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Mohamed H. R. Khalaf
Department of Education& Psychology, College of Science and Arts in Qurayyat, Jouf University, Saudi Arabia, aitaloba@ju.edu.sa

Zeinab M. Abdel Azim
Department of Management Information Systems, Alexandria Academy for Administration & Accounting, Alexandria, Egypt, aitaloba@ju.edu.sa

Walid H. A. H. Elkhateeb
Department of Education& Psychology, College of Science and Arts in Qurayyat, Jouf University, Saudi Arabia\\ Department of Educational Psychology, Faculty of Education, Ain Shams University, Cairo, Egypt, aitaloba@ju.edu.sa

Osama R. Shahin
Department of Computer Science, College of Science and Arts in Qurayyat, Jouf University, Saudi Arabia\\ Physics and Mathematics Department, Faculty of Engineering, Helwan University, Egypt, aitaloba@ju.edu.sa

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Mohamed H. R. Khalaf [1] *, Zeinab M. Abdel Azim* [2] *, Walid H. A. H. Elkhateeb* [1,3] *, Osama R. Shahin* [4,5] *and Ahmed I. Taloba* [4,6,*]

[1]Department of Education& Psychology, College of Science and Arts in Qurayyat, Jouf University, Saudi Arabia
[2]Department of Management Information Systems, Alexandria Academy for Administration & Accounting, Alexandria, Egypt
[3]Department of Educational Psychology, Faculty of Education, Ain Shams University, Cairo, Egypt
[4]Department of Computer Science, College of Science and Arts in Qurayyat, Jouf University, Saudi Arabia
[5]Physics and Mathematics Department, Faculty of Engineering, Helwan University, Egypt
[6]Information System Department, Faculty of Computers and Information, Assiut University, Assiut, Egypt

Abstract: During the COVID-19 pandemic, several universities are finding it difficult to provide and use online and e-learning systems. Blackboard, for example, is an e-learning system with various wonderful features that would be useful during the COVID-19 pandemic. However, knowing the acceptance variables as well as the primary problems that contemporary e-learning technologies confront is crucial for efficient utilization. The growing number of students attending different instructional organizations has resulted in a greater volume of material being needed in these organizations both from the academic and professional workforce and also because learning management systems and e-learning are indeed the university prospect, several more universities and colleges have accepted them. The purpose is to analyze the most popular E-learning system, the Blackboard system, and the authors suggest a learning management control system to accommodate major e-learning features. A Blackboard system is a plethora of academic perspectives, research, ideas, theories, and affective responses to the virtual learning environment. To use it, the technology acceptance model in times of crisis (TAMTC) has been developed as a way to evaluate student acceptability. The existing literature demonstrates that the field of information administration is constantly changing due to the effect of learning technologies like the blackboard system. Given their reduced utilization of the system, the data reveal a high level of student acceptability. The conclusions of this study provide important recommendations for policymakers, managers, developers, and academics, allowing them may further understand the key factors of successfully using an e-learning system during the COVID-19 epidemic.

Keywords: COVID-19; E-Learning; Lower usage; TAM; Blackboard system.

1 Introduction

E-learning is a technology framework that enables educators to take place everywhere, at any moment, but that brings together all educational activities conducted by individuals or groups, whether locally or online. E-learning is the digital distribution of information to training and education objectives [1]. Although it was previously delivered using basic information technology methods such as compact discs that contained different materials including such PDF files, pdf documents, photos, videos, sound, but also spark, e-learning is now applied using the internet, such as websites containing a range of educational substance. That there were no options for education [2]. In other words, so educators had to understand in a classroom with such a teacher who directed them through the procedure utilizing printed books and boards. Then came the advancement of technology, which changed completely the educational environment and presented e-learning.

The rapid advancement of information technology has transformed academic learning and teaching techniques [3]. Numerous studies show that the number and effectiveness of e-learning systems in university education, including such "Blackboard," has expanded dramatically over time. Students and professors use chats,

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* Corresponding author e-mail: aitaloba@ju.edu.sa

webinars, discussion forums, and document sharing to effectively interact with each other in a learning management system [4]. Indeed, the introduction of Blackboard has changed traditional learning methods, resulting in efficient instructional data administration. This method of data management, according to scientists, leads in the use of specific terminology that provides formal models of information entities, enabling automated processes, decision-making, and information extraction.

Blackboard helps to convert tacit information into explicit or formalized information, which decreases the possibility of knowledge failure due to memory constraints [5]. In addition, using e-learning systems like "Blackboard" can assist lower the costs of knowledge reproduction, resulting in better organizational learning. While e-learning benefits teachers, students, and organizations, it also raises fundamental problems about the education process [6]. Much of these e-learning tools focus primarily on technical information transmission, a phenomenon known as online myopia, instead of on novel pedagogic approaches to learning. Assessing the efficiency of the education system, its benefits, and constraints in data management became even more relevant in this environment.

Online learning is defined as "providing learning activity through the use of any technologies" and is used by a large number of students. While nearly one among the post-secondary learners engages in a certain type of virtual learning, the selection to choose is frequently decided by the learners individually [7]. However, unexpected global developments in recent days have forced web-based learning mandatory instead of voluntary. The unique coronavirus pandemic (COVID-19) had a wide range of effects on civilization, the most noteworthy of which was a substantial shift in national educational systems. This study looked at how students felt about utilizing the Magnification web conferencing system to help them adapt to at-home learning [8]. Because the technology acceptance model, which functioned as the theoretical foundation for this study, included web-based learning during an epidemic.

During the COVID-19 epidemic, however, providing and using educational content in an e-learning system has been a major issue for many institutions. Because of its accessibility (visibility anywhere at any moment), high efficiency, simplicity of use, and interactive nature, e-learning technology is an important means of communication [9]. Blackboard, for example, is an e-learning system with several amazing features that might be useful during the Coronavirus epidemic. It is possible that using this approach at this time would be more practicable. Students could be messaging or participating in some classroom tasks with instructors on a desktop computer or laptop device from home, for example, using an e-learning system. Students can also quickly download educational content to handheld devices since they can access mobile or local cellular connections [10]. One strategy for e-learning, according to Ülker and Ylmaz (2016), is to employ a learning management system (LMS). As a result, e-learning refers to the process of providing, organizing, and managing e-learning operations within a network, including student registration, tests, projects, course details, teaching materials, communications, curriculum, and fundamental teaching materials [11]. As a result, the goal of this study is to look at the main problems and elements that influence the use of an e-learning system during the COVID-19 pandemic.

The remaining part of this paper explains the E-learning management system lower usage during COVID-19 Pandemic; Section 2 defines highlights the previous effort that can be done by the scholars in this domain with the various experimental tasks. Section 3 offers the proposed methodology and its data analysis. Section 4 represents the result and discussion of this study and Section 5 represents the conclusion.

2 Related work

Acceptance and use of an approved LMS among academics at a university of technology (UoT) are assessed in this paper [12]. Semi-structured discussions took the place of an e-survey for which 111 academics took part, all of whom had to teach responsibilities. In representing the disparity among low current usage and employees are aware, a key conclusion of the technology acceptance model (TAM) was questioned. Assessments appeared to be assigned the least influence, with communications and course administration taking precedence. Communication tools are underutilized. Websites, blogs, and forum discussions are examples of such tools. It is critical to provide dedicated training mostly on characteristics of the learning management system, as well as its educationally advanced components. TAM may need to be examined more closely to explain for successful LMS use in institutions.

E-Learning is becoming a widely established method of education [13]. E-Learning has developed as the form of future training, thanks to an expanding number of subscribers, a diverse range of educational facilities, and the expansion of educational resources. However, the fluctuating user traffic, as well as the large transport and storage of various multimedia materials, has necessitated the efficient usage of the server-side operating system while offering E-Learning solutions. Cloud computing provides the capacity to automatically provide and de-provision computational resources as required, as well as flexibility, adaptability, pay-as-you-go, and network access. E-learning technologies are well-suited to cloud technology. This research presents an E-Learning paradigm based on cloud computing that effectively tackles existing E-Learning issues. The structure and fundamental components of an effective E-Learning system are discussed in detail in preparation for cloud

deployment. Furthermore, the current proposed structure effectively integrates numerous components which function as an architecture design for E-learning systems and covers this under a single cover.

Major research on ICT, education, and transformation in higher education also was utilized to explain the concepts, meanings, and consequences of ICT ? as seen through the eyes of various academics, administrators, and IT professionals in South African higher education institutions. The argument is made that ICT utilization is inextricably less than consumption rates both between universities, with much more technology imports but much less usage. It is also claimed that diverse stakeholders' concepts and definitions of ICT are inconsistent and divergent. As a result, this article calls into question rising e-Learning adoption trends and the effect that e-Learning had on the learning and teaching process. The ANT is used to contextualize the relationship inside e-Learning situations, in light of a current "intellectual rush" on higher education and e-Learning terminology and practices. The study argues for a socio-technical strategy to LMS uptake and use by using the case of higher acceptance rates against unequal user behavior. It concludes with the idea that to remain effective, e-Learning must be seen as a socio-technical network involving persons, organizations, and technologies [14].

During COVID 19, the current study focuses on the global influence of the e-learning process. One of the prevention programs against the spreading of the coronavirus virus, which has resulted in total paralyzing of global activity, lockdown, and social distance has been implemented. There is a movement from traditional learning to e-learning, particularly in the school system, which is entirely closed and must continue with the educational course. This can be attributed to a growth in the number of virtual classrooms, conferences, and meetups, among other things. It should be highlighted during this moment; the globe is fully reliant on technological advancement. As a result, the current study gives an understanding of the electronic learning experience and its benefits, as well as an edited version from its application. To the aim to contribute, there have only been a few scientific papers on the effect of e during COVID 19. The current research is a collection of the elements of e-learning technologies, as well as a prospective view on schooling through the use of information theory [15].

In times of crisis, college students are decided to invest extra time with the computer given the fact that they take their classes via e-learning. This circumstance will also affect academic performance [16]. The goal of this study was to see if fear of acquiring COVID-19 (CoVFC) had such a moderating influence on the correlation between preservice teachers' achievement engagement (AMOTV) and their assessments of computer self-efficacy (CSE) [17]. A single analysis was used to evaluate the moderating function of CoVFC and the possible influence of Attitudes towards E-Learning (ATEL) in predicting teacher educators' AMOTV with their CSE using a combination approach. This study included 522 teacher educators from 21 various branches. The CSE of teacher educators was developed to assess their AMOTV directly and consistently as a consequence of the study. The rise in CoVFC had a negative mediating effect on the estimation of AMOTV using teacher educators' CSE. In addition, ATEL was discovered to get a partial mediation influence in the link among teacher educators' CSE and AMOTV.
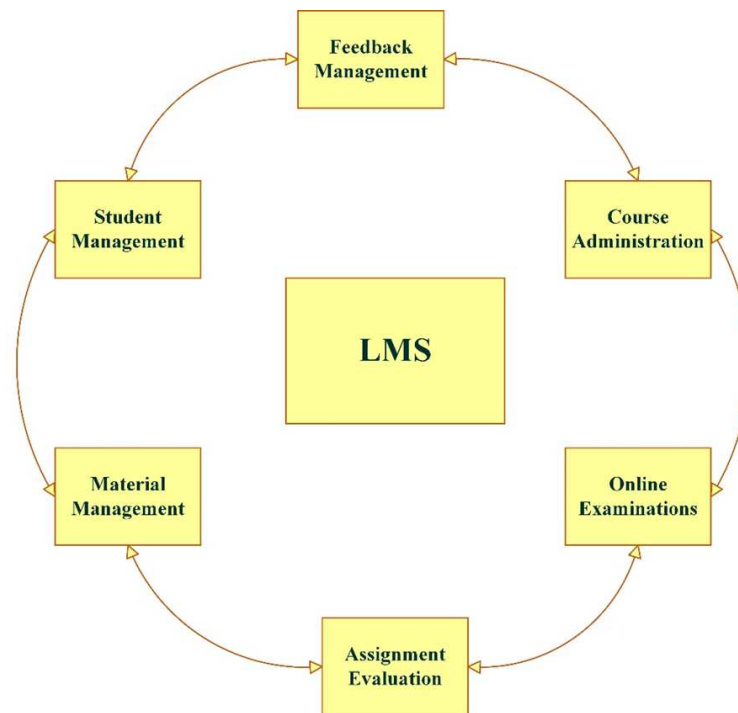
3 Proposed Methodology

3.1 E-Learning Management System

The Learning Management System (LMS) is a piece of software used by academic institutions to assist in the learning experience. It includes communication methods, evaluations, and learning resources. course management systems (CMS), Virtual learning environments (VLE), and instructional support networks are all terms for learning management systems (LSS) [18]. This may deduce from the education process management description that a learning quality management is designed to deliver instructor-led programs and comprises two kinds of communication streams: one for students and one for learners.

The key components of any LMS, as depicted in Fig.1, are feedback management, course administration, online examinations, assignment evaluation, material management, and student management. Elements of the LMS management system (Fig.1) It has various characteristics that focus on the critical sections of the Learning Management System, which summarize in table 1.

Moodle and Blackboard have been the most widely utilized learning management systems around the world. Moodle is indeed an open-source system which is developed as a Ph.D. research study in 2001. The initial edition was released in 2002, then by 2007, there have been 69 installations with over 20,000 members. Today, it has about 65,000 authorized web pages with over 81,293,907 members from 224 countries [19]. Moodle is indeed a user-friendly LMS that is simple to use and has a lot of features. The main advantage of open-source systems has the ability of significant on-demand modification. Moodle's technologies are based on Apache, PHP, and MySQL.

Blackboard is a closed method that enables course management, communications among parties, and several other functions. This is controlled by Blackboard Inc., which is based in Washington, USA. Blackboard is recognized for its stability and strong infrastructural facilities, but it needs a subscription service for every user, which is expensive for large organizations, but that

Fig. 1: Learning Management system.

Table 1: LMS major Characteristics.

LMS Part	Description
Communication	• Provides group discussion for students • The number of announcements is shown throughout the semester • Live video and events conferences are done • Email-services are provided • The direct chat among instructors and students granted
Content	• It offers lecture information • The information?s were consistent • It offers a course plan • It supports the resources interactive • The refreshed and dynamic content • Presents connections to students? information • Provides a warning for student?s absence and behavio
Evaluation	• Offer e-learning management system feedback and survey • Conduct the periodic exams or quizzes • After the exam, a correction and results system is provided to the students • To evaluate the groups and individual jobs are supported • Automatic correction for exams/assessments is supported
Application and Integration	• The interface is user friendly • The response time of the system is acceptable • The platforms of a run cross with the requirements are acceptable • Offers help or training files for the students • The interface Multilanguage are presented in the e-learning scheme

only provides about 4 million users, but because it is featured on Blackboard server farms, it is difficult to customize or incorporate with some other processes.

After doing function is to identify tests and investigations, it was discovered that Moodle outperforms Blackboard in the following areas: Moodle is much less costly in the long run than Blackboard since the payment is made only once at the introduction stage and then it is completely free. Interconnection: Moodle is superior to Blackboard for interacting with external APIs and outdated systems because everything is kept through your website and users could do whatever students desire [20]. Customization options: Institutions favor open-source software and self-hosted technologies since they are easier to customize than closed systems housed on third-party servers, which need a request form that now the network operator may accept or decline.

3.2 E-Learning during COVID-19

Across the country, the COVID-19 outbreak resulted in tremendous school closings. By May 15, 2020, several countries had legislated that all schools be closed for the balance of the academic year. Educational institutions tried to maintain consistency in learning in the context of these abrupt closures, with several opting for online learning as a solution. Both favorable and unfavorable consequences have been linked to online courses. Stated in a recent study that pupils that attend online education programs had lower test scores in math and reading arts, with no progress over time [21].

It's crucial to highlight, however, there are certain variations between learners at virtual charter educators and teachers who are switching to online schooling as a result of the epidemic. Here on other hand, school systems offer lower student-to-teacher proportions than online school systems and pupils in the regular classroom are more likely to have built a positive attitude towards school earlier to the epidemic[22]. Other possible benefits of switching to online courses include improved student recall of information and a reduction in the amount of time it takes them to study. On the negative impact, the move to virtual distribution has been limited by the availability of equipment open to users and individual brick-and-mortar schools, as well as a shortage of time to create and provide excellent digital teaching early childhood reductions.

During the epidemic, teachers and students switched to online learning on the spur of the moment. This resulted in numerous learning issues relating to using technologies in curriculum development and internet skills. Many education institutions have begun to provide intensive seminars connected to using technologies in the classroom to help teachers through this stage. On either hand, as from the perspective of students, technologies would result in different bits of help identify. This was attributed to whether or not kids had effective internet access or whether or not parental involvement was available during class.

3.3 Technology Acceptance Model (TAM)

Several theoretical models have been proposed to investigate and explain the elements that lead people to embrace, reject, or continue to utilize new technology. Another group presented the Theory of Reasoned Action (TRA) based on the Ajzen and Fishbien framework [23]. This created the technology acceptance model (TAM), a theoretical framework for explaining the link between attitudes, intentions, and behavior. The TAM is reliable and efficient in predicting technological uptake and adoption. Individuals' performance of a specific behavior can be predicted by their behavioral intention to do a specific task, according to the TAM. The primary causes of user acceptance are thought to be two particular characteristics.

The TAM was developed to predict the likelihood of a person or company introducing new technology. This concept was predicated on the notion of planned behavior, which stated that the purpose to execute a behavior, the perceived behavioral control, and the social conditioning to behave in a particular way all influenced behavior. The TAM claimed that by using the approach at the period the information was first utilized, subsequent use of technology might be anticipated.

User satisfaction of use, perceived utility, attitude towards, behavioral control to use, and actual usage are the five variables that make up the TAM. User satisfaction of use, which relates to the assumption that no work will be necessary, and perceived usefulness, which represents the idea that innovation will improve performance at work, are the two very important components in the model [22]. These two variables, along with attitudes ease of use, and usefulness, make up TAM's basic variables. The theory of planned behavior to use and usage behavior are two outcome factors. Furthermore, while behavioral intention predicts use, the link can also go the other way, with excellent user experience influencing behavioral intentions. Finally, subjective norm, e-learning self, and conducive conditions are examples of extrinsic elements.

3.4 Usefulness as perceivable

The extent to which an individual feels that employing a certain innovation will improve his or her work performance is described as perceived value. People are more likely to use or not utilize a program if they think it would improve its performance [24]. This indicates that how users view the value of technologies in learning and teaching shapes their attitudes about computer usage, either good or bad.
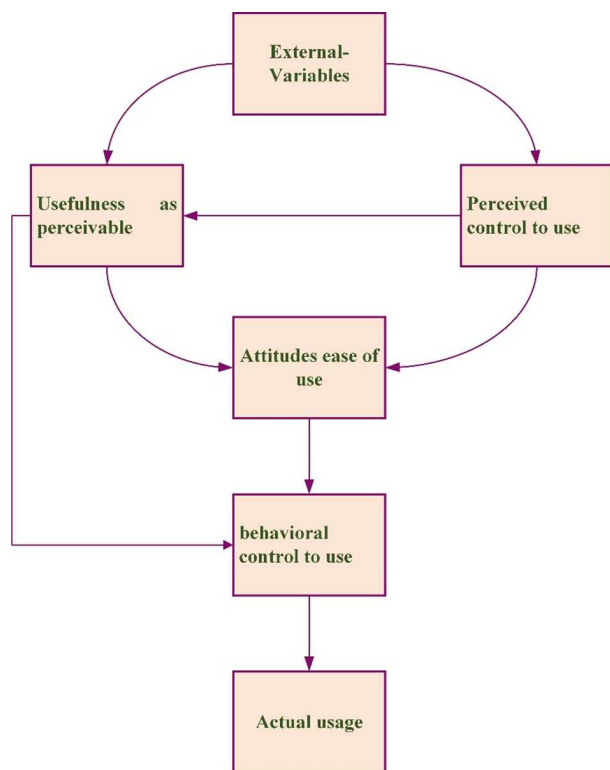
Fig. 2: TAM

comments, or provide any material not covered mostly during an interview [26]. Excerpts of the conversation and notes obtained during the interview were used to analyze the content. The researcher double-checked the excerpts against mobile app-recorded material to ensure that the words uttered by the interviewee were accurate and then made modifications as needed. After reading the entire transcripts line-by-line, this step was crucial before beginning the coding process.

3.7 During the COVID-19 pandemic, E-learning management system usages

This section contains the theme results that led to the discovery of the major problems that the use of an e-learning system during the COVID-19 Pandemic faces. The analytical results for the e-learning services are offered framework is shown in Fig 4.
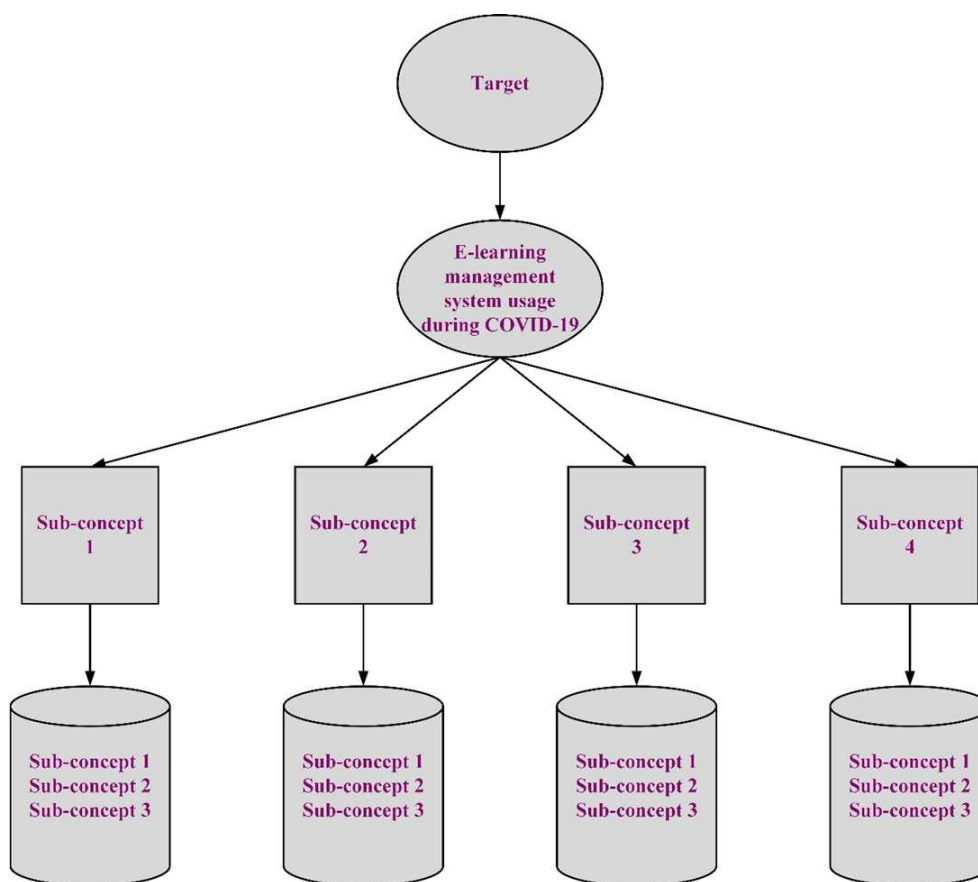
3.7.1 Management Changing Problem

Change management is among the most difficult concerns, according to the participants, because it affects governmental policies and regulations, students, and educators [27]. "We think it'll be difficult since the institution will confront a lot of resistance to changing the current arrangement," the interviewers said. "Which is why it requires to be well controlled, taking into account all possible changes."

There is resistance to changing to an e-learning system because some students or educators prefer to keep education and learning methods [28]. "Several instructors and students are also still hesitant to use the e-learning network," the respondents observed, "and this causes their difficulty since many pupils are dubious of the learning services handled through to the scheme, including completing assignments, test execution, and so on." Furthermore, the problem affects not just students, but also educators, who may perceive the change teaching to e-learning as a threat to the jobs." "Sustainable development must be separated into different methods, one mainly for change process interacting with guidelines and practices, and the other for the organization of strategy implementation, concentrating on the perspectives to maintain the difficult situations by students and educators," the respondents did say.

3.7.2 Technical Issues On E-Learning System

All of the respondents felt that one of the most important challenges to address is the technical aspects of the e-learning system, as this could prevent many students from adopting the system. "The current e-learning order to ensure validity several possible issues in terms of availability, scalability, functionality, and the e-learning

3.5 Behavioral control to use

The extent to which an individual perceives that utilizing the system will be painless is characterized as user satisfaction of use [25]. Moreover, user satisfaction has a significant effect on an intention for use, but user satisfaction of use has an intermediate impact on satisfaction to use via attitude. The facilitating conditions of use are a characteristic that has a direct impact on students' attitudes. Figure 2 also shows a graphical illustration of the TAM.

3.6 Thematic Analysis

The researchers used partial coding to organize the discussion data into two global categorizations: (1) specific concepts, such as factors that influence e-learning scheme and problems facing e-learning technology acceptance during in the COVID-19 Pandemic, and (2) sub-concept, that also develop as different themes and connections under the different concepts, as seen in Fig.3.

The participants' identity was kept while the discussion was sound captured with their agreement. The researcher used a recorder device to document the interview process on audio. Debriefing was conducted after an interview to allow experts to think critically, offer

Fig. 3: Concepts and Sub-concepts created from thematic analysis.

website service levels," the experts said. "It is apparent that when students experience that its e-learning system is simple and quick for using, the student considers that the approach is efficient and will increase his achievement," the interviewees said. The "e-learning system is designed to suit the demands of students," according to the interviews.

The students perceived that the e-learning system should be easier to use if needed to guarantee that the student's ability to use it is effective [29]. "There is also a problem that certain students discover the e-learning system not simple for using due to various stages of education between many students," they replied. "For such reason, the institution is evaluating all alternatives to make it even easier for using, as this component plays an important role in improving performance, and thus leads the educators to believe its effectiveness."

3.7.3 Problems On Financial Supports

Financial assistance is among the challenges facing e-learning projects, according to all respondents, because Jordanian institutions have resources available and a big budget deficit. "In the event of financial difficulties, including the current condition of a budget deficit," the interviewees said, "many initiatives could be halted because the Jordanian government is indeed the sole source of economic support for institutions [30]." Specialist 2, on the other hand, "did not express any concern regarding financial assistance because the government has already set aside funds for the present e-learning initiative to avoid any failure, particularly in achieving Vision 2025."

4 Result and discussion

In this section, analyze the results of the E-learning management system used during the COVID-19 pandemic some of the critical factors are affecting LMS are followed. This section contains the theme findings which enable the identification of crucial factors that influence the effective use of the COVID-19 Pandemic e-learning system. Based on the findings, the respondents stated that 1) technological innovations, 2) e-learning service performance variables, 3) trust variables, 4) self-efficacy variables, and 5) cultural influences are the
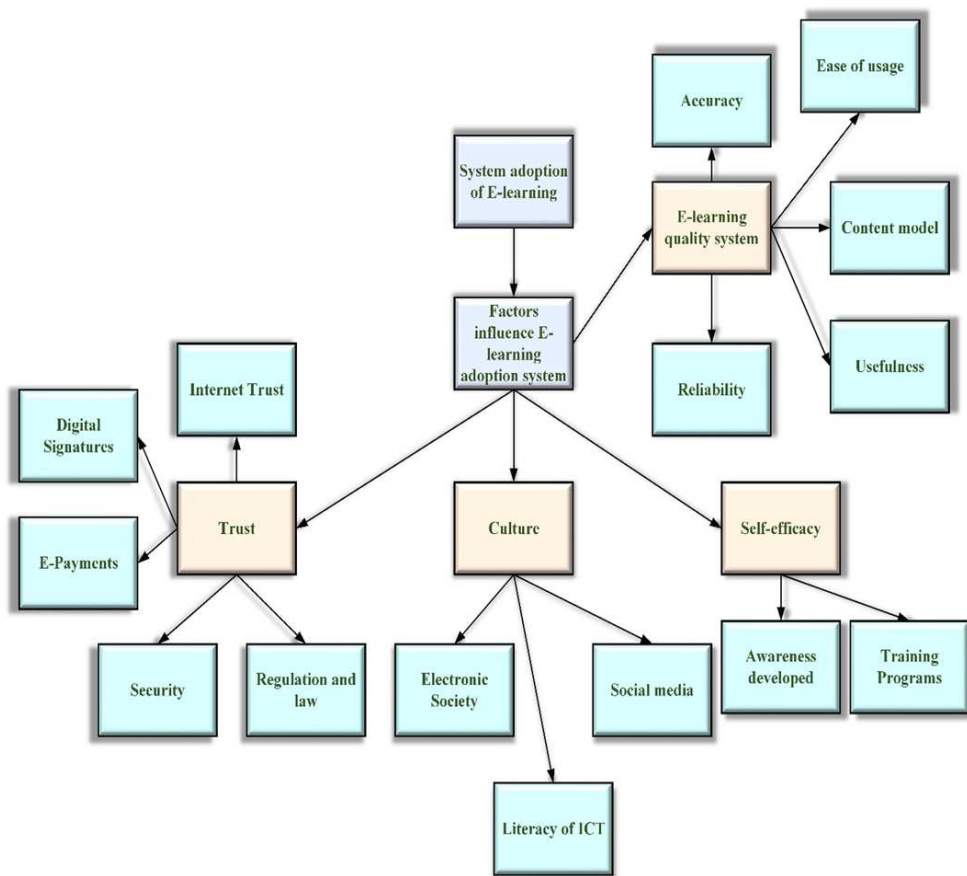
Fig. 4: A framework of E-learning system usage during COVID-19.

important considerations that need to be discussed and taken into account in future intentions which also impact the use of e-learning systems.

4.1 Technological Innovations

Technological variables are among the essential help to guarantee the deployment of an e-learning system, as per the participants. All technological considerations should be considered during the deployment phase, one of the specialists noted. For instance, if institutions get the requisite gear and software for implementing an e-learning network however lack the required expertise to operate that technology and software, the outcome could be failures." Physical equipment including such laptops, servers, and communications systems which must be prepared to develop e-learning, the specialists added. Furthermore, the accessibility of technology operating systems and applications is critical. Another significant invention factor, according to professionals, is technical ability and assistance, which are defined as the information, knowledge, and skills required to perform

tasks such as developing and updating the computer, system, and broadband connections, and also assisting clients once they encounter technical issues.

4.2 E-Learning Service Performance Variables

The experts discussed the efficiency and quality of e-learning systems as a viable technique for collecting their perspectives on the primary elements that influence e-learning simulation includes in Jordanian universities. The existing e-learning systems are encountering some potential difficulties with access, affordability, and usefulness, particularly for people who have little experience of the internet, all participants agree. Several experts agreed with this assessment and encouraged colleges to investigate it more, as it could pose a barrier to its deployment and acceptance by several students. The success of the e-learning system should be judged focuses on student experience and personalization, another specialist stated.

The participants were requested on their thoughts on the present e-learning system or how it should be

improved as a user-friendly system, particularly for students with limited computing abilities. The present structure is not straightforward to use by persons that do not have PC abilities; it will contribute to mechanical malfunction, the respondents agreed. The current e-learning platform is not flexible when it comes to design, Specialist 3 stated. "There is a considerable association between simplicity use and involvement, the respondents (Specialist 1 and Specialist 2) added, since students may lose faith in the system if this is hard for using.

The respondents will be asked well about the program's utility but not if the present system is effective in terms of utility. A first authority spoke first, stating that the effectiveness of a system is determined by how easy it is to use. In my knowledge with various IT/IS implementations, usability and system friendliness are inextricably linked. To feel encouraged to use the technology, the customer must first believe that it is effort-free. Then he or she should try to make use of it by looking at it from the standpoint of its utility.

Specialist 3 concurred with Specialist 2, adding that the current approach could be considered valuable if students feel it to be effective. If the e-learning system is operating the needed learning activities, consumers will feel more competent in using it and will be inspired to utilize it in the future. As a result, evaluating the system in terms of its utility is dependent on the student's expectations and satisfaction. Specialists 2 and 4 stated that if an e-learning system is designed to meet the demands of students, it will be ideal characteristics and will be accepted and also used efficiently.

In terms of effectiveness, productivity, and privacy, participants were asked how dependable the present e-learning system is. A lot more effort remains to be improved to make sure the right e-learning system is working properly, the experts agreed. It can't verify effective operation until it fulfills and accomplishes the two major objectives: simplicity use and enhanced online learning instruction to people, Specialist 1 and Specialist 3 remarked.

Finally, the participants agree that if the e-learning system fits the students' requests and they believe it is risk-free, it can be relied upon and accepted. According to Specialist 2, As from customer viewpoint, dependability is related to the system's friendliness and utility, and it is vital to note that the existing system can be deemed dependable after it has matured in terms of practicality and is completely safe.

4.3 Trust Variables

Trust is a critical aspect in accelerating the amount of e-learning system implementation in Universities, according to the participants. Universities are constantly working to ensure that such e-learning system is secure, they stated. The trust element encompasses system security, data privacy, and system dependability. "To improve student?s implementation of e-learning processes, universities must constantly update safety system to maintain the system completely protected from any forms of malware, and to ensure that all classroom objectives are legally conducted under the policies and confidentiality laws in place, they continued.

In this study, the Internet's trustworthiness is one of the major factors that can help people have a high level of trust. The adoption of a typical example relies on technology companies having the requisite resources to efficiently execute e-services and seem to be capable of safeguarding such networks, the experts said. Lack of confidence will undoubtedly lead to an increase in reluctance to adopt an e-learning technology, they added. Furthermore, giving efficient, effective, and visible methods of e-learning operations through into the e-learning management system, which can be assuredly independent and safe from threats, is among the main trust elements that lead to increased use of e-learning systems among students.

4.4 Self-Efficacy Variables

According to the participants, self-efficacy is among the most important factors in determining whether or not an e-learning system will be adopted in educational institutions. To improve the implementation of e-learning systems, it is essential to ensure that students in Universities possess high self-efficacy throughout trying to attain the required purpose, the experts said. If students have low self-efficacy, it will be difficult to achieve educational activities via e-learning systems. Furthermore, respondents suggested that self-efficacy is an important component to explore as part of Jordan's Vision 2020. By the year 2020, all institutions want to make sure all students and teachers are using the e-learning systems but have full self-efficacy and abilities to be used, he said.

Training programs may play a big role in assuring strong self-efficacy including both learners and instructors, the participants said. As a result, universities should offer certain training programs for them to improve their IT abilities, and therefore become more willing to use an e-learning method. The participants agree that students? knowledge is a vital factor in motivating them to use the e-learning system. This aspect aids users in increasing their self-efficacy. The adoption of e-learning systems cannot be conducted out easily requires frequent awareness programs to allow participants to feel motivated and confident in utilizing the e-learning technology, they said.

4.5 Cultural Influences

According to participants, technology is an important aspect in increasing student acceptance of e-learning systems. "Cultural issues are amongst the vital components that must be discussed to make arrangements would use the e-learning system extensively," they wrote. According to specialists, ICT literacy is among the important elements which the Higher Education Organization is discussing.

Improve ICT literacy and abilities of e-learning clients is among the variables which should be applied to enhance the use of certain e-learning systems." "If the Higher Education Administration is unable to reduce illiteracy, it will be a challenge to fulfilling the strategic goals for developing an e-learning system," they added. The ambition to convert Jordan into an 'e-Society' is also another traditional feature that has been removed. This point was identified by experts as a critical target for Jordan's Vision 2025. "e-Society must join all education systems with each other in addition to receiving a single entity operating through an e-learning system," the specialists said. Another crucial component is to maintain contact with students via various social media platforms, as this is the most widely utilized media and program in Jordan. "Social networking was its kindest approach to access knowledge and enhance them using the e-learning system, as well as allowing them using the e-learning system straight from social media platforms," the experts said. Social networking can assist colleges in better responding to pupils, increasing student involvement and ultimately improving the e-learning process.

4.6 Peer Review

Peer assistance refers to a variety of activities and/or functions undertaken by employees to assist an employee is using a new system efficiently. Employees from the same or separate core businesses, as well as employees from other organizations, have been mentioned as valuable sources of interventions that can lead to increased user acceptability of a system. They proposed three interventions for peers: i) informally or formally education; ii) direct alteration or improvement of IT systems or working practices, and iii) cooperative modification or improvement of work procedures (with users). This assumes that these approaches can have a variety of effects on the impact of organizational utility and ease of use. For starters, peer support can improve users' comprehension of technology through employee training. As a result, users can learn from their peers about a system's work relevancy, outcome quality, and performance expectancy. Second, peer improvement and development actions will enhance a system's work applicability, increase its production efficiency, and lessen the anxiety associated with system use. Finally, peer influence may have an impact on the behavioral intention

and image associated with the use of technology. If coworkers are positive about a new system, it's more probable that individuals will have positive feelings about it as a result of social impact.

As a result, the results of this study provide important recommendations for regulators, planners, producers, and academics, allowing them to better understand the key factors of effective e-learning implementation of the system. To analyze variables predicting the use of LMS during COVID-19, a form of extending TAM was effectively used in this study to explicate the method of accepting LMS understood by students in college during COVID-19 and education as sustainable involvement. Other studies in the field of educational technology research, especially during pandemics such as COVID-19 and focused on virtual-based studies between college students, may conduct additional research and alter the measure in the next derived from the findings. The study's purpose was to see how important structural model modeling is in the creation of educational methods. The model's accuracy and consistency are claimed by the materials validation and computation approach.

5 Conclusion

The contribution of this paper is to identify the lower usage of e-learning management systems during the COVID-19 pandemic. The results of this study can assist university administrators, planners, and researchers in these institutions since they present a realistic image of the present e-learning system that can be used as a pattern to enhance student use of e-learning technologies. According to the findings, the following are the essential elements that influence e-learning technology acceptance and should be considered by institutions in the upcoming years: 1) technological innovation, 2) E-learning service performance variables, 3) cultural influences, 4) self-efficacy variables, and 5) trust variable. Furthermore, the findings revealed that there are three major obstacles to using an e-learning system: 1) organizational change concerns, 2) e-learning development of system problems, and 3) financial assistance problems. In areas such as communication, evaluation, and total data management, Blackboard offers an interactive and user-friendly framework for instructional. As a result, theorists advocate for favorable e-learning systems, such as the Blackboard system, which can increase learning outcomes. Normative beliefs, user satisfaction, perceived usefulness, and ease of use, according to our findings, can successfully predict perspectives towards e-learning. Finally, reported utility and reported simplicity of use were proved to be extremely related to usefulness for training and knowledge with technology.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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