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INVESTIGATING SYSTEM QUALITY AND SOCIAL INFLUENCE ON E-LEARNING ACCEPTANCE

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ABSTRACT

This study investigates the acceptance of e-learning platforms in Taman Kemboja 4A, Rawang, Selangor, recognizing its potential to revolutionize education by providing flexibility and accessibility. It explores the level of acceptance among community members and addresses the challenges and opportunities associated with integrating e-learning into traditional educational settings. Through a comprehensive survey administered to community members, the research reveals varying degrees of acceptance influenced by factors such as accessibility, usability, and technological infrastructure. The findings emphasize the adaptability of e-learning to diverse learning styles, suggesting its ability to cater to individual preferences effectively. The implications of these findings extend to educators, policymakers, and developers, offering insights into strategies for enhancing the effectiveness and accessibility of e-learning platforms. Ultimately, this research underscores the transformative role of e-learning in reshaping education towards inclusivity and adaptability in contemporary society.

ARTICLE INFO

Keywords:

Usage of e-learning, technology acceptance model (TAM), system quality, social influence

1.0 INTRODUCTION

E-learning adoption is crucial as it relies on the attitudes, understandings, and intentions of key participants towards online learning systems. Understanding the factors influencing e-learning acceptance is essential for students, instructors, and policymakers to enhance the effectiveness of e-learning platforms. E-learning offers various benefits such as cost savings, improved learning processes, support for different learning styles, increased student engagement, flexible course content, and quality training structures (Cheung & Vogel, 2013). Despite its advantages, underutilization of e-learning remains a challenge, particularly in developing nations (Zalat et al., 2021). This underlines the necessity to investigate the factors affecting e-learning acceptance to address barriers to its effective utilization.

In today's environment, the significance of e-learning acceptance is further highlighted by the COVID-19 pandemic, which has accelerated the adoption of online learning tools. Studies have shown that challenges and acceptance of e-learning among university staff during the pandemic have become critical for teaching continuity (Zalat et al., 2021). The concept of e-learning acceptance influences the current situation by shaping educational practices and providing opportunities for remote learning, especially in times of crisis like the COVID-19 pandemic (Mailizar et al., 2021). E-learning plays a vital role in ensuring educational continuity and accessibility, making it a valuable tool for both traditional and distance learning environments.

Various factors influence e-learning acceptance, including system quality, content quality, information accessibility, perceived ease of use, and perceived usefulness (Solichin & Wijaya, 2021). Previous studies have explored the impact of course design, content support, assessment methods, and instructor characteristics on the actual use of e-learning systems (Zardari et al., 2021). Additionally, research has identified factors such as perceived usefulness, behavioral intention to use, actual use of e-learning, and perceived ease of use as significant in determining acceptance among specific user groups like deaf students (Alghanim & Alturki, 2022).

The objective of this study is to delve into the factors affecting e-learning acceptance, drawing on established models like the Technology Acceptance Model (TAM) and social support theory. By examining these factors, the research aims to provide insights into enhancing e-learning adoption and utilization, particularly in higher education settings. Understanding the determinants of e-learning acceptance is crucial for developing strategies to improve the design, implementation, and support of e-learning systems, thereby contributing to the advancement of online education practices.

2.0 LITERATURE REVIEW

2.1 E-Learning Acceptance

The historical development of e-learning has evolved significantly since its inception in the early days of the World Wide Web. Initially, e-learning began with text-heavy fundamental courses but has since transformed into a diverse instructional structure (Baig et al., 2021). The use of digital technology and online platforms has made educational information and advice more accessible, allowing students to engage in coursework from anywhere with internet access (Baig et al., 2021). Recent theoretical frameworks, such as the Unified Theory of Acceptance and Use of Technology (UTAUT), have provided a solid foundation for understanding technology adoption in education (Venkatesh et al., 2016). Methodologies like the Technology Acceptance Model (TAM) have been utilized to study factors affecting educators' attitudes towards e-learning systems, especially during the COVID-19 pandemic (Akmermer & AYYILDIZ, 2022). Research designs have incorporated elements of developmental research methods to enhance the effectiveness of e-learning environments (Elgazzar, 2014).

Recent trends in e-learning research have seen the emergence of new theoretical frameworks and models to explain concepts in the field. The SEARCH framework, focusing on Strengths, Emotional management, Attention and Awareness, Relationships, Coping, and Habits and Goals, has gained prominence in positive education combined with online learning (Lou & Xu, 2022). The Unified Theoretical Framework of Learning Theories has been instrumental in guiding public health continuing medical education research and practice (Roux et al., 2021). Models like the Community of Inquiry (CoI) have been utilized to enhance learner support in open distance learning and e-learning contexts (Baloyi, 2014). Recent research methods have emphasized the importance of personalized interactivity in web-based learning, as demonstrated by social

network-based frameworks (Wawire et al., 2018). These trends suggest a shift towards more interactive and personalized learning experiences in e-learning.

Previous studies in e-learning have yielded valuable insights, often utilizing theoretical frameworks to guide their research. For instance, Wenger's Community of Practice (CoP) theoretical framework has been instrumental in understanding online and blended learning environments (Smith et al., 2017). However, these studies have limitations, such as partial coverage of informal learning for older adults using mobile devices (Jin et al., 2019). Each study has made unique contributions, such as synthesizing frameworks for virtual immersive learning environments based on digital storytelling (Jantakoon et al., 2019). Despite these contributions, there are gaps in the literature, such as the need for further exploration of the impact of technology on workplace learning using theoretical frameworks (Bullock, 2013). Future research could focus on addressing these gaps to advance the understanding of e-learning and its implications for education.

2.2 Technology Model Acceptance (TAM)

E-learning's popularity depends on learners' perceptions of the system's usefulness and usability. New research referenced by Teo (2020) shows that students' motivation to use e-learning systems is highly influenced by their usability and simplicity. As mobile devices become more popular, TAM in smartphone e-learning (m-learning) has gained interest. Al-Sharhan et al. (2021) found that learners adopt mobile educational apps due to their perceived utility, convenience, and attitude. A relevant framework for understanding e-learning reactions is the Technology Acceptance Model (TAM). Recent research demonstrates its ongoing relevance in determining why students favor or detest e-learning systems. Perceived usefulness, convenience of use, teacher presence, and model changes might assist in explaining e-learning adoption. TAM sets scholars and teachers up to improve e-learning in a changing digital learning ecosystem.

2.3 System Quality

The literature defines system quality as e-learning platform technological infrastructure, software design, and usability (Davis, 1989). System quality directly affects user impressions and acceptance, according to an extensive study. The Technology Acceptance Model (TAM) by Davis (1989) states that perceived ease of use and perceived usefulness drive technology acceptance. System quality is the independent variable that determines critical views in e-learning. Users are more likely to use e-learning platforms that are user-friendly, efficient, and supportive of their educational goals. System quality has many dimensions that affect user acceptance differently. By providing constant access to course content and activities, reliability builds user trust (Gefen, 2003; Wu & Wang, 2005). Slow or sluggish e-learning systems can frustrate users and impair learning (Zhang, Zhao, & Tan, 2017). Since it affects how users engage with the platform, user interface design improves ease of use and the user experience (Liaw, Huang, & Chen, 2007). System performance is essential for delivering multimedia content, interactive features, and assessment tools, which greatly improves the perceived usefulness of the e-learning platform (Sanchez & Hueros, 2010). This interconnected web of factors, with system quality at its core, sheds light on how independent variables affect user perceptions and e-learning system acceptance.

2.4 Social Influence

Social influence is a significant factor in e-learning acceptance, impacting users' attitudes and behaviors towards online learning platforms. Previous studies have utilized frameworks such as the Technology Acceptance Model (TAM), the theory of reasoned action (TRA), the theory of planned behavior (TPB), and the Unified Theory of Acceptance and Use of Technology (UTAUT) to explore factors influencing e-learning acceptance Asvial et al. (2021). However, there is a gap in understanding the specific mechanisms through which social influence affects e-learning adoption, particularly in the context of the COVID-19 pandemic (Abbad, 2021). This research aims to address this gap by delving deeper into the relationship between social influence and e-learning acceptance, drawing on social support theory and TAM to provide a comprehensive understanding of the factors influencing users' intentions to use e-learning systems.

Previous literature has highlighted the positive impact of social influence on users' behavioral intentions towards e-learning systems (Tan, 2013). However, these studies often lack a detailed examination of the underlying mechanisms through which social influence operates within e-learning platforms. By integrating social support theory and TAM, this research offers a more nuanced analysis of how educational and emotional support influence e-learning acceptance (Almaiah & Alyoussef, 2019). This approach allows for a deeper exploration of the role of social influence in shaping users' perceptions and behaviors towards e-learning systems, providing valuable insights into the factors that drive e-learning adoption.

This research stands out from previous studies by offering a more comprehensive and theoretically grounded analysis of the influence of social factors on e-learning acceptance. By focusing on the specific mechanisms through which social influence operates, this study provides a more nuanced perspective on the factors driving e-learning adoption, particularly in the context of educational and emotional support. Overall, this research contributes to the existing literature by offering a more in-depth and theoretically informed analysis of the role of social influence in e-learning acceptance, thereby advancing our understanding of the factors that influence users' decisions to use e-learning systems.

2.5 Research Framework

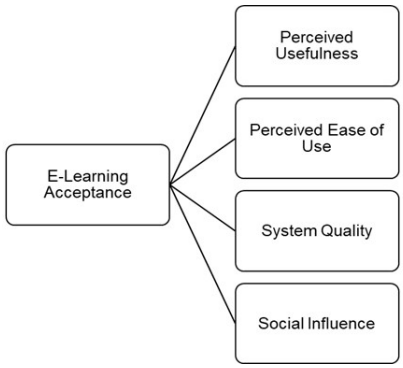

Figure 1

3.0 METHODOLOGY

3.1 Research Approach

This study examines how perceived utility, simplicity of use, system quality, and social influence affect e-learning acceptability in Taman Kemboja 4A, Rawang, Selangor. The quantitative technique of the 21-question poll which is google form will assist gather audience data. This study used quantitative methods with multiple-choice surveys. Descriptive and explanatory data may improve research reliability and accuracy. A descriptive questionnaire examines e-learning acceptance numbers.

3.2 Questionnaire Design

The questionnaire was based on earlier research, with some revisions to meet the study's goals. Most non-experimental research uses questionnaires, which are best for hypothesis testing. According to Bakos and Treacy (1986), a questionnaire study may enhance the external validity of the study results from a managerial perspective. Two sections comprised the questionnaire. First, demographic inquiries included age, gender, occupation, education, and e-learning-related questions. Participants had to fill out the information anonymously to protect research confidentiality. Part 2 covered five elements that influence e-learning acceptability: perceived utility, ease of use, system quality, social influence, and acceptance.

Multiplechoice answers were strongly agreed, agree, neutral, disagree, and strongly disagree on the questionnaire. Data from 108 valid survey replies was analyzed using IBM SPSS (Version-20). Data for analysis was collected from the Taman Kemboja 4A, Rawang, Selangor, community survey questionnaire. Cluster sampling was used to generalize study findings to the target population due to multiple linear regression analysis (Field, 2005). The respondents were sent a WhatsApp link to complete the e-learning experience questionnaire.

3.3 Sampling and Data Collection

Google Form reduces paper costs, making it efficient and cost-effective. Offering a user-friendly framework for responding to inquiries also promotes customer comfort. System users find the user interface easy to use. Participants can answer this question using phones, iPads, laptops, or other interfaces. This convenience allows people to answer questions from anywhere and at any time, eliminating the need to leave home. Despite efforts to reduce bias, its formation and influence are possible due to the unpredictability of sample selection. Saunders et al. (2009) state that all study participants must have expertise with Google Meet, Zoom, and Microsoft Teams for e-learning uptake. Also needed: familiarity with internet applications like Word, Excel, Canva, etc. Research is crucial to e-learning uptake. Due to the internet's ability to reach a large participant pool, the poll was administered online and shared via social media, including WhatsApp. The data gathering period was October 17–26.

4.0 FINDINGS AND DISCUSSION

4.1 Descriptive Table

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The e-learning system enhances my learning performance (ELA1)	108	1.00	5.00	3.5000	1.07216
My productivity is elevated through the utilization of e-learning in my study (ELA2)	108	1.00	5.00	3.4722	1.11455
Using the e-learning system enhances my learning effectiveness (ELA3)	108	1.00	5.00	3.5648	.98847
I find the e-learning system to be useful in my learning (ELA4)	108	1.00	5.00	3.8056	.85880
There is clarity and understanding in my interaction with the e-learning system (ELA5)	108	1.00	5.00	3.7130	1.01439
The e-learning system is easy to use for me (ELA6)	108	1.00	5.00	3.7963	.98360
Interacting with the e-learning system does not require a lot of my mental effort (ELA7)	108	1.00	5.00	3.2500	1.08624
My interaction with the e-learning system is clear and understandable (ELA8)	108	1.00	5.00	3.6389	.90128
I consider the e-learning system interaction to be satisfactory (ELA9)	108	1.00	5.00	3.6574	.77534
I am satisfied with the e-learning system functions (ELA10)	108	1.00	5.00	3.7407	.74093
I am satisfied with the e-learning system content (ELA11)	108	1.00	5.00	3.7037	.77652
I am satisfied with e-learning system interaction (ELA12)	108	1.00	5.00	3.7500	.72505
I should have participation in the e-learning activities, as per my instructors (ELA13)	108	2.00	5.00	3.7037	.84565
I should have participation in the e-learning activities, according to other students (ELA14)	108	1.00	5.00	3.6481	.87877
I should make use of the e-learning system, as per the people who affect my behaviour or whose opinions, I consider worthy (ELA15)	108	1.00	33.00	3.8704	2.95161
Generally, I think that the utilization of the e-learning system would be supported by the university/school/tuition provider (ELA16)	108	1.00	5.00	3.9722	.80255
My friends think that I should use the e-learning system (ELA17)	108	1.00	5.00	3.6574	.90855
I will make use of the e-learning system regularly in the forthcoming time (ELA18)	108	1.00	5.00	3.8981	.91651

I intend to make use of the content and functions of e-learning system for providing assistance to my academic activities (ELA19)	108	1.00	5.00	4.0648	.76456
I will give out my recommendation to others to use the e-learning system (ELA20)	108	1.00	5.00	4.0185	.89632
I will use the e-learning system on a regular basis in the future (ELA21)	107	1.00	5.00	4.0000	.90073
Valid N (listwise)	107				

The descriptive statistics table provides insights into the acceptance and perceptions of e-learning platforms among participants. Overall, participants reported moderately positive attitudes towards e-learning, with mean scores ranging from 3.25 to 4.06 on a scale of 1 to 5.

The analysis indicates that participants generally perceive e-learning systems as enhancing their learning performance (mean = 3.50), elevating productivity (mean = 3.47), and improving learning effectiveness (mean = 3.56). They also find the e-learning system to be useful (mean = 3.81), easy to use (mean = 3.80), and clear in interaction (mean = 3.71).

However, there are some areas of concern highlighted by the data. Participants feel that interacting with the e-learning system requires considerable mental effort (mean = 3.25) and that clarity in interaction could be improved (mean = 3.64). Additionally, while satisfaction with system functions (mean = 3.74) and content (mean = 3.70) is relatively high, satisfaction with system interaction is slightly lower (mean = 3.75).

The findings also suggest a positive social influence on e-learning adoption, as participants indicate support from instructors, peers, and university/school/tuition providers (means ranging from 3.65 to 3.97). Moreover, participants express strong intentions to continue using e-learning systems regularly (means ranging from 3.90 to 4.06), with high likelihood of recommending the system to others (mean = 4.02).

Overall, while participants exhibit positive attitudes towards e-learning platforms, there are areas where improvements can be made to enhance user experience and satisfaction, particularly in terms of ease of interaction and clarity. Additionally, leveraging social influence and promoting system benefits could further encourage adoption and regular usage of e-learning platforms in the future.

4.2 Correlation Table

Correlations

		System Quality	Social Influence
eLearning Acceptance	Pearson Correlation	.547**	.542**
	Sig. (2-tailed)	.000	.000
	N	108	108
System Quality	Pearson Correlation	1	.525**
	Sig. (2-tailed)		.000
	N	108	108
Social Influence	Pearson Correlation	.525**	1
	Sig. (2-tailed)	.000	
	N	108	108

Referring To Table 4.2, The Bivariate Correlations Between Dependent Variable (E-Learning Acceptance) And Independent Variable (System Quality and Social Influence)

4.3 Reliability

Table

4.3.1 Table E-Learning Acceptance

Reliability Statistics

Cronbach's Alpha	N of Items
.888	4

Based on Table 4.2.1, Reliability Statistics, the closer the Cronbach alpha is to 1, the higher the internal consistency reliability. The table shows a result of 0.888. Thus, the result shows the items for E-learning acceptance in dependent variables are highly correlated to one another.

4.4 System Quality

Reliability Statistics

Cronbach's Alpha	N of Items
.876	4

Table 4.2.2

Table 4.2.2 shows that internal consistency reliability increases with Cronbach alpha around 1. A credible statistical table of 4.2.2 yields 0.876. Thus, positive system-quality items are substantially connected.

4.5 Social Influence

Reliability Statistics

Cronbach's Alpha	N of Items
.465	5

Table 4.2.3

Table 4.2.3 shows that internal consistency reliability increases with Cronbach alpha around 1. Based on credible statistics, Results from Table 4.2.3 has a value of 0.465. Thus, the items remain relevant for positive social influence because Assareh (2010) found that financial constraints may limit e-learning adoption. Unequal educational opportunities may result from student technology access. A strong social network could transform this situation. Communities, organisations, and governments may provide financial aid, scholarships, or subsidised equipment to guarantee that all students have access to e-learning materials. In these areas, students say e-learning is challenging to adjust to because not all can afford cell phones or other electronics in their early years. This is why they think e-learning is harder to maintain than other communities.

5.0 CONCLUSION

E-learning acceptance in Kemboja 4A, Rawang, Selangor, is examined in this study. Research on e-learning acceptability has revealed the complex aspects that influence people's readiness to adopt digital education. This study evaluated and examined how perceived utility, convenience of use, and content quality affect e-learning acceptability using well-structured surveys, data collection, and SPSS analysis. The findings can help educators and organisations promote e-learning. The current study verified the Technology Acceptance Model (TAM) in education, revealing students' prospective judgements of e-learning system effectiveness. According to the study, perceived utility, simplicity of use, system quality, and social influence positively affected e-learning system use. This study was discussed as a potential e-learning acceptability factor. This study revealed users' e-learning system acceptance and adoption. Four elements can greatly affect user acceptance of elearning systems. E-learning is popular worldwide because it allows for independent learning, personalised instruction, and access to learning materials from anywhere.

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