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INVESTIGATING RELATIONSHIP OF PERCEIVED USEFULNESS TOWARDS THE FACTOR AFFECTING E-LEARNING ACCEPTANCE

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ABSTRACT

The utilization of online learning, sometimes denoted as E-learning, has experienced a significant increase in its level of acceptance and adoption. The primary factor contributing to this phenomenon is the rapid development of sophisticated technology and the widespread availability of internet access, facilitating the rise of e-learning as a feasible substitute for conventional classroom-based education. This study aimed to examine relationship between investigating factors affecting e-learning acceptance among community in Taman Kemboja 4A, Rawang. This study aimed to explore investigating relationship of perceived usefulness towards the factor affecting e-learning acceptance in among community. The research employed a quantitative method, utilizing a questionnaire as the primary research instrument. The questionnaires were distributed to 108 respondent in Taman Kemboja 4A, Rawang. The present study utilises the Technology Acceptance Model (TAM) as a theoretical framework to examine the associations between perceived usefulness and acceptance of E-Learning. The data was evaluated using statistical methods, specifically reliability and correlations analyses. The results of the study indicate that the decision to use an e-learning system is substantially impacted by the individual's perception of the system's usefulness. Furthermore, research has indicated that the adoption of e-learning was positively influenced by the perceived usefulness.

ARTICLE INFO

Keywords

E-Learning, Perceived Usefulness, Technology Acceptance Model

1.0 INTRODUCTION

E-learning, a method of education that utilizes internet-based instructional content, has become a popular alternative to traditional classroom-based learning due to its flexibility and accessibility (Hamutoğlu et al., 2019). Users' attitudes, understandings, and intentions towards online learning platforms play a crucial role in the adoption of e-learning (Rhema & Miliszewska, 2014). E-learning tools allow students to interact with educational resources such as text, photos, sound, and video on demand, enabling them to engage with the material anytime and anywhere as long as they have internet access (Hamutoğlu et al., 2019; Rhema & Miliszewska, 2014). Platforms offering features like message boards, instant messaging, and video conferencing facilitate real-time interactions between students, teachers, and peers, promoting collaborative learning (Hamutoğlu et al., 2019). Additionally, e-learning services can be customized to meet the specific requirements, knowledge, abilities, and expertise of individual students (Hamutoğlu et al., 2019).

The success of e-learning adoption is influenced by factors such as computer self-efficacy, internet self-efficacy, computer and internet experience, as well as attitudes towards e-learning (Rhema & Miliszewska, 2014). While e-learning is gaining popularity globally, challenges exist in ensuring universal usage among all students due to varying perceptions of the value of e-learning platforms (Hamutoğlu et al., 2019). Instructors' attitudes towards e-learning also significantly impact its implementation and effectiveness (Rhema & Miliszewska, 2014). Research has shown that stakeholders are increasingly embracing technology to enhance e-learning experiences (Rhema & Miliszewska, 2014). In conclusion, e-learning has revolutionized the educational landscape by offering a flexible and accessible learning alternative. The attitudes and perceptions of users and key stakeholders towards e-learning platforms play a critical role in its adoption and success. Customizable services, interactive tools, and tailored content contribute to the effectiveness of e-learning. Understanding and addressing factors such as self-efficacy, experience, and attitudes are essential in promoting widespread acceptance and utilization of e-learning platforms.

2.0 LITERATURE REVIEW

This section describes the independent variable and dependent variable for current study, which in this case, include the perceived usefulness and e-learning acceptance.

2.1 E-Learning Acceptance

E-learning, short for electronic learning, has transformed the field of education by utilizing electronic media and devices to improve learning processes (Beniczky et al., 2020). This educational method employs digital technology to deliver educational content and instructions online, allowing students to access resources and participate in coursework from any location with internet connectivity (Beniczky et al., 2020). The COVID-19 pandemic underscored the importance of e-learning as educational institutions rapidly shifted to remote learning, demonstrating the advantages of online instruction and its flexibility (Beniczky et al., 2020). The pandemic has propelled e-learning to the forefront as a popular teaching and learning method, not only in Malaysia but also in numerous other countries worldwide (Beniczky et al., 2020). The transition to e-learning has been

facilitated by digital communication tools and learning management systems, enabling schools to adhere to social distancing requirements and continue education through online platforms (Beniczky et al., 2020). Furthermore, the demand for e-learning has increased due to the shift towards digitization in education, emphasizing the necessity for innovative educational approaches (Beniczky et al., 2020).

In conclusion, e-learning has become an essential component of contemporary education, providing a flexible and accessible way for students to interact with learning materials and engage with instructors. The acceleration of the transition to e-learning has been driven by global events such as the COVID-19 pandemic, underscoring its significance in ensuring educational continuity. The integration of digital technologies in education has not only revolutionized traditional teaching methods but has also heightened the demand for e-learning as a tool to enhance the learning experience.

2.2 Technology Acceptance Model (TAM)

Davis (1989) is widely recognized as the originator of the Technology Acceptance Model (TAM), a psychological framework aimed at elucidating and forecasting the degree to which individuals adopt information technology (Armitage & Conner, 2001). Initially rooted in the Theory of Reasoned Action (TRA), TAM posits that users' perceptions of a technology's usefulness and ease of use significantly influence their inclination to incorporate the technology into their routines (Armitage & Conner, 2001). Over time, TAM has evolved and been applied in various contexts, with e-learning serving as an example of its adaptation to cover a broader range of scenarios (Armitage & Conner, 2001).

Masrom (2007) highlights that TRA suggests an individual's behavior is shaped by their attitude towards the behavior and the subjective norms associated with it (Sheer, 2021). This implies that an individual's actions and willingness to engage in a particular behavior are contingent upon their attitude and perceptions regarding that behavior (Sheer, 2021). Therefore, both TAM and TRA underscore the importance of users' attitudes and perceptions in determining their acceptance and utilization of technology (Armitage & Conner, 2001; Sheer, 2021). In essence, the amalgamation of TRA and TAM provides a robust framework for understanding user behavior towards technology adoption. By considering users' attitudes, perceptions, and subjective norms, this integrated model offers valuable insights into the factors influencing individuals' decisions to embrace and integrate technology into their lives. The research by Davis (1989) and Masrom (2007) collectively underscores the significance of psychological constructs in shaping technology acceptance and usage patterns, thereby contributing to a deeper comprehension of user behavior in the realm of information technology.

2.3 Perceived Usefulness

Perceived usefulness (PU) is a critical factor in determining individuals' acceptance and use of technology. Davis (1989) introduced the concept of perceived usefulness as the extent to which individuals believe that a particular system can enhance their performance. This belief in a technology's ability to improve task efficiency is essential for its adoption. Virvou and Katsionis (2008) further emphasize that the perceived usefulness of systems significantly impacts student learning outcomes. Anggoro (2019) adds that users actively seek technology that they perceive as useful, indicating a strong preference for systems that enhance task performance. Moreover, perceived usefulness is closely linked to decision-making beliefs, as highlighted by Hong et al. (2021). Bregastian & Herdinata (2021) found that perceived usefulness is rooted in individuals' confidence levels;

if they perceive a technology as helpful and beneficial, they are more likely to use it. Conversely, if they do not see it as useful, adoption rates decrease. In the context of e-learning systems, perceived usefulness plays a crucial role in student acceptance and engagement. Studies by A.Tahini et al. (2017), Ibrahim et al. (2017), and Mahmoudi (2017) all underscore the significant positive relationship between perceived usefulness of e-learning systems and students' behavioral intention to use them. Almaiah and Alismaiel (2019) further support this by demonstrating that perceived usefulness strongly influences users' adoption of learning systems. The ease of use of technology also influences its perceived usefulness. Venkatesh & (2000) suggest that the easier a technology is to use, the more useful it becomes. This aligns with Almaiah and Alismaiel's (2019) findings that people are more likely to utilize information systems if they believe it will enhance their performance. Overall, the literature consistently supports the notion that perceived usefulness is a key determinant of technology acceptance and usage. Individuals are more inclined to adopt and engage with systems that they perceive as beneficial in improving their task efficiency and performance.

3.0 RESEARCH QUESTIONS

The following are the study research questions:

1. Does perceived usefulness influence the use of e learning among local communities?

4.0 RESEARCH HYPOTHESIS

The following are the study research hypotheses:

H1: There is a positive relationship between perceived usefulness and e learning acceptance.

5.0 RESEARCH FRAMEWORK

Figure 1: Research Framework

The research framework illustrates the relationship between dependent variable and independent variable of the study. The independent variables are perceived usefulness, meanwhile the dependent variable is E-Learning Acceptance.

6.0 METHODOLOGY

This section discusses the research design, target population, sample size, data collection techniques, research instrument/questionnaire, and data analysis of the current study. Further details on the process are provided in Table 1 below.
Table 1: Research methodology

Research Design	This study use a quantitative approach of questionnaires including multiple choices were utilized for data collection.
Target Population	A total of respondents consists of 108 respondents from the community in Taman Kemobja 4A, Rawang.
Data Collection	Questionnaire was distributed to the target community through online using the Google Form as that is the most convenient way to reach the respondents.
Instrument/ Questionnaire	The instrument consists of (3) Sections: Section A: Demographic questions (7 Items); Section B: Perceived Usefulness (4 Items); Section C: E Learning Acceptance (4 Items). Likert scale questions range from strongly disagree to strongly agree (1 to 5) is being used in this study.
Data Analysis	Reliability test involves Cronbach's alpha to measure the consistency of a questionnaire, majorly demonstrated by Likert scale questions. The questionnaire data was analyzed using descriptive statistics. A number of surveys have been coded and will be evaluated using the statistical system Statistical Package for the Social Sciences (SPSS) Version 27 to answer the research question and hypothesis. A correlate analysis was conducted to determine the relationship between perceived usefulness and e learning acceptance.

7.0 FINDINGS AND DISCUSSION

Table 2: The study demographic data

Descriptive Analysis		
Gender	**Frequency**	**Percentages (%)**
Male	50	46.30
Female	58	53.70
TOTAL	**108**	**100.00**
Age	**Frequency**	**Percentages (%)**
Less than 20 years old	28	25.93
20 – 30 years old	55	50.93
30 – 40 years old	12	11.11

40 – 50 years old	3	2.78
50 years and above	10	9.26
TOTAL	108	100.00
Occupation	**Frequency**	**Percentages (%)**
Government	7	6.48
Non-Profit Sector	2	1.85
Student	67	62.04
Private	21	19.44
Others	10	9.26
6	1	0.93
TOTAL	108	100.00
Education	**Frequency**	**Percentages (%)**
PhD Degree	3	2.78
Master Degree	11	10.19
Bachelor Degree	32	29.63
Diploma	36	33.33
SPM	8	7.41
Secondary Schools	17	15.74
Primary Schools	1	0.93
TOTAL	108	100.00
Race	**Frequency**	**Percentages (%)**
Malay	91	84.26
Chinese	10	9.26
Indian	7	6.48
TOTAL	108	100.00
Experience with E Learning	**Frequency**	**Percentages (%)**
Less Than 1 year	22	20.37
1 -2 years	56	51.85
3 -5 years	19	17.59
More than 5 years	11	10.19
TOTAL	108	100.00

This demographic analysis shows that 50 of 108 study participants are male (46.3%) and 58 are female (53.7%). The questionnaire has 28 under-20 responders (25.93%). 50 responders are 20–30 years old, the greatest number (50.93%). Twelve responses (11.11%) are 30–40 years old. Three responders aged 40–50 (3.78%). The last 10 responders are over

50, accounting for 9.26%. Seven of the respondents (6.48%) are government employees. Non-profits contribute 1.85% with two respondents. 67 respondents (62.02%) are students, while 21 (19.44%) are private employees. Only 10 (9.26%) are others.

According to their educational background, three respondents (2.78%) in this study have a PhD, whereas 11 respondents (10.19%) have a master's degree. A total of 32 respondents, or 29.63 percent, have a bachelor's degree. Regarding educational attainment, the majority of respondents possess a Diploma, which includes 36 respondents (33.33%), while eight respondents (7.41%) hold an SPM. The respondent of secondary schools represents 17 respondents (15.74%) while followed by primary schools which represent one respondent (0.93%).

Based on the table above, out of 108 respondents in the study, 91 are Malay (84.26%), 10 are Chinese (9.26%) and 7 are Indian (6.48%) who have been involved as the respondents. Based on the responses, 22 respondents (20.37%) use e learning less than one year while 56 respondents (51.85%) use e learning one to two years. The respondents use three to five years represent 19 respondents (17.59%), followed by the usage of e learning more than 5 years represent by 11 respondents (10.19%).

Reliability of Data

The questionnaire's dependability was assessed using reliability analysis.

Table 3: Realibity analysis for perceived usefulness and e learning acceptance

Reliability Statistics	
Cronbach's Alpha	N of Items
.906	4

There are four (4) questions used to analyze the perceived usefulness Cronbach's Alpha is a = 0.906, indicating good. As a result, the coefficient reported for the question is reliable.

The Pearson Correlation Coefficient Analysis

The pearson correlation coefficient analysis was used to measure the strength of the linear relationship between perceived usefulness and e learning acceptance, which is as follows.

H1: There is a positive relationship between perceived usefulness and e learning acceptance.

Table 4: The Pearson correlation coefficient analysis between perceived usefulness and e learning acceptance.

Correlations			
		ElearningAcceptance	PerceivedUsefulness
ElearningAcceptance	Pearson Correlation	1	.588**
	Sig. (2-tailed)		.000
	N	108	108
PerceivedUsefulness	Pearson Correlation	.588**	1
	Sig. (2-tailed)	.000	
	N	108	108

The result of the Pearson correlation coefficient analysis is presented in Table 4. The findings reveal that the relationship between perceived usefulness and e learning acceptance is negligible correlation of 0.588. Both significant values are 0.000 which is more the highly significant level of 0.05. It shows a significant statistical relationship between perceived usefulness and e-learning acceptance. Therefore, H1 is supported.

8.0 CONCLUSION

In conclusion, this study sheds light on a significant relationship between perceived usefulness and e-learning acceptance among the community in Taman Kemboja 4A. Through an exploration of the determinants of e-learning acceptance, valuable insights have been gleaned into the multifaceted factors influencing individuals' inclination towards digital education adoption. By employing a theoretical framework, this research evaluated the primary determinants of perceived usefulness of e-learning within the community.

The utilization of e-learning through electronic devices is characterized by its user-friendly interface and accessible learning process, which are pivotal in fostering acceptance among users. The findings underscore the positive impact of perceived utility on individuals' willingness to engage with e-learning platforms via electronic devices. Notably, individuals' uncertainty regarding the potential benefits of e-learning may lead to resistance towards its incorporation into their daily routines.

However, the study reveals a substantial number of individuals who are receptive to integrating e-learning into their lives. This acceptance extends beyond students, as adults also recognize the value of leveraging online learning platforms for their professional development. Such findings highlight the growing recognition of the benefits offered by e-learning, transcending age demographics and educational pursuits.

In essence, this research contributes to our understanding of the factors driving e-learning acceptance within the Taman Kemboja 4A community. Moving forward, these insights can inform the development of tailored strategies to promote the uptake of e-learning initiatives, thereby fostering lifelong learning opportunities and enhancing skill development within the community.

REFERENCES

Armitage, C. and Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic review. British Journal of Social Psychology, 40(4), 471-499. https://doi.org/10.1348/014466601164939

Beniczky, S., Blümcke, I., Rampp, S., Shisler, P., Biesel, E., & Wiebe, S. (2020). E-learning comes of age: web-based education provided by the international league against epilepsy. Epileptic Disorders, 22(3), 237-244. https://doi.org/10.1684/epd.2020.1157

Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. Mis Quarterly, 13(3), 319. https://doi.org/10.2307/249008

Hamutoğlu, N., Savaşçı, M., & Sezen-Gultekin, G. (2019). Digital literacy skills and attitudes towards e-learning. Journal of Education and Future, (16), 93-107. https://doi.org/10.30786/jef.509293

Rhema, A. and Miliszewska, I. (2014). Analysis of student attitudes towards e-learning: the case of engineering students in libya. Issues in Informing Science and Information Technology, 11, 169-190. https://doi.org/10.28945/1987

Sheer, V. (2021). The state of norm-based antismoking research: conceptual frameworks, research designs, and implications for interventions. Health Communication, 38(2), 310-325. https://doi.org/10.1080/10410236.2021.1950296