

# Sustainable Adoption of E-Learning from the TAM Perspective

Subjects: Others

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All TAM constructs significantly impact the BI of e-learning use. Additionally, the results showed that mentality acceptance substantially moderates the relationship between system trust and interaction, on the one hand, and PU and PEOU on the other. These findings suggest that educational institutions should focus on factors influencing teachers' and students' attitudes toward adopting and using e-learning services. Lack of internet connection, ICT skills, and technology capabilities are the main issues, and the main TAM constructs of all factors.

Keywords: e-learning ; TAM ; adoption and sustainability

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## 1. Technology Acceptance Model, E-Learning Adoption, and Hypotheses

The TAM was used in this study as an information-theoretic model. This method predicts the reception of new technologies by using specific user groups. System integration becomes increasingly challenging as the need for technology increases and computerization continues. Therefore, the user acceptance of individual technologies has become a research subject. E-learning's success depends on three factors: its need, the talents it requires, and its requirements. Achieving long-term digital learning-development sustainability gives the educational institution the ability to overcome any challenges. Dissemination of e-learning applications is a priority for various institutions, regardless of their cultural background or physical infrastructure requirements. The first step is to identify the obstacles that prevent the system from working <sup>[1]</sup>. This is despite researchers <sup>[2]</sup> discovering that e-learning often involves transitions, comprehending computers, and internal organization infrastructure.

According to the literature, some studies have successfully broadened the application of the TAM in e-learning technologies <sup>[3][4][5]</sup>. Traditional pedagogy is practiced despite the absence of financial resources and skilled staff in most underdeveloped countries <sup>[6]</sup>. According to TAM, attitudes regarding the adoption of new technologies are directly influenced by how practical and straightforward new technologies are seen to be. In addition, the attitudes of users, which can be characterized by their level of interest in specific systems, is a significant consideration. Therefore, the future use of these systems depends on the users' behaviors <sup>[7]</sup>. People's behavior is also affected by how easy and helpful a product is for them to use <sup>[8]</sup>.

People's behavior is influenced by their perception of a product's usability and usefulness <sup>[8]</sup>. The designs of e-learning studies highlight the connection between system design and utilization, which is of particular interest. In the absence of a direct correlation, the link between PU and PEOU affects behavioral intention. Attitude toward adopting technology (ATT) is sometimes considered a direct predictor of perceived ease of use (PEOU) <sup>[9]</sup>. People's willingness to employ technology is influenced by technology's perceived usefulness (PU) <sup>[10]</sup>. Whether raising PEOU enhances one's perception of its usefulness has also been investigated <sup>[11]</sup>. PU has been proposed as a factor that directly influences ATTs, increasing the likelihood that people will engage with technology more frequently <sup>[4]</sup>. As a result, a person's attitude is characterized by how they react to new technology. Previous research has shown that a positive attitude towards new technology is necessary for successful implementation <sup>[12]</sup>.

## 2. Trust in the System, the Perceived Ease of Use, and the Perceived Usefulness of E-Learning Services

The adoption of e-learning services was studied using a modified TAM. Trust is emerging as a potential driver of information technology (IT) adoption. People in today's uncertain and ever-changing Internet environment look to the trust theory for guidance. As defined by numerous academic criteria, trust enhances the usability of online learning services and public perceptions. According to <sup>[13]</sup>, e-learning and supporting technology are essential <sup>[14]</sup>. A person's willingness to

use and adapt to new technology is strongly influenced by their level of trust in the system and when people trust a system, they use technical services that are more convenient and useful <sup>[15][16]</sup>.

According to this, interaction cannot be replaced with a structure. Numerous empirical studies have demonstrated that students' enjoyment and perceptions of educational quality are heavily influenced by contact <sup>[17]</sup>. As stated by Priyadarshini and Bhaumik <sup>[18]</sup>, students' acceptance of e-learning is affected by the authenticity of the information, services, systems, and teachers. Therefore, infrastructure can boost the perceived utility and usability of e-learning to understand better how e-learning services are perceived as valuable and easy to use.

According to user impressions, individual mentality acceptance is strongly linked to using technology in everyday tasks. According to the findings of this study, individuals conduct their utility assessments based on how comfortable they are using technology in their daily routine. As e-commerce is simple, some people may develop skepticism. A technical use case that enhances performance can increase a technology's perceived usefulness <sup>[19]</sup>. It is important to remember that an individual's level of motivation influences e-learning. When a person initially embraces it, there is also a lot of social support available to them <sup>[20]</sup>. According to the data supplied, people who lack confidence in their talents are more likely to use e-learning. Students' abilities to direct and customize their educational experiences may boost their senses of well-being and motivation to continue learning <sup>[21]</sup>.

Al-adwan and Smedley <sup>[22]</sup> found that the acceptance of e-learning can be attributed to various factors, such as students' growing appreciation for and knowledge of ICT's potential to enhance education and students' development of appropriate mindsets to take advantage of ICT's educational benefits. Studies have acknowledged that new learning frameworks are accepted by those that reveal positive attitudes towards e-discovery. New skills and a better academic future are made possible through online learning. E-learning is popular among students with specialized abilities <sup>[23]</sup>. There has been an increase in professors' and students' requirements to modify their mindsets in light of distance learning, online courses, and other e-learning features <sup>[24]</sup>.

Furthermore, ref. <sup>[25]</sup> noted that mindsets ultimately shape the strategies governments pursue to introduce technology-enabled educational applications regarding e-learning and the information society in these countries. However, with appropriate financial and logistical assistance, policies can change people's perspectives and attitudes regarding the need for technological innovation. Perceived simplicity of use, social norms, mind-stimulating playfulness, and product characteristics positively impact perceived usefulness <sup>[26]</sup>. Other factors contributing to ease of use are societal standards and product attributes. User behavioral intention is positively influenced by perceived effectiveness, ease of use, social norms, and network externalities.

Researchers have also examined how attitude acceptance influences system trust, PEOU, and PU. As a result, both interaction and PEOU and interaction and PU had moderating effects. Students and teachers used e-learning when they felt confident. Nevertheless, cyber-ethical issues, such as hacker exploitation, sabotage, vandalism of another person's physical, electronic, or intellectual property, and exploitation of the information will impact people's trust in online education. The goal was to determine how user expectations and system confidence interact to determine whether attitude acceptance is significant. Students and teachers with the same level of trust in the system and the internet are more likely to profit from e-learning services. However, e-learning services may not be used if ethical issues exist. For the long-term, sustainable adoption of e-learning, acceptance of mentality may have a favorable moderating influence on the link between trust, on the one hand, and PEOU and PU, on the other.

*Mentality acceptance has a positive moderating effect on the relationship between INT and PEOU.*

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