



## TEACHERS' ACCEPTANCE OF THE *MERDEKA MENGAJAR* PLATFORM USING THE TECHNOLOGY ACCEPTANCE MODEL

BISRI MUSTHOF<sup>1</sup>, IKA RATIH SULISTIANI<sup>2</sup>, AGUS SYAKRONI<sup>3</sup>, CHUSNUL MU-  
ALI<sup>4</sup>, ACHMAD SYA'DULLAH<sup>5</sup> & NUR HUDA<sup>1</sup>

Potrjeno/Accepted

7. 12. 2025

Objavljeno/Published

25. 9. 2026

<sup>1</sup>Sekolah Tinggi Agama Islam Al-Anwar Sarang, Rembang, Indonesia

<sup>2</sup>Islamic University of Malang, Malang, Indonesia

<sup>3</sup>Institute of Pesantren Mathaliul Falah, Pati, Indonesia

<sup>4</sup>University of Nurul Jadid, Probolinggo, Indonesia

<sup>5</sup>State University of Surabaya, Surabaya, Indonesia

CORRESPONDING AUTHOR/KORESPONDENČNI AVTOR

bisrimusthofa@staialanwar.ac.id

### Keywords:

*Merdeka mengajar* plat-  
form, elementary teach-  
ers, facilitating condi-  
tion, technology ac-  
ceptance model, struc-  
tural equation model-  
ling.

### Abstract/Izvleček

This study determined the factors influencing teachers' intentions to use the *merdeka mengajar* platform (PMM). This study uses an expanded technology acceptance model by adding facilitating condition variables. The research sample consisted of 162 teachers who used PMM. The results of the study showed that facilitating conditions have a significant effect on perceived ease of use but not on perceived usefulness. Furthermore, perceived ease of use significantly impacts perceived usefulness but not the attitude toward using, and perceived usefulness significantly affects the attitude toward using but not behavioural intentions to use PMM.

### Ključne besede:

platforma *merdeka men-  
gajar*, osnovnošolski uč-  
itelji, podporni pogoji,  
model sprejemljivosti  
tehnologije, modeliranje  
strukturnih enačb.

### Sprejemanje platforme *merdeka mengajar* pri učiteljih z uporabo modela sprejemanja tehnologije

V študiji ugotavljamo dejavnike, ki vplivajo na namero učiteljev za uporabo plat-  
forme *merdeka mengajar* (PMM). Uporabili smo razširjen model sprejemanja teho-  
nologije, pri čemer je bila dodana spremenljivka *podporni pogoji* (angl. facilitating con-  
ditions). V raziskavi je sodelovalo 162 učiteljev, ki so uporabljali PMM. Rezultati  
so pokazali, da podporni pogoji pomembno vplivajo na zaznano enostavnost upo-  
rabe, vendar ne na uporabnikovo zaznano uporabnost. Nadalje zaznana enostav-  
nost uporabe pomembno vpliva na zaznano uporabnost, ne vpliva pa na odnos  
do uporabe; medtem ko zaznana uporabnost pomembno vpliva na odnos do upo-  
rabe, vendar ne na vedenjsko namero uporabe PMM.

UDK/UDC:

37.091.39:004

DOI <https://doi.org/10.18690/rei.4819>

Besedilo / Text © 2026 Avtor(ji) / The Author(s)

To delo je objavljeno pod licenco Creative Commons CC BY Priznanje avtorstva 4.0 Mednarodna.

Uporabnikom je dovoljeno tako nekomercialno kot tudi komercialno reproduciranje, distribuiranje,  
dajanje v najem, javna priobčitev in predelava avtorskega dela, pod pogojem, da navedejo avtorja  
izvirnega dela. (<https://creativecommons.org/licenses/by/4.0/>).



University of Maribor Press

## Introduction

The curriculum is inherently dynamic because it must respond to changing social demands, required competencies, and global educational frameworks (Asrifan et al., 2020; Erstad et al., 2021; Randall et al., 2022). However, curriculum reform depends not only on policy design but also on teachers' capacity and willingness to understand and implement new practices. To support the implementation of the Merdeka Curriculum, the Indonesian Ministry of Education, Culture, Research, and Technology developed Platform Merdeka Mengajar (PMM), a digital platform through which teachers and school leaders can independently access curriculum guidance, teaching resources, training materials, and examples of good practice independently (Amiruddin et al., 2023). PMM is therefore expected to accelerate curriculum dissemination and strengthen professional learning communities (Ariga, 2023).

Despite its strategic role, teacher engagement with PMM remains uneven. In early 2023, only 53% of schools in Central Java had accessed the platform, while by May 2023, only 1,837 of 3,875 elementary school teachers in Rembang Regency had completed all PMM learning materials (Ministry of Education, Culture, Research and Technology, 2023; Rembang Regency Education Office, 2023). These figures show that platform availability does not automatically ensure sustained use. Consistent with Tangkui (2026), teachers' engagement with digital technology depends not only on access but also on practical competence and confidence. Factors such as content relevance, usability, digital competence, institutional support, and motivation for self-directed learning may also shape PMM adoption. Therefore, examining teachers' acceptance of PMM is important because limited acceptance may hinder the implementation of the Merdeka Curriculum.

Previous studies confirm that teachers' adoption of educational technology is shaped by both their perceptions of technology and contextual factors. Among primary school teachers in Greece, Georgiou et al. (2023) found that computer self-efficacy, perceived ease of use, and perceived usefulness strongly predicted attitudes toward technology. Similarly, a study involving primary school teachers in Türkiye showed that perceived usefulness and digital competence directly influenced their intention to use distance-learning technologies, while perceived ease of use and technological pedagogical content knowledge had important indirect effects through perceived usefulness (Altan et al., 2024). In Thailand, Songkram and Osuwan (2022) reported that attitudes and subjective norms predicted K–12 teachers' intentions to use digital

learning platforms, whereas technology self-efficacy and facilitating conditions enhanced perceived ease of use. Large-scale evidence further suggests that teachers' technological pedagogical content knowledge, innovativeness, and access to school-based training and support contribute to their intention to continue using technology in teaching (Khong et al., 2023).

According to Saleh et al. (2022), acceptance of new technology requires a positive user attitude, which is influenced by perceived usefulness (PU) and perceived ease of use (PEU). The Technology Acceptance Model (TAM) is widely used to examine factors affecting attitudes and intentions toward technology use. Davis et al. (1989) explained that attitude toward using (AT) significantly influences behavioural intention (BI). AT is also influenced by PU (Musthofa et al., 2024; Natasia et al., 2022) and PEU (Musthofa et al., 2024; Sukendro et al., 2020). In addition, facilitating conditions (FC) can affect users' perceptions of ease of use and usefulness (Natasia et al., 2022; Sukendro et al., 2020). However, studies examining these relationships in the use of PMM among elementary school teachers remain limited. Therefore, this study investigates the effects of PU, PEU, AT, and FC on teachers' BI to use PMM.

## Theoretical framework

### *The merdeka mengajar platform (PMM)*

The *merdeka mengajar* (PMM) Platform was developed by the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) of Indonesia as a media for independent learning and support in implementing the *merdeka* curriculum. PMM was created to support the implementation of the *merdeka* curriculum, especially in pioneering schools and educational units that will switch to implementing the *merdeka* curriculum. Through PMM, principals and teachers can get inspiration, references, and share experiences implementing the Merdeka curriculum for learning, teaching, and work.

PMM has several main menus that users can use to review information sources about the independent curriculum (Amiruddin et al., 2023), as follows:

1. Student assessment: a tool for conducting early learning analysis that focuses on literacy and numeracy skills. Used to assess students in various phases and subjects.
2. Learning community: a menu to gain learning and sharing experiences among fellow teachers throughout Indonesia.

3. Self-training: contain training content/content related to the independent curriculum, which can be accessed anytime and anywhere.
4. Inspirational videos: contains various inspirational videos that have been curated and received input.
5. Evidence of works: a menu to create a portfolio of work or to document teacher work that can be shared with colleagues or other teachers to get feedback or as inspiration for others.
6. Teaching tools: available teaching tool documents, starting from teaching modules, teaching materials, textbooks, and project modules based on phases and subjects to facilitate learning and teaching based on student needs.

### *Facilitating condition*

Venkatesh et al. (2012) define facilitating conditions as the existence of adequate organizational and technical infrastructure for users to use new technology. People's decisions to use a new technology are influenced by environmental factors (Thompson et al., 1991). Facilitating conditions can be either drivers or barriers that will directly affect an individual's perception of the ease or difficulty of adopting a new technology. In some cases, facilitating conditions such as technical support are the strongest determinants of a person's use of technology (Groves & Zemel, 2000). Conversely, a person is reluctant to use a new technology because of poor supporting conditions, such as minimal technical support from the environment (Lim & Khine, 2006).

Furthermore, Teo et al. (2012) related to the relationship between facilitating conditions and technology acceptance stated that supporting conditions have a significant effect on the perception of ease of use. Therefore, good support is needed so that users feel at ease in adopting a new technology. The same results are shown from the research of Teo & Milutinovic (2015), that the perception of ease of use and usefulness of a technology is determined by one of the good facilitating conditions.

- H1: Facilitating conditions significantly affect the perceived ease of use of PMM.
- H2: Facilitating conditions significantly affect the perceived usefulness of PMM.

### *Technology acceptance model (TAM)*

The technology acceptance model (TAM) was first developed by Davis (1989) to explain the factors that influence a person's intention to use technology. According

to Davis, (1993), two basic variables in TAM will influence a person's attitude towards using technology, namely perceived ease of use and perceived usefulness. Initially, the TAM model developed by Davis (1989) only consisted of variables perceived ease of use, perceived usefulness, attitude toward using, and intention to use. However, later Venkatesh & Davis (2000) expanded the model to respond to criticism of the simplicity of the original model by adding external variables that affect perceived ease of use, and perceived usefulness, which will impact attitude and intention to use technology.

#### *Teachers' perceived ease of use of PMM*

Perceived ease of use, according to Davis (1989), is one of the important determinants that influence a person's tendency to use a new technology. Perceived ease of use refers to the extent to which a person feels that using a particular technology is easy and does not require much effort (Davis, 1989). In the context of this study, perceived ease of use refers to the degree of ease of the PMM. So, how low is the level of complexity of using the PMM based on the perception of users (elementary school teachers).

Many studies in various contexts have confirmed that perceived ease of use (PEU) has a significant effect on perceived usefulness (PU) and attitude toward using (AT) (Fathema et al., 2015; Musthofa et al., 2024; Teo et al., 2012). As the results of research conducted by Fathema et al. (2015) show, the use of new technology is influenced by a person's perception of ease of use. Furthermore, PEU has a significant effect on PU and AT (Fathema et al., 2015). In line with this study, perceived ease of use has an impact on the perception of the usefulness of a platform and the positive attitude shown by users toward using the platform (Musthofa et al., 2024; Teo et al., 2012).

- H3: Perceived ease of use significantly affects the perceived usefulness of PMM.
- H4: Perceived ease of use significantly affects the attitude toward using PMM.

#### *Teachers' perceived usefulness of PMM*

Perceived usefulness is described by Davis (1989) as the user's assumption regarding the level of benefit or advantage of a particular technology. Perceived usefulness (PU) is an important determinant that influences someone to use a technology. In the context of this study, perceived usefulness refers to the degree of usefulness of

PMM according to the user. Many studies have been conducted to test the influence of PU on AT. Among them, research conducted by Musthofa et al. (2024) has confirmed that PU greatly influences AT. It is further explained that the user's attitude towards the use of a technology is determined by the user's perception of the usefulness of the technology (Musthofa et al., 2024).

In addition, the perceived usefulness also directly affects the intention to use technology (behavioural intention). Behavioural intention (BI) is a form of user behaviour that leads to the desire (tendency) to use a particular technology. Research conducted by Joo et al. (2018) emphasized that a person's intention to use a technology is influenced by a person's perception of the usefulness of the technology.

- H5: Perceived usefulness significantly affects the attitude toward using PMM.
- H6: Perceived usefulness significantly affects the behavioural intention to use PMM.

#### *Teachers' attitude toward using PMM*

Attitude toward using technology is interpreted as an expression shown by users as a response to the use of technology (Fishbein & Ajzen, 1975). Attitude in this case is an expression of a person's feelings in the form of good and bad responses from PMM. Several studies have revealed the role of AT in a person's tendency to use technology. Such as the study by Teo et al. (2012), which found that AT has a positive impact on BI. This study is also strengthened by the results of the study by Musthofa et al. (2024), which states that user attitudes have strong predictive relevance in influencing the intention to use technology.

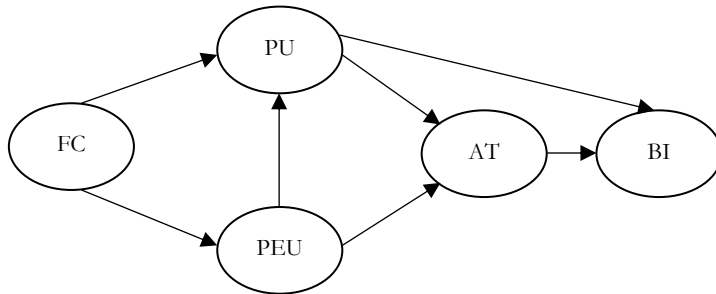
H7: Attitude toward using significantly affects the behavioural intention to use PMM.

## **Methods**

### *Design research*

This research is explanatory research, which is research that aims to see the influence of variables. The research approach used is quantitative, using a survey method through a questionnaire distributed online, and then analysed statistically. This study uses the technology acceptance model from Davis, Bagozzi, and Warshaw (Davis et al., 1989), which was then expanded to examine the factors that influence teachers' use of PMM as one of the supports in implementing the Merdeka curriculum in the

Rembang district. Furthermore, the facilitating condition variable becomes an external variable proposed in the expansion of the TAM model to predict the ease of use and usefulness variables in this study. The proposed model is shown in Figure 1.



**Figure 1**

*Proposed model*

#### *Population and sampling*

The target population comprised elementary school teachers in Rembang Subdistrict, Central Java, Indonesia, who had experience using PMM. Cluster sampling was employed because the teachers were naturally grouped within elementary schools. In this study, each school was treated as a sampling cluster. A sampling frame consisting of 48 elementary schools was obtained from Basic Education Data System (DAPODIK), from which 12 schools were selected using simple random sampling. Teachers were eligible if they were actively employed at an elementary school and had accessed or used PMM. A total of 162 teachers participated in the study, comprising 42 male teachers (25.93%) and 120 female teachers (74.07%).

#### *Instrument*

The adopted questionnaire was used as a data collection tool; the instrument in question includes a questionnaire to measure FC (Shuhaiber, 2016), PEU (Davis, 1989), PU (Davis, 1989), AT (Guillén-Gámez & Mayorga-Fernández, 2020). The original items were translated into Indonesian and contextualised for Platform Merdeka Mengajar (PMM) without changing the conceptual meaning of the constructs. No formal linguistic expert review or separate cultural validation was conducted; therefore, this limitation should be considered when interpreting the findings. The questionnaire used a five-point Likert scale and was distributed online through Google Forms. It comprised six FC items, six PEU items, six PU items, three AT items, and three BI items. Construct validity and reliability were assessed directly through

evaluation of the measurement model in the structural equation modelling (SEM) analysis rather than through a separate pilot test. Although the instrument showed acceptable validity and reliability, the lack of formal linguistic and cultural validation may have affected item interpretation.

### *Data analysis*

Partial least squares-structural equation modeling (PLS-SEM) was used as an inferential analysis method. Data analysis used SmartPLS 4.0 software. The study is conducted on two things: evaluation of the measurement model, which is called the outer model, and evaluation of the structural model, which is also called the inner model. The outer model is evaluated to provide an empirical measure of the relationship between latent variables and their indicators. The outer model aims to determine construct validity and instrument reliability. The outer model analysis uses a one-stage (first-order) confirmatory factor analysis (CFA) approach. This stage is carried out to test the validity and reliability of the instrument. In the outer model testing, the low-order component (first order) stage will evaluate the loading value, AVE value, CR value, and CA.

The instrument used is an adaptation instrument that has been tested for its validity and reliability. Validity testing is seen from the loading factor value on each item. The cut-off value accepted for each item loading value  $> 0.7$  or  $> 0.5$  (Haryono, 2017). In addition, the validity test for each latent variable is carried out by looking at the average variable extracted (AVE) value. A variable is valid if the AVE value  $> 0.5$ . At the same time, the reliability test uses Cronbach's alpha (CA) and composite reliability (CR). A construct is considered reliable if the CA and CR values are  $> 0.7$ . Furthermore, an evaluation of the inner model or structural model is carried out to predict causal relationships between constructs and hypothesis testing. Hypothesis testing is carried out by looking at the influence of exogenous variables on endogenous variables by looking at the significance level (p-value). The hypothesis is accepted if the p-value  $< 0.05$ ; if the p-value  $> 0.05$ , then the theory is rejected. In addition, the standardized root mean square (SRMR) value is used to measure the goodness of fit in PLS-SEM to avoid model misspecification (Henseler et al., 2014). The model is said to meet the fit criteria in SmartPLS if the SRMR value is  $< 0.10$  or  $< 0.08$  (Hair et al., 2014).

## Results

### *Evaluation of measurement (outer model)*

In the outer model analysis (measurement model) using confirmatory factor analysis (CFA) approach, first order. This stage is carried out to test the validity and reliability of the instrument. In the outer model testing, the low-order component stage (first order) will evaluate the loading value, AVE value, CR value, and CA.

The results of the convergent validity test show several loading factor values  $< 0.7$ . However, based on (Haryono, 2017), loading values  $> 0.5$  are acceptable. So, loading values less than 0.5 are dropped in FC4, FC5, and FC6. Thus, retesting is carried out after the indicators  $< 0.5$  are dropped, and the results are shown in Figure 2.

The next stage of validity testing is based on the AVE value; it is known that the AVE value is  $> 0.5$ , which means that the variable is said to be valid. Furthermore, the reliability test is based on Cronbach's alpha (CA) and composite reliability (CR) values. It is known that the CA and CR values are  $> 0.7$ , so the variable is said to be reliable. The results of the validity and reliability tests are shown in table 1.

**Table 1**

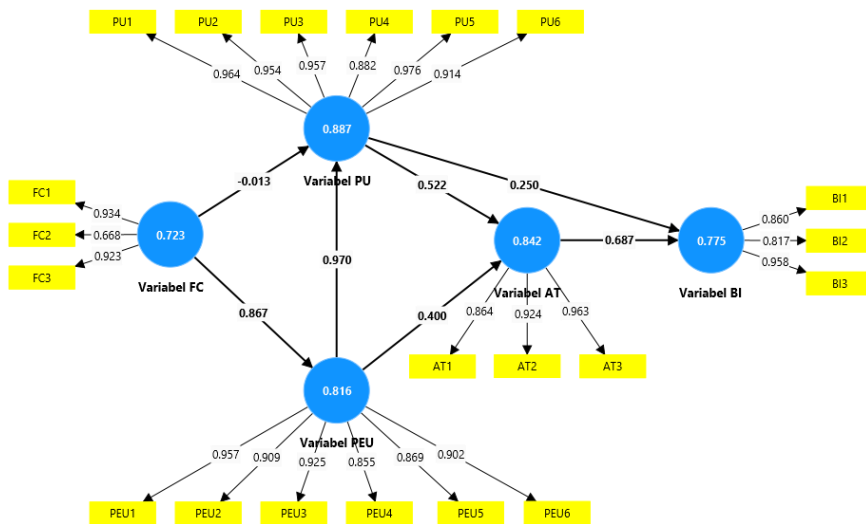
*Validity and reliability test results based on values of CA, CR and AVE*

| Variable | CA    | CR    | AVE   |
|----------|-------|-------|-------|
| FC       | 0.752 | 0.857 | 0.672 |
| PEU      | 0.943 | 0.955 | 0.780 |
| PU       | 0.975 | 0.980 | 0.891 |
| AT       | 0.923 | 0.952 | 0.868 |
| BI       | 0.872 | 0.922 | 0.797 |

Figure 2 and Table 1 analysis show that all research variables have met the validity and reliability criteria. This means that the measuring instrument used in this study is reliable and produces accurate data according to statistical standards.

### *Evaluation of structural model (inner model)*

Furthermore, the structural model evaluation (inner model) results show that the coefficient of determination (R-squared) is shown in Table 2.

**Figure 2**

*Path diagram of validity test results based on loading factors*

**Table 2**

*Coefficient of determination (R-square)*

| Variable | R-square adjusted | Criteria    |
|----------|-------------------|-------------|
| BI       | 0.867             | Substantial |
| AT       | 0.842             | Substantial |
| PEU      | 0.783             | Substantial |
| PU       | 0.867             | Substantial |

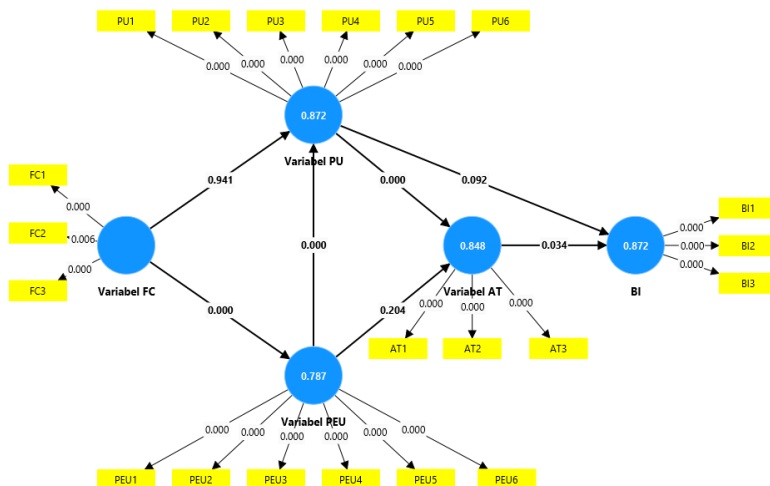
Based on Table 2, the prediction model we used showed very good performance. This model can predict the variables BI, AT, PEU, and PU with high accuracy. This means that these variables can be explained by 86.7%, 84.2%, 78.3%, and 86.7% by the explanatory variables used in the model. From the goodness of fit analysis results in PLS-SEM, it is known that the SRMR value in this study is  $0.079 < 0.08$ . Thus, the model is said to be fit.

The next stage is the significance test, which also means hypothesis testing, by looking at the influence of exogenous variables on endogenous variables and paying attention to the significance level ( $p$ -value). The results of the significance test can be seen in Table 3.

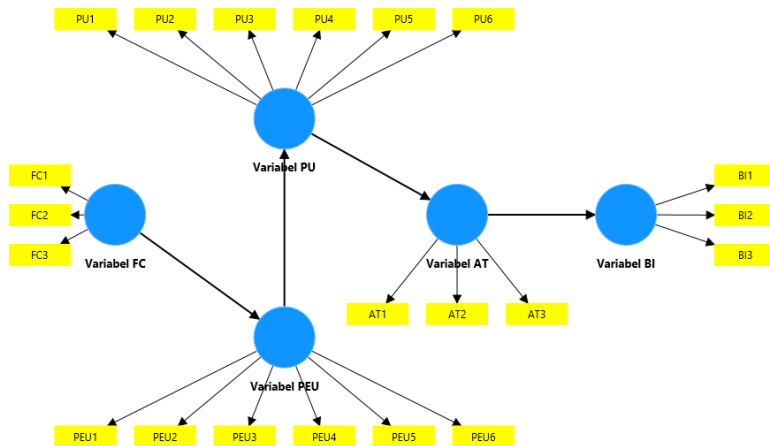
**Table 3***Results for hypothesis testing*

| Variable | Original sample (O) | Standard deviation (STDEV) | p-values |
|----------|---------------------|----------------------------|----------|
| AT → BI  | 0.519               | 0.242                      | 0.034    |
| FC → PEU | 0.887               | 0.036                      | 0.000    |
| FC → PU  | 0.010               | 0.128                      | 0.941    |
| PEU → AT | 0.244               | 0.191                      | 0.204    |
| PEU → PU | 0.925               | 0.122                      | 0.000    |
| PU → BI  | 0.435               | 0.255                      | 0.092    |
| PU → AT  | 0.689               | 0.189                      | 0.000    |

The influence of exogenous variables on endogenous variables is said to be significant if  $p\text{-values} < 0.05$ . From the results of this study, as in Table 3, it is known that FC has a significant effect on PEU, PEU has a significant effect on PU, PU has a significant effect on AT, and AT has a significant effect on BI as indicated by  $p\text{-values} < 0.05$ . However, there are also  $p\text{-values} > 0.05$ , namely the influence of the FC variable on the PU variable ( $p\text{-values } 0.941 > 0.05$ ). Then, the influence of the PEU variable on the AT variable ( $p\text{-values } 0.204 > 0.05$ ) and the influence of the PU variable on the BI variable ( $p\text{-values } 0.092 > 0.05$ ). Thus, the three's relationship is insignificant (there is no influence between variables).  $p\text{-values}$  on the relationship between variables can be seen in the table and Figure 3.

**Figure 3***Structural model path diagram*

After evaluating the measurement and structural models, the final research model was found in Figure 4. The final research model shows that several indicators are dropped in the facilitating condition variables, namely FC4, FC5, and FC6. In addition, the influence between variables is not proven, including the influence of FC on PU, the influence of PEU on AT, and the influence of PU on BI.



**Figure 4**  
*Final model*

## Discussion

Facilitating conditions significantly affected teachers' perceived ease of using PMM (H1). Teachers are more likely to regard PMM as easy to use when they are familiar with the platform, possess the technical skills required to operate it, have access to adequate technical resources, and can use PMM on compatible devices. This finding supports previous studies showing that facilitating conditions contribute to perceived ease of technology use (Sukendro et al., 2020; Teo, 2011; Teo & Milutinovic, 2015). Similarly, Songkram and Osuwan (2022) found that facilitating conditions influenced K–12 teachers' perceived ease of using digital learning platforms. The coefficient of determination ( $R^2 = 0.783$ ) indicates that facilitating conditions explain 78.3% of the variance in PEU within the proposed model, rather than demonstrating that FC causally determines 78.3% of teachers' perceptions. Educationally, this result suggests that providing access to PMM is insufficient without practical training, technical guidance, and opportunities for teachers to

become familiar with its functions. Putra et al. (2025) found that a focused professional development workshop improved elementary school teachers' understanding of several components of an educational innovation. However, the improvement was uneven, as their understanding of STEAM increased, their understanding of project-based learning decreased, and their understanding of experiential learning remained unchanged. This finding suggests that facilitating conditions should include sustained and integrated professional development rather than one-time training or socialisation.

In contrast, FC did not significantly affect PU (H2). This finding indicates that the availability of devices, technical skills, system compatibility, and other forms of support may make PMM easier to operate but do not necessarily convince teachers that it is useful for their professional work. The previous explanation attributing this result to the low technological knowledge of female teachers is not supported by the data because the study did not examine gender differences in technological knowledge or test gender as a moderating variable. Therefore, such a conclusion cannot be drawn from the present results. A more plausible interpretation is that teachers assess the usefulness of PMM according to the relevance, quality, and applicability of its content to their curriculum-related responsibilities. Miočić et al. (2025) similarly showed that the integration of digital technology is influenced not only by infrastructure and technical support but also by teachers' pedagogical beliefs and perceptions of its educational appropriateness. Thus, facilitating conditions may reduce operational barriers without directly establishing the pedagogical value of PMM.

PEU significantly affected PU (H3), supporting previous studies showing that technologies perceived as easy to use are also more likely to be regarded as useful (Al-Adwan et al., 2023; Alturki & Aldraiweesh, 2021; Joo, Park, et al., 2018). When teachers can navigate PMM with minimal effort, they can focus more on exploring its resources and applying them to the implementation of the Merdeka Curriculum. Thus, ease of use may enhance perceived usefulness by reducing the time, effort, and cognitive load required to access relevant information. This finding has important practical implications: a clear interface, device compatibility, accessible instructions, and responsive technical support are not merely technical features but essential elements that enable teachers to recognise and experience the practical benefits of PMM for professional learning and curriculum implementation.

However, PEU did not significantly affect AT (H4). This finding indicates that

teachers may perceive PMM as easy to operate without necessarily developing a favourable attitude towards its use. It differs from the findings of Songkram & Osuwan (2022) and Georgiou et al. (2023), who reported that perceived ease of use predicted teachers' attitudes towards educational technology. This difference suggests that technology acceptance may vary according to the platform and its context of use. As PMM is closely associated with national curriculum reform and teachers' professional responsibilities, technical convenience may be less influential in shaping attitudes than content relevance, pedagogical value, and previous user experience. Miočić et al. (2025) similarly indicated that teachers' digital practices were influenced by pedagogical beliefs, institutional context, and perceptions of educational appropriateness. Therefore, improving the usability of PMM alone may be insufficient; teachers should also be provided with meaningful experiences that demonstrate how the platform supports their classroom practice and curriculum-related needs. PU significantly affected AT (H5), consistent with Stockless (2018) and Teo (2011). This result is also supported by Songkram & Osuwan (2022) and Georgiou et al. (2023), who identified perceived usefulness as a significant predictor of teachers' attitudes toward technology. Teachers are more likely to evaluate PMM positively when they believe that it improves their understanding of the Merdeka Curriculum, supports lesson preparation, or provides resources relevant to classroom practice. This finding may explain why perceived usefulness affected attitude whereas perceived ease of use did not: teachers may tolerate some operational difficulty when a platform offers clear professional value. Accordingly, PMM training should not focus solely on operational procedures but should also demonstrate practical applications, such as locating relevant teaching materials, adapting learning resources, and addressing problems related to curriculum implementation.

Nevertheless, PU did not significantly affect BI (H6). This finding contrasts with Kamal et al. (2020) and Altan et al. (2024) but supports Natasia et al. (2022), who found that perceptions of platform usefulness did not directly influence users' intentions. Recognising PMM as useful may not automatically lead teachers to intend to use it continuously. The significant relationships between PU and AT and between AT and BI suggest that perceived usefulness may influence intention indirectly by first shaping teachers' attitudes. However, this possible indirect effect requires formal mediation testing. Professional obligations and institutional expectations may also influence teachers' use of PMM, but this explanation remains tentative because mandatory use, social influence, and voluntariness were not measured.

Future research should therefore examine these factors and incorporate actual usage data before concluding that teachers use PMM primarily to fulfil professional obligations.

Finally, AT significantly affected BI (H7). Teachers with more positive attitudes toward PMM are more likely to intend to use it, supporting Teo (2011), Teo & Milutinovic (2015), and Musthofa et al. (2024). Miočić et al. (2025) likewise suggested that teachers' pedagogical beliefs and perceptions of educational appropriateness shaped their engagement with digital technology. Collectively, the findings are consistent with a possible pathway in which facilitating conditions enhance perceived ease of use, perceived ease of use strengthens perceived usefulness, perceived usefulness contributes to positive attitudes, and attitudes encourage behavioural intention. However, this indirect pathway requires further mediation testing. Therefore, strengthening teachers' intention to use PMM requires not only adequate technical infrastructure but also relevant content, sustained institutional support, practice-oriented professional learning, and opportunities to experience the educational benefits of the platform.

## **Conclusion**

Facilitating conditions play a role in shaping teachers' perceptions of the ease of use of PMM. The better the support provided, the more significant the impact on the platform's ease of use. However, it does not affect the usefulness of PMM. Because users have yet to become very familiar with technology, the supporting features available only impact ease of use. Still, more is needed to change their perception of the usefulness of technology. Meanwhile, the platform's ease of use strongly influences teachers' perceptions of the usefulness of PMM but does not affect user attitudes. This is due to the need for more teacher experience using the platform due to a low understanding of the PMM performance function. Furthermore, the perception of the usefulness of PMM strongly determines the users' attitude rather than the teachers' intention to use PMM. This is because some users consider using PMM only as a requirement for duties and obligations as teachers in schools implementing the Merdeka curriculum. User attitudes strongly influence teachers' intentions to use PMM. The more positive the attitude shown by the teacher towards using PMM, the higher the teacher's intention to use PMM as a learning resource in implementing the Merdeka curriculum. Meanwhile, positive attitudes towards using PMM are influenced by teachers' perceptions of the usefulness of PMM.

There must be an active effort to provide training and encourage teachers to use PMM to implement the Merdeka curriculum. These efforts were made to improve technological knowledge and understanding of the use of PMM. In addition, getting used to using digital technology in various activities is needed to build a positive attitude towards using technology and increase teachers' intention to use new technology.

### Limitation and suggestion

This study is limited by its sampling design. Although 12 schools were randomly selected from 48 elementary schools, only teachers who had accessed or used PMM were included. Therefore, the findings may not represent teachers who have never used PMM or experienced barriers to accessing it. In addition, participants from the same schools may share similar institutional conditions, such as leadership support, technological infrastructure, and PMM implementation practices, which may reduce the independence of their responses. The findings should therefore be generalised cautiously beyond PMM users in elementary schools in Rembang Subdistrict. Future studies should involve a larger number of schools across multiple districts, include both PMM users and non-users, and account for school-level clustering in the statistical analysis.

### Data Availability Statement

The article is based on data fully presented and discussed within the article itself; therefore, no additional data archiving is required.

### References

- Al-Adwan, A. S., Li, N., Al-Adwan, A., Abbasi, G. A., Albelbisi, N. A., & Habibi, A. (2023). "Extending the Technology Acceptance Model (TAM) to Predict University Students' Intentions to Use Metaverse-Based Learning Platforms". *Education and Information Technologies*, 28(11), 15381–15413. <https://doi.org/10.1007/s10639-023-11816-3>
- Alturki, U., & Aldraiweesh, A. (2021). Application of Learning Management System (LMS) during the COVID-19 Pandemic: A Sustainable Acceptance Model of the Expansion Technology Approach. *Sustainability*, 13(19), 10991. <https://doi.org/10.3390/su131910991>
- Amiruddin, Siregar, M., Anggara, A., Faridah, Faraidin, M., & Syafridah, N. (2023). Pelatihan Mandiri Kurikulum Merdeka Belajar dengan Pemanfaatan Platform Merdeka Mengajar di Satuan Pendidikan. *Jurnal Penelitian. Pendidikan, Dan Pengajaran (Jppp)*, 4(1), 1–4. <https://doi.org/h10.30596/jppp.v4i1.13392>

- Ariga, S. (2023). Implementasi Kurikulum Merdeka Pasca Pandemi COVID-19. *Edu Society: Jurnal Pendidikan, Ilmu Sosial Dan Pengabdian Kepada Masyarakat*, 2(2), 662–670. <https://doi.org/10.5-6832/edu.v2i2.225>
- Asrifan, A., Vargheese, K. J., T., S., & Amir, M. (2020). ESP Course Design: The Need Analysis On Tourism Department In Indonesia Vocational High Schools. *Journal Of Advanced English Studies*, 3(2), 69. <https://doi.org/10.47354/jaes.v3i2.85>
- Dashboard PMM. (2023). Update Aktivitas PMM Provinsi Jawa Tengah. <https://bit.ly/pmmjateng>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982–1003. <https://doi.org/10.1287/mnsc.35.8.982>
- Erstad, O., & Kjallander, S. (2021). Facing the cellenges of “digital competence” a Nordic agenda for curriculum development for the 21st century. *Nordic Journal of Digital Literacy*. <https://doi.org/https://doi.org/10.18261/issn.1891-943x-2021-02-0>
- Fathema, N., Shannon, D., & Ross, M. (2015). Expanding The Technology Acceptance Model (TAM) to Examine Faculty Use of Learning Management Systems (LMSs) In Higher Education Institutions. *MERLOT Journal of Online Learning and Teaching*, 11(2), 210–232. [https://jolt.merlot.org/Vol11no2/Fathema\\_0615.pdf](https://jolt.merlot.org/Vol11no2/Fathema_0615.pdf)
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Addison-Wesley. <https://people.umass.edu/aizen/f&a1975.html>
- Groves, M. M., & Zemel, P. C. (2000). Instructional technology adoption in higher education: An action research case study. *International Journal of Instructional Media*, 27(1), 57. <https://www-learnntechlib.org/p/88231/>
- Guillén-Gámez, F. D., & Mayorga-Fernández, M. J. (2020). Identification of variables that predict teachers' attitudes toward ict in higher education for teaching and research: A study with regression. *Sustainability (Switzerland)*, 12(4). <https://doi.org/10.3390/su12041312>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *Sage* (Vol. 46, Issues 1–2). SAGE Publication Ltd. <https://doi.org/10.1016/j.lrp.2013.01.002>
- Haryono, S. (2017). *Metode SEM untuk penelitian Manajemen dengan AMOS LISREL PLS*. Luxima Metro Media.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common Beliefs and Reality About PLS. *Organizational Research Methods*, 17(2), 182–209. <https://doi.org/10.1177/10-94428114526928>
- Hussein, R. S., Mohamed, H., & Kais, A. (2022). Antecedents of level of social media use: exploring the mediating effect of usefulness, attitude and satisfaction. *Journal of Marketing Communications*, 28(7), 703–724. <https://doi.org/10.1080/13527266.2021.1936125>
- Joo, Y. J., Park, S., & Lim, E. (2018). Factors Influencing Preservice Teachers' Intention to Use Technology. *Journal of Educational Technology & Society*, 21(3), 48–59. <https://doi.org/http://www-istor.org/stable/26458506>
- Joo, Y. J., So, H. J., & Kim, N. H. (2018). Examination of relationships among students' self-determination, technology acceptance, satisfaction, and continuance intention to use K-MOOCs. *Computers and Education*, 122, 260–272. <https://doi.org/10.1016/j.compedu.20-18.01.003>
- Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). *Technology in Society*, 60(March 2019), 101212. <https://doi.org/10.1016/j.techsoc.2019.101212>
- Lim, C. P., & Khine, M. (2006). Managing Teachers' Barriers to ICT Integration in Singapore Schools. *Journal of Technology and Teacher Education*, 14(1), 97–125.

- Muhammedi. (2016). Perubahan Kurikulum di Indonesia : Studi Kritis Tentang Upaya Menemukan Kurikulum Pendidikan Islam yang Ideal. *Raudhab, IV*(1), 49–70. <https://doi.org/http://dx.doi.org/10.30829/raudhah.v4i1.61>
- Musthofa, B., Degeng, I. N. S., Setyosari, P., & Sulthoni, S. (2024). Indonesian Teachers' Acceptance on Online Teaching Technology During the COVID-19 Pandemic. *European Journal of Educational Research, volume-13*-(volume-13-issue-2-april-2024), 497–509. <https://doi.org/10.12973/eu-jer.13.2.497>
- Natasia, S. R., Wiranti, Y. T., & Parastika, A. (2022). Acceptance analysis of NUADU as e-learning platform using the Technology Acceptance Model (TAM) approach. *Procedia Computer Science, 197*(2021), 512–520. <https://doi.org/10.1016/j.procs.2021.12.168>
- Saleh, S. S., Nat, M., & Aql, M. (2022). Sustainable Adoption of E-Learning from the TAM Perspective. *Sustainability, 14*(6), 3690. <https://doi.org/10.3390/su14063690>
- Shuhaiber, A. (2016). How Facilitating Conditions Impact Students' Intention to Use Virtual Lectures? An Empirical Evidence. *AICT 2016 : The Twelfth Advanced International Conference on Telecommunications, c*, 68–75.
- Stockless, A. (2018). Acceptance of learning management system: The case of secondary school teachers. *Education and Information Technologies, 23*(3), 1101–1121. <https://doi.org/10.1007/s10639-017-9654-6>
- Sukendro, S., Habibi, A., Khaeruddin, K., Indrayana, B., Syahrudin, S., Makadada, F. A., & Hakim, H. (2020). Using an extended Technology Acceptance Model to understand students' use of e-learning during Covid-19: Indonesian sport science education context. *Heliyon, 6*(11), e05410. <https://doi.org/10.1016/j.heliyon.2020.e05410>
- Teo, T. (2011). Factors influencing teachers' intention to use technology: Model development and test. *Computers & Education, 57*(4), 2432–2440. <https://doi.org/10.1016/j.compedu.2011.06.008>
- Teo, T., & Milutinovic, V. (2015). Modelling the intention to use technology for teaching mathematics among pre-service teachers in Serbia. *Australasian Journal of Educational Technology, 31*(4), 363–380. <https://doi.org/10.14742/ajet.1668>
- Teo, T., Ursavaş, Ö. F., & Bahçekapili, E. (2012). An assessment of pre-service teachers' technology acceptance in Turkey: A structural equation modeling approach. *Asia-Pacific Education Researcher, 21*(1), 191–202. <http://researchrepository.murdoch.edu.au/id/eprint/48415>
- Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization. *MIS Quarterly, 15*(1), 125. <https://doi.org/10.2307/249443>
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science, 46*(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157–178. <https://www.jstor.org/stable/41410412?seq=1>

#### Authors:

##### **Bisri Musthofa, PhD**

Lecturer, Sekolah Tinggi Agama Islam Al-Anwar Sarang Rembang, Jl. Rembang - Surabaya, Kec. Sarang, Kab. Rembang, Indonesia, e-mail: bisrimusthofa@staialanwar.ac.id.  
Predavateljica, Islamska šola Al-Anwar, Sarang, Rembang, Jl. Rembang - Surabaya, Kec. Sarang, Kab. Rembang, Indonezija, e-pošta: bisrimusthofa@staialanwar.ac.id.

##### **Ika Ratih Sulistiani, PhD**

Lecturer, Islamic University of Malang, Jl. Mayjen Haryono No.193, Dinoyo, Kec. Lowokwaru, Malang, Indonesia, e-mail: ika.ratih@unisma.ac.id.  
Predavateljica, Islamska univerza v Malangu, Jl. Mayjen Haryono No.193, Dinoyo, Kec. Lowokwaru, Malang, Indonezija, e-pošta: ika.ratih@unisma.ac.id.

**Agus Syakroni, PhD**

Lecturer, Institut Pesantren Mathaliul Falah, Jl. Raya Pati - Tayu No.KM.20 Kec. Margoyoso, Kab. Pati, Indonesia, e-mail: agus@ipmafa.ac.id.

Predavateljica, Institut islamskega internata Mathaliul Falah, Jl. Raya Pati - Tayu No.KM.20 Kec. Margoyoso, Kab. Pati, Indonezija, e-pošta: agus@ipmafa.ac.id.

**Chusnul Muali, PhD**

Lecturer, University of Nurul Jadid Probolinggo, Jl. PP Nurul Jadid, Kec. Paiton, Kab. Probolinggo, Indonesia, e-mail: chusnulmuali@unuja.ac.id.

Predavateljica, Univerza Nurul Jadid, Probolinggo, Jl. PP Nurul Jadid, Kec. Paiton, Kab. Probolinggo, Indonezija, e-pošta: chusnulmuali@unuja.ac.id.

**Achmad Sya'dullah, PhD**

Lecturer, State University of Surabaya, Jl. Lidah wetan, Surabaya, Indonesia, e-mail: achmadsyadullah@unesa.ac.id.

Predavateljica, Državna univerza Surabaya, Jl. Lidah wetan, Surabaya, Indonezija, e-pošta: achmadsyadullah@unesa.ac.id.

**Nur Huda, MA**

Lecturer, Islamic College of Al-Anwar Sarang Rembang, Jl. Rembang - Surabaya, Kec. Sarang, Kab. Rembang, Indonesia, e-mail: nurhuda@staialanwar.ac.id.

Predavateljica, Islamska šola Al-Anwar, Sarang, Rembang, Jl. Rembang - Surabaya, Kec. Sarang, Kab. Rembang, Indonezija, e-pošta: nurhuda@staialanwar.ac.