Multidisciplinary Output Research For Actual and International Issue (MORFAI Journal) ISSN (e): 2808-6635
Volumes 5 No. 5 (2025)

WEBSITE-BASED DIGITAL MODULE ACCEPTANCE WITH MERDEKA FLOW STRATEGY IN ELEMENTARY SCHOOLS IN BANDUNG CITY AREA

Ahmad Solihin[1]*, Dede Margo Irianto[2], Yusuf Tri Herlambang[3]
[1,2,3]Universitas Pendidikan Indonesia
Corresponding E-mail: ahmad.solihin78@upi.edu[1]*, dedemargo@upi.edu[2], yusufth@upi.edu[3]

Received	: 21 April 2025	Published	: 25 June 2025
Revised	: 30 April 2025	DOI	: https://doi.org/10.54443/morfai.v5i5.3303
Accepted	: 17 May 2025	Link Publish	: https://radjapublika.com/index.php/MORFAI/article/view/3303

Abstract

The development of technology in the 21st century is accompanied by the widespread use of digital technology to support human activities in various fields. Likewise in learning activities, the use of technology in learning is a necessity. Integration of technology in learning can be in the form of using technology as a learning medium in the form of digital modules. This study aims to analyze the effect of the independent flow strategy on the acceptance of website-based digital modules, as well as its effect on Effort Expectancy Behavior Intention (media use efforts) and Facilitating Condition (facilitating support). This study uses a quantitative approach with correlational survey methods and path analysis. Data was collected from 118 teachers in Bandung City. The results of the study indicate that the independent flow strategy has a positive and significant effect on the acceptance of website-based digital modules, Effort Expectancy Behavior Intention, and Facilitating Condition. This result is shown by looking at the 10 indicators that determine the acceptability of teaching materials and media. There are indicators of Effort Expectancy Behavior Intention (effort to use media) and Facilitating Condition (supporting facilities) that determine the acceptability and good influence on the media created. This finding shows that the independent flow strategy can increase the acceptance of website-based digital modules, motivate users to use media, and provide convenience for users in accessing and learning learning materials.

Keywords: ***Digital Module, Website, Merdeka Flow.***

INTRODUCTION

The development of technology in the 21st century is accompanied by the widespread use of digital technology to support human activities in various fields, including in educational activities. 21st century education is a part of learning that applies learning skills & innovation, information skills, media, and technology (digital literacy) (Banarsari et al., 2023). This is driven by various factors, such as ease of access to information, affordability, and flexibility of learning time. One form of utilization of Information and Communication Technology in education is the use of website-based digital modules.

Learning media is a tool used to bridge learners with the information or knowledge they want to learn. The definition of learning media according to (Nuary, 2024) is a tool in the form of audio or visual that can support the occurrence of learning conditions in students or receive information through the process of understanding, processing information, and forming new information constructions into existing memories. The use of learning media can be in the form of using visual media (graphics, slides, and photos) and audio (films and recordings) (Mustika et al., 2018).

This study aims to analyze the influence of the independent flow strategy on the acceptance of website-based digital modules in Elementary Schools in the Bandung City area. Through a deeper understanding of the factors that influence the acceptance of technology in elementary education, it is hoped that the right strategy can be found to improve the quality of learning and ensure the success of the implementation of the technology, so that it can bring maximum benefits to the teaching and learning process in elementary schools. Currently, many web services offer a role as a media or learning resource, and one of the popular ones is the Google Sites feature.

Google Sites is a web service created by Google to make it easier to create simple websites without the need for coding skills and at no cost. The features offered by Google Sites are connected to Google features such as

YouTube, Google Docs, Google Slides, Google Calendar, and Google Maps that we often use. Thus, Google Sites should be able to be used to create learning websites (Ma'wa et al, 2023). The advantages of using Google Sites as teaching materials or tools in learning are as follows: (1) it can help students understand more detailed material by providing videos, images or animation; (2) increase students' interest in learning through attractive learning media displays; (3) students can collect assignments more easily; (4) there is clearer information regarding assignment instructions; (5) provide flexibility in learning time for students, because the material can be easily accessed at any time (Rosiyana, 2021).

Meanwhile, according to (Rosiyana, 2021), the benefits of Google sites are as follows: (1) Google sites can make students more interested and enjoyable (2) Google sites can provide learning materials that can be downloaded so that students can learn from the material anywhere and anytime (3) Google sites can provide materials from the beginning to the end of the meeting, students can re-read the material given by the teacher because the material does not automatically disappear (4) students can upload assignments that have been given their own place for assignments (5) Google sites can provide separate announcements regarding assignments or other information. Therefore, this article will discuss the influence of the independent flow strategy on the acceptance of website-based digital modules (using Google Site) in Elementary Schools.

In analyzing the level of acceptance and use of technology, the UTAUT (Unified Theory of Acceptance and Use of Technology) model is one of the most popular and widely used by researchers. (Venkatesh, 2022) states that UTAUT is a theory that aims to influence an individual's desire to utilize technology. Meanwhile, in the study of social psychology, TRA focuses on the determinants of behavior and its determinants, namely attitudes toward behavior and subjective norms (Purwanto et al., 2020). Then Davis et al., in (Purwanto et al., 2020) applied TRA to examine the factors that explain why people accept or reject using computers at that time. In implementing the learning process carried out by researchers, various forms of learning media were adopted such as visual, audio, and audio visual. Researchers observed all forms of these media in a container in the form of a website using a Google site. Digital modules can improve student learning achievement and can help students catch up on learning materials (Sholikha et al., 2022). Through this study, it is expected to find factors that influence the acceptance of the proposed research model. The goal is to obtain evaluation results that support the use of web-based learning media with Google Sites in elementary schools. The application of this model also allows research to examine the factors that influence the level of teacher acceptance of website-based digital modules with Google Sites through the Merdeka Flow strategy.

LITERATURE REVIEW

Instructional Media.

According to Sanaky in (Sanulita, 2024) it means that learning media is an educational tool that can be used as an intermediary in the learning process to increase effectiveness and efficiency in achieving teaching goals. Munadi in (Hoerudin, 2023) defines learning media as anything that can convey and channel messages from a source in a planned manner so that a conducive learning environment is created where the recipient can carry out the learning process efficiently and effectively. This definition is in line with the definition, among others, submitted by the Association of Educational Technology and Communication (AECT) in America (Arifudin, 2022), namely as all forms and channels used by people to convey messages or information. According to Suryani, et al. in (Kartika, 2022) stated that learning media are all forms and means of conveying information that are made or used in accordance with learning theory, can be used for learning purposes in conveying messages, stimulating students' thoughts, feelings, attention, and will so that they can encourage the occurrence of a deliberate, purposeful, and controlled learning process.

Based on several opinions above, it can be concluded that media is anything that can be used to deliver messages. In learning activities, media can be called learning media as an intermediary for message sources (teachers) with message recipients (students) containing material or lesson content with certain materials. The use of learning media can attract students' attention, make learning materials clearer, methods more varied, and students will do more learning activities (not just listening to the teacher).

Digital Module

According to S. Nasution in (Ramli, 2024) explains that a module is a complete unit consisting of a series of learning activities and is designed to help students achieve goals that are formulated specifically and in detail. Santosa in (Arifin, 2024) explains that a digital module is a set of digital or non-printed teaching media that are arranged systematically which are used for independent learning purposes, thus requiring students to learn to solve

problems in their own way. Furthermore, Santosa in (Sappaile, 2024) explains that digital modules adapt the components contained in printed modules in general, only the difference between printed modules and conventional modules lies in the physical presentation of digital modules that require a computer device to use them and require an additional application to run the electronic module. The digital module is the latest innovation from the printed module, where this digital module can be accessed with the help of a computer that is already tied to supporting software. From these definitions, a general conclusion can be drawn that a digital module is a unit of non-printed teaching materials in digital form and arranged systematically to facilitate the independent learning process with the help of information technology, so that it is easily accessed whenever and wherever needed.

METHOD

According to Rahardjo quoted (Arifudin, 2025) that the research method is one way to obtain and seek tentative truth, not absolute truth. The result is scientific truth. Scientific truth is a truth that is open to being tested, criticized, and even revised. Therefore, there is no best method for seeking truth, but what exists is the right method for a particular purpose according to the existing phenomenon. Budiharto quoted (Kusmawan, 2025) that the selection of research methods must be adjusted to the research being conducted so that the results are optimal.

This research was conducted with a quantitative research approach. The research method used by the researcher is a correlational survey with path analysis. The correlational survey method with path analysis is an effective approach to explore the relationship between variables in research (Lahiya, 2025). By using this technique, researchers can identify and test the causal relationship between these variables. The method of analyzing data paths used in this study utilizes Structural Equation Modeling-Partial Least Square (SEM-PLS) namely by using the SmartPLS 3 application. Structural Equation Modeling (SEM) is a statistical technique used to analyze structural relationships. SEM combines factor analysis and path analysis to estimate the relationship between latent variables. Partial Least Squares (PLS) is one of the most popular SEM methods, often referred to as SEM-PLS. PLS is used primarily when the purpose of the study is to predict and explain the variability of the data. This study was conducted on Elementary School teachers in Sumedang Regency, as many as 118 teachers were respondents, namely teachers spread across 30 Districts. The following is the demographic data of respondents regarding the acceptance of website-based teaching media with the Merdeka flow.

Table 1. Demographic Data of Respondents on Acceptability of Website-Based Learning Media with Merdeka Flow.

Demographic Data		Amount	Percentage %
Gender	Man	24	20.34
	Woman	94	79.66
Age	< 30 years old	24	20.34
	31-40 years old	24	20.34
	41-50 years old	24	20.34
	> 51 years old	46	38.98
Teaching Experience	< 10 years old	34	28.81
	11 – 20 years old	39	33.05
	21 – 30 years old	32	27.12
	> 31 years old	13	11.02

This study used a questionnaire instrument. The questionnaire was distributed to teachers online via Google Form. The questionnaire consists of two parts, namely the part that collects respondent data and the part that contains questions related to acceptability. The contents of the questionnaire are the indicators to be measured, namely 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), and Social Influences (SI). The measurement scale used in this acceptability questionnaire is a 5-point Likert scale, namely: 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree.

SEM is a multivariate statistical analysis method developed from regression and path analysis. SEM data processing is more complicated because SEM is built by measurement models and structural models. In SEM there are 3 activities simultaneously, namely checking the validity and reliability of the instrument (confirmatory factor analysis), testing the relationship model between variables (path analysis), and obtaining a suitable model for prediction (structural model analysis and regression analysis). A complete modeling basically consists of a

measurement model and a structural model or causal model. The measurement model is carried out to produce an assessment of validity and discriminant validity, while the structural model is a modeling that describes the hypothesized relationships. To process SEM data more easily, you can use the help of statistical software. Currently, there are various software available for SEM data processing, including Lisrel, AMOS and Smart PLS.

RESULTS AND DISCUSSION

Outer Model Analysis

The analysis of indicator/outer model measurements is carried out to see that the measurements are appropriate and valid in determining the relationship between latent variables and their respective indicators. The following is a picture of the outer model resulting from the analysis of the relationship between latent variables and their indicators.

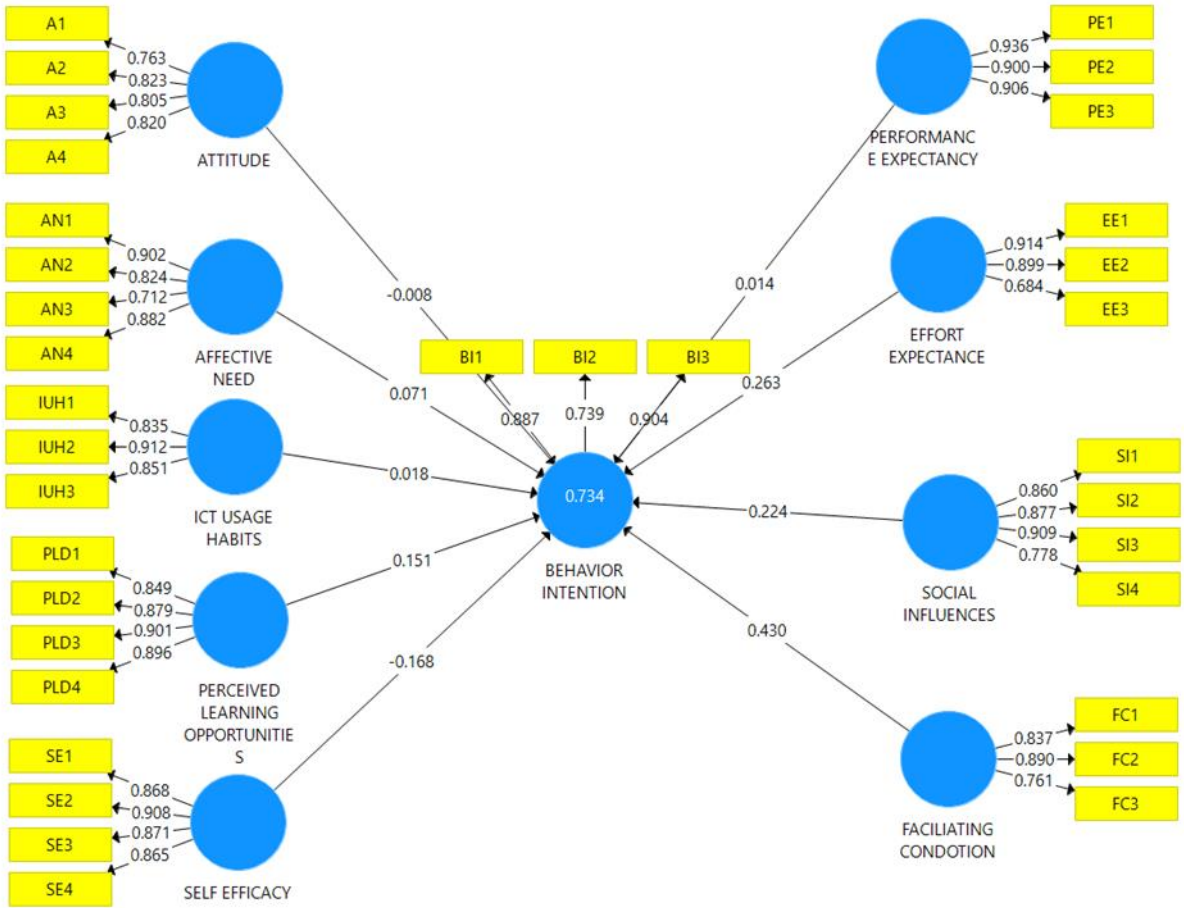

Figure 1: Outer Loadings Measurement Results

a. Uji Convergent Validity

Based on the results of the analysis of the relationship between variables, the following validity was obtained:

Table 2. Validity Test / Outer Loading of Instrument Items

	AN	Q	BI	EE	FC	IUH	PE	PLO	SE	SI
A1		0,763								
A2		0,823								
A3		0,805								
A4		0,820								
AN1	0,902									
AN2	0,824									
AN3	0,712									
AN4	0,882									

	AN	Q	BI	EE	FC	IUH	PE	PLO	SE	SI
BI1			0,887							
BI2			0,739							
BI3			0,904							
EE1				0,914						
EE2				0,899						
EE3				0,684						
FC1					0,837					
FC2					0,890					
FC3					0,761					
IUH1						0,835				
IUH2						0,912				
IUH3						0,851				
PE1								0,936		
PE2								0,900		
PE3								0,906		
PLD1							0,849			
PLD2							0,879			
PLD3							0,901			
PLD4							0,896			
SE1									0,868	
SE2									0,908	
SE3									0,871	
SE4									0,865	
SI1										0,860
SI2										0,877
SI3										0,909
SI4										0,778

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.

b. Construct Reliability and Validity

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

Tabel 3. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AFFECTIVE NEED	**0,852**	**0,872**	**0,900**	**0,694**
ATTITUDE	**0,819**	**0,827**	**0,879**	**0,645**
BEHAVIOR INTENTION	**0,799**	**0,820**	**0,883**	**0,717**
EFFORT EXPECTANCE	**0,789**	**0,855**	**0,875**	**0,704**
FACILIATING CONDOTION	**0,776**	**0,792**	**0,870**	**0,690**
ICT USAGE HABITS	**0,833**	**0,834**	**0,900**	**0,751**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
PERCEIVED LEARNING OPPORTUNITIES	**0,904**	**0,905**	**0,933**	**0,777**
PERFORMANCE EXPECTANCY	**0,902**	**0,908**	**0,938**	**0,836**
SELF EFFICACY	**0,901**	**0,904**	**0,931**	**0,771**
SOCIAL INFLUENCES	**0,879**	**0,879**	**0,917**	**0,735**

To test validity, it can be seen from the Average variance extracted (AVE) value for each latent variable which is > 0.5 (Judijanto, 2025).

Table 4. Validity Test

Variabel	AVE	Information
AFFECTIVE NEED	**0,694**	Valid
ATTITUDE	**0,645**	Valid
BEHAVIOR INTENTION	**0,717**	Valid
EFFORT EXPECTANCE	**0,704**	Valid
FACILIATING CONDOTION	**0,690**	Valid
ICT USAGE HABITS	**0,751**	Valid
PERCEIVED LEARNING OPPORTUNITIES	**0,777**	Valid
PERFORMANCE EXPECTANCY	**0,836**	Valid
SELF EFFICACY	**0,771**	Valid

From the table above, all variables have an Average Variance Extracted (AVE) value of more than 0.5. This proves that the variables used are valid. After the validity test, a reliability test is carried out. Reliability testing can be carried out after all variables are declared valid. Reliability testing is carried out by looking at Cronbach's Alpha and Composite Reliability > 0.7 (Rismawati, 2024). The reliability test table can be seen in the following table:

Table 5. Reliability Test

	Cronbach's Alpha	Composite Reliability	Information
AFFECTIVE NEED	**0,852**	**0,900**	Reliabel
ATTITUDE	**0,819**	**0,879**	Reliabel
BEHAVIOR INTENTION	**0,799**	**0,883**	Reliabel
EFFORT EXPECTANCE	**0,789**	**0,875**	Reliabel
FACILIATING CONDOTION	**0,776**	**0,870**	Reliabel
ICT USAGE HABITS	**0,833**	**0,900**	Reliabel
PERCEIVED LEARNING OPPORTUNITIES	**0,904**	**0,933**	Reliabel
PERFORMANCE EXPECTANCY	**0,902**	**0,938**	Reliabel
SELF EFFICACY	**0,901**	**0,931**	Reliabel
SOCIAL INFLUENCES	**0,879**	**0,917**	Reliabel

Based on the data obtained for the questionnaire used, the questionnaire is valid and reliable, so the questionnaire can be used for data collection and testing hypotheses.

1. Analisis R Square

To see the strength of the relationship owned by the UTAUT 2 model by looking at the R Square value of the construct. The R Square value is estimated between 0-1. The R Square values obtained are presented in the following table:

Table 6. R Square Value

	R Square	R Square Adjusted
BEHAVIOR INTENTION	0,734	0,712

From table 6 above, it shows that the R Square value obtained is 0.734 or 73% Behavior Intention (BI) is influenced by Affected Needed (AN), Attitude (A), Effort Expectancy (EE), Facilitating Condition (FC), ICT Usage Habit (IUH), Perceived Learning Opportunities (PLO), Performance Expectancy (PE), Self-Efficacy (SE), Social Influences (SI), the remaining 27% is influenced by factors outside UTAUT 2 or other factors not discussed.

2. Hypothesis Testing (Path Coefficients)

After the measurement model assessment has been carried out and the results have been obtained that all research constructs have been proven valid and reliable, the next step is to test the proposed hypothesis to see the relationship between variables and what factors influence Behavior Intention. The following are the results of the Path Coefficients obtained.

Tabel 7. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
AFFECTIVE NEED -> BEHAVIOR INTENTION	0,071	0,072	0,089	0,791	0,429
ATTITUDE -> BEHAVIOR INTENTION	-0,008	0,002	0,090	0,085	0,932
EFFORT EXPECTANCE -> BEHAVIOR INTENTION	0,263	0,250	0,113	2,324	0,021
FACILIATING CONDOTION -> BEHAVIOR INTENTION	0,430	0,423	0,088	4,900	0,000
ICT USAGE HABITS -> BEHAVIOR INTENTION	0,018	0,020	0,073	0,243	0,808
PERCEIVED LEARNING OPPORTUNITIES -> BEHAVIOR INTENTION	0,151	0,142	0,087	1,736	0,083
PERFORMANCE EXPECTANCY -> BEHAVIOR INTENTION	0,014	0,016	0,103	0,137	0,891

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
SELF EFFICACY -> BEHAVIOR INTENTION	-0,168	-0,163	0,146	1,148	0,252
SOCIAL INFLUENCES -> BEHAVIOR INTENTION	0,224	0,235	0,114	1,960	0,050

If p value <0.05 or T value > 1.96 then the variable or factor is said to have a significant effect. From the Path Coefficient table above, Facilitating Condition (FC), and Effort Expectancy (EE) have a significant effect on Behavioral Intention (BI) because these variables have a p value <0.05 and T value > 1.96. Meanwhile, for the variables Affected Needed (AN), Attitude (A), Effort Expectancy (EE), ICT Usage Habit (IUH), Perceived Learning Opportunities (PLO), Performance Expectancy (PE), Self-Efficacy (SE), and Social Influences (SI), they do not have a significant effect on Behavioral Intention (BI) because these variables have a p value > 0.05 and T value <1.96.

Discussion.

Looking at the 10 existing indicators, the indicators that determine the acceptability of the teaching materials and media created are indicators regarding Facilitating Condition Behavior Intention (facilitating conditions) and Effort Expectancy Behavior Intention (effort to use media). According to (Zulfa, 2025) that Facilitating Conditions have a direct effect on user intentions to use web-based training systems. This includes the availability of technological infrastructure, technical support, and adequate resources that allow users to feel supported in using learning technology. Meanwhile, according to (Djafri, 2024) that teacher readiness in preparing learning media is greatly influenced by the availability of adequate hardware, software, and internet connectivity. Lack of training and technical support can be an obstacle to the integration of learning media. This is reinforced by (Rifky, 2024) who stated the importance of institutional support, including school policies, teacher training, and technical support, as the main factors in implementing digital learning. The availability of adequate technological infrastructure is also mentioned as an important prerequisite for the successful use of learning media. It can be concluded that Facilitating Conditions play a crucial role in the acceptability and successful implementation of learning media. The availability of adequate technical support, resources, and infrastructure not only increases the user's intention to adopt learning media but also ensures effective and sustainable use. When users feel that the learning conditions, both technically and non-technically, facilitate the use of media, the intention to continue using it increases. For example, media that is compatible with devices commonly used by students, the availability of usage guides, and support from teachers or educational institutions will strengthen positive perceptions of the media.

Meanwhile, regarding the effort to use media, according to (Romdoniyah, 2024) that ease of use (Perceived Ease of Use) has a positive and significant influence on the intention to use LMS. This emphasizes the importance of an intuitive interface and clear navigation in increasing the intention to use e-learning. Meanwhile, according to (Aidah, 2024) that Effort Expectancy has a significant influence on the intention to use LMS. This means that if students feel that LMS is easy to use and does not require excessive effort, then their intention to use it increases. This is reinforced by (Afifah, 2024) that Effort Expectancy has a positive and significant influence on the intention to use ChatGPT in learning. An intuitive interface and simple instructions make it easier for students to adopt this technology.

The conclusion of the influence of facilitating conditions on efforts to use digital media is that indicators that determine the acceptance of teaching materials and learning media include facilitating conditions (Facilitating Condition -> Behavior Intention) and efforts to use media (Effort Expectancy -> Behavior Intention). This is as stated by (Nuryana, 2024) that the perception of ease of use and the availability of support and facilities affect user intentions in adopting learning technology. Meanwhile, according to (Farid, 2025) that user perceptions of ease of use and available support affect their intention to continue using the application. This is reinforced by (Arifudin, 2024) that the perception of ease of use affects user intentions, and the availability of support and facilities affects actual usage behavior. Teachers' perceptions of the ease of use of learning media and the availability of support and facilities for learning media play an important role in determining teachers' intentions to adopt and continue using technology as a learning medium.

Based on the discussion above, it can be concluded that the acceptance of teaching materials and learning media is greatly influenced by two main indicators, namely Facilitating Conditions and Effort Expectancy. These two indicators have a crucial role in determining the user's intention to adopt and continue using technology-based learning media. Facilitating Conditions include external factors such as the availability of adequate technological infrastructure, technical support, and resources that facilitate users in using learning media. Research shows that supportive conditions, such as hardware, software, and good internet connectivity, will increase user intention to use learning media. Institutional support, teacher training, and clear school policies are also important factors in strengthening the acceptance of learning media by users.

Meanwhile, Effort Expectancy is related to the ease of use of media, where users will be more likely to use learning media if they feel that the technology is easy to use and does not require excessive effort. An intuitive interface, clear navigation, and simple instructions play an important role in facilitating media use. This applies to the use of websites as learning media. Overall, these two factors are interrelated and contribute to increasing user intentions to adopt and continue using digital learning media. The availability of support, adequate facilities, and ease of use are aspects that must be considered in designing effective teaching materials and learning media. When these two indicators are considered properly, acceptance of learning media will increase, and the use of the media can continue sustainably.

CONCLUSION

The creation of website-based digital media with a free flow in the Bandung City area has been well received. This can be seen from the results of the Facilitating Condition Behavior Intention (facilitating conditions) and Effort Expectancy Behavior Intention (media use efforts) indicators. Facilitating Conditions include external aspects such as the availability of technological infrastructure, technical support, and adequate resources, which make it easier for users to access and use learning media. Support from institutions, clear policies, and training for teachers are important factors that strengthen the acceptance of learning media. Meanwhile, Effort Expectancy is related to the ease of use of the media. Users will be more likely to adopt and use learning media if they feel that the media is easy to understand and does not require excessive effort. An intuitive interface and clear navigation are important elements in increasing user intention to use website-based learning media.

These two factors are interrelated and have a significant influence on the acceptance and success of the implementation of learning media. When these two aspects are considered properly, acceptance of learning media will increase, which allows the use of the media to take place effectively and sustainably in the learning process. So, by making this media, it is hoped that it will be able to present a new nuance in supporting learning with an independent flow that involves digital-based learning media that is in accordance with the demands of the times where all aspects of life are closely related to technology.

REFERENCES

Afifah, H. (2024). Implementasi Technology Acceptance Model (TAM) Pada Penerimaan Aplikasi Sistem Manajemen Pendidikan Di Lingkungan Madrasah. *Jurnal Tahsinia*, *5*(9), 1353–1367.

Aidah, A. (2024). Pengembangan Sistem Informasi Manajemen Dalam Dunia Pendidikan. *Jurnal Tahsinia*, *5*(6), 966–977.

Arifin, A. (2024). The Relationship Between Classroom Environment, Teacher Professional Development, and Student Academic Performance in Secondary Education. *International Education Trend Issues*, *2*(2), 151–159.

Arifudin, O. (2022). Analysis Of Learning Management In Early Childhood Education. *Technology Management*, *1*(1), 16–26.

Arifudin, O. (2024). Trends in Teaching Research with Technology in Indonesia. *Journal of Multidisciplinary Global*, *1*(2), 107–116.

Arifudin, O. (2025). Application Of Steam Learning Methods To Increase Student Creativity And Innovation. *International Journal of Teaching and Learning (INJOTEL)*, *3*(1), 97–108.

Banarsari, A., Nurfadilah, D. R., & Akmal, A. Z. (2023). Pemanfaatan Teknologi Pendidikan Pada Abad 21. Social, Humanities, and Educational Studies (SHES): Conference Series, 6(1), 459. https://doi.org/10.20961/shes.v6i1.71152

Djafri, N. (2024). Development Of Teacher Professionalism In General Education: Current Trends And Future Directions. *International Journal of Teaching and Learning*, *2*(3), 745–758.

Farid, M. (2025). Mekanisme Pengambilan Keputusan Berbasis Sistem Informasi Manajemen Dalam Lembaga Pendidikan Islam. *Jurnal Tahsinia*, *6*(1), 86–103.

Hoerudin, C. W. (2023). E-Learning as A Learning Media Innovation Islamic Education. *QALAMUNA: Jurnal Pendidikan, Sosial, dan Agama*, *15*(1), 579–594.

Judijanto, L. (2025). Ethics And Security In Artificial Intelligence And Machine Learning: Current Perspectives In Computing. *International Journal of Society Reviews (INJOSER)*, *3*(2), 374–380.

Kartika, I. (2022). Manajemen Kurikulum Sebagai Upaya Meningkatkan Mutu Pembelajaran Pada Sekolah Menengah Atas. *Jurnal Al-Amar*, *3*(1), 81–94.

Kusmawan, A. (2025). The Relationship Between Teacher Involvement in Curriculum Development and Student Learning Outcomes. *International Journal of Educatio Elementaria and Psychologia*, *2*(1), 1–12.

Lahiya, A. (2025). Education Administration Reform: A Case Study on The Implementation of The Merdeka Curriculum. *INJOSEDU: International Journal of Social and Education*, *2*(2), 29–37.

Ma'wa et al. (2023). Pengembangan Modul Digital berbasis Website menggunakan Metode 4D untuk Meningkatkan Hasil Belajar Siswa Kelas X Rekayasa Perangkat Lunak SMK Negeri 1 Kepanjen pada Materi UI/UX. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer, 7*(6), 2785–2791.

Mustika, M., Sugara, E. P. A., & Pratiwi, M. (2018). Pengembangan Media Pembelajaran Interaktif dengan Menggunakan Metode Multimedia Development Life Cycle. Jurnal Online Informatika, 2(2), 121. https://doi.org/10.15575/join.v2i2.139

Nuary, M. G. (2024). Teacher Strategies In Instilling Nationalist Values In The Millennial Generation In The Technological Era. *International Journal of Teaching and Learning*, *2*(4), 954–966.

Nuryana, M. L. (2024). Implementasi Dan Transformasi Sistem Informasi Manajemen Di Era Digital. *Jurnal Tahsinia*, *5*(9), 1325–1337.

Purwanto, E., Bachtiar, D., Septiani, K. M., Ridhwan, N., Deviny, J., Dahlan, K. S. S., Susanto, D. A., & Marey, D. R. E. (2020). Technology Adoption A Conceptual Framework. In Yayasan Pendidikan Philadelphia.

Ramli, A. (2024). Analysis of the Influence of Organizational Commitment on Work Discipline of Public High School Teachers. *Journal on Education*, *6*(2), 12927–12934.

Rifky, S. (2024). Professionalism Of Educators In Learning Development. *International Journal of Teaching and Learning*, *2*(2), 579–588.

Rismawati, R. (2024). Peran Sistem Informasi Dalam Meningkatkan Mutu Layanan Pendidikan. *Jurnal Tahsinia*, *5*(7), 1099–1122.

Romdoniyah, F. F. (2024). Implementasi Kebijakan Education Mangement Information System (EMIS) Di Seksi PD. Pontren Pada Kemenag Kota Bandung. *Jurnal Tahsinia*, *5*(6), 953–965.

Rosiyana, R. (2021). Pemanfaatan Media Pembelajaran Google Sites Dalam Pembelajaran Bahasa Indonesia Jarak Jauh Siswa Kelas Vii Smp Islam Asy-Syuhada Kota Bogor. *Jurnal Ilmiah KORPUS*, *5*(2), 217–226. https://doi.org/10.33369/jik.v5i2.13903

Sanulita, H. (2024). Analysis Of The Effectiveness Of Audio Visual Learning Media Based On Macromedia Flash Usage On School Program Of Increasing Student Learning Motivation. *Journal on Education*, *6*(2), 12641–12650.

Sappaile, B. I. (2024). The Role of Artificial Intelligence in the Development of Digital Era Educational Progress. *Journal of Artificial Intelligence and Development*, *3*(1), 1–8.

Sholikha, S. M., Farid, M. M., & Andriansyah, E. H. (2022). Penggunaan Modul Digital Dalam Meningkatkan Prestasi Belajar Siswa Program Percepatan Sks Kota Surabaya. *Jurnal Ekonomi Pendidikan Dan Kewirausahaan*, *10*(1), 73–82. https://doi.org/10.26740/jepk.v10n1.p73-82

Venkatesh, V. (2022). Adoption and use of AI tools: a research agenda grounded in UTAUT. *Annals of Operations Research*, *308*(1–2), 641–652. https://doi.org/10.1007/s10479-020-03918-9

Zulfa, A. A. (2025). Peran Sistem Informasi Akademik Berbasis Web Dalam Upaya Meningkatkan Efektivitas Dan Efisiensi Pengelolaan Akademik Di Perguruan Tinggi. *Jurnal Tahsinia*, *6*(1), 115–134.