoughts of others about what is important to them, and as a result, consensus knowledge is obtained. This knowledge is the product of the process of knowledge creation, the experience of a key principle and a useful tool for creating new ideas, so the mere transfer of information is not enough.

Externalization - from Implicit to Explicit

In this process, ideas become a practical reality. In a team atmosphere, metaphors and allegories help people to express their tacit knowledge (experiences, ideas, beliefs, *etc.*) and to have a clear picture of other people's ideas in their minds. Consensus knowledge is refined through dialogues, debates, and analyzes, and coded language such as allegory and metaphor are used to highlight aspects of similarity. In this way, a relationship is established between the concepts. The acquired knowledge is called conceptual knowledge, which is an innovative and new knowledge created by the participating members.

Composition - from Explicit to Explicit

Composition is the process of regularizing concepts in the form of a knowledge system. The concepts created in the externalization stage are organized in the form of knowledge structures, thus, the acquired knowledge is called systematic knowledge. In other words, explicit knowledge or existing systematic and complex

sets of new systematic explicit knowledge are created. An important feature of the combination is that the processed knowledge can be introduced directly to others and disseminated in sessions of effective use of the computer network and group databases (2), facilitating this method of knowledge conversion.

Internalization - from Explicit to Implicit

This way of exchanging knowledge helps the members of the organization to express their mental perceptions of the issues that need to be resolved. Accordingly, members try to base their actions on good ideas. Internalizing these ideas is effective in creating understanding and developing a learning culture. This requires the elaboration of internal knowledge [5] manifested in the form of documents, agendas and success stories in the organization. Knowledge documentation causes the recipient to find ownership of the knowledge, to commit to it, and to enjoy the knowledge gained. Knowledge ownership refers to the amount of energy, time, effort, and attention that a person spends on knowledge. Commitment is the second characteristic of knowledge internalization that affects the power of assimilation of the individual and continuous conflict with knowledge. The model presented in Nonaka Knowledge Creation Theory is based on five stages of organizational knowledge creation in which all theoretical concepts are considered. The process of organizational knowledge creation begins with the sharing of organizational knowledge, which is almost consistent with the way of socialization. In the second stage, tacit knowledge is shared by team members and manifested in the form of a new concept. The concept created in the third stage is justified by the organization by focusing on whether it is worth pursuing, and ultimately develops throughout the organization during what is called knowledge alignment.

Culture of Trust

Definition of Trust

A review of the existing literature indicates the lack of a precise definition of the meaning of the

word trust. The definition of trust in Oxford English Dictionary is as follows:

a) Relying on certain features or characteristics of a person or organization;

b) Accepting or crediting a person or organization without examining and receiving evidence;

c) Belief or reliance on the honesty of an individual or organization;

d) Having confident expectations of the person or organization; and

e) Honesty, integrity and loyalty.

Trust as one of the important axes of social and moral philosophy has its roots in the ancient years of human history. Numerous definitions of the word trust have been presented and have changed over time. Despite the breadth and depth of this literature and relatively recent efforts by Bayer (1986), Bella (1964), Lahman (1979), Williamson (1993), and Zakir (1986) to provide an appropriate theoretical definition of trust, still the presence of the phenomenon of trust in the literature of government organizations is lacking. Some experts have even forgotten the definition of trust when using it. Because of this background, there are different approaches to the concept of trust. Definitions of trust typically refer to expectations or beliefs that people like to show others in a predictable way, not just for their own benefit. In other words, we trust others to consider our own interests. If these people are merely selfish, this will not happen to them; therefore, if the trusted party sees only his personal interest, trust will not find meaning. According to March, the central idea of trust is that trust is based on a kind of expectation. Violation of these expectations undermines trust, but does not necessarily create mistrust.

Trust and Its Dimensions

The phenomenon of trust can be considered from different dimensions; in a way, trust is formed based on these dimensions. From one point of view, trust is based on five dimensions, namely, a) honesty: honesty and purity; b) competence: having skills and knowledge in the field of technology and human relations; c) stability: Reliability, predictability and good judgment when faced with different situations; d) loyalty: maintaining honor and dignity; e) truthfulness: Exchange and give information freely. What is certain is that all dimensions of trust can facilitate relationships and relationships based on trust. That is, all these dimensions can bring more richness to social relations and social capital. In the religion of Islam, there are also capacities such as: truth and honesty; keeping the promise; and respect for the rights of others. It has been pointed out that they all form the basis of social capital. From another point of view, trust can be considered as the result of merging the four dimensions of stability, competence, loyalty, and self-disclosure, which in fact include honesty and integrity. In other words, these dimensions form a strong foundation of social relations and remain as a lock that the key to unlocking lies in trust.

Building Trust

It is a sensitive and fragile phenomenon, it takes a long time for it to occur, but this trust can easily be lost and it will not be easy to regain it. Also, since mutual trust increases the level of trust over time, it must be said that mistrust also intensifies mistrust. Therefore, the focus of management should be to maintain trust between members.

The easiest example is building trust through continuous interaction with people with whom you have interacted for a long time. This trust is called empirical trust or trust based on the source of long experience. Of course, the point to be made is that building trust is a time-consuming activity, but the irreparable loss of trust happens in an instant. On the other hand, trust is of two types: Social trust and individual trust. Social trust, unlike individual trust, arises from existing networks in social and civic affairs and the norms of reciprocity. Many experts believe that trust is one of the most important factors in creating an integrated, synergistic and effective work environment.

So, for managers, how to build trust and how to prevent mistrust is of particular importance.

Trust building always starts from the top of the organization. Integrity and internal trust are created provided that the top managers of the organization are role models and others, and by creating examples, implement those models in units and departments. Evidence suggests that if there is trust between groups members, people are more likely to cooperate in activities, which in turn leads to more trust.

In fact, building trust is the prelude to acquiring resources and knowledge. Therefore, it can be said that someone who can achieve higher levels of trust is more likely to be able to acquire knowledge, information and other resources available on their social network.

Trust and Institutionalization

The more people know and trust the new organization, the easier it becomes to institutionalize the organization; that is, the democratization of the organization leads to institutionalization. In the early stages of an organization's life cycle, people do not know enough about it and cannot trust the emerging organization. The establishment of a new organization is accompanied by strong activities for gaining legitimacy, which should lead to gaining the trust of the organization's stakeholders.

Trust as the Foundation of Leadership

Trust seems to be one of the most obvious signs of leadership. When followers trust their leader, they tend to be only obedient to the leader's actions and behavior, because they know that their rights will not be violated. Basically, people do not follow someone who is not honest and seeks to get points from them. In other words, the effectiveness of leadership and management is based on the ability to gain the trust of followers.

Building trust and types of Organizations

Organizational behavior has recently examined trust as a key issue. Although building trust is important in traditional organizations, it is even more important in today's virtual and electronic organizations in terms of expanding its intangible dimensions. Because studies have shown that the importance of trust increases under conditions of change and instability, and these words are the hallmarks of electronic organizations. When traditional laws, policies, norms, and practices are unstable or unclear, individuals turn to personal relationships for guidance, and the quality of these relationships is largely determined by the level of trust.

Trust and Fairness

Research evidence suggests that judgments of fairness in interpersonal relationships are used as an alternative to trust. In other words, according to the innovative theory of fairness, when there is little information about the credibility of an official in the organization, one should be especially careful and sensitive to information related to his fairness. Conversely, when a person knows for sure that the person in charge of the organization is very unreliable, he should be less sensitive to information about his fairness.

Trust is the gateway to success and sustainable development. Trust variables link social norms and commitments to cultural prerequisites and democratic institutions. All groups that are the embodiment of social capital have a kind of radius of trust, and in other words, there is a circle of people in each group among whom there are norms of cooperation. If group social capital produces positive external effects, the radius of trust can go even beyond the group itself. Accordingly, increasing trust increases the productivity of service and production organizations and the legitimacy of governments. Confidentiality is defined as the assurance of one's undesirable behavior with regard to awareness of intentions and capacities.

A trust network consists of a group that uses the same information, authority, and values in their interactions to trust each other. On the other hand, all social groups are a ray of trust, which means the expansion of the circle of cooperation and mutual trust of members of a group. One of the gifts of social capital is the atmosphere of public trust and confidence. If individuals trust each other, a wide network of trust is created without people contacting the

perpetrators. It can be concluded that social capital is the result of relationships based on trust in society. And it can be referred to the appropriate set that arises in the nature of social organization relations and makes social life more pleasant and desirable (Figure 3).

Lack of Trust Among Employees

Lack of trust as an important barrier to intra-organizational collaboration, as well as the efficiency of knowledge sharing in organizations is the focus of much research, and in fact without a sense of trust among employees should not be expected to simply know their knowledge and experience. Knowledge sharing is due to the interaction between employees and their positive attitude towards it, and if there is no mutual trust in the interaction between employees, knowledge and experience sharing will certainly not be done as desired by the organization.

In fact, distrust among employees leads to distrust of the accuracy of knowledge shared and distributed throughout the organization. Nelson also reported that if there is mutual trust between employees, this trust will facilitate knowledge sharing and teamwork, and as this trust increases, the amount of knowledge shared and used will also increase. Therefore, organizations should provide more opportunities for employee interaction to increase trust among employees.

Organizational Distrust

Strengthening the spirit of trust among employees has an effective role in knowledge sharing in the organization. A spirit of trust develops among all employees, whether newly hired, temporary or part-time, as members of working groups.

Building trust in the organization is not achieved by isolating management and keeping away from employees, but by contacting and meeting management with them. In addition, managers should be aware of the opinions and views of employees and give importance and credibility to their suggestions and criticisms to advance the goals of the organization. Thus, when decisions are made by consulting employees, information is widely circulated in the organization and made available to the organization's employees. Also, if managers treat employees fairly, the level of trust in the organization will increase. Therefore, the lack of such trust between the individual and the organization will lead to the isolation of the employee, he will not be willing to share his knowledge and experiences to improve the performance of the organization and will gradually lose his commitment to the organization.

Importance and Application of Research Theoretically

Considering the existence of two types of knowledge in the organization, namely tacit knowledge and implicit knowledge, and the importance and application of these two types of knowledge in how to manage and control, as well as the structure and performance of the organization and factors affecting knowledge transfer for better and more desirable use, especially in organizations whose knowledge is more tacit and there is a possibility of employees leaving the organization and with the departure of these people from the organization, there is a serious risk of lack of knowledge and information, which threatens the organization. There are many definitions of knowledge and knowledge management that are referred to; knowledge is a combination of data and information to which the experiences, ideas and skills of professionals are added and the result is the creation of valuable assets that are used in decision making and management. Knowledge is a set of activities that help the company to acquire knowledge inside and outside the organization.
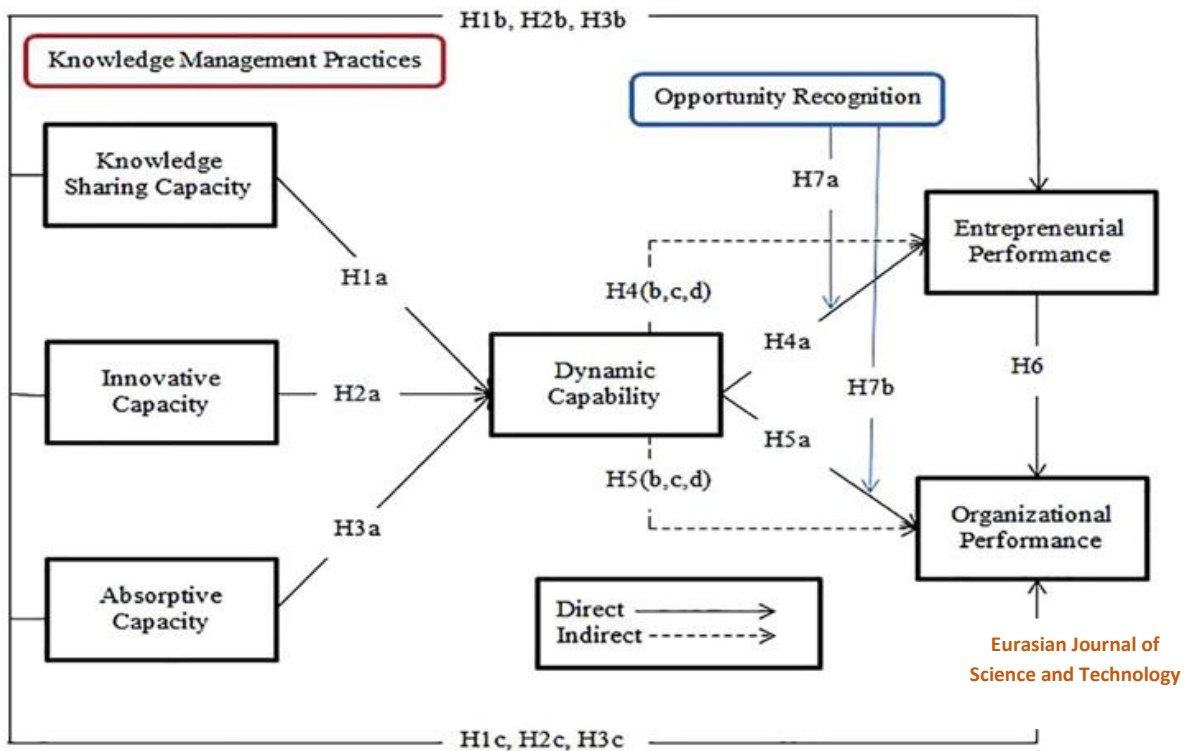
Figure 3 Frontiers, Influence of Knowledge Management Practices on Entrepreneurial and Organizational

From the perspective of economics, the definition of knowledge management includes the efficient use of intangible resources related to knowledge, in all economic sectors of the organization to improve the efficiency and quality of all factors of production. In Balt (2000), knowledge management is the process of facilitating knowledge-related activities such as creating, acquiring, transforming, and using it. He defines knowledge management as: The process by which an organization builds capital from the thoughts and ideas of its members and assets based on knowledge. Cleopulus argues that knowledge management emphasizes the re-application of past practices and experiences by focusing on plans to change perspectives. Most experts agree on the importance of knowledge in management and divide it into two dimensions: The first dimension is explicit knowledge and the second dimension is implicit knowledge. Explicit knowledge is knowledge that can be easily understood. It is a transfer and can be encoded with the help of a series of symbols (letters, numbers, etc.) in the form of text, sound, image, photo and software, database and text. For this reason, explicit knowledge sharing is easily possible. Explicit knowledge in organizations usually comes in the form of rules and procedures, daily programs on the basis of which each employee performs his duties.

Lee that in the process of transforming tacit knowledge into explicit knowledge, it is of the utmost importance, he acknowledges that measuring social interactions provides a useful indicator for measuring the transfer of tacit knowledge to tacit knowledge. This shows that knowledge management can be considered as a social process and knowledge transfer as part of organizational learning because the main goal in knowledge transfer will be the ability of the organization to achieve this knowledge.

The effective transfer of knowledge is achieved through formal systems (for explicit knowledge) and social networks (for tacit knowledge) and because the transfer is a kind of human behavior that can be affected by the organizational environment. In the present era, huge changes such as intense competition, the rapid spread of technology, the intensification of customer diversification, the growth of the

Internet and other factors have occurred that lead organizations to effectively and actively manage their collective wisdom.

Many organizations are transforming themselves to become knowledge-based institutions, organizations in which knowledge management is a vital factor, which is based on a series of research flows such as resource-based organizational learning and key competencies. Graver, on the other hand, consider the origin of knowledge management to be information technology. The term knowledge management may have first appeared in 1994 and became popular in 1996.

The last decade of the twentieth century saw an explosion in the topics of knowledge, work and knowledge, knowledge management, knowledge-based organizations and companies, knowledge-based economic growth and knowledge economy. Knowledge includes knowing and the reasons for knowing, the reason for knowing because Western philosophers were created in a written form maybe a thousand years ago. Eastern philosophers also had an equal share in the development of knowledge. Knowledge management is both an ideology and a process. As an ideology, it is the management of artistic knowledge that understands the internal and external organizational environment through employees.

The ideology of knowledge management believes that human capital is a tool for mental acquisition. Knowledge management as a process is a method that an organization considers the registration, storage and use of knowledge as a set to create knowledge, whether it is financial or non-financial value. Institutions that pursue the efficiency of the organization will use knowledge management to better serve their departments. People who want to use the threats, opportunities, strengths and weaknesses according to their own intellectual capital, use knowledge management. In addition, Al-Azmi Vaziri (2003) has examined the key factors of success in organizational knowledge management from the perspective of thinkers in this field, which

seems to be much broader than the perspective of the obligee.

Organizational Knowledge Transfer Models

To realize the concept of organizational knowledge transfer and the factors affecting it, various models have been presented. It should be noted that trying to explain knowledge transfer in completely general ways is an unsuccessful attempt because each organization has its own requirements. It is done for the organization and the knowledge contained in it and individual characteristics and other factors. However, some general features of knowledge transfer that have been expressed by various experts, which we will briefly describe some of the models.

Nonaka Model

A professor at the University of Hitosbashi and the University of California, Berkeley, has presented a "knowledge creation" model in a series of articles and books since the early 1990s. The model, entailing socialization, externalization, composition, internalization, was first introduced in 1991, which is now a useful and accurate approach in describing the methods of production, transfer and re-creation of knowledge in organizations. In summary, the model combines the following: a) Two forms of knowledge (implicit and explicit); b) a dynamic interaction (transition), c) three levels of social integration (individual, group, contextual or contextual), and d) four creation processes (socialization, externalization, composition and internalization).

This model suggests that a "knowledge-creating organization" consciously facilitates the interaction between tacit and explicit forms of knowledge, which is achieved through systems and structures and an integrated culture that facilitates the interaction of the four processes of knowledge creation. These four processes are:

a) Socialization, sharing tacit knowledge with individuals through joint activities and physical proximity;

b) Update, the expression of tacit knowledge objectively in comprehensible forms;

c) combining, transforming knowledge into more complex sets of knowledge, communicating, disseminating, regulating obvious knowledge; and

d) Internalization, the conversion of externalized knowledge into tacit knowledge according to individual or organizational criteria.

Visualizing explicit knowledge of strategic activities, practices, practices, and innovations is important. What is important to Nonaka is the dynamic relationship between forms of knowledge and organizational levels. Therefore, he said, the spiral resulting from the exchange of tacit and explicit knowledge at different organizational levels is the key to producing and reproducing knowledge. It is recommended that organizations understand the importance of dynamic interaction and facilitate the mechanisms that make it work. In 1998, Nonaka and Kono introduced the concept (ba) which is related to the English concept of place. The "with" in knowledge management is a space for the transformation of dynamic knowledge and emerging relationships.

- ✓ Reproductive: A space and place where people share information, emotions, experiences and psychological patterns.
- ✓ Interactive bi: A space in which tacit knowledge is revealed. The two key factors here are dialogue and metaphor.
- ✓ Cyber: An interactive space in a virtual world that includes the integration of new and existing knowledge to produce new explicit knowledge throughout the organization.
- ✓ Applied Bay: A space that facilitates the conversion of explicit knowledge into tacit knowledge.

The concept of "with" draws our attention to the fact that knowledge is context-dependent. In the sense that it cannot be separated from its "place" in a meaningful way. Therefore, any

knowledge production process requires a with, a space and a phenomenological place, the importance of which must be understood by the organization. In fact, the organization should focus more attention on the formation of its values, because by creating an environment around the knowledge processes, it can bring more revenue to the organization than by directing efforts to the process itself.

Knowledge Flow Model and Processing

The flow and knowledge processing model was presented, based on the flow of knowledge and time horizon.

Data is responsible for displaying, recording, storing and preserving features. Information is equivalent to theoretical knowledge and is obtained from data processing operations and includes organization, storage and other items. Knowledge is defined as practical knowledge and is the consequence of information processing operations. The above steps lead to changes in the knowledge process, which are accompanied by processing in each step. In other words, processes take place to turn data into information, and information in turn requires processes to become knowledge.

Participatory Model in Teaching and Learning

The participatory model emphasizes teaching based on the following axes:

a) Creator, a new mental model for each new situation instead of learning the same general instructions in multiple situations;

b) Argument about quality model and direct perception instead of analysis and quantification of quality and quantity; and

c) Thinking in terms of a general and interconnected system instead of separate components.

Tacit Knowledge Model

According to this model, the vital knowledge of the organization derives directly from tacit knowledge. This is the knowledge that employees keep in mind. Relying on tacit

knowledge, most organizations focus on explicit knowledge and information retrieval. There is a clear need to change attention and thoughts on obtaining, recording and disseminating valuable tacit resources. This model shows how tacit knowledge profoundly affects knowledge creation processes. These feedbacks not only come from knowledge but are also enriched with a wealth of other information. Although the factors influencing tacit knowledge are many, this model mainly relies on only four intangible factors of innovation, understanding, judgment and experience.

As far as Innovation is concerned, knowledge creation and innovation are related; innovation is the result of continuous knowledge creation and the process of applying knowledge to produce a new environment. This knowledge is related to new products, technologies, and systems.

As for understanding, the relationship between experience, understanding, and conceptualization or cognition is more precise and richer than any other concept. Communicating with others will not be possible unless the mind can use and apply its talent and understanding.

Regarding judgment, judgment in the creation of knowledge is a qualitative input. Knowledge involves judgment as a related factor.

Taking Experience into account, experience is created from multiple cycles of previous results that are available as information. When this information is tested, experience plays the role of a learning tool.

The Spiral of Knowledge

Nonaka Vatakechi (1995) pointed out the importance of knowledge transformation. Four modes of this transformation has been dealt with: "Socialization," which is the direct transfer of latent knowledge from person to person through observation, imitation, and individual practical experience, in which case the individual mental model is formed. In this process of "diagramming" hidden knowledge is transformed into explicit concepts through the

use of metaphorical, deductive and model expressions.

Explicit knowledge is transformed into categories and combinations of concepts by "systematizing" concepts. This conversion is done through documents and conversations. Hidden knowledge is created from explicit knowledge through "internalization." It means learning through action. In this way, a mental model is constructed or developed, and transformation is embodied in the spiral of knowledge. It is important for companies to pursue a disciplined process that allows for the dynamic exchange of overt and covert knowledge.

Knowledge Process Model

By presenting the model, Davenport stated that the person who produces the information can make sense of the data. They emphasized the following five processes:
   a) Helping to build meaningful information;
   b) Setting goals based on knowledge;
   c) Classification, identification of a part of the analyzed knowledge;
   d) Processing,
   e) Reviewing; and
   f) Summarizing Data

This model gives meaning to the facts contained in the data. This model also states the rules that exist in the use of software or databases to convert data into meaningful information. The information process is influenced by two factors: Explicit knowledge and tacit knowledge.

Network and Reservoir Models

New technologies allow organizations to implement a knowledge management system that allows them to store and disseminate unstructured information. In this regard, in some texts, two types of models have been proposed to implement the knowledge management system:

A network model that uses guides and communication technologies to connect knowledge owners with knowledge users; and repositories that use information technology to

obtain, organize, store and distribute objective knowledge of the organization. To understand the difference between these two approaches, the nature of organizational knowledge must be considered. Network knowledge management systems support the transfer of both types of knowledge (objective-tacit), but these models seem to be more suitable for tacit knowledge. The network knowledge management system does not intend to develop knowledge acquired by experts in an organization, but seeks to provide guidance for this knowledge.

This defines the knowledge associated with the organization, identifies the holders of knowledge in each area, and leads to searchable guidance to help others in the organization. Other components of a network knowledge management system are a rich set of communication tools and collaborations to support, distribute and share knowledge. In the repository model, knowledge is considered as an object that can be collected, stored and disseminated. The knowledge management system based on this model emphasizes objective organizational knowledge and knowledge is captured in a visible way.

Knowledge Management System Dissemination Model

This model is a comprehensive plan of knowledge management system dissemination proposed. This model is the result of information extracted from six large companies in Australia and North America and is based on the comments of key people who participated in the implementation of the knowledge management system in these organizations. This model has sixteen main and secondary factors and sixty-four variables.

According to this model, four variables are more important for the dissemination of knowledge management system, considered by all participants in the study. These four variables are organizational culture, support of top managers, usefulness for individuals and the dream of knowledge management system. Although it may be difficult to fully test and implement the model, parts of the model can be tested and implemented separately. This model shows in detail the stages of knowledge management system dissemination from the beginning to sustainable use.

Conceptual Model of Knowledge Management

This model relies on three basic systems, elements of strategic management, learning and evaluation that are systematically interrelated. Knowledge can be applied in organizations at four levels: Individual, team, organizational and extra-organizational.

This model relies on the strategic knowledge of the organization. The strategic management system in the organization includes design, implementation and strategic review in a continuous and systematic manner. The strategic management system is supported by assessment and learning systems. The performance appraisal system complements and supports the strategic management system.

The basic elements of this model, especially implementation, review and strategic evaluation, require competent human resources. The strategic education system should have these ongoing processes and feedback on how an organization thinks and acts in this model. The usefulness of this system is that it leads to increased participation in the formulation of decision-making policies, authority, more productive activities, honesty, transparency, meritocracy, free communication, discourse, cooperation and commitment.

Knowledge Management Reference Model

In recent years, a new perspective on knowledge management has emerged. This view has been formed by changing the following paradigms: Knowledge as a product means a commodity that is produced and reproduced.

Transformation of Technical-managerial Approach into Social Approach

Moving from the epistemology of ownership in relation to knowledge to the epistemology of action in which action and doing work depend on knowledge. Therefore, there was a need to

revise existing knowledge management models and move towards a knowledge management reference model.

A reference Model That Can Answer the Following Question

How can a knowledge management support system grow, be put into practice and be evaluated? To answer this question, a three-step knowledge management reference model including cognitive, action stage and resources by Abu Zaid has been suggested. This model can be used in dynamic knowledge processing processes. The first stage includes the elements that any knowledge management system must interact with or act on. The second stage is a category that includes the processes required to process the elements of the first stage.

The third layer contains the elements that support the elements of the second layer and is the resource layer. In the recognition stage, a set of related objects is defined. There is a difference between the external stage of cognition and the internal stage. The field of external cognition is a set of factors with which the organization can maintain its identity in interaction, such as customers, manufacturers, partners, distributors, vendors, banks and competitors. Internal factors that cause organizational self-awareness include goals, processes, resources, business rules and consequences, and so on.

Each of the above factors depends on the creation of knowledge that must be interacted with or worked on. Although many organizational factors are fixed, the hallmark of knowledge factors is its constant change. For this reason, the action layer of the knowledge management reference model consists of two categories of knowledge processes. In the life cycle of an organization, organizational knowledge can exist in different ways and can be seen with many categories such as creating, discovering, combining, externalizing, maintaining, adapting, updating, evaluating and evaluating. The knowledge management resource layer includes communication and information resources and tools that support knowledge processing processes.

Conclusion

The use of knowledge management in organizations reduces costs and improves the quality, productivity and usefulness of the organization. Examining the existing concepts and classifications in the field of knowledge management shows that there is a diverse range of views and perspectives in this area. At present, organizations, despite their geographical dispersion, can use new technologies to work with each other through virtual groups and telecommunications. Knowledge management systems have valuable potential capabilities to achieve these goals. Choosing the right tools and system for implementing and transferring knowledge is one of the management considerations in using the infrastructure knowledge management system infrastructure that has smart and very subtle benefits. Indicators show that although the implementation of a comprehensive knowledge management system requires a systematic and long-term approach, some of this system can be implemented with the facilities available in organizations. Knowledge management has significant effects on strategy formulation and implementation, while the relevant literature indicates a wide range of definitions and views of knowledge management. Creating such wisdom requires the continuous creation of new knowledge and explicit transfer that is achieved by information systems and technology in the organization plays an important role in the process of formulating group strategies. But the creation and transmission of tacit or implicit knowledge is still considered a black box. The transfer and use of tacit knowledge on its impact on innovation and organizational performance has not yet been determined. The effectiveness of knowledge transfer is influenced by important organizational factors such as structure, culture, processes and strategy and information technology. Despite numerous studies conducted around the world on organizational knowledge transfer, knowledge management, few studies have been conducted to establish the relationship between knowledge management and innovation as well as knowledge management and better organizational performance, the relationship between knowledge transfer and organizational performance and innovation, as

well as how organizational performance is realized. In addition, although the knowledge management literature includes a variety of models and reasoned frameworks, few of them specifically target knowledge transfer.

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