Acceptability of Website-Based Learning Media within the Merdeka Learning Model among Teachers across West Java

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Abstract

Entering the 21st century, technological developments are currently developing steadily. Entering the modern era which is marked by technological developments that continue to change every day, all aspects of life are now affected by advances in digital technology. Web-based learning media is a form of utilizing the latest technology in the educational context, which is implemented in the teaching and learning process using technology. Therefore, researchers will study and research the acceptability of Website-Based Learning Media with the Independent Teacher Learning Model throughout West Java to see the extent to which teachers have mastered the creation of digital-based learning media. This research uses a quantitative approach with correlational survey methods and path analysis. The research results show that Self E Self-Efficacy (Self Application) has a relationship with Behavioral Intention (Acceptance of technology). This can be seen from the p value which gets a value of 3.82 and the T Value with a value of 0.00 which exceeds the minimum and maximum limits set. determined, and it can be concluded that this variable is said to have a significant effect.

Keywords: Website Base Learning, Merdeka Learning, Among Teacher

1. INTRODUCTION

Entering the 21st century, technological development has continued to evolve rapidly. According to Rahayu et al. (2024), the modern era is characterized by continuously changing technological advancements that influence all aspects of life through digital innovation. Meanwhile, Prayogi et al. (2020) state that in 21st-century life, individuals constantly interact with various technologies that offer convenience in the form of fast and easy access to information, efficient task completion, and the elimination of distance and time barriers in long-distance communication. Furthermore, Yunansah et al. (2022) argue that the use of technology integrated into various aspects of real life can foster the development of an intelligent society.

It can therefore be concluded that in the 21st century, the continuous daily evolution of digital technology affects all areas of life. Individuals increasingly interact with technology that facilitates information access, work efficiency, and unrestricted remote communication. The integration of technology into everyday life has the potential to create a more intelligent society.

As a result, many students tend to prefer searching for information via the internet rather than using other media. They also rely on the internet to find learning materials. The limited availability of learning media in schools encourages students to use the internet more frequently as a learning resource (Rahayu et al., 2024). According to Yunansah et al. (2022), this phenomenon occurs because the internet is

easily accessible anytime and anywhere and provides a vast amount of information. Grossman (2017) states that the internet can be utilized as a learning resource that offers various interactive learning media. Interactive learning in the technological era has attracted significant attention from academics and education practitioners (Yunansah et.al., 2022; Wahid et.al., 2023; Wahid & Asrina, 2024). Interactive learning refers to a process that creates interaction between teachers and students or among students themselves (Dikilitas & Mumford, 2020).

Technology in the school learning process is currently widely used to support teachers in teaching activities (Mukaromah, 2020). Anggraeny et al. (2020) emphasize that the use of technology in elementary education can enrich students' learning experiences; therefore, teachers should utilize technology as a tool to attract students' interest in learning. Meanwhile, Akbar and Noviani (2019) argue that in the educational context, it is essential for teachers and students to have adequate access to digital technology and the internet at school. Interactive learning materials that utilize devices such as laptops or computers can enhance the learning experience. Teachers must also be equipped with the skills and competencies to use digital tools effectively. Moreover, support from all stakeholders—including school principals, teachers, and students—as well as sufficient budget allocation for procurement, development, and maintenance of facilities and infrastructure, is crucial for the successful implementation of ICT-based learning (Herlambang, 2021; Herlambang & Abidin, 2022; Permana et.al., 2024).

A study conducted by Aurora and Effendi (2019) revealed that the use of e-learning media can increase students' learning motivation. According to Mustofa and Khoir (2020), this highlights the importance of selecting appropriate learning media. Such media not only function as tools for illustrating instructional content but also enhance students' motivation and learning interest. In addition, interactive learning media such as e-learning have been proven practical, as demonstrated in the study by Andrizal and Arif (2017). Therefore,

to facilitate the delivery of engaging and non-monotonous learning materials, the use of interactive media is essential. One example of such media is a website. The findings of Rahmawati and Hidayat (2022) further support this notion by indicating that website-based multimedia has a positive effect on students' learning motivation.

Website-based learning media represent a form of utilizing advanced technology in the educational context, implemented in the teaching and learning process through digital technologies (Salsabila & Aslam, 2022). One of the advantages of using website-based learning media is its ability to independently stimulate students' motivation and interest in learning (Danaswari & Gafur, 2018). Research by Suryandaru and Setyaningtyas (2021) shows that web-based learning media can support students in maximizing the use of their mobile devices for learning purposes and can be easily accessed whenever needed. Meanwhile, Suanah (2019) reported that based on user evaluations, the average scores for ease of use, attractiveness, and usefulness of the learning media were 2.753, 2.697, and 2.583, respectively. These results indicate that the developed learning media, when assessed based on product evaluation indicators, can be categorized as good.

Another study by Mardi et al. (2022) found that through organized training programs, teachers were empowered to create up-to-date learning experiences aligned with current developments by utilizing website-based learning media. This provides opportunities to enhance learning quality by leveraging the advantages offered by such media. Therefore, it can be concluded that research on the use of website-based learning media demonstrates good acceptability. Based on this premise, the present study examines the acceptability of website-based learning media within the Merdeka Learning model among teachers across West Java, aiming to assess the extent to which teachers master the development of digital-based learning media.

2. METHOD

This study employs a quantitative approach using a correlational survey method and path analysis. As stated by Hair et al. (2019), this method is effective for exploring relationships among variables in research. The researchers utilized Structural Equation Modeling–Partial Least Squares (SEM-PLS) with the SmartPLS 3 application for data analysis.

SEM is a statistical technique that combines factor analysis and path analysis to estimate relationships among latent variables, while PLS is one of the most widely used SEM approaches. The study involved 136 elementary school teachers in the West Java region to evaluate the acceptability of website-based learning media within the Merdeka Learning framework.

Tabel 1. Demographic Data of Respondents on the Acceptability of Website-Based Learning Media within the Merdeka Learning Framework

Data Demogarfi		Jumlah	Persentase %
Jenis Kelamin	Laki-laki	21	15
	Perempuan	115	85
Usia	≤ 30 tahun	30	22
	31-40 tahun	41	30
	41-50 tahun	33	24
	≥ 51 tahun	32	24
Pengalaman Mengajar	≤ 10 tahun	47	35
	11-20 tahun	55	40
	21-30 tahun	23	17
	≥ 31 tahun	11	8

The instrument used in this study was a questionnaire. The questionnaire was distributed to teachers online via Google Forms to ensure voluntary participation. It consisted of two sections: one collecting respondents' demographic data and the other containing questions related to acceptability. The questionnaire items were based on indicators to be measured. Affective Needed (AN), Attitude (A), Behavior Intention (BI), Effort Expectancy (EE), Facilitating Condition (FC), ICT Usage Habit (IUH), Perceived Learning Opportunities (PLO), Performance Expectancy (PE), Self-Efficacy (SE), dan Social Influences (SI).

he measurement scale used in the acceptability questionnaire was a five-point Likert scale:

1 = Strongly Disagree;

2 = Disagree;

3 = Neutral;

4 = Agree;

5 = Strongly Agree.

SEM is a multivariate statistical analysis method developed from regression and path analysis. SEM data processing is more complex because it consists of a measurement model and a structural model. SEM simultaneously involves three activities: testing the validity and reliability of instruments (confirmatory factor analysis), testing the relationships among variables (path analysis), and obtaining a suitable predictive model (structural model and regression analysis). A complete SEM model fundamentally consists of a measurement model and a structural or causal model. The measurement model is used to assess convergent and discriminant validity, while the structural model describes the hypothesized relationships among variables. To facilitate SEM data analysis, various statistical software packages are available, including LISREL, AMOS, and SmartPLS.

3. RESULT AND DISCUSSION

Result

The indicator measurement/outer model analysis was conducted to ensure that

the measurements are appropriate and valid in determining the relationships between latent variables and their respective indicators. The following figure presents the outer model illustrating the results of the analysis of the relationships between latent variables and their indicators.
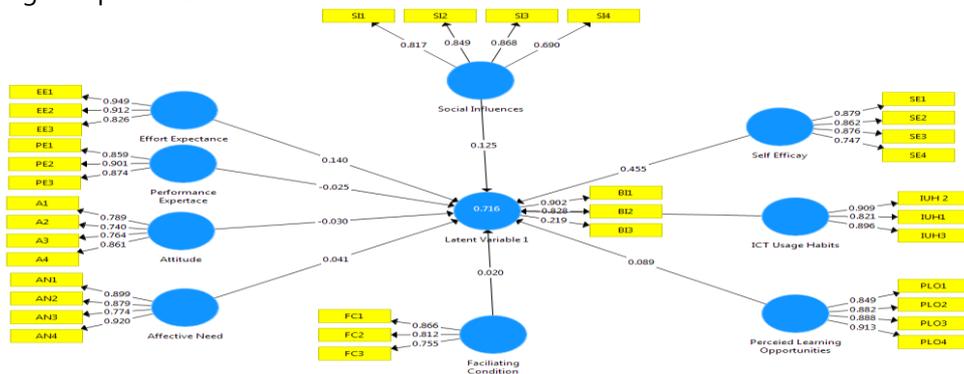

Figure 1. Results of Outer Loading Measurements

Based on the results of the analysis of the relationships among the variables, the following validity results were obtained

	AN	A	BI	EE	FC	IUH	PLO	P E	SE	SI
A1		0.789								
A2		0.740								
A3		0.764								
A4		0.861								
AN1	0.899									
AN2	0.879									
AN3	0.774									
AN4	0.920									
BI1			0.902							
BI2			0.828							
BI3			0.219							
EE1				0.949						
EE2				0.912						
EE3				0.826						
FC1					0.866					
FC2					0.812					
FC3					0.755					
IUH 2						0.909				
IUH1						0.821				
IUH3						0.896				
PE1								0.859		

Tabel 2. Validity Test / Outer Loading Item Instrument

The validity test of the instrument items with a value of > 0.7 is declared valid. Based on table 2, the indicator values that are > 0.7 or declared valid are A1, A2, A3, AN1, AN2, AN3, AN4, BI1, BI3, EE1, EE2, FC1, FC2, FC3, IUH1, IUH2, IUH3, PE1, PE2, PE3, PLD1, PLD2, PLD3, PLD4, SE1, SE2, SE3, SE4, SI1, SI2, SI3.

After the validity test was carried out, a reliability test was carried out which was measured using composite reliability, which can be seen in the following table:

	Cronbach's Alp	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Affective Need	0.891	0.894	0.925	0.757
Attitude	0.804	0.826	0.869	0.624
Behavior Intention	0.490	0.714	0.723	0.516
Effort Expectance	0.877	0.888	0.925	0.805
Faciliating Condition	0.747	0.785	0.853	0.660
ICT Usage Habits	0.848	0.847	0.908	0.768
Perceied Learning Opportunitie	0.906	0.909	0.934	0.780
Performance Expertace	0.852	0.855	0.910	0.771
Self Efficay	0.862	0.864	0.907	0.710
Social Influences	0.820	0.825	0.882	0.654

Tabel 3. Construct Reliability and Validity

Untuk menguji validitas dapat dilihat dari nilai Average variance extracted (AVE) untuk masing-masing variabel laten bernilai > 0.5 (Muhson, 2022).

To test validity, it can be seen from the Average variance extracted (AVE) value for each latent variable which is > 0.5 (Muhson, 2022)

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Variabel	Average Variance Extracted (AVE)	Keterangan
Affective Need	0.757	Valid
Attitude	0.624	Valid
Behavior Intention	0.516	Tidak Valid
Effort Expectance	0.805	Valid
Faciliating Condition	0.660	Valid
ICT Usage Habits	0.768	Valid
Perceied Learning Opportunities	0.780	Valid
Performance Expertace	0.771	Valid
Self Efficay	0.710	Valid
Social Influences	0.654	Valid

Tabel 4. Validity Test

The table above shows that all variables have an Average Variance Extracted (AVE) value greater than 0.5. This proves that the variables used are valid. After the validity test, a reliability test is conducted. The reliability test can be conducted after all variables are declared valid. Reliability testing is performed by observing Cronbach's Alpha and Composite Reliability (> 0.7) (Muhson, 2022). The reliability test table can be seen in the following table:

Variabel	Cronbach's Alpha	Composite Reliability	Keterangan
Affective Need	0.891	0.925	Reliabel
Attitude	0.804	0.869	Reliabel
Behavior Intention	0.490	0.723	Reliabel
Effort Expectance	0.877	0.925	Reliabel
Faciliating Condition	0.747	0.853	Reliabel
ICT Usage Habits	0.848	0.908	Reliabel
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Performance Expertace	0.852	0.910	Reliabel
Self Efficay	0.862	0.907	Reliabel
Social Influences	0.820	0.882	Reliabel

Tabel 5. Reliability Test

In accordance with the results obtained for the questionnaire to be used, it was found that the questionnaire was valid and reliable, so it can be said that the questionnaire used for data collection and testing this hypothesis is suitable for use (Bashir, 2020).

	R Square	R Square Adjusted
Behavior Intention	0.716	0.696

Tabel 6. Value R Square

From table 6 above, it shows that the R Square value obtained is 0.716 or 71% Behavior Intention (BI) is influenced by Affective Needed (AN), Atitude (A), Effort Expectance (EE), Facilitating Condition (FC), ICT Usage Habit (IUH), Perceived Learning Opportunities (PLO), Performance Expectancy (PE), Self-Efficacy (SE), Social Influences (SI), the remaining 29% is

To see the strength of the relationship in the UTAUT 2 model, look at the R-square value of the construct. The R-square value is estimated to be between 0 and 1. The obtained R-square values are presented in the following table:

influenced by factors outside UTAUT 2 or other factors not discussed.

After evaluating the measurement model and finding that all research constructs were valid and reliable, the next step was to test the proposed hypotheses to determine the relationships between variables and the factors influencing behavioral intention. The following are the path coefficients obtained:

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Affective Need -> Behavior Intention	0.041	0.048	0.092	0.446	0.656
Attitude -> Behavior Intention	-0.030	-0.035	0.086	0.346	0.729
Effort Expectance -> Behavior Intention	0.140	0.153	0.089	1.581	0.115
Faciliating Condition -> Behavior Intention	0.020	0.031	0.099	0.204	0.838
ICT Usage Habits -> Behavior Intention	0.151	0.156	0.080	1.892	0.059
Perceived Learning Opportunities -> Behavior Inten	0.089	0.064	0.069	1.294	0.196
Performance Expertace -> Behavior Intention	-0.025	-0.015	0.093	0.268	0.789
Self Efficay -> Behavior Intention	0.455	0.445	0.119	3.824	0.000
Social Influences -> Behavior Intention	0.125	0.130	0.119	1.051	0.294

Tabel 7. Path Coefficients

Discussion

If the p-value < 0.05 or the t-value > 1.96, a variable or factor is considered to have a significant effect. Based on the Path Coefficients table above, it can be observed that Social Influence (SI) and Effort Expectancy (EE) have a significant effect on Behavioral Intention (BI), as these variables have p-values < 0.05 and t-values > 1.96. In contrast, Attitude (A), Affective Need (AN), Facilitating Conditions (FC), ICT Usage Habit (IUH), Performance Expectancy (PE), and Self-Efficacy (SE) do not show a significant effect on Behavioral Intention (BI), as

their p-values are > 0.05 and their t-values are < 1.96.

Based on these results, it can be concluded that Self-Efficacy (application-related self-efficacy) has a relationship with Behavioral Intention (technology acceptance), as indicated by a t-value of 3.82 and a p-value of 0.00, which exceed the established minimum significance thresholds. Therefore, this variable can be considered to have a significant effect.

4. CONCLUSION

Overall, the findings of this study indicate that among the variables tested, Self-Efficacy (application self-efficacy) is related to Behavioral Intention (technology acceptance), as evidenced by the data analysis process. It can be concluded that effective application use influences how technology is accepted, particularly among teachers in West Java.

5. ACKNOWLEDGE

Based on these results, it can be concluded that Self-Efficacy (application self-efficacy) is associated with Behavioral Intention (technology acceptance). This relationship is evidenced by a p-value of 0.00 and a T-value of 3.82, both of which exceed the established minimum thresholds. Therefore, the variable is considered to have a statistically significant effect..

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