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**Impact of use Information Technology on the development of accounting functions: the role of training and development as an intermediate factor**

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**Abstract**

This research explores the significant impact of use Information Technology and its relationship in development of accounting functions, focusing on the role of training and development as an intermediary factor. The problem of study was to consider the digital transformation and use financial technology as one of the biggest challenges facing the accounting profession in current period, so understanding how training and development affect the ability and skill of accountants to absorb and use these technologies becomes very important. There are also challenges facing the process of this development, represented by the inability of many organizations to achieve the expected benefits of

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information technology, due to the lack of training and development available to accountants to keep up with these new technologies. This study aims to understand how training and development programs affect the development of accounting skills and increase the efficiency and skill of accountants in dealing with technology. SPSS statistical analysis was used through the use of factor analysis and the research objectives were achieved by conducting a comprehensive review of academic references and previous research in this field. The study found that there is a strong impact of the use of Information Technology on the development of accounting jobs, as well as a positive impact of training employees in accounting departments and their development in contributing to the advancement of accounting jobs.

### **Introduction:**

The rapid developments in the use of technology in the business environment have made it imperative for accountants to adapt to these changes and develop their skills to keep them up-to-date and fully aware of the latest technological developments (Apostolou,2017). The training and development process is an important tool to improve accountants skills and increase their efficiency in using technology to help them perform their jobs in an optimal way. The use of financial technology provides advanced technical tools and solutions aimed at improving and facilitating accounting processes and helping in making optimal financial decisions. The technological revolution has led to the growth of knowledge and methods of enterprise performance through extensive investment in information systems and the pursuit of the advantages necessary for the success of the work of organizations,

accountants face various challenges in adapting to the use of new financial technology and dealing with it efficiently and effectively (Al-Baltaji, 2016). The most important of these challenges is the need for continuous training and development of accountants to ensure their assimilation and effective use of new technological technologies. Although financial technology offers many benefits. The lack of available training and development can hinder the ability to realize the benefits of this technological development. (Abu Hashish, 2018)

### **Problem Statement**

The accounting industry has witnessed an accelerated increase in the use of Information Technology, and with the development of this technology, the question arises about the effective impact of this use on the development of accounting functions specifically. This study focuses on the role of training and development as an intermediate factor in enhancing the growing impact of Information Technology on the development of accounting functions. Therefore, this study poses the following question: **How does the use of Information Technology affect the development of accounting functions, and what is the role of training and development in enhancing this impact?**

### **Study objectives:**

The study aims to explore and analyze the impact of use Information Technology on the development of accounting functions, focusing on the role of training and development as an intermediate factor in this process through the following.

- 1- Studying the impact of use Information Technology on the development of accounting functions in enterprises

2. Knowledge of the role of training and development in facilitating the adoption of financial technology and improving the performance of accounting functions

3. Analysis of technological tools and techniques that can be used to enhance the development of accounting functions

### **Study questions**

1. How the use of information technology affects the development of accounting functions in enterprises

2. What is the role of training and development in facilitating the adoption of financial technology and improving the performance of accounting functions

3. What technological tools and techniques can be used to promote the development of accounting functions

### **Study hypotheses**

1. There is a positive impact of the use of Information Technology on the development of accounting functions in enterprises

2. There is a statistically significant relationship to the role of training and development in facilitating the adoption of financial technology and improving employee performance

3. There is a positive impact of using technological tools and techniques to promote the development of accounting jobs

### **Importance of study:**

The study of the impact of the use of Information Technology on the development of accounting functions, focusing on the role of training

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and development as an intermediary factor, is one of the most important studies in the field of accounting and finance at the moment in several aspects:

Enhancing efficiency: the use of financial technology, training and continuous development contribute to enhancing the efficiency of accounting processes within organizations, reducing errors, increasing the accuracy of data and speeding up the preparation procedures and financial reports.

Improving Decisions: financial technology, training and development can contribute to improving the quality of accounting information available to make accurate and strategic financial decisions, thereby contributing to the achievement of the organization's goal.

### **Procedural Terminology**

Information technology: (al-hawasi and Al-Barzanji, 2014 )defined it as all the technologies used in collecting, storing, processing and transmitting the results of the analysis and classification of information and directing the benefit from it by the beneficiaries in the easiest way while ensuring the completion with accuracy, speed and appropriate time. (Sherif and Odeh, 2016) define information technology as the set of technologies represented by the physical entity, software components and human resources, and the procedures used in the framework of organizing the work of these parts together in order to manage data and information efficiently. Based on the foregoing, it can be said that information technology is all the technologies used by contemporary organizations to collect information that they use in the

implementation of their various activities with the maximum degree of efficiency and effectiveness in a way that leads to their excellence and success.

Training: training is that activity adopted by the institution in order to develop and develop the skills and abilities of its members, which pushes them to change their behavior and attitudes, and then perform their work effectively and efficiently, and thus reach the goal of doing

By providing the necessary skills and knowledge for workers to adapt to new technologies (abuhashish, 2015)

The role of training and development: Smith, J & Johnson (2019) pointed out that this is the role that training and development can play in facilitating and accelerating the impact of Information Technology on job development by providing the necessary skills and knowledge for workers in their field to adapt to new technologies.

Development: it is the continuous process that a person receives through the support and support inherent to his growth and capabilities on a continuous basis, and this is done through learning processes that are in any case necessary for the success of a person in investing his resources in a manner commensurate with the temporal and spatial conditions.(Al-Anzi, 2011).

## **Theoretical framework and previous studies**

### **Information technology**

Information technology (IT) is one of the most important drivers of modern economic and social development. Information technology includes a wide range of technological tools and resources that are

used to manage, process, store and transmit information. These tools include a lot of hardware and software, networks, databases, internet applications, operating systems and all technologies that are used in the flow of information between individuals and organizations (Layla, 2011).

### **Definition of Information Technology**

Information technology is defined as the use of computer hardware and software in order to manage data and information. According to the National Institute of standards and technology (NIST), information technology includes all technologies that are used in electronic data processing, including computers, networks, software and associated services (Allami, 2009).

### **The evolution of Information Technology**

The development of information technology can be traced through several main stages, ranging from the innovation of computers in the mid-twentieth century to the current era characterized by the development of technologies such as artificial intelligence, cloud computing and the Internet of things . The digital revolution began in the Fifties and sixties of the last century with the development of mainframe computers, then the personal computer stage followed in the seventies and eighties. The last decade has witnessed a significant expansion in the use of mobile devices, wireless communication and cloud technology (al-Hamza, 2008).

### **Characteristics of Information Technology**

1-easy access to any information from around the world.

2-providing the necessary information in all economic, political, educational and other fields.

3-get acquainted with everything new and in a short time.

4. low cost of using technology.

5-organizing the work of institutions within one country.

6-the development of science, research and studies in various fields through the collection of information on various studies (tenawi, 2019).

### **Fields of Information Technology**

The fields of information technology include several subdisciplines, among which:

Database management: related to the design and management of database systems to store and retrieve data effectively.

Networks and Communications: focuses on the design and management of networks that allow communication and exchange of information between different devices.

Information Security: concerned with protecting information from unauthorized access and manipulation (atrophy, 2021).

Data analysis: techniques involve extracting valuable information from big data and analyzing it to support decision-making.

Software development: related to the writing, design and maintenance of software that manages various tasks (al-Qaisi, 2004).



## **The impact of Information Technology**

Information technology has led to significant improvements in various sectors such as education, health and the economy. In education, distance learning technologies, e-books and digital contents have provided opportunities for continuous learning (Brynjolfsson, E., & McAfee, 2014). In the health sector, electronic health record systems and health tracking applications have contributed to improving the quality of health care. In the economy, e-commerce and data analytics have enabled companies to reach new markets and increase their operational efficiency (Al-jadaya, 2008).

### **Pros of using information technology**

The use of ICT in business organizations has led to the achievement of many advantages, including the following

**Increase sales and profits:** ICT works to increase sales by helping the organization to satisfy the needs and desires of consumers, and it entails improving profitability, especially in light of cost reduction, which is also achieved using technology.

**Obtaining competitive advantages:** many organizations use ICT to improve their position in the competitive environment and obtain competitive advantages through the design of innovative programs and applications that allow organizations to compete more effectively.

**Cost reduction:** cost reduction is one of the most important benefits that business organizations derive from the use of Information Technology in several areas, the most important of which is the automated performance of work and clerical tasks, as well as the use of computers in production and inventory control. (Laudon, J. P. 2020)

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Quality improvement: one of the most important uses of technology is to improve the quality of output and Computer-Aided Design (al-Kasasbeh, 2011).

### **Risks and challenges of using information technology**

There are many disadvantages risks of using it in internal control, including

1-relying on programs and systems through which the data is operated in an untrue and inaccurate manner or there may be inaccuracies in the data itself.

2-possible data loss or accidental deletion.

3-unauthorized or unauthorized change in programs or systems.

4 - unauthorized access to the data, which may lead to the destruction of the data or changes in it.

5-the computer is not capable of thinking or personal judgment.

6-information security and privacy: the risks of electronic hacks and theft of personal data are increasing.

7-digital divide: there are still large gaps in access to technology between different groups.

8-rapid development of technology: continuous development leads to the need for constant updating of skills and knowledge. (NIST. 2020)

### **The impact of Information Technology on the quality of accounting information:**

The accounting information system is an important means used by organizations to face the challenges of the times, through the

processing of data and converting them into accounting information, which necessitates the use of modern Information Technology in the applications of the accounting information system, especially the computer and its accessories, storage means and communication networks, because of its impact on the components and objectives of the accounting system. It has been shown through previous studies that information technology has an impact on the accounting information system through its impact on the components of the system, represented by documents, books, records, accounts directory and financial reports, and information technology has an impact on the objectives of the accounting information system through its ability to record data and perform complex mathematical and logical operations( Smith, R. 2019) .

### **Training and development**

In the modern business world, accountants are a vital element for ensuring transparency and financial efficiency within organizations. Accountants are facing increasing challenges as a result of constant changes in financial legislation and modern technologies. So, the constant training and development of these professionals becomes extremely important for maintaining high levels of performance and compliance with international standards (Karamah, 2011).

### **Definition of training and development**

Training is the process by which employees are provided with the necessary skills and knowledge to effectively perform their current functions. As for development, it refers to continuous efforts to improve skills and competencies in the long term in line with the personal and

professional goals of accountants and the organization as a whole ( Armstrong, 2014).

### **The importance of training and development for accountants**

The importance of training and development for accountants is manifested in the following points:

Keeping abreast of legislative changes: training allows accountants to stay abreast of constant changes in financial laws and regulations.

Enhancing professional competence: training contributes to improving the skills of accountants, increasing their productivity and efficiency in performing their tasks.

Development of technological skills: with technological progress, the training of accountants in the use of modern financial software and financial information management systems is essential.

Improving organizational performance: continuous development improves the quality of financial reporting and achieves greater accuracy and transparency, which enhances the confidence of investors and stakeholders ( Becker, 1964).

### **Areas of training and development of accountants**

The areas of training and development of accountants can be divided into several main axes, including:

Technical training: includes training on international accounting standards and international auditing standards, as well as training on the use of accounting software (IFAC. 2020).

Soft skills training: includes training in communication skills, time management, and teamwork, which are necessary to enhance individual and group performance.

Financial analysis and reporting training: focuses on developing financial data analysis skills and preparing accurate and detailed financial reports.

Compliance and ethics training: aims to familiarize accountants with the importance of compliance with financial laws and regulations, in addition to promoting ethical behavior in accounting practices (Noe, R. A. 2017).

### **Training and development strategies**

To implement effective training and development programs, organizations must adopt various strategies that include:

Internal and external training: training courses can be provided in-house by internal experts or by using specialized external training institutions.

E-training and distance education: this type of training provides greater flexibility for accountants to access training materials at any time and from anywhere.

Workshops and conferences: these events provide the opportunity to interact directly with experts and exchange experiences and knowledge with colleagues from the same field.

Orientation and mentoring programs: based on the orientation of new or less experienced employees by more experienced employees to share practical knowledge.

## **The impact of training and development on institutional performance**

Effective training and development programs significantly improve the performance of accountants, which positively affects the overall performance of the enterprise. The impact of such programs can be summarized in the following points:

Increased productivity: accountants acquire new skills that increase their efficiency and productivity.

Improve the quality of work: training helps to reduce errors and increase the accuracy of accounting operations.

Fostering innovation: the training provides opportunities for accountants to acquire new knowledge that contributes to the improvement of financial processes and the creation of new solutions to problems.

Employee retention: investing in the training and development of employees is an important factor in increasing their job satisfaction and reducing labor turnover rates.( Phillips, J. J., & Stone, R. D. 2002)

### **Research methodology**

The descriptive analytical approach was used for its suitability to measure the objectives of the study through a data collection tool.

### **Community and sample study**

The study community consists of employees in the financial departments at Al-Balqa University, and their number is (570) employees. This study was applied to a sample selected by a simple random method from the study community consisting of (96) male and

female employees of the University. Questionnaires were randomly distributed to them, and (91) questionnaires were analyzable.

### **Study tool**

After reviewing the theoretical literature and previous studies on the subject of the study, the study tool was built in the form of a questionnaire to reveal the impact of the use of Information Technology on the development of accounting functions in Jordanian universities and the role of training and development in this, the study tool consisted of(33) paragraphs distributed over three main sections according to the main variables of the study.

### **Believe the content for the study tool**

The apparent truthfulness of the tool was verified by presenting it to specialists and experts to make sure that the phrases measure the variables that were set for measurement, as well as the study tool was applied to a survey sample of (50) employees of the University from outside the target study sample in order to identify the extent of the truthfulness of the internal consistency of the tool and the extent of the contribution of its constituent paragraphs, between paragraphs and the field to which they belong, and the values of the paragraph correlation coefficient to the overall degree of the tool.

### **Stability of the study instrument:**

To ensure the stability of the study tool, the internal consistency coefficient of the paragraphs was calculated using the cronbach-Alpha equation (Cronbach-Alpha), as it measures the extent of consistency in the answers of the individuals of the study sample on the paragraphs in the questionnaire, where the study tool was applied to a group

outside the study sample consisting of (50) male and female employees of Jordanian universities

variable	Number of question	Cronbach's Alpha
Information Technology	12	0.943
development of accounting functions	10	0.938
training and development	11	0.928
General indicator of the questionnaire	33	0.936

It is clear from the results in the table that the reliability score has values higher than 0.6, which means that it is an acceptable value according to (Sekaran, 2000).

### Data analysis

Factor analysis was used, it is considered a technique that uses a large set of variables and summarizes them in a way that contributes to reducing them to a smaller number of variables that express the main field (Hair et al., 2006). The goal of factorial analysis is: to understand the structure of a set of variables, the structure of the resolution for measuring variables and reducing the data to a less manageable level (Field, 2006,). Then the distribution of the measured



variables over the set of domains and then the factorial analysis was applied to explain the effect of each of the variables in these domains, followed by the process of abbreviating the data and variables (Hair et al., 1995).

## Study results

Demographic characteristics of the study sample

percentage	Repetition	Property
<b>gender</b>		
61.53	56	male
38.47	35	female
<b>Years of Experience</b>		
30.76	28	10-5
45.05	41	15-11
24.17	22	More than 15
<b>age</b>		
27.47	25	35-25
42.85	39	45-36
29.67	27	More than 45
100.0	91	total

It is clear from the results that the percentage of males in the study sample was 61.0%, while the percentage of females was 39.0%. the questionnaire was distributed among a sample, the largest percentage of which were employees whose years of experience were between 11-15 years old and 36-45 years old by 45.05%, and most of these categories were aged between 25-45 years old by 42.85%.

### **Degree of reliability**

#### **Use of Information Technology**

The degree of reliability of the cronbach's alpha value has reached 0.824, which is very good for this type of study, and this means that the statements of this variable can be relied on in the measurement process.

#### **Development of accounting functions**

The results showed that the kronbach alpha value was 0.801, which is very good, and this indicates the reliability of the statements of this variable.

### **Metadata of variables**

First: the use of Information Technology

The five-point Likert scale was used to measure the attitudes of the respondents towards the contribution of the use of information technology to the development of accounting jobs, and the results showed that the attitudes of the respondents were good, as the arithmetic mean ranged between 3.342 and 3.412, which is a good level for the use of technology to develop accounting jobs. Therefore, the first hypothesis is proved and accepted, as it has been proven

that there is a positive impact of the use of Information Technology on the development of accounting functions in organizations.

### **Development of accounting functions**

The results of the accounting career development variable indicate a good or excellent assessment of this variable, as the average account ranged between 3.005 and 3.669, which means positive trends towards the development of accounting careers, and therefore the second hypothesis is proved and it is confirmed that there is a statistically significant relationship to the role of training and development in facilitating the adoption of financial technology and improving employee performance

### **Training and development**

It is clear from the results that the evaluation of the training and development variable for employees came between good and excellent for all paragraphs of this field, where the average account ranged between 3.705 and 3.969. This confirms that there is a positive impact of using technological tools and techniques to promote the development of accounting functions.

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