



INVESTIGATING THE IMPACT OF INFORMATION TECHNOLOGY IN IMPROVING THE PERFORMANCE OF HUMAN RESOURCES IN ORGANIZATIONS

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Abstract

The article discusses the importance of skilled human resources in the information technology sector for organizations and countries. It explains how virtual education using information and communication technology is essential for human resource development and management. The impact of information technology on human resource management is also discussed, including productivity, technology training, and future mechanisms. The article concludes that organizations need to adapt to new conditions and utilize information technology to improve human resource management and overall performance.

Keywords: Information Technology; Productivity; Human Resources; Organization

Introduction:

Implementing technology in education is essential to keep up with the rapid advancements in science and technology. Human resources are critical in designing and processing operating systems and knowledge services. Virtual education is necessary to train, develop, and empower human resources. Organizations need efficient human resources equipped with new technologies for productivity, and robust educational systems focused on training in new technologies will be the primary weapon of competition in the future. Education is the key to the conquest of the future, and today's human resources should recognize the requirements of tomorrow's society to develop the necessary knowledge and insight.

Education is the key to the conquest of the future, and it has long been the expectation of education to train tomorrow's human beings and prepare today's generation for life in tomorrow's society. Therefore, today's human resources should recognize the requirements and requirements of tomorrow's life to develop the necessary knowledge and insight into the human resources of tomorrow's society. In the age of knowledge and information using computer communications, the boundaries of knowledge are broken, and the learning environment is meaning in a new way (Rezai, 2011).

Information technologies have revolutionized education and created new opportunities for lifelong learning. Education is now accessible to anyone, anywhere, and the walls of educational institutions have collapsed. In the information age, new technologies play a crucial role in the utilization and development of human resources. The quality improvement of human resources is a critical factor in the development of any society, and this can only be achieved with the use of new technologies. Therefore, educational systems are responsible for training human resources for other organizations

in society, and the use of new technologies is essential for the quality improvement of human resources.

In this era, organizations are faced with two choices, either they must be in sync with the developments, or they are the pioneers and transformations; the choice of each of these two species is necessary to pay attention to the characteristics, necessities, and chass that can make the path smoother. Virtual education and information technology have become essential in human resource development in organizations of the 21st century. Many countries consider information technology as a vital infrastructure for their development. The impact of technology on human resources is immense, and its use is necessary for organizations to increase human productivity.

Definition of productivity

Optimal use of various resources, including human resources, producing goods and services that consumers demand, maximizes employees' job satisfaction and increases the desirability of employees' lives in all its dimensions.

Information Technology

Information technology is a set of techniques and tools for recording, storing, and processing. Retrieves transmits, and receives information. Information technology focuses on the knowledge and skills of using new technologies such as computers- the internet, and telecommunication systems. Storage, application, and transfer of information emphasize (Rezaee, 2010) in the definition of information technology refers to an aspect of information systems technology that includes hardware, database, software, networks, and other tools. In another definition, the term information technology, in addition to the technological aspect of the information system as a set of several information systems of users and their managers.) It is considered (Torban, 2004) in terms of information technology, computer use, and surrounding communication for collecting, processing, storing, and disseminating audio, image, textual, and numerical information. (Tansey et al. 2003)

The Nature of Information and Communication Technology

Technology is an intermediary for information, allowing for expressing a broad spectrum of concepts and messages. However, the transmission of information through various Android devices may need to be faster due to their different features and definitions. Various definitions exist for the instrumental approach to information, which encompasses the circulation, processing, and exchange of messages without restrictions of place or time. Technology is often a tool or method for shaping information in various forms. It enables the plural Avery, storage, recovery, and distribution of information, as demonstrated in the works of Alwani and Ahmadi (2008). With a strategic approach, technology can be seen as a single strategy and tool for innovation in the human domain, as argued by Asadi and partners (2011). The information technology industry encompasses hardware, software, and virtual environments, which facilitate the circulation and transfer of information through messenger applications, as seen in the Messenger Race (2010). Overall, technology has revolutionized how we process, store, and exchange information and continues shaping our communication strategies and methods.

Information technology is any production of services, subjects, and factors related to the reception, collection, storage, processing, retrieval, local transmission, and management of data and information in computer systems.

Information technology refers to tools and methods that collect, store, retrieve, process, and distribute information in different forms. Information technology has been developed to develop the capabilities of human thought. The term information technology can be viewed from two perspectives. From the first point of view, the term information technology describes the techniques that help us record, store,

process, market, transmit, and receive information. From the second point of view, information technology is a set of tools and methods. That allows the human user to produce, process, and supply information.

Also, technology is a targeted human activity used to design and manufacture different products and a particular type of information knowledge that technology uses scientifically to solve scientific problems. The importance of this phenomenon is such that era, like the axis and center of a set of guided activities, is responsible for controlling the product management, production, training, and upgrading of a system with a centrality.

Elsewhere and with a higher horizon in the definition of information technology, it is stated that information technology is a strategy, thought, thought, and tool in the field of human beings that is in harmony with innovation.

Today, information technology has become a strategic issue with the opportunities, facilities, and context it has created. Information technology increases human learning speed by 1,000 times and is the most crucial factor in the training and development of human resources globally. Information technology is a dominant is raised in the new millennium. This technology is considered to increase the exchange of information and as a means to increase productivity, efficiency, competitiveness, and growth in all parts of human activity (Peckham, etc.)

Everson, 1999, the main factor in reducing or increasing the organization's shorty is its human resources. Therefore, one of the issues that will involve managers of leading organizations in the next decade is increasing employees' job productivity.

Internet technology training and its impact on human resource utilization provide the capabilities of the global internet network to educate and learn in a virtual environment. The characteristic of this type of training is the extent, variety, and ability to change based on people's talents and interests. For organizations that need to develop and empower their employees, virtual education can respond to their needs.

The growth of telecommunication technologies, particularly the internet and multimedia networks, has led to the emergence of distance education using computers. Distance education has advantages such as rapid changes in the development and utilization of human resources. The internet has become an established interactive educational tool, and its impact has been considered dynamic. As information and communication technology becomes increasingly pervasive, it is necessary to pay attention to education to meet the needs of different organizations in the economic and social fields and, consequently, human resource productivity. However, access to distance education in some areas is limited, so alternative technologies need to be evaluated.

The development of Information and Communication Technology has impacted the investigation and development of human resources in technology. It can optimize resource utilization and reduce production costs while expanding the market and increasing production levels. However, the impact of technological advancement on human resources and employment can also have adverse effects. Therefore, it is essential to follow technological advancements and adapt accordingly. The argument is that advanced technology can revolutionize human life but can also negatively impact employment and workforce expertise.

Future Mechanism and Information Technology

Partners in information technology will proliferate, and adapting to uncertain and changing environments is a challenge for Tahksir managers. Innovation is needed for the final mechanism of

the century, with a structure that follows innovation and efficient coordination of employees. The goal is the emergence of a *sazma-e-don-shammur*. An alliance of scholars formed through technology and intelligent management of knowledge resources is vital to achieving organizational goals and avoiding past mistakes.

Sazma finally realized that their knowledge of how to do things and provide services is an important asset that should be the same as the others.

(Watson, 2003) Creating and managing knowledge as the centerpiece of the modern economy is the only way to create value in the long run (Johnson, 2005). Advance in science, innovation, and power derived from the production, application, and dissemination of ground knowledge is the superiority of the partners who can better manage and get the knowledge better than competitors (Istik, 1999). In the last few years, many things have been done about the importance of knowledge and its management in different societies. Accordingly, the final instrument needs to understand the requirements of the present era and consider its requirements in its final mechanism. They will enter the decline stage very quickly in their life cycle. This is because the traditional final instrument, with its vertical hierarchy, rules, and non-flexible procedures, cannot meet the expectations of the current environment.

Information technology and productivity

Information and communication technologies play a crucial role in the development and productivity of nations. Governments have realized the importance of investing in the information sector and developing communication systems, which increase efficiency, reduce costs, and create new job opportunities. The traditional concept of employment is becoming obsolete, and a new network-based approach is emerging. Human resource training and information technology skills have a significant impact on improving productivity. Innovation and new technology provide a suitable platform for human resources and organizational management to grow and thrive, increasing competitiveness and national prosperity. The cycle of poverty, unemployment, and low productivity can only be broken by increased productivity.

The growth of national productivity is not only an optimal use of resources but also helps to balance economic, social, and political structures in society.

They are not. Social goals and policies are based on the distribution and use of national incomes. If productivity is considered in these goals, it will have a favorable impact on working conditions, motivation, politics, and culture of people in the society, which will eventually lead to the development of society (Muharram, Zadeh, 2000) institutions in the field of productivity will be successful in order to have more of their human resources. Human beings with an institution have several thoughts and thoughts, and how to attract the best thoughts and use them better to achieve a desirable level of productivity and the factors that can guide this human force and achieve a desirable level of productivity are desired.

The Effect of Information Technology on Economic Growth

Over the past few decades, the introduction of information technology has prompted economists worldwide to investigate its impact on economic growth. The effect of this technology on growth has become a favorite topic among economists in most countries. Endogenous growth models have primarily emphasized the role of data technology capitalism in driving economic growth in countries. In recent years, numerous studies have been conducted in this field, revealing this technology's positive and significant effect on growth and productivity in developed countries. Researchers such as Gordon (2000), Nordhaus (2000), and van Ark (2000) have emphasized the role of information technology as a source of production and productivity growth. Others, such as Summers (2000), have

focused on structural and fundamental changes, such as the shift from physical goods production to knowledge production. In particular, Asari Arani (2007) has highlighted the transformative impact of information technology, labeling it as a superior technology that can genuinely impact all areas of the economy.

Similarly, Shepard (1998) has called information technology a transformative force that affects everything it touches. Overall, the impact of information technology on economic growth has been widely studied and documented, demonstrating its ability to drive productivity and spur economic growth in developed countries. The 1998 new economy is a technological upsurge that drives economic activity through large networks, making the economy more global, intangible, and dependent. Information technology played a significant role in the economic growth of America in 1975 and Japan and the United States in 2003. Studies show that IT positively impacts total productivity and economic growth. It is a system of generating and collecting information and a culture of information production. Databases facilitate complex processes, establish organization networks and inter-visions, and improve the long-term perspectives of managers. The components of information technology include information production, collection, summarization, analysis, processing, network thinking, optimizing, integration, research, method-making, storage, and transfer.

Human resource management

Each of the different theoretical perspectives in the field of management has provided different definitions of human resource management, some of which are mentioned below:

- o *Human resource management* is defined as identifying, selecting, training, and nurturing human resources to achieve the organization's goals.
- o Human resource management is one of the primary responsibilities of management in each organization, and all managers of different levels of the organization have some of this security, so human resource management is considered exploiting the company's human capital to achieve organizational goals.
- o The purpose of human resource management is to the policies and measures needed to implement a part of the management task that depends on aspects of employee activity, especially for employee identification, training employees, performance evaluation, giving rewards, and creating a healthy and fair environment for the company's employees.

Human resource management functions based on the studies conducted and reviewed in reliable scientific resources of human resource management in each stage of recruitment, utilization, maintenance, and compensation of service performs tasks that are the most important of which are as follows:

- o Supervision on employment
- o job analysis
- o Planning to provide the required workforce organization
- o Employee Finding
- o Selecting and hiring the best and most qualified forces for the enterprise of the organization
- o Designing and arranging programs that facilitate the entry of new employees into the organization and help them to have the correct organizational and social position
- o Staff training
- o Training Manager
- o Design performance evaluation systems, bonuses, salary, complaints, safety, and health and discipline system

The role

"role" as an aspect of social structure can be defined as a social situation that has a set of these characteristics such as personal qualities and activities; in this paper, the role of information technology is a set of activities that information technology can perform after entering the organization in order to perform any of the human resource management functions.(Frankel :2010, Watson:2003)

The evolution

The concept of human resource management (HRM) differs from traditional employee management and emerged in the 1980s. HRM has undergone several stages of evolution, including the pre-

industrial revolution, the industrial revolution, modern companies and administrative capitalism, scientific management, the human relations movement, and the golden age of industrial relations. The current stage focuses on strategic HRM and corporate functions with international and political perspectives. Before the 20th century, workers were seen as a means to meet employers' needs. However, labor violence and unions led to the social welfare movement, improving working conditions and creating new HR challenges.

The History of the Emergence and Evolution

Information technology refers to a collection of tools and systems used for gathering, organizing, storing, and sharing information, including text, audio, images, and numbers, which can be traced back to ancient Rome around 3500 BC. At that time, letters were written on mud tablets and conveyed over a week. However, with advanced computer tools and telecommunication systems, information can now be accessed and disseminated quickly and easily.

Electronic-based information technology emerged a few years before the 1940s, during World War II, after significant advancements in electronic technology. The production of the first programmable computer and transistor marked the origins of micro-electronics and the true core of the IT revolution in the 20th century.

According to Castles, it was in the 1970s that new information technologies gained widespread use and rapidly developed in a new paradigm. The IT revolution was born during this period, particularly when considering the emergence and popularity of genetic engineering, which occurred in parallel and around the same time and place.

The position of information technology in the development and progress

Humans have always sought to develop their limited computational abilities and have relied on their powerful thinking. The development of new technologies, especially in developed countries, led to an explosion of information, and more than traditional methods were needed for rapid information transfer. The arrival of computers revolutionized the transmission and retrieval of information, marking the third significant development after the script and the printing press. The rapid growth of information technology and communication networks has opened up new scientific, industrial, medical, and agricultural research horizons. However, the ultimate form of institutions demanding this transformation remains to be determined.

Information networks have brought about significant changes in developed countries' research, development, and education systems. Planning and decision-making must use up-to-date information and organization based on new technologies to stay caught up in the era of knowledge and information. Information highways provide a platform for developing countries and societies deprived of these facilities experience limitations in their commercial and scientific maneuverability [16,17]. The globalization of trade and commerce, as well as new service and communication services, have made it possible for consumers to receive and use information optimally. However, this has also created sensitivity from governments, groups, associations, and families. Many governments have imposed taxes on users of information networks. (Chiroma & Ngala: 2019)

The development of information networks has had a profound impact on the global economy, transforming information into an economic commodity and enabling communication infrastructures in remote areas. Access to information networks is essential in the modern world, and the role of information technology in human resource management has undergone profound changes. Information technology affects all social, economic, and political aspects, and its impact on human resources and management functions is significant. The article will examine the functions of human resource management and the role of information technology in each function.

The roles of information technology in each of the functions of human resource management:

Entering and applying information technology in the organization in different areas will have its functions, including in the field of human resources, and its functions can play many roles in the better performance of human resource management tasks by using information technology in each of the functions, the necessary grounds for identifying, selecting recruitment, training. Moreover, effective use of human resources will be created and ultimately will promote the performance of human resources. Some of the results of its application in various human resource management functions are as follows:

- o Accuracy in performing performance
- o speed in performing performance
- o transparency in the system
- o Comprehensiveness in system design
- o extensive and timely notification using internet networks and intranet
- o accurate and quick evaluation
- o timely feedback announcement
- o repeatable affairs by hardware systems
- o control and intangible evaluation
- o Establishing justice
- o Establishing more order of change in processes and organizational structure through information technology

Organizations change to adapt to their environment and ensure survival, growth, and progress, with organizational structure playing a vital role. Information technology is a significant cause and catalyst of change, with its rapid advancements leading to the creation and circulation of more information, mechanization of processes, and changes in job structures and personnel expertise (Mohamed, 2021). Information technology enables virtual jobs and remote collaboration, increases interactions and instant feedback, shares information at different levels of the organization, and performs computing on a large scale without fatigue. Without information and communication technology, organizations' survival is unimaginable, and its effects will transform the structure to be different from its present form. The appropriate organizational structure with the advancement of technologies will increase management's abilities in the study of missions and strategic objectives. Investing in and applying information and communication technology should change the organizational structure and effectively establish communication and optimal use of information and communication technology. The pace and extent of change in employment structure depend on each country's place dividing global labor and its political climate.

The environment and the changing role of human resource management is one of the consequences of information technology is the globalization of the workforce; in fact, the environment in which human resource management can attract the required forces will be beyond geographical boundaries, so the management of organizations in the field of attracting and employing the workforce in the world (in terms of selection, training, and implementation of remuneration, salary, etc.) policies will face many challenges. It will. The globalization of the workforce and other factors has caused the nature of jobs and jobs to undergo drastic changes, and companies are using the networks and facilities in them to try to establish their activities in places around the world where wage rates are growing at a slower rate. Some of the features of the new environment are:

- o Reducing office jobs
- o Increasing professional, managerial, and technical jobs
- o the need for continuing education
- o Contracting tasks
- o the impossibility of monitoring the work of forces as before because of the professionalization of forces
- o the necessity of creating self-control systems
- o Reducing the costs of recruitment and training of human resources management should also change its methods of competition in the world and recognition of strengths and weaknesses; threats and opportunities can help the organization to select, recruit, nurture, and employ appropriate forces. Some of the changing tasks and roles of human resource management include
- o reduces the inactive workforce and strengthen the remaining forces
- o Creating the ground for receiving new and continuous training
- o Reducing the psychological pressure on employees
- o Increasing the quality of work life
- o Proper and rapid reaction to technological changes
- o Considering innovation in the products
- o Formation of specialized teams
- o Pay bonuses and benefits based on

the output of work teams

- o Use flexible working hours
- o Align the goals of employees with the goals of the organization
- o Use methods to increase commitment in employees

The effect of information

Moreover, communication technology on ICT organizations and the Internet has not only affected INFORMATION TECHNOLOGY professionals and employees who use information technology in their workplaces regularly but also affects the environment of the organization, the organization itself, and the social world in general. They do.

Especially at the level of employee motivation, we can expect fundamental changes; besides social evaluations predicting fundamental and profound changes at the comprehensive level, managers' first and most important task in such situations is to maintain employee motivation.

Most IT professionals consider the most critical benefit they expect from a company to be able to work at home to the extent that they are less important for their rights and chances of progress. It can be expected that in the future, more individualism will appear, which means that special needs will be raised for each employee, and these needs are different for other employees:

Please do the same thing that drives intelligent employees to stimulate volunteers to work; we know that starting candidates in the company are more satisfied than employees who have been paid for a while of their work. Most of all, they need to set themselves on fire and water to understand the organization's mission, believe it, and receive continuous training to see the results.

In this regard, it also lies that different groups in the working population should be managed differently, and these groups should be managed differently at different times (Zhang, 2021). All that has been said shows that, at the moment, the formidable challenge for companies is to ensure that the duties can be accomplished at any time by the best employee (or at least the excellent employee) or the contractor since people in the intelligence community are very vital, it is clear that companies are responding appropriately to this challenge not only in the thought of survival but also to progress well. As Drucker puts it, "We need a kind of economic theory that puts people's knowledge at the center of the process of production assets."

Change in information management and utilization of more effective management knowledge of organization knowledge and its use in the labor market is the ultimate goal of those looking for competitive advantage. In their staff, they use. Information and communication technology offers numerous opportunities to reform information management in organizations, using these opportunities; the possibility of better use of employees' knowledge is one of these (opportunities) of using an intra-organization network communication system for the company, which is based on services and agreements following the Internet.

This intra-organization network provides the possibility of simple and relatively cost-effective storage, organization, processing, retention, and sharing of information between the members of the organization; according to Merchant and others, all of these tasks are necessary for proper management of information at the same time, the dissemination of such information (information in the Internet network) can be prevented out of the organization.

Besides the intranet, there are many other ways to use the knowledge stored within the organization and process information from the bulk of data, including data storage, extraction systems, intelligent systems, etc.

Hardware and software solutions for the current situation are the use of knowledge, one is related to the concept of knowledge, and the other is related to people how to access the existing knowledge, which has been done with the help of information technology and the best way to share and store and transfer knowledge in all organizations, according to 28-month research conducted by more than 1000 senior managers of international companies, included better business performance, not only from information technology but also from proper information management and management of the organization's people.

Conclusion:

Information technology is decisive in new organizations and affects human resource management. Organizations should adopt strategies related to information technology to manage their workforce in this new environment. The development of information and communication technologies is rapidly spreading worldwide, creating a massive revolution that brings new tools and changes the nature of work. Information technology affects all organizational levels, and organizations cannot increase human productivity without it. Suggestions for organizations include

- investing in the information technology sector,
- promoting information technology through education and training, and
- creating a particular organizational structure for information technology.

On the other hand, advanced society certainly enjoys a modern and progressive education system. Furthermore, this progressive system will be effective in the utilization of human resources by using new technologies. Therefore, by changing the professional abilities of human resources, information technology needs to be considered more so that education should surpass the life of human resources. Bernolak believes that most managers need to learn the true meaning of productivity, are unaware of how much productivity can be vital to their organization, and know what factors can affect productivity. However, nowadays, the importance of productivity and the necessity of investigating it due to the expansion of competition levels, the complexity of technology, the variety of tastes, the lack of resources, and the speed of information exchange are not covered by anyone. *Productivity* is a term considered both at the macro and micro level and includes a range from global productivity to individual productivity. The central axis of any productivity is the organization's human resources. A force that uses information technology to advance organizations and partners.)

Taheri, 1999 is generally considered one of the essential developmental axes in the world, and many countries worldwide have considered information technology development as one of the most critical infrastructures of their development.

Because the use and use of information technology affect all organizational levels, considering the tremendous influence of information technology on human resources, it seems impossible for organizations to increase human productivity.

Alternatives

According to the above, the following suggestions can be made:

- Importance of the role of educational systems in developing and promoting information technology by the future human resources of the country's economy and production cycle.
- Encouraging organizations to invest in the information technology sector to reach the maturity of information technology users and, subsequently, productivity in human resources.
- Creating the groundwork, awareness, and appropriate training in information technology to achieve economic growth and development.
- Paying attention to the effects of information technology training on organizations' human resources and its positive effect on workforce productivity.

- Creating a unique organizational structure of information technology at the appropriate organizational level.

Resources

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