

# The Role of using Computers to Enhance the Performance of Human Resources in Different Organizations

Bajhzar Abrar Ahmad<sup>1</sup> and Bajhzar Omar Ahmad<sup>2</sup>

<sup>1</sup>Department of Information Science, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia;  
abrar.bajhzar@gmail.com

<sup>2</sup>Department of Clinical Technology, Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia;  
obajhzar@gmail.com

## Abstract

**Background/Objectives:** This study aims at shedding light on the role of using computers to enhance the performance of human resources in different organizations. **Methods/Statistical Analysis:** This study elaborates the concept of training and its goals, the importance of human resources in organizations, the concept of computers, the different applications and uses of computers in organizations, and the role of computer applications in supporting decision-making processes and practices. The study used 16 of previous studies as a references. **Findings:** The researcher found the following: - There is a relationship between the use of computers and the performance of the employees, which confirms the importance of investing in this tool and its development. - There is a relationship between the use of computers and the size of work, quality of work, efficiency of performance, streamlining of tasks. - There is a relationship between the use of computers and the speed of achievements, which calls for the activation of this variable by raising the skills of employees and training them to gain more experience so that they would be able to use information technology optimally. **Improvements/Applications:** The importance of this subject stems from today's necessity to use computers to do various tasks in organizations rapidly and efficiently, to increase productivity, and to enhance communications within the organizational environment; in addition to providing information that is more accurate to take better decisions.

**Keywords:** Computers, Computer Applications, Decision Making, Organizations, Training

## 1. Introduction

First, the concept of "training" has to be redefined; it can be said that training aims at providing the employees of the organization with a set of knowledge to develop their skills and abilities, and to change their behaviors and attitudes in order to boost their efficiency and their productivity, which in turn will positively enhance the overall organizational performance.

Traditional training aims at developing the employees' performance and sharpening their skills in order to do their job duties in a better way. Therefore, it focuses on the employee's current position i.e. the core professional skills directly related to the duties of the assigned job. However, modern training practices aim at increasing the understanding of employees to their roles in the organization as well as their responsibilities and the best way of

\*Author for correspondence

accomplishing them, and enhancing the employees experience and skills to achieve higher levels of performance. In addition, modern training practices aim at developing the problem solving skills of the employees because such practices are not confined only to everyday tasks, rather they qualify some calibers to be able to handle the problems which the organization encounter using the most suitable solutions through taking the right decisions on the right time.

Moreover, modern training aims at enhancing the employees' capabilities to be able to take the up-next step in their career path, as long as the organization has a clear well-structured succession plan. Thus, employees have to gain certain knowledge and skills that qualify them to perform the duties of the upper position when promoted.

In addition, modern training aims at guiding the employees to better respect the legal aspects of their job duties, responsibilities, and powers in order for their tasks to be legally sound and correct, which in turn facilitates the role of administrative and judicial control avoiding actions of nullification or indemnification. Furthermore, it gives the organization a good reputation among people as trustworthy.

Modern training practices also increase the employees' awareness of the role of their organization and its objectives so that they get the big picture of the organizational structure, and the role of each department so that they could see the true nature of their job roles and its importance to the organization in order not to be preoccupied with many simple things that might distract their attention from the core of their job duties. Such modern training practices provide the employees with a clear vision of their roles in the organization and help them better understand its objectives and the values of their organizational behavior.

Changing the behavior of employees and their attitudes are among the targets of modern training practices, which in turn helps developing the work environment through processes of psychological preparations that encourage the employees to exert more efforts autonomously without the need of giving instructions or full

supervision. More attention has been given to these aspects with the development of behavioral science like psychology and sociology making use of their results. These psychological preparations greatly develop the spirit of cooperation among employees.

Finally, modern training practices aim at cultivating innovation among employees i.e. they are provided with the necessary knowledge to use new and advanced techniques to increase their productivity and enhance their performance achieving higher levels through new innovative practices, among them are providing the employees with proper training to use computers efficiently to accomplish their duties<sup>1</sup>.

## 2. The Importance of Human Resources in Organizations

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Human resources are among the core assets of any given organization since they are the real engine of its different activities and one of main reasons of its efficiency especially when they are of high skills and knowledge that perfectly suits the organization's business. The other resources of the organization depend on the qualifications of its human resources and how skillful they are in managing such other resources. In fact, human resources are the key factor of success in using the rest of the resources (i.e. raw material, management, marketing, funds ... etc.). Nowadays, increasing attention is paid to developing the capabilities and efficiency of the human element in order to achieve high levels of performance, quality and accuracy.

In<sup>4</sup> say that most of the commercial processes in different organizations use computers in the following:

- Communications: Organizations use computers for internal and external communications via email systems, word-processing programs, and virtual conferences.
- Search: Organizations use computers to search the new main trends in their industries, patents, trademarks, potential customers and competitors via search engines and private databases.

- **Media Production:** Computers are now used to produce different types of media, including graphics, video, and audio production.
- **Data Tracking and Storage:** Although paper files containing printed documents are still in use, organizations also store and manage their data using computer software and cloud-based systems.
- **Product Development:** Developers use computers to create new products and services.
- **Human Resources:** Internal HR operations and payroll systems are managed using online software and services.

### 3. Applications and Uses of Computers in Organizations

The researchers will present some of the applications and programs that facilitate different works of organizations as well as reducing the burden on the employees. They can be used to save and retrieve data, and perform complex calculations; they can also be used for marketing, inventories, financial accounting, and customer accounts and banking. These features can be used through some basic applications like:

- **Word Processing**
- **Spreadsheets**
- **Voicemail**
- **Fax**
- **Instant Messages:** Some instant messenger programs, such as msn messenger, yahoo messenger, and other programs are used to exchange text messages or have a short conversation between two or more people about a subject. These programs can be used when an employee wants to address another employee. They can also be used to quickly exchange files between employees at the facility.
- **Databases:** One of the most famous programs that are used in database management is Microsoft Access<sup>5</sup>.

- **Electronic Organization of Work and Appointments:** Using a computer or personal digital assistant can save a list of the work one must do, as well as the dates on which one must complete those appointments. These devices also display a calendar where one can record appointments and the device or computer program will notify before the time of the date or meeting.
- **Audio Conferences:** Audio conferences are a service for institutions, companies and official entities provided by the telecom company. Through this service - using special devices - more than one person in several places of the world can participate in one audio conference at the same time<sup>6</sup>.
- **Video Conferences:** Video Conference is a means of direct audio and video communication among several individuals in different geographical locations live. Through the technology of computers audio and images can be transmitted to different locations; in addition to the possibility of transferring designs that are drawn on an electronic board, and any other type of data. Doctors can transfer surgical operations directly to other hospitals where they can receive external consultations. Also, lectures and lessons can be transferred among the different branches of the university.
- **ATMs:** The electronic device enables the bank's customers to conduct banking transactions on their personal accounts without having to go to the bank building and meeting with a teller staff member<sup>7</sup>.

### 4. The Role of Computer Applications in Supporting Decision-making Processes and Practices

Different organizations face situations and problems that need decisions to be taken, which vary in importance and difficulty; some of them are simple routine decisions, and

others are very important for the organization and have major impacts on the success or failure of it. Yet, before the decision is taken, it must be made; thus, a series of steps must be followed to solve the problem. In fact, decision-making is part and parcel of the management process in organizations, for it is not possible to perform any activity unless a decision is taken, and this is applied to all functions of management i.e. planning, organizing, directing, and controlling. Therefore, decisions must be correct. The decision-making process may be done by one individual, or a group of people may be involved to provide their opinions.

There is no doubt that the decision made with the participation of many members of the organization is more effective than the decision made by one individual; since the expansion of the circle of participants whenever possible provides many advantages, including the diversity and complementarity of information and experience. The good choice of participants in the decision-making process ensures acceptance, cooperation and commitment by individuals in the implementation of the decision that they have contributed to<sup>8</sup>. Decision-making represents essential managerial and technical skills for working in organizations in various fields i.e. the professional, academic, political, military, cultural and social ones.

The systems of supporting decision-making processes and practices are among the most important computer-based systems that resulted from the evolution of information technology during the 1970s and 1980s as a natural development of the way computers are used; they are regarded as one of the most important factors determining the success or failure of various processes, especially in the making of vital decisions that may be taken as a reason for the rise of organizations, and may be the cause of their destruction.

In<sup>9</sup> defines the decision-making process as one that is related to current developments and events at the moment of choice and beyond. In<sup>10</sup> says that decision-making is a broad area that can be addressed from several perspectives and scientific approaches; such as, psychological and cognitive science that deal with human behavior and

rational areas where decision-making always seeks to maximize optimum benefits.

In<sup>11</sup> defines participation in decision-making as: Giving all members of the organization the opportunity to contribute to decisions through exchanging views and benefiting from experiences according to objective rules and conditions that lead to achieving the objectives of individuals on the one hand, and the objectives of the organization to which they belong on the other hand.

According to<sup>12</sup>, there are six main steps to make the right decision in the organization:

- Identifying the problem
- Analyzing the problem
- Developing alternative solutions
- Agreeing on the most appropriate solution
- Translating decisions into actual steps of action
- Monitoring and evaluating results

In<sup>13</sup> states that decision-making is based on the following basic conditions:

- Knowing the alternatives: The decision maker has a number of alternatives.
- Knowing the consequences: The decision maker knows the consequences of alternative actions.
- Fixing preference order: The decision maker has fixed values used in comparisons between alternatives.
- Decision rule: The decision maker has the rules of decision that are used to identify one alternative.
- In mentions a number of suggestions for activating the role of participation and practices of the decision-making process:
- Educating individuals about the benefits of participation in decision-making and its limits.
- Holding training courses on how to use participatory methods correctly.
- Raising confidence of subordinates in their abilities and skills on the one hand, and enhancing confidence between supervisors and their subordinates at work.
- Following the pattern of democratic leadership and giving attention to the objective aspect of participation.

- Drafting laws and regulations that help to activate and organize the process of participation.
- Involving trusted individuals affected by the decision to be taken.
- Taking into account the time available for decision-taking and the time that participation in the decision-making process may take.
- Taking into consideration the costs of participation that may arise, and the resulting benefits.

## 5. The Role of Computers in Decision-Making and Decision-Taking Processes

The role of the computers in decision-making refers to providing organizations with the latest technology available, whether hardware or software to perform tasks that were usually performed by individuals in traditional and routine ways and replace them with modern and advanced ways to accomplish tasks more rapidly and accurately. Automatic processing of organizations includes equipping them with all types of formal and informal electronic systems<sup>14</sup>.

Computer devices and applications are essential tools for organizations because they provide them with accurate and rapid information at the right time and place when needed, especially that the use of computer applications would contribute to the process of providing facts and information more effectively and efficiently than manual work<sup>15</sup>.

Undoubtedly, computer has had a great impact in the organizations that have used it on a large scale for its great speed in the conduct of complex calculations, its ability to resolve some of the very complicated issues, its ability to store and retrieve information in a timely manner, and its great accuracy of calculations and technical results; in addition to the possibility of using it in many other areas, and improving quality and efficiency in organizational and administrative works.

The rational decision-making in organizations is thus based on a database that can be of fairly large size, and the objective of the integrated analysis is to reach the target results that can be relied upon in the processes of

making and taking decisions about organizing the various operations of marketing and production of products and services in the organization. These processes require the use of computer technologies and applications, and operating with the software designed for these different operations, taking advantage of the mentioned positive characteristics of the computer<sup>16</sup>.

## 6. Conclusion

The real value of the presence of human resources in the organizations is achieved through intensifying efforts to train and develop them, and to avoid doing the work in a traditional routine manner; in addition to being up to date with nowadays progress and development, and train them to use computers to complete their tasks automatically. It is highly important to set schedules of following-up training courses for staff in organizations in order to enhance their performance and improve the efficiency of outputs. The researcher reached a set of conclusions stated as follows:

- There is a relationship between the use of computers and the performance of the employees, which confirms the importance of investing in this tool and its development.
- There is a relationship between the use of computers and the size of work, quality of work, efficiency of performance and streamlining of tasks.
- There is a relationship between the use of computers and the speed of achievements, which calls for the activation of this variable by raising the skills of employees and training them to gain more experience so that they would be able to use information technology optimally.

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