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Determinants of Intention to Use online Training Based on the TAM Model in Telecom Egypt Company

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Abstract This research purpose is to examine the impact of using IT based training over the employees' performance in Telecom Egypt company. The researcher aims at applying the most empirical model (TAM), and discussing the main antecedents that affect the employees' behavior through IT based training, namely perceived usefulness, perceived ease of use, attitudes toward usage and intention to use. This model has been supported, that the researcher evidenced the ability of TAM to be a successful framework to better predict the employees' perceptions to accept and use IT based training. The results of 383 questionnaires were analyzed in quantitative form and then presented using an "interpretive-descriptive" method for analyzing qualitative data. The respondents found the IT based training perceived usefulness was the most significant and influential determinant of perceiving and using IT based training ,Instructor characteristics have a significant effect on the perceived usefulness, Computer self-efficacy has a significant effect on the perceived usefulness, Computer self-efficacy has a significant effect on the perceived ease of use, Course design has a significant effect on the perceived ease of use, perceived ease of use has a significant effect on the perceived usefulness, Perceived usefulness has a significant effect on the intention to use e-training, Perceived ease of use has a significant effect on the intention to use e-training. Finally, recommendations were made to maximize the quality and availability of Telecom Egypt services.

Keywords: *IT based training, employees' performance, TAM, employees' behavior*

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1. Introduction

Technology is revolutionizing education, as it does in every aspect of human life. Online training allows people to learn informally through data sharing and communication links. These and other advantages of the internet and associated technologies are combined to facilitate education and skills training to develop and transcend the shortcomings of conventional learning approaches. [1] The E-learning definition resembles the appearance of the web, but recent publications on online training are used for materials provided over the internet or on intranets. Web-based education, online learning, and distance learning are commonly used as synonymous concepts. However, these words describe concepts that are subtle but consequential.

Technology based training is known as a computer-based training methodology that contains web-based training, E-learning and online learning. IT based training can affects the trainees' performance because it enables them interacting with training contents, sharing with others and using internet resources [2].

Learning technology is the use of technology to support the learning process - widely known as E-learning. In higher training field, this term refers to training web sites such as online courses. However, managing online courses in terms of system planning, friendly design for users, and end-users' participation are recognized as the most crucial factors among trainees' satisfaction and acceptance. [3]

Furthermore, technology is more than just a tool for delivering information or transporting knowledge to learners. In the hands of knowledgeable and confident trainees, technology increases desired learning outcomes, and can support students in constructing knowledge. Hence, E-learning is basically any method of training that is assisted by the Internet and its technologies and includes the use of the World Wide Web to support instruction and to deliver course content. [4] Alavi and Leidner (2001) pointed out that E-learning represents one form of technology-mediated learning, which is defined as "an environment in which the learner's interactions with the e-learning materials peers, and/or instructors is mediated through advanced information technologies". However, the effectiveness of the E-learning system will definitely depend on students' keen to work and use the system. [5]

Scholars have carried out several studies in E-learning based on Technology Acceptance Model (TAM) and have worked on the extension of TAM model with other variables in different countries and contexts. [6,7,8]

The technology acceptance model (TAM) that was developed by Davis (1989) is used to address why users accept or reject an IT system and how user acceptance is influenced by other external factors such as a learner's characteristic use of computer in E-learning. This helps the system designers, developers, and end-users to get better user acceptance of the system in the location through the design choices of the system [9].

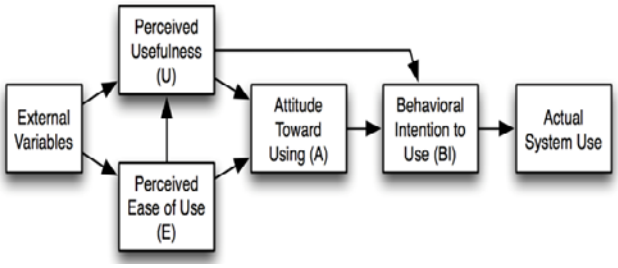

Figure 1. Technology Acceptance Model (TAM) (Source: (Davis, 1989))

The model addresses two factors affecting usage that is defined as perceived usefulness which is "the degree to which a person believes that using a particular system would enhance his/her job performance" and "perceived ease of use which is "the degree to which a person believes that is using a particular system would be free of physical and mental efforts" [9]. The ultimate aim of TAM is "to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations while at the same time being both parsimonious and theoretically justified" [10].

The Model contains vital variables of user motivation (i.e., perceived ease of use, perceived usefulness, and attitudes toward technology) and outcome variables (i.e., behavioral intentions, technology use). The variables of perceived usefulness (PU) and perceived ease of use (PEU) are considered crucial factors that directly or indirectly explain the consequences [11]. In investigating the factors that contribute to the adoption of E-learning among trainees, we applied the TAM model in this study.

2. Research Problem

Today, IT plays a key role in success and progress of the world because it is the best resource of knowledge and allows the organizations to reengineer its business process. In each firm, human resource managers are striving to hire a qualified and well-trained employee who have the ability to increase the corporation productivity in order to enhance the corporation's competitive advantage.

Telecom Egypt Company seeks to employ skilled workers through an effective training process which can provide the employees with all core skills and experience necessary to enhance their ability to do their work. Telecom Egypt Company has been interested in integrating information technology with the training process by enabling employees to acquire knowledge and skills by using computers, internet and social media which facilitated their involvement in the work environment during training and increased the interaction with it which positively affects their behavior and enabled them to transform what the learned to the real work. According to the International conference of Telecom Companies (2018), the conference ended with the recommendations which requests, the using of new Information and Communication Technologies (ICTs) and online training to improve organizations' communications and to reflect on organizations achievement of its goals.

It is important to study the significance of using the information technology in training process using TAM model and how it can leverage the employees training programs. The most benefits of using online training programs are facilitating skills transformation and knowledge sharing, reduce the training costs, increase the effectiveness of learning environment and help the organization to achieve its goals.

Organizations strive to pay deep attention to employ IT based training and they ensured that employees those who have undergone training using the latest IT technologies have acquired many necessary skills and experiences and managed to transfer them to their work environment.

Technology acceptance TAM model is an information systems theory that models how users come to accept and use a technology. It considered the most empirical model adopted to examine how can the antecedents affecting information technology-based training usage and acceptance. It is essential to apply TAM model in a way to fit the Organizations situation and to find out how can the perceived usefulness and perceived ease of use IT based training impact the employees' performance.

Accordingly, the research will answer the following main question:

"What are the determinants of Intention to Use online training Based on the TAM Model in Telecom Egypt Company?

3. Research Significance

This study derives its importance from the following factors:

- The importance for the society: Attract the public organizations' attention for IT based training usage, and its usefulness by allowing them mobilize the resources to provide services in particular education, health and rehabilitation to people who need them, create sustainable jobs for young generation and build their knowledge, skills and competencies.
- The importance for Telecom Egypt Company: Motivate it to use IT based training to develop their employees' abilities and core competencies needed to perform their jobs effectively which, in turn, will increase the Company productivity, success and competitive advantage.
- The importance for scientific research and other researchers: Enrich the scientific library with a recent study on IT based training, and will encourage other researchers to study it from other various aspects, which will lead to the integration of scientific research.

- The Importance for the Researcher: Increase the researcher knowledge about information technology-based training, and implementing the research will be related to the development of the researcher's profession.
- This study is an attempt to continue research efforts in the field of online training using the TAM model, and it can be used by future studies as a basis for identifying the distinguished organizational experiences in the health sector affiliated with private institutions and comparing them with the health sector of all kinds, which leads to an enrichment of knowledge in this field.
- The Technology Acceptance Model (TAM) is an extension of the rational action principle (TRA) to the field of IT management. TAM is apparently tailored to study the acceptance of network technology with significant investigative importance in the IS system. [12]
- The TAM could describe the user's behavior, both parsimoniously and logically, through a variety of end-user computing systems and username communities. TAM points out that employee's purpose to use a system to act as a negotiator of the exact use of the system is selected by the noted utility and notified ease of use. The noted advantage is usually marked as directly affected by the observed facility of use act (Roca, Chiu, & Martinez, 2006)
- Researchers have simplified TAM efforts to increase TAM by one of the three approaches: the integration of factors from similar models, the implementation of more or alternative factors of belief, and the study of perceived usefulness and functional easiness histories and moderators by removing from the current Specification the attitude structures found in TRA.[13]

Applied importance:

As it is due to the importance of the communication sector in which the study is applied, as the Telecom Egypt Company is one of the most important companies in Egypt that has provided telecommunications service since its inception in Egypt, and this study will present results and proposals that help the company's management to continue its efforts towards achieving excellence, and it can also benefit Government and private companies from the results of this study in achieving online training by supporting digital transformation among the individuals working in them.

4. Research Objectives

Display The research main objectives are as follows:

1. To investigate the determinants of Intention to Use online training Based on the TAM Model in Telecom Egypt Company.
2. To apply the technology acceptance model (TAM) as a theoretical framework to examine the employees' acceptance and usage of IT based training.
3. To highlight the (TAM) antecedents, in order to examine the relationship between IT based training perceived usefulness, perceived ease of use, attitudes towards usage and intention to use and employees' performance within organizational context.
4. To find out the impact of IT based training perceived usefulness and perceived ease of use on attitudes towards usage and intention to use, then on employees' performance, and focus on the benefits of IT based training adoption, in a way that increases awareness of the importance of using it.
5. To determine the mediating role of attitudes towards IT based training usage and intention to use it between IT based training perceived usefulness and perceived ease of use and employees' performance.
6. To provide recommendations to adopt IT based training as an advanced digital tool to enrich literature and institutions with studies on IT based training.

5. Research Questions

Despite all the benefits and advantages of online training, we need to recognize the variables that formulate their actions in favor of online training to be embraced and adopted effectively by individuals. The success of online training programmers relies not only on the satisfaction of students but also on their intention. and The following four relevant research questions are thus answered in this study:

1. What are the variables that affect the intention of employee to use online training in the telecom Egypt Company based on the extended TAM Model?
2. What are the relationship between the variables described in question 1 that influences the intention of an employee to study in an online training style?
3. Among the factors and relationships that affect an individual's intention to study in an online training mode, which factors are the most important and which are the significant causal relationships

6. Literature Review

6.1. The Concept of Information Technology Based Training

As Technology based training is often perceived as a modern trend. Indeed, most institutions around the world have replaced most of traditional training approaches with advanced technology-based approaches. Potnuru and Sahoo [14] defined Technology Based Training as the training which is depend on the use of technology such as Web-based training, computerized self-study satellite TV, audio conferencing and teleconferencing to support the delivery of education or training.

Noe [2] asserted that Technology-based Training refers to the training delivery through computer, internet and the web represented in the combination of instruction text, using simulations and videos to increase interactions and collaborations through social networks, blogs, wikis and

hyperlinks, includes web-based training, computer-based training (CBT), online learning and e-learning. Computer-based training conducted with no internet connections and without interactions between trainees and others, and trainees can access to training programs by adding a password through the organization's private intranet or the public internet.

According to Sharma and Garg [15] E-Training is the best component can represent ICT, it is defined as the adoption of internet for example virtual classrooms, broadcast video and video on demand for training delivery. Beach [16] examined that technology-based training is utilizing the technology such as websites, mobile technology such as I-pads and simulations in the delivery of the primary instructional content or extend and enhance training content. It means that is the scale and scope of employees training programs leveraging from technology-based training.

It is acknowledged that technology-based training can be defined as a methodology of adapting computer devices to better deliver the training content, facilitate information accessibility, share knowledge and ideas and increase communications and collaborations between trainees and their families, friends and co-workers. Moreover, technology-based training has changed the tools that corporations and individuals used to acquire needed skills, knowledge and abilities in major business organizations. The advantages of technology-based training are not come from technology itself, but from what this technology is delivering and how can user leverage from using it.

6.2. Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is based on Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA). According to TRA, an individual's intention to perform a behavior is a function of his/her attitude toward the act or behavior and social norms. An individual's attitude predicts his/her intention and intention shapes the actual behavior. [17]

Technology Acceptance Model (TAM) was founded to be used in many studies to explain the users' perceived acceptance of technology. Liu, Liao & Peng [18] found the constructs in TAM could explain continuance intention in the context of education. This result is revealed by Ibrahim, Leng, Yusoff, Samy, Masrom, & Rizman, [22] that PEOU and PU can influence users' continuance intention toward e-learning. Similarly, Purnamasari & Advensia, [23] explained the PEOU and PU could influence e-learning continuance intention. Hence, TAM is more appropriate to be applied in online contexts because of TAM is specific on information system usage for applying the concepts of ease of use and usefulness.

By origin, TAM was proposed by Davis [9] as an adaption of Theory Reasoned Action (TRA) that has been proven to be a theoretical model in helping to explain and predict user behavior of information technology. Davis, [9], showed that PEOU influence of behavioral intention through PU. PU had a direct impact on intention to use, while PEOU influence intention to use indirectly through attitude. The attitude was concerned with the user's evaluation of the desirability of employing a particular information system application. Also, behavioral intention was the measure of the likelihood of a person employing the application.

6.3. Perceived Ease of Use (PEOU)

Perceived ease of use (PEOU) can be an indicator that influence students' attitude to accept online learning as a new platform for their studies. PEOU is referred to if student thinks the platform can be used easily then the platform will be useful and beneficial for them. It is consistent with Davis (1989) definition of PEOU as 'one's belief that using the system will be free of effort'. To give an idea, Taat and Francis [18] conducted a study to examine the level of students' acceptance of e-learning and identify factors that could influence it at a teacher education institute in Malaysia. This indicates that PEOU as a convenience factor is significantly influence the students' acceptance where the e-learning can provide them with a good, detail, timely and accurate information. In addition, Johari, Mustaffha, Ripain, Zulkifli, Ahmad [19] expected that e-learning which provide course materials will be a self-learning time for the students after the face-to-face learning online. By doing this, students can access the sharing course materials easily and subsequently accept the online learning. They found out that PEOU has a significant influence on attitude of students towards online learning. On the other hand, Farahat [20] identified the determinants of students' acceptance towards online learning and examine how these determinants can lead to students' intention to use it. As the result, it showed that students were not perceived the easiness of learning online. It was found out that students have a negative perception that online learning is not something that is easy to use.

6.4. Perceived Usefulness (PU)

Perceived usefulness (PU) also can influence students' desire to use a new platform and subsequently influence the acceptance of online learning. Davis [9] mentioned that usefulness is concern on 'how well a person believes that using a particular system will improve their performance'. As proof, Taat and Francis [18] stated that e-learning improves learning performance and by taking an online course it also can be increased their productivity. They showed a positive impact on the acceptance of e-learning that could enhance understanding and effectiveness of learning online. Meanwhile, Johari et al. [19] found out that PU has significantly influence students' intention to use online learning and also influence students' attitudes to accept the online learning. Besides that, PEOU is considerable to influence PU of technology. Then as well, Farahat [20] showed a contradict result on his study. He mentioned that students will perceive that online learning can aid them to improve their learning performance and there is a hope that they can accept to use the online learning. But the result showed that students were not be conceived as perceiving the usefulness of online learning.

6.5. Previous Studies about Intention to Use Online Training

Many previous studies on technology adoption have showed attitude as an important factor for the acceptance behavior [21,24,25], demonstrate that attitude will lead to a good intention for accepting a new environment. Acceptance behavior is posited to be affected by attitude [26]. As such another study by [27] conducted a review of attitude toward technology adoption showed that there is no significant relationship with the actual use in technology.

6.6. Previous Studies about the Relation between Intention to Use online Training and TAM Model

It is highlighted in TAM that perceived ease of use and perceived usefulness would be the factors that influence the attitude to the person in adoption of the technology [28]. For instance, Reis [29] examined the attitude towards online learning of undergraduate business administration and found that students were considered to have positive attitudes towards the interaction in technology-based learning environment. More experience in online learning had a better attitude towards technology-based learning. It is consistent with the study from Prior, Mazanov, Meacheam, Heaslip and Hanson, (2016) [30] examined the attitude is an important indicator for online learning. The result reveals the positive attitude will generate a positive outcome when the students are willing to try a new method for online learning. Likewise, Ku and Lohr, (2003) [31] explored the culture and attitude among Chinese Students for online learning. The study reveals the attitude towards online learning positively preferable for both Asian country and US. Conversely, Ullah, Khan and Khan (2017) [32] conducted a study on the attitude towards online learning of undergraduate students in University of Peshawar. He found that no positive attitude due to the high difficulty level in understanding and using online learning programme without having appropriate guidance. In addition, Abdulla, (2012) [33] studied the attitude towards online learning of college program. The result reveals insignificant relationship between attitude towards online learning and acceptance online learning behavior because students feel difficult for a calculation course.

6.7. Online Training

There is no clear history of online training. It was associated with the emergence of computers in particular, as the first computer was created specifically in 1937 by the worlds 'Clifford Perry' and 'John Atanasoff', and with the emergence of sophisticated applications that allow online training via websites the idea began to prevail, and it is similar to an example (Akyol, Z., & Garrison, D. R., 2011) [34]. A simple employee who made glass, which was used in the beginning in order for people to see themselves, and then refine the external appearance, in successive stages the glass was used in making tableaux and drawing on it, in addition to many other uses (Al-Wefaq, 2018). [35]

The current era is characterized by many changes, which have imposed on most institutions the necessity of continuous change and rapid development in all aspects, including the education sector, which is due to the flow of knowledge and successive recent discoveries and to advanced technologies, as no era of previous eras witnessed such an accelerated development in various The fields of information and communication technology and how to use it in our daily practices, as is the case in most organizations at the present time (Al-Mutairi, 2012). [36]

One of these developments that have occurred and are still in continuous development is the use of distance education of all kinds, whether educational or training, as the online training programs have become a tangible reality and the focus of attention of many interested and practitioners in various fields, as training programs are no longer methods and methods that can be tried, especially after The development of communication and information technologies, as it has received wide attention from various educational and training institutions, and one of the aspects of that concern is the establishment of several centers of their own, which deal with them in terms of method and application. Therefore, it is recognized that institutions are looking for ways and means to assist them in providing learning and training in different styles and forms to meet the current needs and renewal, as well, to overcome some of the obstacles they face, and to keep pace with the various aspects of development (Abdul Karim, MR & Hashim Y, 2004). [37]

6.7.1. Online Training Definition

Online training is defined as the training that takes place through the Internet, and this naturally requires the use of the computer and its various technologies, its multimedia and its enormous capabilities, and it also includes the use of the Internet as a medium (environment) for training, through which the interaction between the trainer and the trainees takes place; That is why training is carried out through computerized training programs and from multiple sources. (Akyol, Z., & Garrison, D. R., 2011) [34] Communication between the trainer and the trainees takes place online via the Internet, in addition to traditional methods of communication. (Batalla-Busquets, J. M., & Martínez-Argüelles, M. J., 2014) [38].

Online training over the Internet exceeds the factors of time and place, as there is no need for the trainer and trainees to be in the same place and time as in traditional training, in which it is difficult for the trainees to contact the trainer anywhere and at any time outside the announced time and place of training, while the trainees can Online communication with the trainer from anywhere and at any time. Because of the properties provided by the Internet in this area, Online training allows the parties to the training process to overcome various obstacles to traditional training such as physical obstacles, travel, illness, disability, leaving work. (Akyol, Z., & Garrison, D. R., 2011), [34] online training via the Internet allows for greater and effective use of distinguished trainees, online training via the Internet provides tremendous opportunities to invest in technological progress in the field of training significantly, with significant savings in time, effort and expenses, online training via the Internet provides the

possibility of updating the training content with the emergence of any development or change in it, while it is difficult to achieve this in traditional training.

Online training via the Internet provides great training opportunities far exceeding the training opportunities provided by traditional training, and therefore it allows for a significant increase in the number of trainees, online training allows the trainees to repeat the training activities as they like without embarrassment and in proportion to their abilities until they master the required training skills, online training via the Internet provides opportunities for those in charge of training to compete in training and excel in it, as this age has no place except for excellence and creativity.

In light of the foregoing, it is clear that online training via the Internet is characterized by many features such as improving the level of training, saving time and effort, facilitating training for the trainees, facilitating training for those in charge of training, increasing the number of trainees, competition in training, and getting rid of traditional training obstacles The usual, allowing the trainee to repeat training activities, not losing training opportunities for any trainee due to illness, overcoming difficulties in travel and residence, leaving work and income interruption due to complete abandonment in favor of training, in addition to the possibility of investing various online sites directed to training and updating information, developing the computer competencies of the trainees Through online training and the generation of positive trends they have towards these modern training technological technologies (Lai, C., Shum, M., & Tian, Y., 2016). [39]

6.7.2. The Evolution of Online Training

The twentieth century witnessed many scientific achievements in various fields, including communication, which has received many changes. These changes included the emergence of globalization, which helped in bridging the distances between the various continents and thus all countries became a single country. Online education and training had the largest share of these developments, as they became a basic feature of the era and an essential part in the lives of advanced peoples as the technological progress that occurred enabled many educational institutions to present their programs through internal and external networks of the Internet, which saved them a lot of time, effort and cost. The current era is an era of rapid and continuous change linked to the modernity of technological developments, which included all aspects of life, including online training as one of the aspects of the flow of knowledge and modern technical discoveries, which opened wide horizons for development and change at all levels, online training is one of the training methods that have gained the luck of development The technology that has occurred in the field of learning and training since the mid-nineties of the last century until today, when the Internet and computer applications have been used to serve the education and training process, development and qualification of manpower (Saleh, 2018) [40]

In view of the great development that included all means of communication and technological development, the increase and expansion of the use of online training in various organizational fields took another course. As the year 2000 witnessed a new era of growth for the online training process, the first steps of this growth were with the events of September 11, 2001, where it had a role in the acceleration of the growth process and interest in online training, through virtual training as an alternative to personal presence as a kind of preventive and security measures. At the global level, there have been many success stories about the achievement of financial savings by many companies as a result of the shift from traditional training methods to online education and training, as the financial savings achieved by IBM reached two hundred million US dollars in the year 1999 in addition to providing five times the learning at a third cost (Strother, 2002). [41]

The term online training has become common in recent times, in addition to companies and businesses due to its multiple use in these fields. ONLIN training has become a means to create value for institutions and is no longer just a regular technology used in its work (Bonk, 2002, pp.98) [42], and therefore it is considered a form of non-traditional education that is characterized with high flexibility and not linked to time or spatial limits, which in turn helped in its adaptation to the new considerations of knowledge and the resulting scientific, cultural, human and even social data.

6.7.3. The Field of Online Training

The field of online training is witnessing a growth and great interest, as emphasized that the idea of online training, which relies mainly on the Internet, has become of great value in the world of education, as many institutions have begun to unite to share responsibility, to build a workforce that keeps pace and compete.

Online training is a means to empower this workforce with the knowledge, skills, and capabilities necessary to realize these benefits. Also, many training organizations have shifted their attention from focusing on the trainer and his control over providing the training process to designing training programs and services, support and support activities (Akyol, Z., & Garrison, D. R., 2011) [34], in addition to that the size of the online training market reaches 15% in all aspects. And the training activities provided, which has increased by two-thirds since 2005. This indicator confirms the importance of online training, which is a prevalent and growing trend in various training organizations and a requirement for many institutions, in contrast, reliance on traditional training rooms to implement the face to-face training process decreased from 70 % to 62% (Batalla-Busquets, J. M., & Martínez-Argüelles, M. J., 2014).

With the increasing interest in online training and at a time when such technologies vary, which include the means of communication and information that resulted from the scientific revolution in communication and information technologies, it is important to invest this interest and these modern means in launching educational and training projects in Libyan higher education institutions that depend on employing Technology to provide more opportunities for training to meet all needs, and the possibility of overcoming all obstacles facing the field of training. In addition to the above, the experiences and accumulated experiences of countries and institutions

concerned with online training have proven that 'traditional training' is no longer sufficient or rewarding to achieve the desired goals in light of the actual renewed needs of the trainees, which led to the trainees feeling bored towards programs of repeated and relevant training centers Fixed routine (Batalla-Busquets, J. M., & Martínez-Argüelles, M. J., 2014). [38]

6.7.4. The Importance of Online Training

Many of the goals that institutions in general seek to achieve in light of integrating online training into the training process, considering that online training is a training process aimed at providing training content through any medium of modern communication mechanisms from computers and the Internet to overcome the geographical distance between the trainee and The trainer, because it is the type of training in which the trainee chooses who to train, who to train, where to train, and what to train within possible limits (Vaileanu, C., 2017, P.50). [43]

Also, the importance is not less important than his goals, through which the positive role of this technology in advancing these educational institutions is evident, to further clarify the points. The following explains the objectives and importance of online training in some detail (Nasser, R., & Abouchedid, K., 2000): [44]

- Building self-knowledge, Training is not linked to time or place.
- Gain more confidence for the trainees.
- Helping trainees to learn how to use information and communication technology and the available networks, Preparing trainees for life in the era of information literacy.
- Overcoming the problems facing the trainees as a result of using traditional training.
- Designing training programs, curricula and courses for it in a digital way.
- Building trained scientific cadres capable of knowing the foundations and standards through which adjustments can be made to develop the training system.

As for the importance of online training in all institutions, this part explains some of the advantages that can be achieved through the use of these technologies (Nasser, R., & Abouchedid, K., 2000): [44]

- Trainees are the ones in control of the training process, through which it represents a positive role for them.
- Online training creates an interactive relationship between trainees and trainers,
- Reducing training costs, raising the efficiency of educators, and reducing the cost of travel for both of them.
- Trainers can keep records of training programs, which can be referred to when needed.

6.7.5. Characteristics of Online Training

The most important thing that distinguishes online training is its presentation of a new, advanced training style that depends mainly on information technology and makes the trainee control the training process in terms of time, place, follow-up and repetition, and online training automatically increases the rates of interaction and participants among the trainees, which is beneficial and more generally It is more comprehensive for all (Al-Brikiya, Sheikha Bint Ali, 2018). [45]

As for the characteristics of online training specifically, it can be summarized in the following points (Abdel Fattah and Allawi, 2018): [46]

14) Ease of training at any place or time: as online training allowed the possibility of obtaining the training material anywhere and anytime through the available technological means such as computers, online books and others.
15) Achieving the principle of equality between employees or workers: where the online training process contributes to achieving the principle of justice, because this process includes the common rights of all trainees to obtain training in a fair manner, which is completely different from the traditional methods of training.
16) Taking into account individual differences between one category and another: the diversity in online training in training materials and training method, which allows some employees who do not have the ability to keep up with their colleagues the opportunity to understand and communicate with the rest by using the simplest and easiest methods.
17) Lower financial cost: Compared to the financial costs needed by the traditional training process, the online training system has a lower cost and at the same time the benefit is greater through qualifying employees and in a direct way in order to perform their jobs in an ideal way (Vaileanu, C., 2017). [43]
18) Avoid exposure of the trainees to some difficult psychological situations: as there are many trainees who suffer from psychological pressures such as failure, shyness and inability to give in front of the audience when using traditional training, which imposes on the trainee personal presence, on the contrary, online training gives complete freedom in determining Time to attend through the method used, which in turn achieves effectiveness in training for this category, Also, there are some other characteristics, as indicated by (Nasser, R., & Abouchedid, K., 2000) [44], which fall under the possibilities available as a result of the use of online training, which includes the ease of use of the training site of the training icons, shapes and links, the interaction between the three important elements in online training, which is the trainer and employees in addition to Training programs, easy access to training every day of the week, and finally, achieving training according to the many and varied training methods in their delivery methods (Akyol, Z., & Garrison, D. R., 2011). [34]

6.7.6. Types of Online Training

Given that the basis for the application of online training is reliance on modern technological means, this imposed on the users of this technology the need to adopt certain types and specific patterns of application and

enable online training programs (Chayeb, Akram, 2019) [47], from here these types or patterns can be enumerated in the following:

1. Simultaneous online training (Zaid, A.A., Jaaron, A.A.M., Bon, A.T., 2018): [48]

This type of training takes place directly between the trainer and the trainee, and the presence of both parties is required to complete the training process by using the means of communication available or approved in the training program. This type of training has advantages that are (Duffy, T. M. & Kirkley, J., 2004): [49]

1- This type of training depends on the Internet, which includes some interactive technical tools for improving the technological skills of the trainees.

2- This type provides and develops among the training elements a sense of live participation through direct interaction between the trainer and the trainees, which ensures maintaining the vigilance of the trainees and training them to adhere to deadlines, participation and continuous interaction with the communication tools used.

3- This pattern provides interactive digital resources without the need to copy them according to the numbers of the trainees, in addition to the possibility of clarifying aspects of the training content due to the participation of the trainer for the trainees during the training about browsing the content or during their multimedia operation.

4- This type of training helps supports positive human relations between the trainees and between them and between them and the trainers), This type of training is accompanied by some difficulties, represented in the high costs compared to asynchronous training because it requires tools that may not be available to some trainees. Also, some trainees may face the inability to access the Internet as well as the unwillingness to join this type of training.

2. Asynchronous online training (van Katwyk, S., Thavorn, K., Coyle D., et al., 2019) [50]: This type of training is done in a spaced manner, meaning the trainer and trainees are far apart and does not require direct presence and meeting between them, as the training process is carried out by broadcasting the training content through the technological means adopted in this program, which helps the trainee to access it at any time and at any time, this pattern Of training has features that differ from the first type, which make some prefer them to simultaneous training, these features are:

1) There is the possibility to organize the time of the trainee and the trainer in dealing with the online environment, and freedom from the restrictions of place and time. Existing in the first type, there is also flexibility in this type in choosing the appropriate time and place to be present and access to training content by using multiple educational media (Vaileanu, C., 2017). [43]

2) Saving a lot of time as the trainee can control the flow of training content, as well as this type is done separately from the rest of the trainees, which gives the trainees an opportunity to trial and error in an atmosphere of privacy without feeling embarrassed in front of the rest.

3) It is easier to reach the trainee without being bound by the official training times). In addition to the above, there are many difficulties facing this type of training, such as the difficulty of direct expression of ideas when presenting training content remotely for some of the trainees, in addition to the difficulty of direct communication with the trainers, especially when assigning tasks and assignments to the trainees, which the trainer cannot follow.

Finally, the training process and knowing its progress without the absence of feedback that enables the trainer to know the extent of the trainees' understanding of the training content and thus makes the evaluation process difficult (Duffy, T. M. & Kirkley, J., 2004). [49]

6.7.7. Online Training Methods

There are many methods of online training, some of which depend on the computer only and others depend on the Internet in addition to the dependence of the rest on computers and on the Internet, also these methods, including what was done through the planned training, which allows the trainee to use audio and visual techniques through which the training materials are viewed In the way planned and analyzed according to the mental capabilities of the trainee, also in this area the continuous progress in computers, the Internet and networks was taken advantage of (Chayeb, Akram, 2019). [47]

In general, there is a set of methods adopted in online training, each of which has features and requirements that can be listed, which can be listed in the following points (Chayeb, Akram, 2019) [47]:

1- Computer-based training method: Training is done using this method through the design of a training program and it is run on the trainees' computers. This program contains multimedia designed according to one of the educational models that are commensurate with the trainee’s capabilities and educational or training content, in addition to input and output devices. Known in computers such as microphones and headphones, in addition to the necessity for the trainee to have sufficient experience to deal with computers.

2- Web-based training method: This method is based on designing an educational course by uploading it to a special website so that this course contains multimedia. On the other hand, using this method requires a computer and an internet line in addition to simple experience in dealing with computers (Zaid, A.A., Jaaron, A.A.M., Bon, A.T., 2018). [48]

3- Mobile training method: This method relies on smart mobile phones by taking advantage of the services provided by this technology, such as the SMS service, the multimedia service MMS, the WAP service, in addition to Bluetooth (Duffy, T. M. & Kirkley, J., 2004) [49]. This approach needs to provide requirements such as the availability of a strong infrastructure necessary for mobile training and training content software.

4- The interactive online book training method: It is a change of the normal book from the normal image to the online image with the addition of some multimedia and texts. This book carries the advantage of searching and dealing with information. This method requires training content to be played in the trainee's online reader.

7. Research Model

Nowadays, Information technology is increasingly widespread to be the most prevalent tool in modernization and development. Technology Acceptance Model is considered the most empirical model in information technology literature. According to Davis 1989 [9], TAM can be used to evaluate the educational technology and it is very useful for governance point of view, TAM starts with the actual use, then they can form a behavioral intention to use it, and then it influenced by the attitude. So, what feeds the attitude? These are the factors of TAM.

1. The most important one is usefulness.
2. The ease of use means the technology is easy to use if attitudes will be positive toward usage.

The purpose of this study is to investigate the determinants of Intention to Use online training Based on the TAM Model in Telecom Egypt Company. The proposed model of employees' e-training acceptance was mainly based on Technology Acceptance Model (TAM). The proposed model of this study consists of six constructs: instructor characteristics, computer self-efficacy, course design, perceived Instructor characteristics refer to the extent to which trainers will care, help and accommodate their trainees.

The Technology Acceptance Model variables have been developed and selected by the researcher to fit the nature of the study population, the research variables are:

1. **Independent Variables**: The instructor characteristics, The computer self-efficacy, and The course design
   a. The instructor characteristics.
   b. The computer self-efficacy.
   c. The course design.
2. **Mediator Variables**: Perceived (usefulness & ease of use)
   a. The user perception of the technology perceived usefulness.
   b. The user perception of the technology perceived ease of use.
3. **Dependent Variable**: The intention to use E-training.

The Research variables are shown in the following figure:

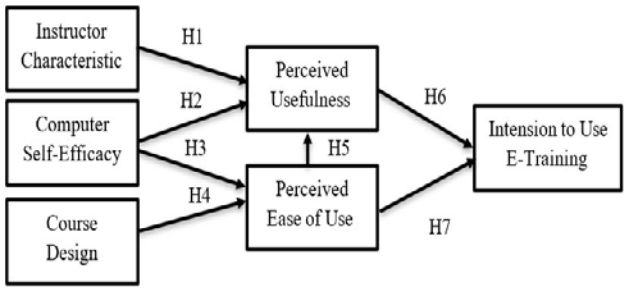

Figure 2. The Research ModelSource: Articulated by the Researcher .

Instructor characteristics refer to the extent to which trainers will care, help and accommodate their trainees. In Selim H M. (2007) [51] study found that instructor's attitude towards e-learning technology is an important factor. Additionally, previous literature indicated that positive relationships existed between instructor characteristics and perceived usefulness.

8. Research Hypothesis

The research hypotheses are suggested as follows:

1. H_1: Instructor characteristics have a significant effect on the perceived usefulness.

In the context of e-learning, computer self-efficacy is defined individual perceived his or her ability of using computers to complete tasks given. Previous research has shown that users who have more positive usefulness and ease of use beliefs, have higher computer self-efficacy. A significant body of research also found the importance of computer self-efficacy on the user's behavioral intention to use of technology through the factor of perceived ease of use. Therefore, this study proposes the following hypotheses:

2. H_2: Computer self-efficacy has a significant effect on the perceived usefulness.
3. H_3: Computer self-efficacy has a significant effect on the perceived ease of use.

Three critical success factors of e-learning (instructor characteristics, student characteristics and university support) has been used in to investigate the e-learning acceptance level among university students. The results revealed that course management system is one of the critical factors for e-learning acceptance. Previous researchers indicated that the design of learning contents affected the perceived ease of use. Therefore, this study proposes the following hypotheses:

4. H_4: Course design has a significant effect on the perceived ease of use.

Evidences indicated that perceived usefulness and perceived ease of use have effects on the intention to use e-learning. A significant body of research found that perceived usefulness has effect on the intention to use e-learning. In Tseng H F (2012) [52] study, the authors indicated that perceived ease of use has effect on the perceived usefulness. In Fishbein M., Ajzen I (1975) [53] study claimed that a person's intentions are a function of certain relevant beliefs. Therefore, this study proposes the following hypotheses:

5. H_5: Perceived ease of use has a significant effect on the perceived usefulness.
6. H_6: Perceived usefulness has a significant effect on the intention to use e-training.
7. H_7: Perceived ease of use has a significant effect on the intention to use e- training.

9. Research Methodology

This section presents the methods used to carry out the study, viz., comparison, explanation and assessment so as to reach meaningful generalizations and furnish the research's queries by analyzing collected data by SPSS.

In order to achieve the objectives of this study, the researcher follows the descriptive analytical approach. The research will use a descriptive analytical approach by using a questionnaire for data collection as it is considered the most common and suitable approach for business and social studies. This categorization is based on the relationship emphasized in the research model as shown in Figure 2.

1. Identifying and defining the problems, setting the objective of the research and developing the plan constitute the first phase of the research thesis proposal.
2. The second phase of the research included a summary of related literature review and review of related previous studies. Then field surveying to initiate the questionnaire design.
3. The third phase of the research handled modifying the questionnaire design and contents, through feedback from the advisor. The purpose of such a study was to test and prove that the questionnaire paragraphs were so clear to be answered in a way that helps to achieve the target of the study. The questionnaire was modified based on the notes and feedback from the advisor. Then, the research focused on distributing questionnaires to the entire sample in order to collect the required data needed to meet the research objective.
4. The fourth phase was data analysis and discussion. Statistical Package for the Social Sciences, (SPSS) was used to process data and perform the required analysis, followed by conclusions and recommendations.

9.1. Data Collection Tools have Utilized Primary and Secondary Sources as Follows

1. **Primary sources**: In order to obtain the data needed for this research, a questionnaire was designed by the researcher and modified according to the recommendations of the thesis supervisor and a panel of experts. In-depth interviews were also conducted with some of the employees and CEOs of the Telecom Egypt Company in order to obtain qualitative data. Both Qualitative and quantitative characteristics of the phenomena have been statistically analyzed by means of appropriate statistical tests in order to reach significance and value's indicators to support the research.

2. **Secondary sources**: The researcher used secondary data sources to address the theoretical framework for the study through the following:

a) Scientific journals, periodicals, and academic magazines.
b) Theses and dissertations accessed through the universities' libraries.
c) Research papers, business articles and reports connected to the study topic.
d) Online sources and website.

9.2. The Research Population and Sample

This research investigates determinants of Intention to Use online training Based on the TAM Model in Telecom Egypt Company, that is discussed in this research through testing the theory, validating the developed conceptual model and proposed hypotheses. The study population are mainly employees, decision makers and Managers working in the Telecom Egypt Company.

Hence, a survey is developed and will be distributed randomly through emails and hard copies for the purposes of capturing the views of a large number of Managers and employees in Telecom Egypt Company; In total Telecom Egypt Company has about 250000 employees and the sample size is about 383 according to the next equation from different managerial levels.

$$n = \frac{pq}{\left[\frac{E}{Z\alpha/2}\right]^2 + \frac{pq}{N}}$$

Where: N is total population size =(250000)
n is sample size
Z is confidence interval at 95% (from normal distribution curve)
P percentage sets to 50% to get a maximum sample size
q Complementary percentage sets to 50%
Zα Allowed error set to 0.05

$$n = \frac{0.50 * 0.50}{\left[\frac{0.05}{1.96}\right]^2 + \frac{0.50 * 0.50}{250000}} =$$

$$n = \frac{0.25}{[0.000651] + \frac{0.25}{250000}} =$$

$$n = \frac{0.25}{0.000651 + 0.000001} =$$

$$n = \frac{0.25}{0.000652} = 383$$

In this study, the researcher use Robert Mason equation to calculate sample size. The sample size equals (383) respondents.

9.3. Research Limitation

Researcher couldn't survey employees, decision makers and Managers of the Telecom Egypt Company.

9.4. Data Collection Tools

The survey was conducted in Arabic language. It consists of 4 sections. The first section "demographic variables" (Age - Gender - Educational level – years of experiences - job). The second section (independent variable) "TAM Mode:" which includes three sub variables (Instructor Characteristics, Computer Self-Efficacy and Course Design). The third section (the mediator) which includes two sub variables (Perceived Usefulness and Perceived Ease of Use). The last section is the dependent variable which is Intention to Use E-Training (see Appendix 1). The last three sections use the five Likert-Scale (Completely Agree, Agree, Not Agree, and Completely Not Agree).

9.5. Statistical Analysis Model

The statistical model SPSS.V.25 will be used in analysis as follows:

1. Calculate the Alpha Cronbach coefficient for all variables in order to identify the consistency rate of each variable.
2. Calculation of descriptive statistics (The Mean and Standard Deviation) for all variables of the study in order to identify the rate of occurrence of each variable in the sample and the rate of dispersion.
3. Calculate the simple correlation coefficient of Pearson between each variable of the study.
4. Use the simple regression technique to analyze the effect of intrinsic dimensions between the dependent and the independent variables to test the assumptions validity.
5. Tukey Post-Hoc- Test
6. One-Way Anova Test and Two-Way Anova Test.
7. Baron and Kenny mode 1986.

10. Data Analysis

First of all, the research will test the reliably of each section of the survey to be sure of the results obtained. Validity characterizes as the degree to which any measuring tool intended to determine what it is planned to measure.

The reliability of an instrument refers to what extent a tool is consistent to measure the supposed attribute needed to be determining (George and Mallery, 2006) [54]. When the repeated measurements of an instrument produce the small variation, it means the higher its reliability. Cronbach's alpha is considered as a measure of reliability and internal consistency. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. The Cronbach's coefficient alpha was calculated for each field of the questionnaire to measure the consistency between each dimension and the whole dimensions' mean. Table 1 shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. The analysis classifies the questionnaire into three main indexes management innovation, financial inclusion and competitive advantage.

Table 1. Cronbach's Alpha coefficients

No.	Item	Cronbach's Alpha
1	Instructor Characteristics	0.835
2	Computer Self-Efficacy	0.852
3	Course Design	0.859
TAM Mode		0.907
4	Perceived Usefulness and	0.897
5	Perceived Ease of Use	0.819
Mediator Variable		0.904
6	Intention to Use E-Training	0.925

The alpha coefficient for the independent variable (TAM Mode) is 0.907 and ranged from 0.835 to 0.859 to its sub-indexes, the alpha coefficient for the Mediator Variable is 0.904, the alpha coefficient for the dependent variable is 0.925, (Rotter, 1966, p. 80). So, the results confirm the reliability and consistency rate of each variable.

a) Sample characteristics

The sample size of the survey consists of 393 respondents working in the Telecom Egyptian company.

- Gender

The sample consists of 313 (79.6%) males and 80 (20.4%) females; as shown in the next table.

Table 2. the sample distribution according to gender

Item	Frequency	Percentage	Cumulative percentage
Males	313	79.6%	79.6%
Females	80	20.4%	100.%
Total	393	100%	

- Age

The data shows that; the average age is "35 - 44 years old". 51.9% of the respondents are in the range of "35 - 44 years old". Only 0.5% of the respondents are in the range of "18 - 24 years old"; as shown in the next table.

Table 3. The sample distribution according to age

Item	Frequency	Percentage	Cumulative percentage
18 - 24 years old	24	0.5%	0.5%
25 - 34 years old	49	12.5%	13.0%
35 -44 years old	233	59.3%	72.3%
45 - 54 years old	99	25.2%	97.5%
55 - 60 years old	10	2.5%	100.0%
Total	393	100%	

- Educational Level

According to educational level 48.9% have Bachelor's degree (BA, BSc, BEd), 35.1% have Master's degree (MA, MSc, Mphil), 12.5% have Doctorate degree, and only 3.8% have Some high school, no diploma; as shown in the next table. The respondents have the adequate educational background to answer this questionnaire and to apply modern methods and strategies.

Table 4. The sample distribution according to educational level

Item	Frequency	Percentage	Cumulative percentage
Some high school, no diploma	15	3.8%	3.8%
Bachelor's degree (BA, BSc, BEd)	192	48.9%	52.7%
Master's degree (MA, MSc, Mphil)	138	35.1%	87.8%
Doctorate degree (phD)	48	12.2%	100.0%
Total	393	100%	

- Years of experience

Respondents were asked about their years of experience; 6 (1.5%) have less than two years of experience, 23 (5.5%) have 2 years up to 5 years of experience, 18 (4.6%) have 5 years up to 10 years of experience, 83 (21.1%) have 10 years up to 15 years of experience, 155 (39.4%) have 15 years up to 20 years of experience, 84 (21.4%) have 20 years up to 25 years of experience, 14 (3.6%) have 25 years up to 30 years of experience, and only 10 (2.5%) have more than 30 years of experience; as shown in the next table.

Table 5. The sample distribution according to years of experience

Item	Frequency	Percentage	Cumulative percentage
Less than 2 years	6	1.5%	1.5%
2 years up to 5 years	23	5.9%	7.4%
5 years up to 10 years	18	4.6%	12.0%
10 years up to 15 years	83	21.1%	33.1%
15 years up to 20 years	155	39.4%	72.5%
20 years up to 25 years	84	21.4%	93.9%
25 years up to 30 years	14	3.6%	97.5%
More than 30 years	10	2.5%	100.%
Total	393	100%	

- Job

According to job 105 (26.9%) were Technologist (Engineers/ IT), 163 (41.7%) were working in administrative positions, 91 (23.3%) were working in customer services, and 32 (8.2%) Technicians as shown the next table.

Table 6. the sample distribution according to job

Item	Frequency	Percentage	Cumulative percentage
Technologist (Engineers/IT)	105	26.9%	26.9%
Admins	163	41.7%	68.6%
Customer services	91	23.3%	91.8%
Technicians	32	8.2%	100%
Total	393	100%	

b) T-Test

Also the analysis will order each group of variable according to their mean, statement with the highest mean will get 1. The analysis tests if there are statistically differences among respondents for each section.

According to Berman (2007), there are four assumptions for T-test must be satisfied before examining the research hypnoses. The four assumptions are:

√ One variable is continuous, and the other variable is dichotomous.

√ The two distributions have equal variances.

√ The observations are independent.

√ The two distributions are normally distributed.

In our cases all variables are independent and the six indexes (Instructor Characteristics - Computer Self-Efficacy - Course Design - Perceived Usefulness - Perceived Ease of Use - Intention to Use E-Training) are continuous, while the observation of all statement are dichotomous (Completely Agree, Agree, Not Agree, and Completely Not Agree). Therefore, the analysis tests only equal variances using “Levene's test for the equality of variances”. In addition, test for normality is managed using Kolmogorov-Smirnov (KS) test because the sample size is more than 50 observations.

c) Descriptive statistics

In this section the research will analyze the calculation of descriptive statistics (The Mean, percentage and Standard Deviation) for all variables of the study in order to identify the rate of occurrence of each variable in the sample and the rate of dispersion.

The next table will discuss the results for the measures of the Instructor Characteristics variables.

Table 7. The Set of Measures of the Instructor Characteristics:

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	I feel the instructor is keen that we use the e-learning based units.	4.12	82.5	.74	4	109.93	0.00*
2	We were invited to ask questions/receive answers.	4.32	86.4	.70	1	121.88	0.00*
3	The instructor encourages and motivates me to use e-learning	4.15	82.9	.78	3	105.74	0.00*
4	The instructor is active in teaching me the course subjects via e-learning	4.21	84.3	.74	2	112.52	0.00*

The analysis of the Instructor Characteristics variables shows that statement “We were invited to ask questions/receive answers” gets the highest mean (4.32) with (86.4%) and 0.7 standard deviation.

While statement “I feel the instructor is keen that we use the e-learning based units” gets the lowest mean (4.12) with (82.5%) and 0.74 standard deviation.

The overall Instructor Characteristics variable has (4.2) mean, 84.0%, and (0.61) standard deviation, the T-test value is equal to 137.17 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of Instructor Characteristics variable.

The next table will discuss the results for the measures of Computer Self-Efficacy variables.

Table 8. The Set of Measures of the Computer Self-Efficacy

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	Even though I only have the system manuals for reference, I am confident of using e-learning system.	4.24	84.9	.73	4	115.36	0.00*
2	Even if I have never used the e-learning system, I am confident of using it.	4.27	85.3	.73	3	116.43	0.00*
3	As long as I have seen someone using the e-learning system before trying it myself, I am confident of using it.	4.22	84.3	.76	1	109.45	0.00*
4.	As long as I have a lot of time to complete the job for which the software is provided, I am confident of using the e-learning system.	4.37	87.4	.64	2	135.78	0.00*
5	As long as someone shows me howto use the e-learning system, I am confident ofusing it.	4.54	90.7	.63	1	141.80	0.00*
Computer Self-Efficacy		**4.33**	**86.5**	**.56**		**154.53**	**0.00***

The analysis of the Computer Self-Efficacy variables shows that statement "As long as someone shows me how to use the e-learning system, I am confident of using it" gets the highest mean (4.54) with (90.7%) and 0.63 standard deviation.

While statement "As long as I have seen someone using the e-learning system before trying it myself, I am confident of using it" gets the lowest mean (4.22) with (84.3%) and 0.76 standard deviation.

The overall of the Computer Self-Efficacy variable has (4.33) mean, 86.5%, and (0.56) standard deviation, the T-test value is equal to 154.53 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of the Computer Self-Efficacy variable.

Table 9. The Set of Measures of the Course Design:

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	It was easy to understand the structure of the e-learning components.	4.11	82.3	.76	3	107.46	0.00*
2	It was easy to navigate through the Blackboard/course web.	4.14	82.7	.71	2	115.24	0.00*
3	The e-learning components were available all the time.	3.95	78.9	.89	4	88.00	0.00*
4.	The course materials were placed on- line in a timely manner.	3.90	78.1	.84	5	91.83	0.00*
5	I perceive the design of the e-learning components to be good.	4.14	82.8	.77	1	106.29	0.00*
Course Design		**4.05**	**81.0**	**.64**		**125.91**	**0.00***

The analysis of the Course Design variables shows that statement "I perceive the design of the e-learning components to be good" gets the highest mean (4.14) with (82.8%) and 0.77 standard deviation.

While statement "The course materials were placed on-line in a timely manner" gets the lowest mean (3.9) with (78.1%) and 0.84 standard deviation.

The overall Course Design variable has (4.05) mean, 81.0%, and (0.64) standard deviation, the T-test value is equal to 125.91 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of Course Design variable.

Table 10. The Set of Measures of the Perceived Usefulness:

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	Advancing studies through using web-based e-learning systems can help my learning be more efficient.	4.10	82.1	.79	4	102.56	0.00*
2	Advancing studies through using web-based e-learning systems can help me acquire the information I want to acquire.	4.25	85.0	.71	1	117.99	0.00*
3	Advancing studies through using web-based e-learning systems can be helpful to my work or learning	4.07	81.5	.84	5	96.10	0.00*
4.	E-learning would improve my learning performance.	4.19	83.8	.78	2	106.99	0.00*
5	E-learning would increase academic productivity.	4.14	82.8	.78	3	104.95	0.00*
Perceived Usefulness		**4.15**	**83.0**	**.66**		**124.97**	**0.00***

- The analysis of the Perceived Usefulness variables shows that statement "Advancing studies through using web-based e-learning systems can help me acquire the information I want to acquire" gets the highest mean (4.25) with (85.0%) and 0.71 standard deviation.
- While statement "Advancing studies through using web-based e-learning systems can be helpful to my work or learning" gets the lowest mean (4.07) with (81.5%) and 0.84 standard deviation.
- The overall Perceived Usefulness variable has (4.15) mean, 83.0%, and (0.66) standard deviation, the T-test value is equal to 124.97 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of Perceived Usefulness variable.

Table 11. The Set of Measures of the Perceived Ease of Use

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	Interacting with the e-learning system does not require a lot of my mental effort.	3.78	75.6	.98	4	76.22	0.00*
2	I find the e-learning system to be easy to use.	4.16	83.2	.74	3	112.02	0.00*
3	It is easy to become skillful at using an e-learning system.	4.25	85.0	.69	1	121.70	0.00*
4	It would be easy for me to find information at e-learning	4.20	84.0	.74	2	112.42	0.00*
Perceived Ease of Use		**4.10**	**82.0**	**.64**		**126.72**	**0.00***

The analysis of the Perceived Ease of Use variables shows that statement "It is easy to become skillful at using an e-learning system" gets the highest mean (4.25) with (85.0%) and 1.23 standard deviation.

While statement "Interacting with the e-learning system does not require a lot of my mental effort" gets the lowest mean (3.78) with (75.6%) and 0.98 standard deviation.

The overall Perceived Ease of Use variable has (4.1) mean, 82.0%, and (0.64) standard deviation, the T-test value is equal to 126.72 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of Perceived Ease of Use variable.

Table 12. The Set of Measures of the Intention to Use E-Training

No.	Statements	Mean	%	S.D	Order	T-test	Sig.
1	I prefer e-training to traditional training.	3.61	72.2	1.1	5	64.53	0.00*
2	I think e- training should be implemented in other classes.	4.02	80.3	.86	3	92.88	0.00*
3	I will recommend e-training courses to other trainees.	3.99	79.8	.93	4	85.44	0.00*
4	I intent to visit e-training frequently for my course work.	4.04	80.8	.86	2	93.33	0.00*
5	I intend to use e-training to develop my carrier	4.14	82.8	.83	1	99.39	0.00*
Intention to Use E-Training		**3.96**	**79.2**	**.81**		**97.16**	**0.00***

The analysis of the Intention to Use E-Training variables shows that statement "I intend to use e- training to develop my carrier" gets the highest mean (4.14) with (82.8%) and 0.83 standard deviation.

While statement "I prefer e-training to traditional training" gets the lowest mean (3.61) with (72.2%) and 1.1 standard deviation.

The overall Intention to Use E-Training variable has (3.96) mean, 79.2%, and (0.81) standard deviation, the T-test value is equal to 97.16 and it is statistically significant at (α =0.01); which mean that there is a common agreement among respondents about the importance and effect of Perceived Usefulness variable.

11. Hypothesis testing

The research hypotheses are suggested as follows:

1. H_1: Instructor characteristics have a significant effect on the perceived usefulness.
2. H_2: Computer self-efficacy has a significant effect on the perceived usefulness.
3. H_3: Computer self-efficacy has a significant effect on the perceived ease of use.
4. H_4: Course design has a significant effect on the perceived ease of use.
5. H_5: Perceived ease of use has a significant effect on the perceived usefulness.
6. H_6: Perceived usefulness has a significant effect on the intention to use e-training.
7. H_7: Perceived ease of use has a significant effect on the intention to use e- training.

1- The first hypothesis test

H_1: Instructor characteristics have a significant effect on the perceived usefulness.

H_0: Instructor characteristics have no significant effect on the perceived usefulness.

Analysis with linear regression model which attempts to explain the relationship between two or more variables using a straight line; one of them is independent variable and the other is a dependent variable.

Table 13. Regression analysis between Instructor Characteristics and perceived usefulness

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Instructor Characteristics and perceived usefulness	0.493	0.243	0.241	0.5289	125.537	0.00*

Mediator variable: Perceived usefulness

Independent variable: Instructor Characteristics

Table 14. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	2.314	13.573	0.00*
Instructor Characteristics	0.454	11.204	0.00*

Mediator variable: Perceived usefulness

Independent: Instructor Characteristics

The previous table shows that F-Statistics = 125.537 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_1**) is accepted which say that "There is a significant relationship between Instructor Characteristics and perceived usefulness".

The Beta coefficient of the constant = 2.314, the coefficient of the model = 0.454, the value of R = 0.493, R^2 = 0.243 which shows how well terms (data points) fit a curve or line. Adjusted R^2 = 0.241 also indicates how well terms fit a curve or line but adjusts for the number of terms in a model.

This means that 24.1% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables. The regression equation can be written as follows:

$$perceived\ usefulness = 2.314 + 0.454\ x\ (Instructor\ Characteristics)$$

2- The second hypothesis test

H_2: Computer Self-Efficacy have a significant effect on the perceived usefulness.

H_0: Computer Self-Efficacy have no significant effect on the perceived usefulness.

Table 15. Regression analysis between Computer Self-Efficacy and perceived usefulness

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Computer Self-Efficacy and perceived usefulness	0.587	0.345	0.343	0.44977	205.991	0.00*

Mediator variable: Perceived usefulness

Independent variable: Computer Self-Efficacy

Table 16. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	2.271	15.665	0.00*
Computer Self-Efficacy	0.495	14.352	0.00*

Mediator variable: Perceived usefulness

Independent variable: Computer Self-Efficacy

The previous table shows that F-Statistics = 205.991 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_2**) is accepted which say that "There is a significant relationship between Computer Self-Efficacy and the perceived usefulness".

The Beta coefficient of the constant = 2.271, the coefficient of the model = 0.495, the value of R = 0.587, R^2 = 0.345 which shows how well terms (data points) fit a curve or line. Adjusted R^2 = 0.343 also indicates how well terms fit a curve or line but adjusts for the number of terms in a model.

This means that 34.3% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables. The regression equation can be written as follows:

$$Perceived\ usefulness = 2.271 + 0.495\ x\left(Computer\ Self - Efficacy\right)$$

3- The third hypothesis test

H_3: Computer self-efficacy has a significant effect on the perceived ease of use.

H_0: Computer self-efficacy has no significant effect on the perceived ease of use.

Table 17. Regression analysis between Computer self-efficacy and perceived ease of use

Model	R	R	Adjusted R^2	Std. Error The estimate	F	Sig.
Computer self-efficacy and perceived ease of use	0.606	0.368	0.366	0.44196	227.278	0.00*

Mediator variable: Perceived ease of use
Independent: Computer self-efficacy

Table 18. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	2.175	15.063	0.410
Computer Self-Efficacy	0.525	15.076	0.00*

Mediator variable: Perceived ease of use
Independent: Computer self-efficacy

The previous table shows that F-Statistics = 227.287 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_3**) is accepted.

The Beta coefficient of the constant = 2.175, the coefficient of the Course Design = 0.525, the coefficient of the value of R = 0.606, R^2 = 0.368, Adjusted R^2 = 0.366 also indicates how well terms fit a curve or line, but adjusts for the number of terms in a model.

This means that 36.6% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables.

$$Perceived\ ease\ of\ use = 2.175 + 0.525x\left(Computer\ Self - Efficacy\right)$$

4- The fourth hypothesis test

H_4: Course design has a significant effect on the perceived ease of use.

H_0: Course design has no significant effect on the perceived ease of use.

Table 19. Regression analysis between Course design and perceived ease of use

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Course design and perceived ease of use	0.695	0. 483	0.482	0.45902	365.069	0.00*

Mediator variable: Perceived ease of use
Independent variable: Course design

Table 20. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	1.217	8.115	0.00*
Perceived Usefulness	0.619	19.107	0.00*

Mediator variable: Perceived ease of use
Independent variable: Course design

The previous table shows that F-Statistics = 365.069 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_4**) is accepted which say that "There is a significant relationship between Course design and perceived ease of use ".

The Beta coefficient of the constant = 1.2017, the coefficient of the model = 0.618, the value of R = 0.695, R^2 = 0.483 which shows how well terms (data points) fit a curve or line. Adjusted R^2 = 0.482 also indicates how well terms fit a curve or line but adjusts for the number of terms in a model.

This means that 48.2% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables. The regression equation can be written as follows:

$$Perceived\ ease\ of\ use = 1.217 + 0.691x\left(Course\ design\right)$$

5- The fifth hypothesis test

H_5: Perceived ease of use has a significant effect on the perceived usefulness.

H_0: Perceived ease of use has no significant effect on the perceived usefulness.

Table 21. Regression analysis between Perceived Ease of Use and perceived usefulness

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Perceived usefulness and Perceived Ease of Use	0.655	0.429	0.427	0.49842	293.558	0.00*

Dependent variable: Perceived usefulness
Independent variable: Perceived Ease of Use

Table 22. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	1.395	8.565	0.00*
Perceived Ease of Use	0.673	17.134	0.00*

Dependent variable: Perceived usefulness
Independent variable: Perceived Ease of Use

The previous table shows that F-Statistics = 293.558 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_5**) is accepted which say that "There is a significant relationship between Perceived usefulness and Perceived Ease of Use".

The Beta coefficient of the constant = 1.395, the coefficient of the model = 0.673, the value of R = 0.655, R^2 = 0.429 which shows how well terms (data points) fit a curve or line. Adjusted R^2 = 0.427 also indicates how well terms fit a curve or line but adjusts for the number of terms in a model.

This means that 42.7% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables. The regression equation can be written as follows:

$$Perceived\ usefulness = 1.395 + 0.673x\left(Perceived\ Ease\ of\ Use\right)$$

6- The sixth hypothesis test

H_6: Perceived usefulness has a significant effect on the intention to use e-training.

H_0: Perceived usefulness has no significant effect on the intention to use e-training.

Table 23. Regression analysis between Perceived usefulness and intention to use e-training

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Intention to Use E-Training and Perceived usefulness	0.732	0.535	0.535	0.55128	428.450	0.00*

Dependent variable: Intention to Use E-Training
Independent: Perceived usefulness

Table 24. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	0.233	1.311	0.00
Intention to Use E-Training	0.897	21.223	0.00*

Dependent variable: Intention to Use E-Training
Independent: Perceived usefulness

The previous table shows that F-Statistics = 450.428 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_6**) is accepted.

The Beta coefficient of the constant = 0.233, the coefficient of the Intention to Use E-Training = 0.897, the coefficient of the value of R = 0.732, R^2 = 0.535, Adjusted R^2 = 0.534 also indicates how well terms fit a curve or line, but adjusts for the number of terms in a model.

This means that 53.4% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables.

$$Intention\ to\ Use\ E-Training = 0.233 + 0.897x\left(Perceived\ usefulness\right)$$

7- The seventh hypothesis test

H_6: Perceived ease of use has a significant effect on the intention to use e-training.

H_0: Perceived ease of use has no significant effect on the intention to use e-training.

Table 25. Regression analysis between Perceived ease of use and intention to use e-training

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
Intention to Use E-Training and Perceived ease of use	0.629	0.396	0.394	0.49891	256.224	0.00*

Dependent variable: Intention to Use E-Training
Independent: Perceived ease of use

Table 26. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	2.121	16.830	0.00
Intention to Use E-Training	0.499	16.007	0.00*

Dependent variable: Intention to Use E-Training
Independent: Perceived ease of use

The previous table shows that F-Statistics = 256.224 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis (**H_0**) is rejected and the alternative hypothesis (**H_6**) is accepted.

The Beta coefficient of the constant = 2.121, the coefficient of the Course Design = 0.499, the coefficient of the value of R = 0.629, R^2 = 0.396, Adjusted R^2 = 0.394 also indicates how well terms fit a curve or line, but adjusts for the number of terms in a model.

This means that 39.4% of the change in the dependent variable is explained by the independent variable, the remaining percentage is due to other variables.

$$Intention\ to\ Use\ E-Training = 2.121 + 0.499x\left(Perceived\ ease\ of\ use\right)$$

Testing the whole model

To test the whole model a Multiple Linear Regression is being used to test the relationship amongst the dependent variables and one or more independent variables.

H_{all}: There is a significant statistical relationship between TAM model determinants dimensions (The instructor characteristics, the computer self-efficacy, and the course design) and the Intention to Use E-Training.

H_0: There is no significant statistical relationship between TAM model determinants dimensions (The instructor characteristics, the computer self-efficacy, and the course design) and the Intention to Use E-Training.

Table 27. Regression analysis between significant statistical relationship between TAM model and the Intention to Use E-Training

Model	R	R^2	Adjusted R^2	Std. Error The estimate	F	Sig.
TAM Model and Intention to Use E-Training	0.577	0. 333	0.328	0.35557	72.302	0.00*

Independent Variables: TAM model
Dependent variable: Intention to Use E-Training

The previous table shows that F-Statistics = 72.302 and it is statistically significant (P-Value = 0.00) which is lower than 0.05; therefore, the null hypothesis ($\mathbf{H_0}$) is rejected and the alternative hypothesis ($\mathbf{H_{all}}$) is accepted which say that "There is a significant relationship between TAM model determinants dimensions (The instructor characteristics, the computer self-efficacy, and the course design) and the Intention to Use E-Training ".

Table 28. Regression equation coefficient

Model	Beta coefficient	T-Statistic	Sig.
Constant	2.590	21.181	0.000*
Instructor characteristics	0.103	2.736	0.006*
Computer self-efficacy	0.001	0.043	0.000*
Course design	0.170	4.399	0.000*

Independent Variables: TAM model

Dependent variable: Intention to Use E-Training

The Beta coefficient of the constant = 2.59, the coefficient of the Instructor characteristics dimension = 0.103, and it is statistically significant. The coefficient of the Computer self-efficacy dimension = 0.001, and it is statistically significant. The coefficient of the Course design = 0.17, and it is statistically significant. The value of R = 0.577, R^2 = 0.333 which shows how well terms (data points) fit a curve or line. Adjusted R^2 = 0.328 also indicates how well terms fit a curve or line but adjusts for the number of terms in a model.

This means that 35.8% of the change in the dependent variable is explained by the independent variables (The instructor characteristics, the computer self-efficacy, and the course design) while the remaining percentage is due to other variables. The regression equation can be written as follows:

TAM model determinants dimensions (The instructor characteristics, the computer self-efficacy, and the course design) and the

$$\begin{aligned} &\textit{Intention to Use } E-\textit{Training} \\ &= 2.59 + 0.103x\left(\textit{Instructor characteristics}\right) \\ &+0.001x\left(\textit{Computer self}-\textit{efficacy}\right) \\ &+0.170x\left(\textit{Course design}\right). \end{aligned}$$

12. Results and Findings

This research is basically purpose to examine the impact of using IT based training over the employees' performance in Telecom Egypt company. The researcher aims at applying the most empirical model (TAM), and discussing the main antecedents that affect the employees' behavior through IT based training, namely perceived usefulness, perceived ease of use, attitudes toward usage and intention to use. This model has been supported, that the researcher evidenced the ability of TAM to be a successful framework to better predict the employees' perceptions to accept and use IT based training.

Identifying determinants of intention to use online training based on the TAM model in Telecom Egypt company; A literature review was conducted to achieve the objective of the study. The purpose of the research was to demonstrate the importance of TAM model and to achieve the maximum possible quality and excellence of services offered by Telecom Egypt company and the recommended strategies to increase them.

The results of 383 questionnaires were analyzed in quantitative form and then presented using an "interpretive-descriptive" method for analyzing qualitative data. Finally, recommendations were made to maximize the quality and availability of Telecom Egypt services.

In achieving the objective of the research, three basic objectives were identified and reached through the results of the questionnaires collected and analyzed. Results found as follows:

- The sample members' responses towards the factors influencing IT based training were acceptable and considered as good values. The respondents found the IT based training perceived usefulness was the most significant and influential determinant of perceiving and using IT based training. The conclusions regarding to the research variables analysis results listed as follows:

a. Perceived Usefulness: The results of the employees' responses regarding IT based training perceived usefulness demonstrate the positive level among employees, reflecting the importance of IT based training that provided employees with benefits, needed skills, knowledge, competencies, and developed capabilities, which in turn, enhanced the employees' performance and relationships with their work and organization. This level of acceptance is explained due to the Telecom Egypt company support to IT based training adoption, and their interest in applying it as one of the alternatives that increased the training delivery effectiveness, and enabled them to overcome the difficult conditions, which impeded the employees' access to necessary training courses needed to develop their performance abroad.

b. Perceived Ease of Use: The results of the employees' responses regarding IT based training perceived ease of use demonstrate the positive level among employees. In general, the employees found it was easy to access the training course and obtained the needed information they required, this because the facilitating tools given to employees to complete IT based training perfectly such as the internet networks, different computer devices and up to date websites. However, these results were not satisfied that the acceptance scale of perceived ease of use was the lowest scale. The reasons behind the lowest acceptance that the employees did not have the enough experience to deal with the technical problems occurred during training courses such as problems that stop communications with other parties, and may be due to the unavailability of some facilities provided to employees during training, in addition to the lack of developing an appropriate strategy for coordinating, designing and implementing IT based training in some organizations.

c. Attitudes Towards IT Based Training Usage: The results of the employees' responses regarding attitudes towards IT based training usage demonstrate the positive level among employees.

The employees who perceived that IT based training is useful as well as easy to use had the positive attitudes towards IT based training usage, in addition, the social influencing factors considered an essential determinant of employees' attitudes that they used IT based training to shape their image among peers which motivate them to improve their performance. However, the level of employees' responses about attitudes was lower than other factors, this can be explained that the employees' beliefs of IT based training importance not enough to shape their attitudes to use it, this is because despite the increasing use of IT based training by Telecom Egypt company recently, there is a lack of organization's support, funding, and the unfamiliarity of employees with the emerging technologies used in training.

d. Intention to Use IT Based Training: The results of the employees' responses regarding the intention to use IT based training demonstrate the positive level among employees, the results show the positive effect of perceived usefulness and perceived ease of use on the intention to use IT based training to be considered as the key factors affecting the employees' intention to accept and use IT based training. The results examined that employees who believed using IT based training was easy and productive had the stronger positive attitudes to use it, which in turn, they intended to use IT based training continuously to improve their performance. Those employees were satisfied with the experience they had with advanced technologies used in training and were confident of the ability of IT based training that met their needs and provided them with new job requirements.

- The results of the employees' responses regarding the employees' performance demonstrate the positive level among employees. The results show that perceived usefulness, perceived ease of use, attitudes towards usage and intention to use IT based training positively influenced the employees' performance, which means employees perceived that using IT based training was useful and easy to use in a way that shaped the positive attitudes towards acceptance and usage intention in order to improve performance. The improved performance occurred through using IT based training comes from the employees' control of the training contents that increase their experience and confidence, and the interactive training environment which enabled them to acquire the needed skills, knowledge, competencies, and capabilities, assessed them to generate new ideas to develop their career planning and development, and met their work needs, which led to improve their job performance. It is noting that Telecom Egypt company providing both employers and employees with many training courses to increase their awareness of IT based training and enhance their communications and interactions among peers during courses, which would reinforce the employees' confidence of the essential of adopting IT based training, enhance the flexibility of training delivery, track training effectiveness, motivate employees, track employees' progress and to improve job performance.

Conclusions Related to Hypotheses Testing:

a. Instructor characteristics have a significant effect on the perceived usefulness.
b. Computer self-efficacy has a significant effect on the perceived usefulness.
c. Computer self-efficacy has a significant effect on the perceived ease of use.
d. Course design has a significant effect on the perceived ease of use.
e. Perceived ease of use has a significant effect on the perceived usefulness.
f. Perceived usefulness has a significant effect on the intention to use e-training.
g. Perceived ease of use has a significant effect on the intention to use e- training.

13. Recommendations

Regarding to the conclusions reached from the research results, the researcher suggests some recommendations as follows:

1. Recommendations Related to IT Based Training Perceived Usefulness; The researcher recommends Telecom Egypt company regarding to the factor; Perceived Usefulness as follows:

a. Increase the employees' competencies in the use of IT based training to effectively reach its objectives, and enhance their awareness of the potential contributions of IT based training to form their positive beliefs of the importance of it, and develop their intention to use it in order to improve performance.
b. Allow employees to choose the online courses time, place and materials according to themselves to increase their confidence of using IT based training and enhance their control and flexibility to achieve the training stated goals.
c. Allocate more technical resources such as smartphones applications to reduce the technical problems occurred during IT based training and support its implementation, in addition to advocate the employees in acquiring the required skills and competencies.
d. Invest heavily to increase the employees' experience in using different applications of IT based training particularly social media training by giving them intensive courses to support IT based training acceptance and usage, and to provide them with the additional skills related to their work.

2. Recommendations Related to IT Based Training Perceived Ease of Use; The researcher recommends Telecom Egypt company regarding to the factor; Perceived Ease of Use as follows:

a. Increase the employees' perceptions of IT based training ease of use by reducing the training courses difficulties and complexities, which lead to access information and obtain the knowledge easily to enhance transferring what they learnt to actual work.
b. Create a cultural atmosphere based on achievement, self- realization, and development for employees to increase the easiness and efficiency of training,

promote the trainees' communication, and enhance the interactive training environment.

c. There is a need to increase offering the facilitation tools and circumstances such as internet facilities and electricity supply during IT based training by providing all trainees with more up to date websites and high-speed computers to develop the learning accessibility.
d. Simplify the e-training procedures, clarify the instructions to support the trainees' interface and to make IT based training more interactive and easier to recognize and to increase the employees' understanding of the contents which lead to effective learning delivery.
e. Make employees aware of how to correct errors and to deal with technical problems occurred during IT based training which enable them to reduce the mental efforts, enhance their abilities to overcome difficulties without others' assistance, and to increase their acceptance of more workloads and responsibilities.

3. **Recommendations Related to Attitudes Toward IT Based Training Usage;** The researcher recommends Telecom Egypt company regarding to the factor; Attitudes Toward IT Based Training Usage as follows:

a. Managers preferred to increase the employees' adaptation and motivation to use IT based training by taking into consideration the employees' abilities and knowledge needed in training to design the training content according to their needs, which in turn, increase their learning effectiveness and improve their job performance.
b. Pay more attention to build the employees' familiarity with various IT based training applications by following the mandatory IT based training to perform all the offered courses and to reduce their resistance to use new technologies in training.
c. Provide employees with the technical support by establishing the IT based training department that increase the employees' confidence of conducting additional courses to hold more responsibilities which encourage them to accept and use IT based training.
d. There is a need to enhance the employees' feelings of joy and comfortable during courses by increasing their control of training date, time, and content, and advocate their social interactions between their peers by enabling them to share information, videos and images with others in order to enhance motivations to use IT based training as a tool to improve performance.
e. Provide employees with positive feedback regarding to performance during training in order to increase their motivations and satisfaction and to promote their plans to use IT based training.

4. **Recommendations Related to Intention to Use IT Based Training;** The researcher recommends Telecom Egypt company regarding to the factor; Intention to Use IT Based Training as follows:

a. There is a need to provide high security system during IT based training implementation and to give employees with passwords to enter the courses in order to increase the employees' trust, comfort, and confident and maintain their confidentiality and privacy to guarantee the continuity of IT based training usage.
b. There is a need to encourage the positive opinions provided to employees from co-workers, supervisors, and peers to positively affect the employees' beliefs about the IT based training which lead to enhance their intention to use it.
c. There is a need to support the trainees' collaboration, communication, and team-based activities through discussions, assignments and knowledge sharing while using IT based training courses to motivate employees to form their positive plans towards acceptance intention.
d. Increase the IT based training accessibility, practicality and realism through allow employees to integrate training content to their actual work and make them feel that IT based training is available anytime and anywhere to enhance employees' experience and familiarity of online courses.

5. **Recommendations Related to Employees' Performance;** The researcher recommends Telecom Egypt company regarding to; Employees' Performance as follows:

a. Take into consideration the employees' characteristics and differences such as educational level, experience, and cultural background when designing the e-training content to enhance communication and interaction among trainees to improve their learning and reach the higher performance.
b. Establish a specialized performance appraisal system to be responsible for assessing the extent to which employees leverage from IT based training and following up the change in their performance.
c. Increase incentives, bonuses and rewards provided to employees for their performance improvement through IT based training to advocate their motivations, and support the commitment and engagement with their work.
d. Align utilizing new technologies in training process with the organization' strategy and make it one of its objectives, and if can, they preferred to pursue IT based training strategy to increase the employees' acceptance to hold extended responsibilities and to encourage them to perform efficiently.
e. Motivate employees to suggest new and innovative ideas during IT based training to increase its usefulness and to support employees to develop their career planning skills which would lead to support their job performance.
f. Provide employees with intensive online training courses to reinforce their experience and confidence and increase their adaptation and acceptance to IT based training in a way to enhance the obtained benefits and improved performance.

14. Proposed Future Studies

The researcher proposes future studies in order to shed light on other aspects related to the research topic and

were not covered, to urge other researchers to study the other important aspects. The future studies illustrated as follows:

1. The acceptance and usage of IT based training through TAM2 and TAM3 antecedents (computer anxiety and social influences) in Telecom Egypt company.
2. A model of the unified theory of acceptance and use of technology (UTAUT) affecting employees' intention to use IT based training.
3. The impact of using IT based training on the organizational performance in Telecom Egypt company.
4. The relationship between IT based training and employees' work commitment, satisfaction and engagement in Telecom Egypt company.
5. Factors influencing the acceptance and usage of information technology-based training (facilitation conditions and system flexibility) in the private sector.

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