

## Essential Factors to Improve Student Performance Using an E-Learning Model: Review Study

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**Abstract**—The e-learning system is one of the most common methods for improving student performance and the ongoing goal of using e-learning in higher education. The most popular kind of e-learning system is a big one that is used at the college level, including Moodle, MOOCs, and e-learning systems. A rigorous review of various e-learning tools that can be used to raise students' performance is presented in this paper. Based on a survey of the literature, a comparison was established between the key elements employed in e-learning. The method used was to extract the common elements used in more than one popular model, then to connect these factors to e-learning. In order to create a better model with full element constraints, this paper also includes extracting causal links between these aspects. The analysis's finding is that the most recent models accepted for use in raising student performance are TAM2, TAM3, and ECT. This study reveals the framework used to highlights the easy and popular factors according to the updated related studies.

**Keywords**—e-learning, acceptance models, HEI, TAM

### 1 Introduction

An e-learning system is a method of instruction that makes use of electronic technology to facilitate and support learning in the academic environment [1]. Changes to the e-learning system are now possible due to the exponential increase in the number of students using advanced communication technologies, including various tools, versions, and capacities.

In the current global lockdown due to the COVID-19 pandemic, eLearning has emerged as the only way to replace traditional face-to-face learning methods. Academic institutions around the world are investing heavily in e-learning, with the majority of courses offered in traditional classroom mode being converted to e-learning mode. For e-learning initiatives to become sustainable forms of learning, we need to ensure their success [2]. The aim of the current research is to propose an overall framework for e-

learning services to ensure effective delivery and use of e-learning services that contribute to sustained learning and academic achievement [2]. Based on an extensive literature review, a proposed theoretical model was developed and empirically tested. E-learning and mobile learning support all forms of learning, including formal, informal, and non-formal learning. The e-learning system is expanding to facilitate student collaboration in active learning through web-based technology. It therefore refers to any program, course, or piece of content that is given online [3]. Numerous studies examining the connection between e-learning development and its consequences for the educational sector have been published over the years [1].

Additionally, three aspects of successful e-learning were to be emphasized: context, people, and content. The subject matter specifies the kind of information and level of accessibility you wish to provide to your pupils [4][2]. People play a crucial role in obtaining a worthwhile learning advantage. The key to this study is the undergraduate students. The context was the third area. It is critical to connect the topic and students in order to present the knowledge as relevant to everyone, or in some groups or individual contexts. With the unlimited options for using e-learning, this method was employed to improve the ongoing intention to use it, as indicated by student satisfaction, support assessment, and academic success [3].

Therefore, many researchers have studied the most important success factors of e-learning to help e-learning stakeholders successfully implement e-learning systems. These researchers have attempted to identify requirements for e-learning systems but have not revealed all the requirements [5]. The most important factors for measuring the success of e-learning systems vary by literature. Few studies have examined the development of holistic models to assess the success of e-learning systems from different perspectives. However, studies on the above trends have primarily evaluated factors that predict the adoption and subsequent adoption of e-learning systems and how such factors or the actual use of e-learning systems affect learning outcomes [2].

Understanding the relationships between the components employed in the models is the aim of the theories. Several studies have discussed the important connection between adoption and technological acceptability factors, which results in a persistent desire to utilize an e-learning system. While TAM and TTF were utilized as complementing model factors to identify the contributing factors to the usage of the e-learning system, ECT was employed to use the system. Therefore, this study is predicated on the ongoing decision to test the positive aspects produced from TAM, TTF, and partial ECT, and a combination of the models using e-learning systems. In order to better understand how the integration of technology model variables might produce a continuous intention to use the e-learning system [6].

This study investigates the existing e-learning practices in the context of higher education institutions. Literature shows that there is a need to determine the factors that affect the use of e-learning system. It is hoped the developed model can assess the important factors that had a significant relationship with continuous intention to use the e-learning system. These factors derived from different related existing models used especially for the use purpose and their factors already derived from a variety of learning style requirements.

This study is divided into several sections. Firstly, the study explains some general information about the use of e-learning in higher educational institutions, especially in the Arab Gulf areas. Secondly, the different types of e-learning acceptance models are followed by a background for multi-models like TAM, TTF, and ECT models, which are all mostly recommended in the educational sector. Third, the ten important factors that could improve student performance when they use an e-learning system. Finally, a conclusion with additional recommendations for future researchers.

## **2 Literature review**

In this section, the study is divided into two subsections. Each section has overview information related to the benefits of using an e-learning system. Especially in high-demand situations such as the COVID-19 pandemic. In the first section, the study points to the needs of higher educational institutions to use and convert education to e-learning models. The second part is to illustrate the e-learning acceptance models and their important factors with different studies used from 2017 to 2022.

Furthermore, through the e-learning system, students can determine the most effective contributed factors to be used as an essential function used in an e-learning system, of which students' feedback on e-learning system can enhance the quality of learning in towards the intention to use e-learning system [3][6]. This progression requires intention to use the e-learning system from many relationships among the contributed factors for acceptance at a higher educational institution. These will entail deploying the use of technology applications for electronic assessment in addition to course content materials, use of video-based explanation programs, and Wiki application to enhance the continuous intention to use e-learning [1].

### **2.1 E-learning in Higher Education Institution**

Face-to-face and online learning are two examples of e-learning, which can save classroom time and increase student interest and enjoyment. E-learning is now a well-liked educational option [5] [6]. E-learning gives colleges the chance to improve their teaching strategies and boost student learning outcomes. Higher education students who are accustomed to using technology and are knowledgeable about meeting their demands should be able to benefit from the e-learning mechanism [7]. A recent advancement in technology and education necessitates the widespread adoption of e-learning in order to improve student delivery outcomes through a variety of platforms, communication, and creativity, which encourages ongoing intention to utilize e-learning [7] [8]. The adoption and implementation of a continuous e-learning initiative require significant effort. However, there are still areas where our students' consistent use of e-learning could be improved. The key elements of the e-learning model developed by [5], [9] and [10] to strengthen the ongoing intention to utilize the e-learning system in education.

For the purpose of enhancing the ongoing intention of e-learning use in schools, there is a substantial relationship between instructor expertise, course content, community interaction, and student technology experience [11]. The interaction aspect is crucial for providing feedback and determining how satisfied students are with the educational process. The level of interaction between professors, peers, and students is referred to as "interaction." Therefore, interaction should be investigated to fulfill the objectives of ongoing e-learning system use.

TAM, and ECT are just a few of the acceptance models that an e-learning system can use to satisfy e-learning requirements. The Gulf Cooperation Council (GCC) has embraced and accepted the e-learning system in many GCC nations. The Middle East's educational transformation is being led by Arab Gulf areas [9].

## **2.2 E-learning System Acceptance**

A form of self-assessment used to perform benchmarking or grading of a certain topic is the e-learning system. In the context of universities, the e-learning standard assessment determines if the HEI has reached the necessary level of acceptance. The acceptance of an e-learning system is evaluated based on a variety of parameters. One component is the subject knowledge of the teachers, which is based on their pedagogical techniques and qualifying standard e-learning [11].

This acceptance step, which is a component of the same e-learning acceptance criteria, tries to build a continuous intention to use the system. Additionally, elements include student satisfaction, assessment support, interaction, and academic performance for ongoing e-learning intentions [7]. Last but not least, the university outcomes of the e-learning system were related to elements like perceived utility and simplicity of use, which are concerned with a person's inclination to use the e-learning system on a regular basis.

The initial phase focuses on inspiring students to maintain their intention to use an online learning system. The second level involves teachers' experience in teaching and assessment with a continual desire to use an e-learning system, as well as the teaching resources they employ in the course materials they offer. Additionally, it was in line with validating the happiness that students had with their ongoing decision to utilize an e-learning system. Additionally, the interaction, support assessment, and academic performance aspects of e-learning are linked to its development because of the ongoing desire to utilize e-learning systems [12]. Teachers can improve student comprehension, peer interaction, and the development of knowledge and skills with the help of the e-learning system. The primary challenges are how to enhance technology adoption results and highlight the ongoing intention to employ e-learning systems. There are still factors that suffer from inconsistent intention to utilize the e-learning system, regardless of how many factors were used to build a genuinely beneficial e-learning system [13]. A summary of the earliest studies on the various kinds of e-learning systems can be found in Table 1.

As a result, there are discrepancies in the conclusions drawn from the literature analysis of the research presented in Table 1 regarding students' continual intention to use an e-learning system, as well as their perception of this intention and their learning

goals. In the meantime, many students have avoided e-learning platforms because they believe they add nothing to their education. However, they do not currently intend to use an e-learning system on a continuous basis. They advocate developing a model of acceptance for the elements that contribute to a user's ongoing intention to use an e-learning system, which is affected by many factors that affect students' continuous choice to use an e-learning system.

As a result, the majority of these studies were limited in their ability to identify the contributing components used for the purpose of continuous intention, as well as their failure to capture the continuous intention to use the e-learning system. In order to assess the acceptance of the ongoing intention to use the e-learning system in the next part, this study must highlight the chosen acceptance models.

**Table 1.** Summarised studies for assistance derived factors

Authors/ Years	Model Problem	Derived Factors
[14]	How to increase the performance	Student-Satisfaction Academic- Perform
[15]	How to evaluate lecturer's teaching method, student performance, and course material evaluation	Teacher-Subject-Knowledge Student-Satisfaction Academic- Perform Interactivity Support-Assessment
[8]	Using chat for improving independent student learning	Perceived ease of use, Student Satisfaction
[7]	Test influence of perceived usefulness and transformation	Student Satisfaction Academic Performance
[9]	How to investigate the quality standards of each university to the satisfaction students	Student-Satisfaction Academic-Perform Support-Assessment
[16]	How to assess the learning outcome of student academic performance	Academic- Perform
[17]	How TEL used to optimize SLO in universities	Academic- Perform Continue Intention
[18]	effect of using Wiki to create, design and increase the knowledge of lecturers	Course Content Perceived ease of use Perceived usefulness
[3]	How online assessment help in SLO	Support-Assessment Student-Satisfaction
[4]	How to reflect interactivity to improve SLO	Academic- Perform Continue Intention Student-Satisfaction
[19]	Missing to the model of instructor collaborative in study approach	Teacher-Subject-Knowledge Student-Satisfaction

### 3 Background of acceptance models

Researchers evaluate the adoption of e-learning by using a variety of acceptance models that center on e-learning systems. The goal of these models is to understand the

elements that relate to the adoption of new models. Much research has been conducted to describe the important relationship factors in adoption, technological acceptance, and intention to use an e-learning system. Table 2 shows that studies on the adoption and usage of e-learning systems have generally been conducted in Western nations as well as Asian nations, but no studies have been conducted in the Gulf Cooperation Council (GCC), particularly in the Arab Gulf areas.

This research focuses on additional contributed factors that used indirectly to assess the intention to use e-learning system which include student satisfaction to measure the impact of course content in intention to use e-learning system, also, teacher-subject knowledge and technology integration as indirectly connected to enhance continuous intention to use e-learning system [12][15].

The essential factors for using of e-learning system is assessed in this study because it helps to provide a self-assessment approach that students can use in evaluating teacher-subject-knowledge, academic performance level, and course content material evaluation in relation to the needed requirements of continuous intention to use e-learning system.

**Table 2.** Relevant studies

Authors/Year	Models Used	Sample Size
[7]	TAM+E-learning	451
[28]	TAM	370
[8]	TAM	---
[12]	ECT	----
[10]	TAM + ECT	346
[31]	TAM + ECT	395
[15]	---	150
[23]	---	165
[30]	TAM+TTF+ E-learning	252

The goal of this study is to increase people's continued desire to use e-learning systems. The various existing acceptance models will be explained in the following three subsections.

### 3.1 Technology Acceptance Model (TAM)

The oldest model examining acceptability and intention to use technology is Davis' Technology Acceptance Model (TAM), which was developed in 1989. The goal of this model is to defend the actions of people in connection to their system of choice.

Figure 1 illustrates the original TAM's four distinguishing components: 1) perceived usefulness (PU), and 2) perceived usability (PEOU). Three factors attitude toward behavior; four factors behavioral intention—all indicate system utilization (Davis, 1989). These elements are widely acknowledged as validating the use of an online learning system. PEOU refers to user expectations as the most straightforward way to gauge e-

learning acceptance in the context of e-learning. [8] conducted a meta-analysis and discovered that TAM is the most widely used model in e-learning and that the magnitude of causal effects among individual TAM-related factors vary depending on the user type and the type of e-learning discovered to do. It depends on your technique.

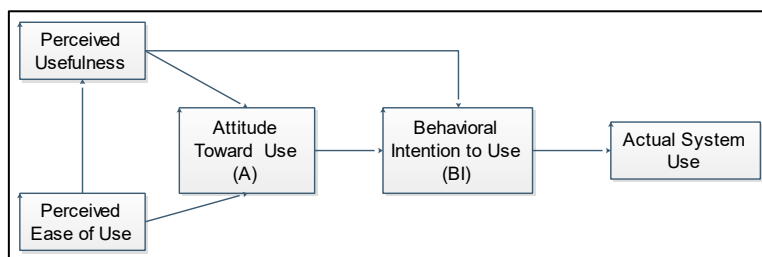


Fig. 1. Technology Acceptance Model (TAM)

[28] Observed differences in pupil engagement, coaching studies are far more effective with the help of humanities students than those in difficult sciences. In the context of our study, this is expected to result in differentiating outcomes, as teachers were required to quickly extrude in the direction of digital codecs based entirely on their various levels of experience with technologies.

In further research, TAM integrated more characteristics to create a new type named TAM2, which was then followed by [20]. He used TAM3 to confirm the user's intention to allow using YouTube for learning. These two accepted variants paired TAM with many other models, including occasionally ECT. The main goal of these approved TAM model iterations was to increase the amount of student involvement with each employer or university and the acceptance of e-learning in organizational products. Additionally, these combinations to provide an adopted TAM are frequently used to improve social media usage, support the internet network, or meet quality standards for businesses. The capability of the anchor connected to the students' computers in TAM 3 was expanded, changing how the students perceived using the model. Furthermore, the adjustment to have fun and computer use as external influences influence perceived usability. The adopted TAM2 and TAM3 served as the IS community's contribution. They have demonstrated sufficient trustworthiness and utility for mobile payment, data mining, email, and online financial technologies [1].

Although many studies take TAM2 and TAM3 into account, they still concentrate on the degree of acceptability of the e-learning system. With the use of the TTF and ECT models, this research aims to increase the acceptability of the model such that there is an e-learning model, which can be accomplished with the least amount of input from the original TAM. Additionally, adopting already-adopted models like TAM2 and TAM3 will be a complex and difficult process, which will not serve the model. Additionally, there will be a large number of contributing aspects, making it challenging to assess the level of substantial labor. In this context, we expect and demonstrate that the experience students gain during the semester will result in measurable changes in acceptance.

### 3.2 Expectation-Confirmation Theory (ECT)

Since 1980, ECT has been used in the marketing sector. Figure 2 illustrates the model Oliver (1980) originally created. Five constructs make ECT model from 1980: perceived utility, expectation, confirmation, satisfaction, and repurchase intention.

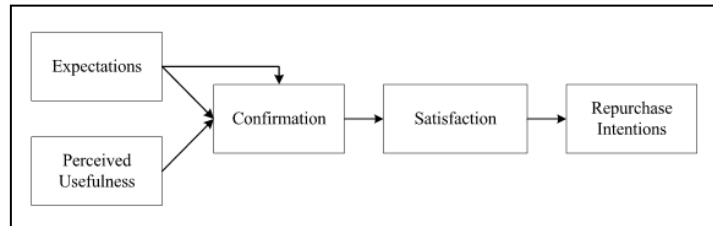


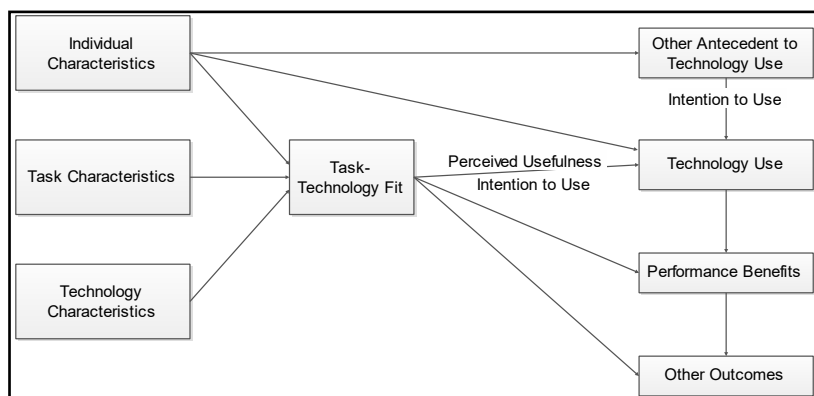
Fig. 2. Expectation-Confirmation Theory (ECT)

These five constructs have to do with how buyers behave when making purchases of goods or services. When a customer purchases a product, it may be because they are aware of its potential value. If the purchase lives up to the users' expectations, it might cement their allegiance after confirmation and satisfaction, which might lead to a desire to make another buy. When students are satisfied with how their academic achievement is developing, their intention to use increases [20]. [23] recently announced her aim to integrate the ECT theory into information systems and continuous online learning (2020). To support the service providers' happiness, the repurchase intention is comparable to the "continuous desire to use" aspect. In the context of e-learning, happiness and perceived usefulness are important drivers of ongoing technology and e-learning use.

### 3.3 Task-Technology Fit (TTF)

Task-Technology Fit (TTF) has incorporated and modified many studies in order to investigate the interaction between tools for determining the ongoing intention to use e-learning. Figure 3 shows the TTF model. Three components make up TTF: individual, task, and technology characteristics [8]. Each of these three factors has an impact on TTF. The result of this model demonstrates the advantages of technology utilization and performance.





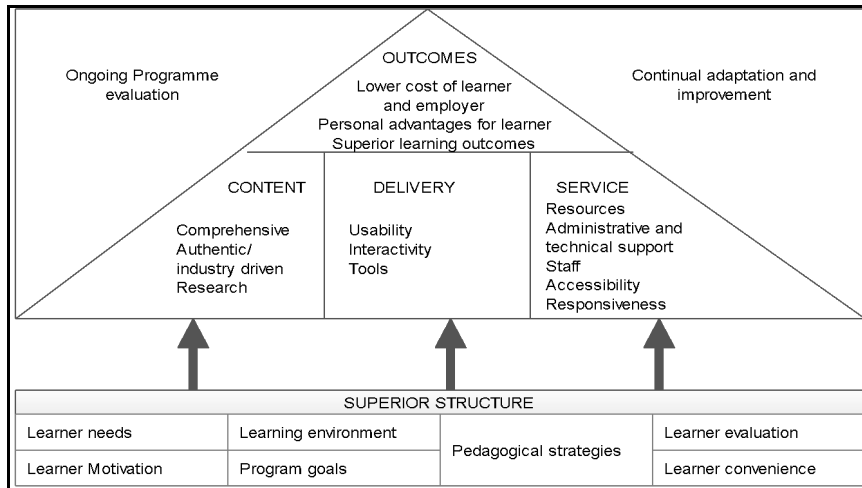
**Fig. 3.** Task Technology Fit (TTF)

This approach makes use of the relationship between the individual characteristics that support the teacher's role for the student's e-learning system [14][18]. The term "task distinguishing factor" refers to the course content when discussing the relationship between the teacher's understanding of the subject matter and students' acceptance of the e-learning system. According to [1], the use of technology as an interactivity factor refers to student interactions with one another and with teachers to discuss the course using technological tools that have an indirect relationship to the defined model.

Therefore, it is clear that the various technologies and e-learning systems employed at universities are related to the degree of performance and ongoing purpose to use e-learning systems, either directly or indirectly [7]. According to research on the possibility of improving teaching and learning results by [23] and [25], an e-learning system should be developed using a variety of constructs to manage student learning and a persistent intention to employ e-learning for teaching outcomes.

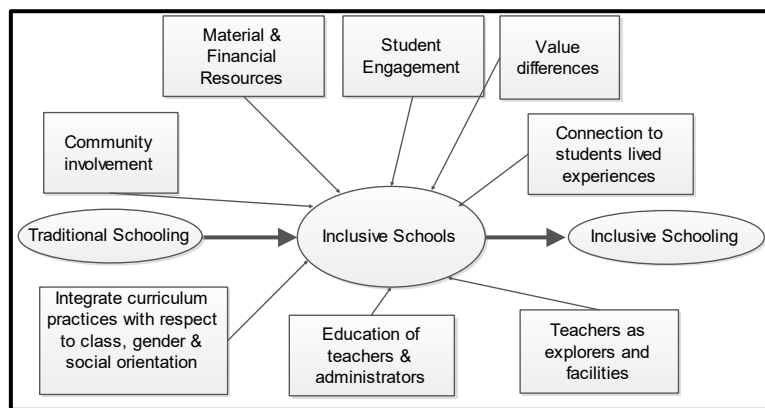
#### 4 Framework of the study

This study is a review of previous research and is intended to demonstrate three main sub-sections. In the initial step of defining an e-learning method, this paper used the triangle diagram of the demand-driven model that was used at the beginning of this century. Figure 4 shows the demand-driven model used in higher education.



**Fig. 4.** The Demand Driven Learning Model (DDLM)

The Demand Driven model in Figure 4 was used to evaluate quality standard of educational demands. [14] and [22][25] considered them significant in the growth of traditional learning through adoption of technology use in the teaching process. As a result, the institutions will build, adapt and improve services in education in alignment with the essential factors of intention to use e-learning. Figure 5, illustrate model of equity education: schools as agents of mobility and change of inclusive schools that include traditional and e-learning technologies.



**Fig. 5.** Equity Education: Schools as Agents as Mobility and changes

E-Learning model proposed in Figure 5 was used in testing the validity and improving the accuracy of e-learning models. This model has different types of factors that make E-learning effective, namely improved learning, greater student satisfaction and higher retention rates. The factors of teacher-knowledge, course content, interactivity

with community, and student technology experience have significant relationship for inclusive use of e-learning system at schools to enhance the continuous intention of e-learning use.

In addition, the relationship of peer-student interaction between themselves through using technology integration helps to improve e-learning continuous use [2][23][4][19]. Interaction factor is important to give feedback and indicate the satisfaction level of the educational process. Interaction indicates the level of interactivity between peer-students and teachers [28] [29]. Thus, interactivity should be explored to achieve the goals of intention to use e-learning system.

## **5 Factors used in this study**

The research used 34 studies to explore the important factors used to develop an e-learning model. The following 10 subsections demonstrate the factors individually.

Enhance the e-learning system to support the development and tracking of each student's course materials and teacher's expertise and reinforce the ongoing intention to access and use e-learning. Use technology-enhanced learning in universities by increasing the adoption of e-learning systems to improve student satisfaction with academic performance as a key factor for improving the continuing intentions of e-learning.

### **5.1 Perceived Usefulness (PU)**

According to Davis (1989), PU refers to people's perceptions of how new technology would improve their ability to learn. The subjective process used by the system to evaluate the degree of student development in a course and the level of job performance enhancement is known as perceived usefulness, or PU. The level to which students have a continual intention to use the application system to further their learning is revealed by the PU of TAM. It serves as the primary factor influencing Information Systems (IS) behavioral intent, with continued application of the model having a considerable impact on PU [10].

### **5.2 Perceived Ease of Use (PEOU)**

PEOU is defined as the point at which students believe that using e-learning models doesn't involve any effort on their part. The perceived ease of use (PEOU) test attempts to determine whether using the e-learning system requires little effort and whether learning how to use the e-learning 2.0 platforms 2rf yhis simple. Subtly cultivate a strong desire to work [22][31][24]. According to [31] investigations from 2017, the PEOU factor related to students' attitudes regarding using e-learning to improve their task completion performance. In a study by [7], the PEOU factor related to the system's student utilization based on perceived utility. Finally, the PEOU factor can be classified as a critical aspect in determining how theoretical and application systems relate PEOU and behavior intention as contributing elements for the limitless selection of an e-learning model.

### **5.3 Course Content (CC)**

Course content is described as material that students feel will support their needs in an e-learning environment. Students who enroll in open access courses using their email address and password can upload and download the course materials as well as turn in their assignments and project results utilizing the e-learning system. The TTF factor individual characteristic was used to refer to factor course content from sources by [5]. The importance of the course content factor, which was derived from the related theories, can, in conclusion, be added to the suggested model, which mentions the lack of theoretical studies that explain the need for an acceptance model.

### **5.4 Teacher-Subject Knowledge (TSK)**

Knowledge of teachers' subject areas is determined by their practical application experience. To boost student confidence and help them expand their data and knowledge, e-learning connects students and teachers virtually. The TTF factor task characteristic was used by Authors [13] (2017) to refer to the factor teacher-subject-knowledge from sources [18] Under the close supervision of an experienced teacher, teachers can connect with students online through open discussion and common groups to set up various discussion areas and develop a variety of strategies to boost their performance and knowledge when they engage in similar discussions with other students. In conclusion, the teacher-subject knowledge element was identified as a crucial component in the suggested theoretical model with the purpose of continuously enhancing the model through the usage of an e-learning system.

### **5.5 Interactivity (INT)**

"Interactivity" refers to the degree of student relationships based on the sharing of connections with peers and each group's vividness in the communication level. The interactivity of e-learning systems also enhances student communication so that they can learn from the teacher. The TTF factor technology was used by [7] to refer to factor interactivity in sources. Interactivity therefore promotes the growth of ideas, attitudes, dialogue, and trust between students and teachers. Presently, large levels of interaction between students and teachers are offered by e-learning strategies like MOOCs, demonstrating the validity of the continual intention to use them. Similarly, [19] proposes a model that looks at the role teachers play in fostering a collaborative study method. Therefore, it is clear that widespread e-learning use can enhance interactivity with regard to efficacy, particularly because it allows students to work without time restrictions [17].

### **5.6 Intention to Use (IU)**

Students' intention to utilize the teaching and learning model to hone their learning skills is known as the e-learning model (IU) [18]. Constant desire to use means to support the ECT's component and the TAM's behavioral desire in order to continuously

improve systems for student happiness in universities, [12] investigated the use of video blogs. Academic achievement, support assessment, and student happiness characteristics all have an impact on how frequently different e-learning platforms are utilized in universities, either directly or indirectly. Additionally, this study was founded on the ongoing preference for using e-learning tools, which was based on key elements from the TAM, TTF, and partial ECT models. This component is therefore advised to be used for motivating aspects that contribute to the use of an e-learning model.

### **5.7 Behaviour Intention (BI)**

Academic performance is improved by students' behavioral intentions, which are based on how beneficial they view direct online access to the entire course content and the availability of all possible connections between students and teachers [8]. Thus, each study under evaluation relates to the significant association and favorable impact of PU and PEOU on a behavioral intention taken within the context of e-learning to develop a system based on TAM and adopt TAM2 and TAM3 models that have been implemented utilizing MOOCs. However, the long-term purpose for using it has been determined [7]. Additionally, results from additional studies [21] revealed that developing technologies are successfully used. Teachers and students employ technology with the goal of establishing an e-learning relationship, for example [31]. An e-learning model will be effective based on the interactions and the firm's behavioral intention to use it.

### **5.8 Academic Performance (AP)**

Academic performance (AP) is described as student initiatives using the application model to raise their grades. Similar to that, the educational performance factor refers to how well pupils tolerate using technology and e-learning systems. According to Lin et al. (2017), the result and learning comparable achievement phrases are used to evaluate students' academic performance's impact on learning outcomes. Additionally, the e-learning model's educational performance element is a key outcome indicator. This study makes the case that adding this element can improve the suggested model for its target. As an e-learning system, automatic grading is the main technique utilized online. To debate and finalize the findings of the assessment, the teacher and students must have circular access to the scoring process, which calls for ongoing use of the system. One aspect that may influence the continued intent to utilize the e-learning model is the improvement in academic performance.

Testing the ongoing intent to utilize an e-learning model is advised to be done as part of the academic performance element at the conclusion of all studies [29]. Furthermore, course or teaching technique impression feedback from any e-learning system can be used to measure academic performance elements for specific studies. This academic performance and feedback acceptance were combined, and they were utilized as a gauge for the ongoing desire to use e-learning programs.

### **5.9 Support Assessment (SA)**

Support assessment is the external assistance provided to pupils to help them overcome their learning challenges [27][12]. Similar to this, [21][17] used post-test objective grade distribution as a measure for student support assessment rather than the more typical post-test that centrally evaluates and grades students to evaluate student learning objectives (SLO). The impact of SA on PU was strongest in the second month of lock-down. This may be a result of the overall phase characteristics. It became clear to him the second time that the crisis would drag on, but his frustration with social isolation was not too great.

Additionally, support assessment might relate to guidance provided via online instructions or by an e-learning platform with linkages to important outcomes and ongoing usage [19][26][27]. Additionally, the method they discovered for enhancing a successful model was put to theoretical or practical use [30].

### **5.10 Student Satisfaction (SS)**

In order for students to achieve their goals and for the results of their e-learning assessments to be transparent, the course content must be satisfying [9]. Furthermore, satisfaction refers to students' perceptions based on their self-efficacy, performance, and happiness with the current system [30]. Particularly when using an e-learning system, the high degree of student satisfaction may be a reliable indicator of academic performance, support assessment, and teacher expertise that meet expectations and student needs. In the educational process, which makes use of numerous technologies including email, online movies, wiki conversations, and Google forms that can be seen from various e-learning systems, the student satisfaction element is a crucial consideration. In order to evaluate the system's continuity, the continued intention to use an e-learning system needs to test the level of acceptability and satisfaction for both individual use and on an organizational level.

## **6 Conclusion**

In this study, studies on the use of e-learning systems in universities were reviewed. This study looked at the development of e-learning in higher education institutions. In addition, there are systems available for e-learning and continuous improvement. The performance of various e-learning acceptance models, including TAM, TTF, and ECT, was compared in this study. The goal of this study was to identify the essential, highly recommended elements, including information technology tools, subject-matter expertise among teachers, course material, and interactive elements. They can strengthen and encourage an ongoing practical intention to utilize an e-learning system, which gives improved results.

This study also examined and contrasted earlier investigations into the models for e-learning systems. A few of them are employed for corporate or management-level purposes, while others are intended for private use. Based on SS, SA, and AP, this research-reviewed model of ongoing use of e-learning was employed. The paper then described

the contributing factors. Finally, this study covered the components and qualities that are crucial for pinpointing the causes of using an e-learning model.

This research recommended using a combined model or an integrated model with more factors to evaluate the social impact and the student engagement, motivation, and acceptance of using e-learning in their future. Also, this research suffers from the limited database used in this study according to time availability and the level of discussion of the old models. Therefore, there is a good opportunity to explain the new existing model that was adopted from the original model and summarize its details.

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