

## **THE EFFECT OF KNOWLEDGE MANAGEMENT AND INFORMATION TECHNOLOGY IN EDUCATION AND HUMAN RESOURCES PRODUCTIVITY**

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### **ABSTRACT**

In today's competitive world, productivity as a philosophy based on improvement strategy, forms the most important goal of any organization. Knowledge management is trying to create the proper structure and the necessary technological infrastructure in organization and human-driven placement and preparing and using it as the workers producing accurate source of knowledge to achieve organizational goals; meanwhile, prepare the way for the transition from the industrial age to the knowledge age, can build an organization based on knowledge. The mission management and the directors main objective of each organization is effective and efficient use of various resources such as labor, capital, materials, energy and information. Our country is no exception to the rule, and its development has an important role to play attention to productivity. One of the areas that take advantage of information technology is a fundamental change, the field of education due to the fundamental role of information technology in various aspects of education such as: Virtual training, optimization of the training, organizations with utilization of information technology, will be enable efficient implementation of effective teaching and learning processes in order to achieve the goals of the organization. This article has been tried till the benefits of modern knowledge management and information technology on productivity and man power learning are examined.

**Keywords:** *Knowledge management, Information technology, Education, Productivity, Human resources.*

### **INTRODUCTION**

Rapid changes and technological developments in recent years have increased the level of competition in today's world. In the era of Information Technology competition is so fierce that the organization remains static and does not change the situation surely will fail. Inventing new training techniques, methods for training manpower to control costs, improve quality and customer satisfaction, and Clients and provide alternative solutions for new projects and project is essential management processes (Ghasemi, 2001). In today's world of information not only is known as one of the key resources and assets, but as a tool for the effective management of other resources and assets of the organization demonstrates and gained special importance and value. In a deviation, knowledge divides both overt and covert. Explicit knowledge can be expressed in the form of precise and clear and in the work environment is expressed fully, freely and unconditionally. While covert science is not clear, however, lies in the understanding of substance, this kind of knowledge is often in the form of personal knowledge in practice, there is one other objective factors such as personal beliefs, views and values . Organizations that learning is its essentials are trying to do their job better. From their perspective, learning is the best ways to improve performance in the future. In this regard, technology has provided an opportunity to make better use of knowledge, but do not mind the fact that the manpower is main axis management Knowledge of systems design and therefore managers should design systems that are coordinated with the needs of employees. Also the training required for using of systems and benefits of sharing in knowledge provide continuous, prospective behavioral problems such as reluctance to sharing in the knowledge or the time to consider updating the database, and finally the staff ratio that have commitment to continuous learning, encourage and

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appreciate them. On the other hand, according to the Productivity a philosophy based recovery strategy; composed the most important goal of any organization can enfold such a chain of activities is in every sector of society. So that mission management and the directors' main goal of any organization is effective use of resources and various facilities such as labor, capital, materials, energy and information, so their understanding of the relationship between productivity and information technology in organizations seems to be necessary. Strategic knowledge is something difficult and sometimes impossible. Hence knowledge management is leading in recent years as a serious agenda in managerial scientists' rules and organizations. But as the precious resource is considered for the country and organization, its growth and development is rapidly is changing to indices in developing countries. Knowledge growth and general awareness and widespread evolutions in national communities and global environment have benefited more speed, breath and intensity. Information technology in all social, economic, cultural and management systems have found practical trend and has become a leading developer system and services based on technology in virtual and real environments. So information technology in design and planning, implementation, learning, assessment, training and education structure has effective role. According to different definition of knowledge management can definite it as collecting ,organizing and saving expertness and system experiences of places that there is and distribution them in places that can help to improvement and perception change and practice of staff levels or create more income and generally create value for organization. In this article has tried to study the role and modern advantages of knowledge management and information technology in productivity and manpower learning.

## **RESEARCH METHODOLOGY**

Every researcher chooses Research Methodology to investigate the nature and purpose of the intended targets. According to the above subject, study research method is descriptive - analytical and data collection based on documentary study and has been done with use of books, articles, journals, magazines, and visit sites related to the topic of research (Haji Amiri 2013). To identify barriers to globalization and development of information technology and knowledge management in the organization and management of Iran In response to the question what is the role of information technology in knowledge management and training of human resources? Reading articles and books on management and consultation with experts of management and thought on the subject of the article discuss about article topic (Haji Amir, 2013).

## **DISCUSSION**

The concept of knowledge management and its History Knowledge definition is: ideas, perceptions, and lessons learned over time. Knowledge is a valuable asset that must be managed. Basis Knowledge management is to fine strategy that the right knowledge with the right shape put in the right people. (Milton et al, 1999). Knowledge management with productivity and knowledge development belong to the organizations in order to its goal are associated.(Davenport and Prusak 1998). History and Evolution of knowledge management have emerged in the different fields are not clear and accurate. Some theorists, such as Knowledge Management (Peter Drucker, Astrasrn, Peter Senge, etc.) have contributed to the manifestation of knowledge management. Drucker Vastrasrn has stressed to the importance growing of information and explicit knowledge as organizational resources and Senge has focused the cultural dimension of knowledge. From 1970 to 1990 the number of consulting firms began knowledge management program and some of famous European , Japanese, U.S. firms instituted knowledge management and During 1995, 1994,1991 studies about knowledge management by theorists like (Everett Rogers, Duke Engelbart, Rob auxin Vdan Mac Krakn, Taastvart) done timely. Activity Everett Rogers activity (1970) can be helped Allen about understanding how knowledge is produced and used in organizations can be helped. Perhaps the most widely studied in the field of knowledge management is relevant to Nonaka Karakvjyr and Hyrvtakatak Ouchi (1995) in a book with a topic of the knowledge

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creating company. By the mid 90 initiatives in the field of knowledge management through the Internet is rising. This year the Europe society calls for funding for research projects, knowledge management, which led to today's professional organizations in Today, professional organizations survey the relationship between knowledge management areas such as: Risk management and change management Benchmarking, best practices. Knowledge management involves creating, organizing and distributing knowledge within complex organizations such as corporations, universities, governmental organizations. Knowledge management is the combination of knowledge-based systems, artificial intelligence, software engineering, business process development, human resource management and organizational behavior concepts. Due to the different definitions, knowledge management can be define as a process of collecting, organizing and storing expertise and an organization experience where there is and their distribution in places that can help to improve and change the perception and practice of different staff levels or create more income and generally create worth to the organization (sarlak and forati, 2008).

### **Information technology, information systems**

Information Technology refers to suite of tools, techniques and methods of production, processing, storage and dissemination of information. Perhaps can be say that information technology same study is design, development, implementation and management of computer- based information systems, particularly software applications and computer hardware by which applicable data to any way is gathering. Information technology emphasized on skill knowledge and the use of computers and telecommunications systems, storage, use and transfer of information. Information technology means the collection, storage, processing, distribution and use of information and is not limited to hardware and software. Today, information technology incentives to production and markets globalization and the dynamics and flexibility of service. Fiscal and monetary flows increases and often provides the stage for increased productivity and efficiency (Mansell1999). Information systems are a collection of information resources that designed for collection, processing, storage and use, share, distribute or provide information.

### **The role of information technology in knowledge management**

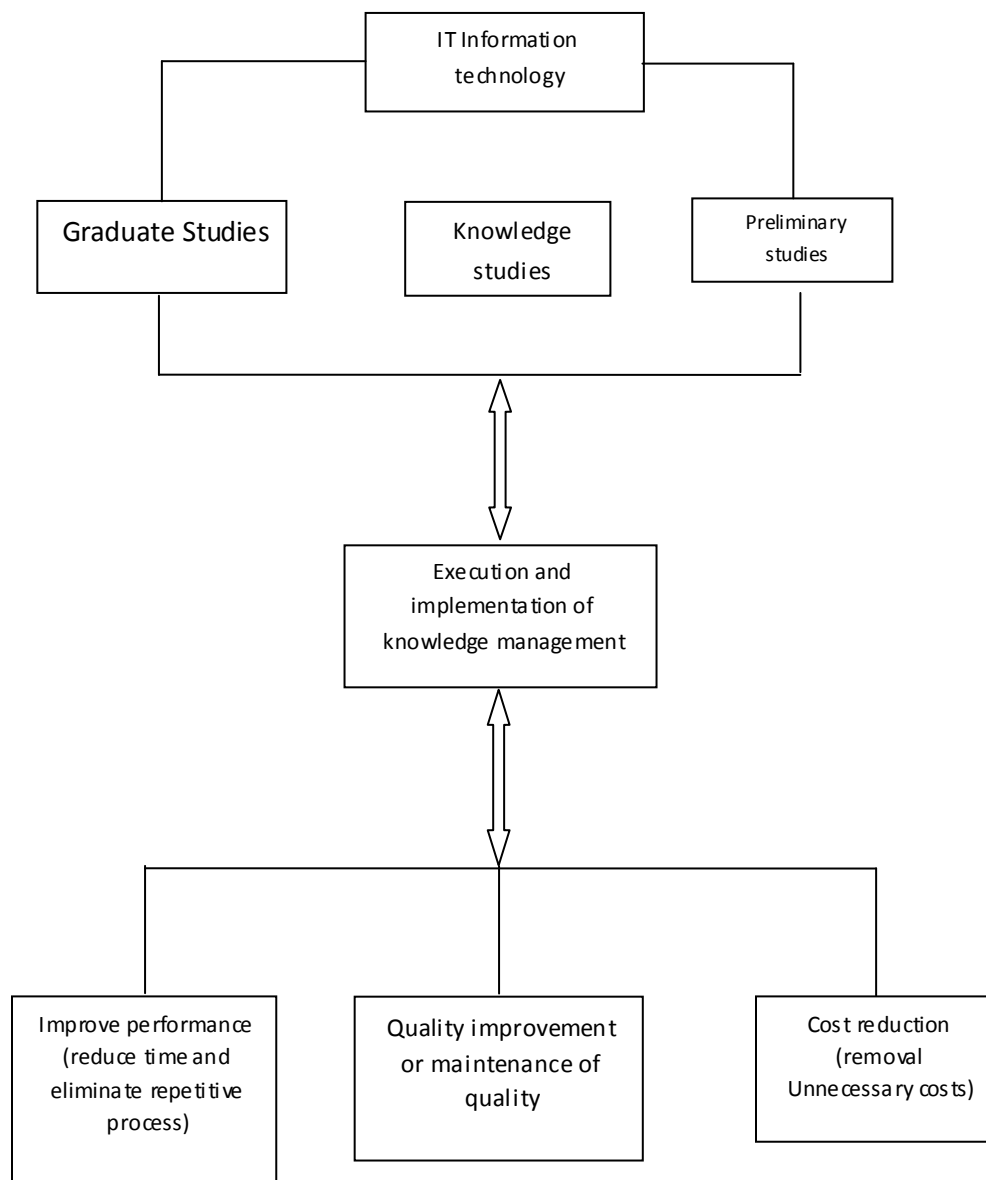
Although knowledge is not exclusively IT products, but information technology has been involved in knowledge creation and knowledge management in the past. ICT can act as a powerful tool and provide efficient and effective tools for all aspects of knowledge management including capturing, sharing and applying knowledge. Capability of information technology to search, index, integrate, archive and transfer information can provide a change in the collection, organization, classification, and dissemination of information. The technology itself is not the heart of knowledge management and any project just for the use of the latest information technology hasn't changed to Knowledge management. Information technology plays only a supporting role in knowledge management (Sarлак and forati, 2008). Some knows knowledge management as a part of information management knows that over time adherents of this theory be fewer (Afrazeh, 2003). Knowledge management is much more than just technology, but technology is undoubtedly part of knowledge management. (Davenport and prusak, 1998). Information technology can help people to find information, but the people themselves who must determine whether the information is appropriate and relevant to their specific need or not. For converting data into knowledge, people need information, interpret, understand, and to place it in context. The maximum value of knowledge management technology, increasing the speed of access to knowledge and its transmission. Information technology helps to knowledge encryption and sometimes its creation. It is clear that creation or existence of appropriate infrastructure on the basis of information technology contributed to the success of knowledge management, and are considered as proper tool for knowledge management .(Afrazeh, 2003).

### **Improving IT in organization**

For growth and excellence in the development of information technology and communications training for resource management and manpower solutions are outlined below: Governments and policymakers should care information technology and see it as an essential component of sustainable development.

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Policies and strategies key in line with the governments macro-political in the country have been identified for the development and application of information technology and are combined with Hryzy program. Information technology position must consider the supreme decision and pay more attention to this area. In each organization for information technology in its different level should be developed specified standards (by consultants). As managers have general familiarity with the field of information technology recommended using of strong consultants for the planning and development of information technology in their organization. Recommended agency heads met with the latest technological and product development plans for their organizations are emphasizing the use of the latest technologies. Managers and employees who are in opposition with the development of information technology in organizations or do not participate in its development to replace Information Technology development projects in an organization should follow a macro framework. IT development projects are targeting, monitoring and tracking, stability and possibility (Haji Amiri, 2013).



**Figure 1: Impact of Information Technology on the implementation of knowledge management**

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The application of information technology in knowledge management Based on the experiences of the quality and productivity center (APQC) five main bases in improving knowledge management strategy use of information technology include: Information technology and knowledge strategies need to work together. The main focus should be on getting the right information of right people at the right time. So people can improve their attitudes and experiences and change information into knowledge. Pattern or strategy begins with an architectural. If strategy and framework for knowledge management and model for information technology for support of initiatives don't exist, will lead to chaos. There aren't invisible costs in Knowledge management and these costs are not limited to technology. Information technology costs may be obvious, but often hidden costs relate to those who have added to value cost, making them more accessible for others and what have contributed others to find everything that need. (APQC, 1997)

#### **Necessity and use of information and communication technology**

Along with the expansion of trade, globalization and rapid changes in the organization environment, information is considered as a strategic factor. In this regard, the establishment of an appropriate information system with utilization of information technology and communication in order of collection, processing and storage of information is vital. Martinez consistent with the goals of information technology in six broad categories is used to classify: IT in administration, communication, decision support, production planning, product design and the operation and control of production (sarafi zadeh, 2004).

#### **The role of information technology in organizational processes**

The role of information technology in organizational processes, such as production and sales, has grown substantially. The first version of the computer technology was originally used to store information on organizational performance and put events and activities in the past days and weeks in manger' authority. With the development of network technology, allowing the collection provided concurrently with their occurrence, and use of information provided by the network. Later many of manually recorded data changed into computer data automation procedures and some of the staff's work were also removed. Computer systems provide the ability to view and monitor the performance of work before the occurrence of errors and problems are communicated to employees. Many old hands processes are fully automatic. The use of information technology in addition of on the workplace nature and the work have changed the organizations compete way (Ahadi, 1998). The development of information technology has caused development, optimizing internal operations of organizations, cost reduction and speed up in production. Reduce costs of profitable opportunities even in lower prices for products have become possible. Information doesn't end to product trade by customer but can improve customer service through retention of general information of each customer and information of customer communication. Even today of information technology with production and service is used and more effectiveness create for customer (zargar,2003).

#### **Operational use of information technology in organizations**

The use of information technology in an expertise called operational application. Preparation of salary List of personnel orders, inventory forecasting, production planning, distribution and labor allocation, industrial costing and other specialized application areas are including information technology operations. In this level computer causes automation spread tasks and resulting in a more economical and faster to do things (shahangian 2005). The application of information technology to facilitate data collection, storage and dissemination of information. In other words, Computer Information Technology acts in the operational use of mechanical tools as a means of converting the output data. While the role of information as an element and a major factor in the collection, transfer and dissemination of intelligence agents are being considered. The role of information will help of dissemination of information on the objectives, rules and standards of organizations. Planning, training and marketing research. (Sales forecast

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and etc including the ground state of the application of information technology, information (Shahngyan, 2005).

### **Implementation of information technology in organizations and problems Some of these problems are mentioned below:**

- Expectations of managers in organizations to automate the management of information systems are very high, but their support is very low.
- Managers' trend is more hardware purchase than support and investment in the production of software.
- Administrator attention to use the software foundation that led to major changes in organizations effect.
- The ideal approach is defined in large software projects, regardless of the capabilities and limitations, and thus the observed failure of projects within planned cost and time.
- Not using new tools and methodologies and software and documentation development standards.
- Agency heads, instead of using information technology in the overall planning, use in the minor work.
- Rights of computer professionals in organizations than in the private sector and self-employed income is very low, so effectiveness and efficiency of the organization is minimal.
- Software essentially cannot be seen, so managers and organizations don't understand and therefore do not support it (Haji Amir, 2013).

### **The role of productivity in the organization**

Productivity is a combination of precision and optimal use of manpower and material resources available, although efficiency through performance is determined. But these two, not one. Performance shows how close we are to the goal. Express the quantity and quality of resulting output. Simply, the productivity is shown output ratio to input as a fraction. But the productivity in organization is a series of coordinated and planned actions to improve the program and better use of talents, facilities, spaces and places. These practices design and implement in modern program.(Tavari, 2008). Efficiency and effectiveness are two important components of productivity. In effectiveness, how to do and program type and activities have been proposed. In effectiveness ,the optimal use of all resources and factors in achieving to desired objectives, the desirability in resource allocation is concerned. Chladvrya in 1999 reported that an organization when has the performance that offers a level of service to its employees and customers Over a set number of manpower, capital, equipment and other equipment are used. In effectiveness of enterprise applications, useful and effective activities is chosen that achieving to approved purposes be possible. Although the dream of every manager is to maximize the productivity of your work, but it's important to realize that it is necessary first to understand all the factors affecting productivity and they used in practice.

### **Measurement of productivity**

Productivity is an increase in output resulting from a unit increase in input. Productivity as compared to the total value of products, the value of all resources expended in their production is considered. Based on this definition, we can compare data value with output value for the productivity evaluate. The evaluation and measurement accuracy depends on the organizational characteristics of available data. Thus two problems arise that we must pay attention to. The first is obvious; the choice of inputs and outputs shows different productivity. Second, a variety of input and output factors, most of which are qualitative follow difficult to measure them. For example, when we evaluate a number of trainees in a company that is very difficult to determine Impact of teach on the quality of the product how it is. We can not say that's exactly what the educational effectiveness has changed and is changing the quality of products. Some possible

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causes are: assessment manager job satisfaction, withdrawal from service, motivation, absenteeism, promotion, salary, maybe all of these factors have been effective. (Aspin,2004).

### **The impact of information technology on productivity**

Looking at the current situation in developed countries characterizes that information technology and communication technology have comprehensive involvement in the development of them. On the other hand, given the close correlation between the development and utilization of information can clearly search the important of information and information technology in the discussion of productivity area . Information as the treasure of human achievement, science and technology as the key to development, decision-making and management, research and development, production and employment, education, planning, and lawmaking and eventually build a new world in which the maximum efficiency in the use of potential human and material terms are reserved. Obviously, having comprehensive information and using the information at the right time can increase creativity and technology, while preventing the waste of resources and duplication of unnecessary and unwanted and above All fruitless decisions will be fruitless (Sarrafzadeh, 2004.)

### **Planning of information technology on productivity**

Now organizations have realized a profound impact that information technology has on organizational structure. The result of the research conducted in this area has identified these effects as follows:

- Reduction of the organization Pyramid promoting
- Centralization and more decentralization
- coordination improve
- More detailed description of duties
- Increase Specialist staff
- Information systems and competitive advantage (Shahngyan, 2005)

### **DISCUSSION AND CONCLUSIONS**

Changing conditions and current variables, their organizations to achieve greater efficiency and effectiveness, and ultimately achieve their goals obligate to pay sufficient attention to human resources. Perhaps more than anything else is that people's attitudes affect the performance of their function, so manpower training makes people able appropriate with organizational and environmental change, environmental continue their activities more efficiently. Regarding the issue of knowledge in organization for the transition from the industrial age to the knowledge age and organizations persistence based on knowledge organizations as a necessary key is vital to survival organizations. In this regard must be adequate infrastructure and processes, as well as the preparation of workers as partners and key resource assets are properly used. This research requires the creation of knowledge management in organizations. In this context, knowledge management must create appropriate links between the key elements of the human Structure and technologies and by appropriate measures and its functions: discovery, acquisition, development or creation, sharing, storage, application and knowledge evaluation as effectiveness. Information and communication technologies cause the growth of knowledge and have a direct effect on it. That's why they play a vital role in knowledge management but cannot solve problems or cure as a result of their deployment, but they can be combined management sectors. There is a strong symbiotic relationship between knowledge management and information technology that increases efficiency in relation to each area.

### **Suggestions**

For ICT development, education and globalization in the organization and management of Iran proposed that:

- 1 - Culture of partnership and collaborative management create and sustain.
- 2 - The suggestion system plan develops further and be considered.

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- 3 - The structure, organization and management system in accordance with the provisions of regulations and new technologies, management objectives be changed.
- 4 - To reduce the amount of bureaucracy and bureaucratic organizations.
- 5 - The state-appointed managers to engage out and managers are selected from among the system members.
- 6 - New technology-based training and manpower planning and organizing continuous be executed.
- 7 - Innovation, initiative and creativity of their employees is organizing.
- 8 - Organizations towards decentralization has accelerated
- 9 - an accurate and scientific evaluation system established in their organizations, and all parts and organs of the organization and management in order to improve the quality and effectiveness of public sector information technology continuously evaluated.
- 10 - In the employment of managers, management stability is crucial.
- 11 - Delegation rating agencies to lower hospital administrators refuse to increase.
- 12 - use of quality management in organizations .

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