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Analysis of Factors Affecting User Acceptance of Train Mobile Ticketing Services Using the C-TPB-TAM Method

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Abstract

PT Kereta Api Indonesia (Persero) is striving to enhance its services through technological advancements, particularly with its KAI Access mobile application. However, KAI Access has faced challenges, resulting in lower user adoption and various complaints. Users have reported issues such as the app frequently crashing, unresponsiveness, payment problems, and unclear error notifications. These problems are contrary to PT KAI's goal of providing a seamless ticket-purchasing experience. To address these challenges, PT KAI must improve the performance and user-friendliness of the KAI Access app, making it a superior choice compared to external alternatives. Research plays a crucial role in identifying factors that influence user acceptance of the application. This research employs the Combined Theory of Planned Behavior-Technology Acceptance Model (C-TPB-TAM) with a quantitative approach and utilizes SmartPLS for data analysis. The study reveals that seven hypotheses related to KAI Access usage have a positive and significant impact, including perceived usefulness (PU), perceived ease of use (PEOU), attitude (ATT), subjective norm (SN), perceived behavior control (PBC), and behavioral intention (BI). These findings offer valuable insights for further system development, helping PT KAI enhance its services and user experience.

Keywords: CTPB-TAM, KAI Access, Kereta Api Indonesia, Online Ticketing

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I. INTRODUCTION

Smartphone usage in Indonesia has increased significantly, reaching more than 13 million devices, marking a growth of 3.6 percent over the previous year [1]. This growth has encouraged companies, both public and private, to keep up with technology to improve the quality of services provided to users [2]. PT Kereta Api Indonesia (KAI) as a railroad service provider, despite facing the rapid growth of smartphone usage, it is still serving conventional ticket purchases. This decision was taken partly because some people still feel uncomfortable or have not fully adapted to online transactions [3]. However, KAI responded by introducing a mobile ticketing application, KAI Access, as a solution to improve efficiency and overcome problems such as long queues and lack of convenience at station counters [4].

Data from the Central Bureau of Statistics shows that cumulatively, railroad passengers in Indonesia amounted to 207.14 million people in January-July 2023. The number increased by 44.95% compared to January-July 2022 (year on year/yoy) which amounted to 142.9 million people, representing a significant increase in the utilization of rail transportation services by society [5]. The improvement is described in Figure 1 below:

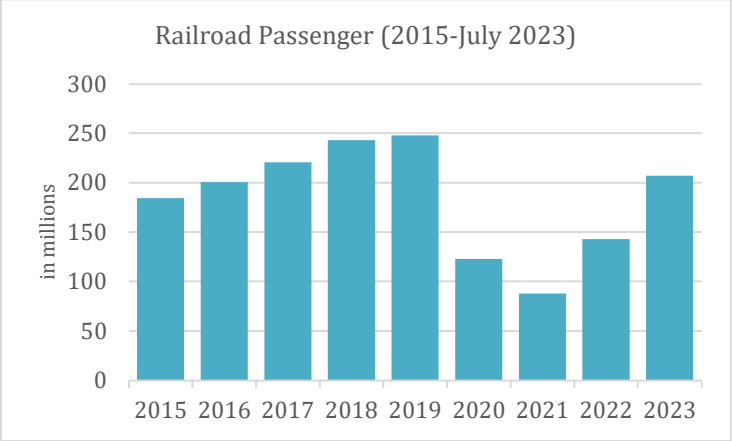

Fig 1 Railroad Passenger Chart 2015-2023

This increase is also in line with the increasing use of the KAI Access application. This application is becoming more popular with approximately 6,600 new users added per day [6]. Although KAI Access has played an important role in facilitating the purchase of train travel tickets during the Eid transportation season, it should be noted that as of February 10, 2023, this application only received a rating of 3.3 out of a total scale of 5 on the Google Play Store [7]. This rating is lower than similar apps such as Traveloka and tiket.com. Research results from research institute Alvara, involving 1,204 respondents, also show that KAI Access ranks last in the most frequently used ticket booking platforms. The use of the ticket booking application is outlined in Figure 2 below [8]:

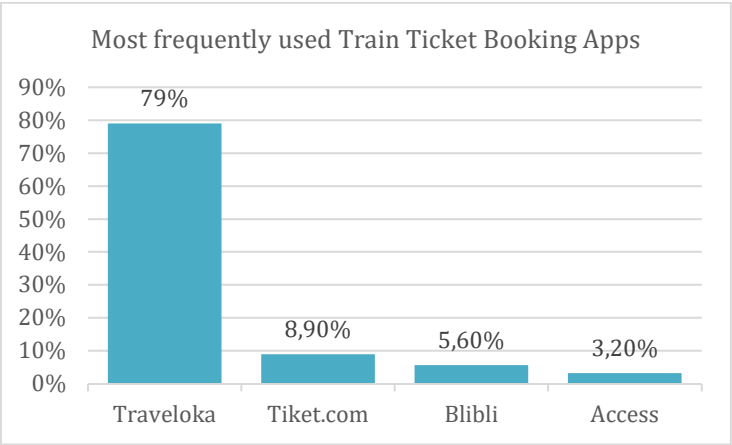

Fig 2 Most frequently used Train Ticket Booking Apps

The high number of complaints against the KAI Access application encourages the need for further research to understand and overcome problems that may arise in its use. This is key in efforts to increase user satisfaction and gain an advantage in competition in the ticket purchasing service sector [9]. The Technology Acceptance Model is considered the most appropriate model in describing how individuals accept a system [10].

Previous research has examined user acceptance factors by applying the Technology Acceptance Model [11]. TAM presents a powerful and simple explanation of technology adoption and user behavior towards it [12]. In contrast, the TAM method does not take into account the impact of social factors and control factors on information technology usage behavior, even though these two factors have been shown to have an important influence on information technology usage behavior. However, these factors are also factors that determine behavior in the Theory of Planned Behavior [13]. This study focuses on user acceptance factors and behavior concerning the purchase of train tickets through an online booking system. It combines the Technology Acceptance Model (TAM) with the Theory of Planned Behavior (TPB) to offer a more comprehensive perspective. While TAM explains technology adoption, it overlooks the impact of social and control factors, which TPB addresses [14]. Consequently, the study aims to address two key issues. First, it assesses the suitability of the Combined Theory of Planned Behavior-Technology Acceptance

Model (C-TPB-TAM) in analyzing user acceptance of KAI Access service application technology. Second, it recognizes technical deficiencies in the KAI Access application that may lead to a poor user experience. These issues may deter future usage. To mitigate this, the research identifies factors influencing user preference for KAI Access, aiding developers in enhancing services, and utilizes the C-TPB-TAM approach to improve user acceptance while contributing to technology acceptance theory and consumer behavior development.

II. RESEARCH METHOD

1. Combined Theory of Planned Behavior Technology Acceptance Model (C-TPB-TAM)

In 1995, Taylor and Todd developed the Combined TPB-TAM model [15]. The C-TPB-TAM method is an integrated model that combines constructs from two decision-making theories, those are TAM and TPB [16]:

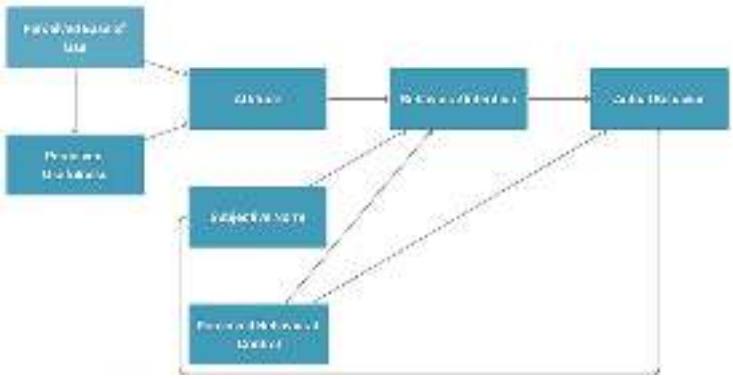

Fig 3 Combined TPB-TAM Model

A. Perceived Ease of Use (PEOU)

Perceived Ease of Use is the user's belief that technology or systems are easy to use without difficulty [12]. Qualified systems provide ease of use to meet user satisfaction [17].

B. Perceived Usefulness (PU)

Perceived usefulness measures how far someone believes that using technology will improve work performance or productivity, as well as the effectiveness of information systems in improving the quality of user work [12].

C. Attitude (ATT)

Attitude related to technology acceptance is the user's attitude towards technology or systems, including acceptance or rejection in work [12].

D. Subjective Norm (SN)

Subjective norm is a person's belief based on the views of others related to them (normative belief) [18].

E. Perceived Behavior Control (PBC)

Perceived behavior control is a person's belief in the ease or difficulty of performing certain behaviors, related to specific skills, such as mastering the use of computers [13].

F. Behavior Intention (BI)

Behavior Intention is a person's tendency to use technology or information systems [19]. The desire to use technology increases if users have a positive view and attitude towards the system used [20].

G. Actual Behavior (B)

Describes the real use of technology. Measurement is done through the frequency and duration of technology use. User satisfaction depends on the belief that the system is easy to use and increases productivity, which is reflected in actual use. The level of user interest in technology or information systems can be measured by how often they use it [15].

This model helps understand the factors that influence user acceptance and behavior towards information technology, by combining important aspects of the two main theories in decision making.

2. *Research Data*

In this study, primary data was used which was collected through an online questionnaire using Google Form and also through direct distribution at Purwokerto Station. The questionnaire contains a list of questions addressed to respondents to obtain responses to the constructs of the Theory of Planned Behavior (PNC, SN, and B) and the Technology Acceptance Model (PEOU, PU, BI, and ATT). Respondents answered according to their perceptions using a Likert scale.

Table 1 Likert Scale

Score	Description
1	Strongly Disagree
2	Disagree
3	Quite Disagree
4	Neutral
5	Quite Agree
6	Strongly Agree

This scale is used to measure the level of agreement or disagreement with questions about the object of research [21].

3. *Research Methodology*

The research process starts from analyzing and formulating problems to reaching conclusions and recommendations. An illustration of the research methodology is shown in Figure 4:

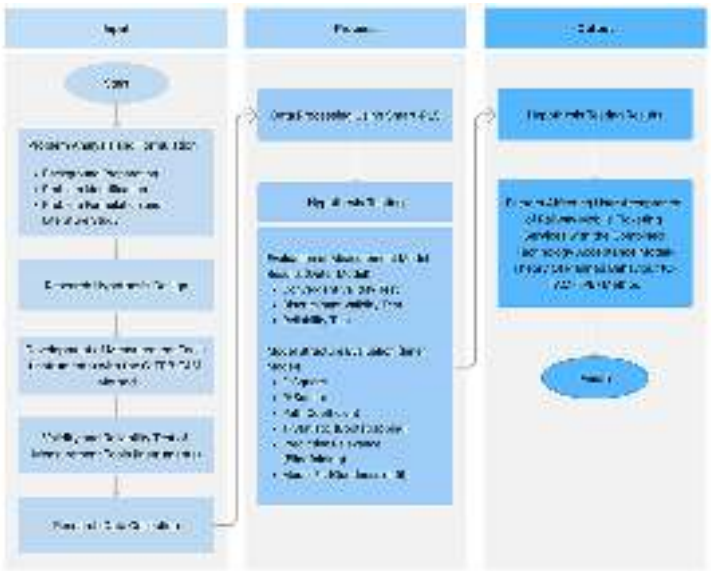

Fig 4 Research Flow Diagram

A. *Problem Analysis and Formulation*

At the problem analysis and formulation stage, the background is compiled by considering the problems and constraints that arise in KAI Access. The analysis results identified several obstacles, including limited responsiveness, access interruptions, frequent crashes, and problems in the payment process. Hypotheses were then formulated in accordance with the established C-TPB-TAM research method.

B. *Design of Research Hypotheses*

In the research method followed, the following hypotheses were formulated to test the influence of ATT, BI, PBC, PEOU, PU, SN, and B variables on the use of KAI Access in online ticket purchases:

H1 : PEOU has a positive and significant effect on BI (PEOU -> BI).
H2 : PEOU has a positive and significant effect on ATT (PEOU -> ATT).
H3 : PU has a positive and significant effect on ATT (PU -> ATT).

H4 : PEOU has a positive and significant effect on PU (PEOU -> PU).
H5 : ATT has a positive and significant effect on BI (ATT -> BI).
H6 : SN has a positive and significant effect on BI (SN -> BI).
H7 : PBC has a positive and significant effect on BI (PBC -> BI).
H8 : PBC has a positive and significant effect on B (PBC -> B).
H9 : SN has a positive and significant effect on B (SN -> B).
H10 : BI has a positive and significant effect on B (BI -> B).

C. Preparation of Measurement Tools

The next stage is the preparation of measuring instruments (instruments) based on the C-TPB-TAM construct. This step is carried out to design a questionnaire that is in accordance with the research variables, thus directing the preparation of the questionnaire structurally and informatively.

D. Research Data Collection

At this stage, observations, surveys, and literature studies were carried out. Initial observations involved reviewing user reviews on Google Play, installing the KAI Access application on a Samsung A30 device, and participating as a user. These observations reveal user constraints, advantages, and disadvantages of the application. This step is important to ensure quality data. The focus population is KAI Access users who purchase tickets through the application. Since the population of users in the DAOP 5 Purwokerto area is not known with certainty, the sample is determined using the Cochran formula as follows:

$$n = \frac{z^2 \mathrm{p}\,(1-p)}{e^2} \tag{1}$$

$$n = \frac{(1.645)^2.0{,}5.(1-0.5)}{(0.10)^2} = 135{,}30$$

The minimum number of respondents required was 136, rounded up from calculations with Z = 1.645, E = 10%, and p = 0.5. This research uses a non-probability sampling approach, specifically the Convenience Sampling method, to collect data from 136 respondents as a minimum sample. Data was obtained through online and offline questionnaires from respondents who met the criteria. Primary data was collected through questionnaires, while secondary data was obtained from relevant sources. This approach provides a comprehensive view of KAI Access users' experiences and views of the application.

E. Structural Modeling

Figure 5 illustrates the structural model based on the C-TPB-TAM construction as follows:

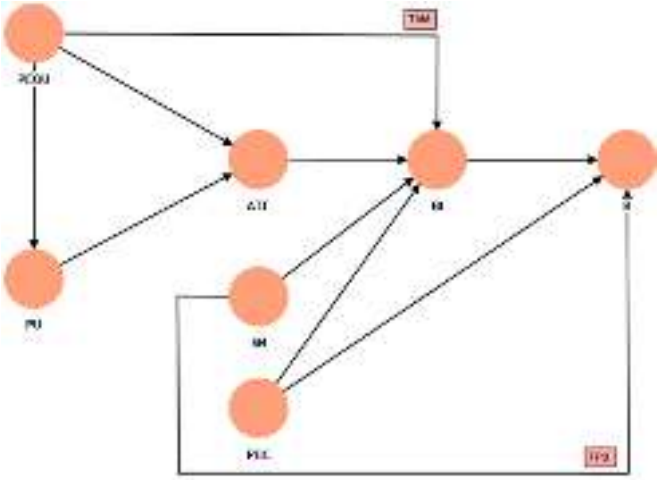

Fig 5 Structural Model of Research

F. Creation of Measurement Model

By connecting indicators of manifest variables with relevant latent variables.

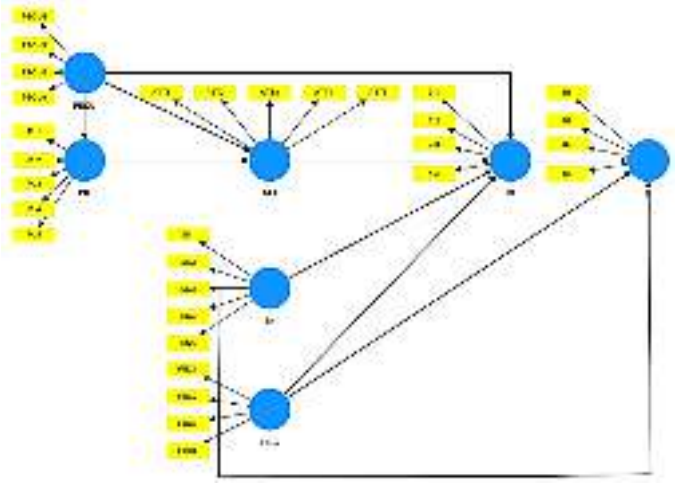

Fig 6 Measurement Model

The measurement model of all variables in the C-TPB-TAM method is illustrated in Figure 6 using Smart PLS software version 4. The variables to be measured in this model include:

a. Perceived Ease of Use (PEOU1, PEOU2, PEOU3, PEOU4)
b. Perceived Usefulness (PU1, PU2, PU3, PU4, PU5)
c. Attitude (ATT1, ATT2, ATT3, ATT4, ATT5)
d. Behavior Intention (BI1, BI2, BI3, BI5)
e. Actual Behavior (B2, B3, B4, B5)
f. Perceived Behavior Control (PBC1, PBC2, PBC3, PBC4)
g. Subjective Norm (SN1, SN2, SN3, SN4, SN5)

G. Evaluation of the Measurement Model (Outer Model)

a. Loading Factor

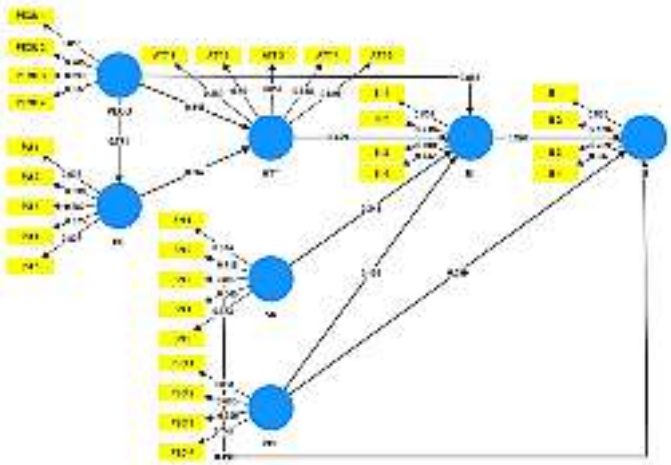

Fig 7 Path Coefficients Indicators

In Figure 7, some indicators have factor loadings below 0.7. Therefore, data cleansing is carried out:

1. Removing indicators ATT2, PBC2, PBC3, PU1, SN1, SN4, and B2 because the factor loading is below 0.7.
2. After recalculation, SN2 was also removed because the factor loading value did not meet the 0.7 limit.
3. Recalculation shows that all variable indicators have factor loading above 0.7.
4. After cleansing the data, all indicators fit the measurement model analysis criteria.

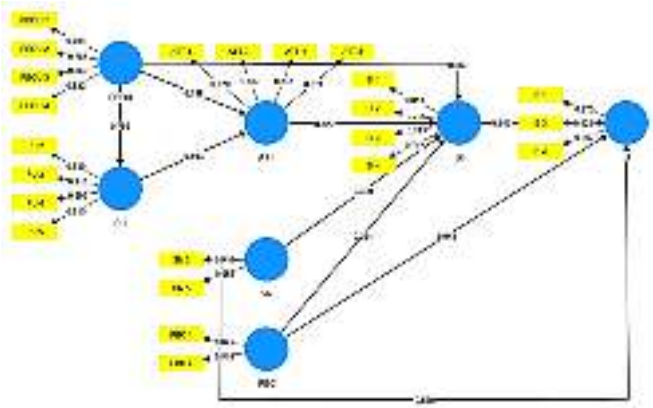

Fig 8 Path Coefficients After Data Cleansing

In Figure 8, all indicators meet the measurement model analysis criteria with factor loading above 0.7. This indicates good reliability of the research instrument and its ability to accurately measure latent variables. The results of this calculation can be relied upon for further analysis of the relationship between the variables in this study.

Table 2 Average Value (AVE) of KAI Access Users

Construct Validity and Reliability				
Variable	**Cronbach's Alpha**	**rho_A**	**Composite Reliability**	**AVE**
ATT	0.886	0.888	0.921	**0.746**
B	0.816	0.827	0.890	**0.730**
BI	0.809	0.866	0.896	**0.626**
PBC	0.605	0.617	0.834	**0.715**
PEOU	0.862	0.865	0.906	**0.708**
PU	0.890	0.897	0.924	**0.753**
SN	0.894	0.898	0.950	**0.904**

Table 2 shows the AVE value for each variable, namely ATT (Attitudes) = 0.764, B (Actual Behavior) = 0.730, BI (Behavior Intention) = 0.626, PBC (Perceived Behavior Control) = 0.715, PEOU (Perceived Ease of Use) = 0.708, PU (Perceived Usefulness) = 0.753, and SN (Subjective Norm) = 0.904. All AVE values of the seven constructs have exceeded 0.50, indicating that the seven constructs meet the criteria for convergent validity, which means that the indicators used to measure each construct effectively and reflect the concept to be measured.

b. Discriminant Validity

Table 3 Fornell Larcker Discriminant Validity

Discriminant Validity							
Fornell-Larcker Criteria							
Variable	**ATT**	**B**	**BI**	**PBC**	**PEOU**	**PU**	**SN**
ATT	**0.864**						
B	0.726	**0.854**					
BI	0.740	0.659	**0.791**				
PBC	0.433	0.323	0.512	**0.846**			
PEOU	0.661	0.565	0.580	0.555	**0.841**		
PU	0.797	0.654	0.688	0.464	0.755	**0.868**	
SN	0.674	0.736	0.711	0.274	0.426	0.563	**0.951**

Table 3 shows the cross-loading results, which are reflected in the correlation values between the latent variables and the different indicators. Each latent variable has a significant correlation with its respective indicator, exceeding the 0.70 threshold. This indicates the validity of the indicators in measuring the corresponding latent variables. This indicates that the indicators are valid in measuring the latent variable in question. In addition, the PLS model meets the discriminant validity requirements with the AVE squared value for each construct greater than correlation with other constructs, indicating that the measurements of different constructs are not highly correlated. This confirms that the model used in this study is valid and reliable.

c. Reliability Test

Reliability testing uses the Cronbach's Alpha method, which measures the reliability of all indicators in the model. The Cronbach's Alpha value indicates the level of reliability or reliability of a measurement instrument. Cronbach's Alpha values of less than 0.70 are considered to have a low level of reliability, while if the value reaches 0.70 or higher, the instrument is considered to have a better level of reliability. Cronbach alpha values in this study are shown as follows:

Table 4 Cronbach's Alpha Value

Cronbach's Alpha	N of Items
0.993	31

Based on Table 4, the Cronbach's Alpha value of 0.939 indicates that the measuring instrument or scale used in this study has a very high level of internal consistency, meaning that the items or questions in the measuring instrument tend to give similar or consistent results if repeated measurements have a high level of reliability and are reliable in measuring the construct or variable to be studied.

H. Model Structure Evaluation (Inner Model)

a. F-Square

The f-square value obtained indicates the level of influence of exogenous variables on endogenous variables, with the categorization of small effect ($f^2 = 0.02$), medium effect ($f^2 = 0.15$), and large effect ($f^2 = 0.35$). The following is the f^2 value for each exogenous variable on the endogenous variable:

Table 5 F-Square KAI Access Users

Discriminant Validity							
Fornell-Larcker Criteria							
Variable	**ATT**	**B**	**BI**	**PBC**	**PEOU**	**PU**	**SN**
ATT			0.126				
B							
BI		0.054					
PBC		0.004	0.105				
PEOU	0.023		0.007			**1.329**	
PU	**0.577**						
SN		**0.349**	**0.272**				

Table 5, shows that the effect of ATT (Attitudes) on BI (Behavior Intention) is 0.126 which indicates that the ATT variable has a small influence on endogenous variables, this also applies to the other three variables, namely BI, PBC and PEOU which have an f^2 value <0.15, while the SN variable has an f^2 value> 0.15 indicating a medium influence. Based on these values, the variables PU and PEOU on PU have a large influence on endogenous variables, while other variables have a smaller influence on endogenous variables.

b. R-Square

R-square (R^2) in regression analysis or SEM describes how much variation in the dependent variable can be explained by the independent variables in the model. R-square values range from 0 to 1, with higher values indicating that the independent variables are able to explain more variation in the dependent variable.

Table 6 R-Square KAI Access Users

Quality Criteria		
R Square		
Variable	R Square	Adjusted R Square
ATT	**0.643**	0.638
B	**0.581**	0.572
BI	**0.681**	0.672
PU	**0.571**	0.568

Table 6 shows the results of evaluating the structural model or inner model based on the R Square value for latent constructs that are dependent variables. This R Square value is analyzed using a rule of thumb, where a value of 0.75 is classified as strong, 0.50 is classified as moderate,

and 0.25 is classified as weak. Based on the results of the output analysis in Table 6 with the bootstrapping method, the R-Square values are obtained as follows:

1. ATT (Attitudes): 0,643
2. B (Actual Behavior): 0,581
3. BI (Behavior Intention): 0,681
4. PU (Perceived Usefulness): 0,571

Based on the rule of thumb criteria, the R-Square value of all these variables is classified as moderate. This indicates that the variation in these variables can be adequately explained by other variables in the research model.

c. Path Coefficient

Path coefficients are measures that indicate the direction and strength of the relationship between the variables in the research model. The path coefficient value can be in the range -1 to 1. This path coefficient provides insight into the relative influence between variables in the research model. A positive relationship indicates that an increase in value in one variable will result in an increase in value in another variable, while a negative relationship will indicate the opposite.

Table 7 Path Coefficient of KAI Access Users

Path Coefficient							
Variable	**ATT**	**B**	**BI**	**PBC**	**PEOU**	**PU**	**SN**
ATT			0.329				
B							
BI		0.243					
PBC		0.048	0.221				
PEOU	0.138		0.069			**0.755**	
PU	0.693						
SN		0.550	0.399				

Table 7 shows that all path coefficients show a positive direction, so it can be concluded that that there is a consistent and positive relationship among the variables under consideration, signifying that as one variable increases, the others tend to increase as well.

d. T-Statistic (Bootstrapping)

This step is used to measure the level of statistical significance of the relationship between the variables. The T-Statistic value indicates the significance of a variable's effect on other variables in the model. The higher the T-Statistic value, the more significant the influence of the variable on the variable of interest. P-values are also needed to assess significance more accurately, if the P-values are smaller than the set significance level (usually 0.05), then the path coefficient is considered significant. Conversely, if the P-value is greater than the significance level, then the path coefficient is considered insignificant.

Table 8 T-Statistic (Bootstrapping)

Mean, STDEV, T-Values, P-Values					
Variable	**Original Sample(O)**	**Sample Mean**	**Standard Deviation**	**T Statistic**	**P Values**
PEOU→BI	0.069	0.065	0.099	**0.695**	0.487
PEOU→ATT	0.138	0.134	0.094	**1.468**	0.142
PU→ATT	0.693	0.696	0.079	**8.750**	0.000
PEOU→PU	0.755	0.759	0.047	**15.925**	0.000
ATT→BI	0.329	0.333	0.104	**3.152**	0.002
SN→BI	0.399	0.398	0.084	**4.774**	0.000
PBC→BI	0.221	0.226	0.075	**2.939**	0.003
PBC→B	0.048	0.047	0.067	**0.714**	0.475
SN→B	0.550	0.544	0.084	**6.517**	0.000
BI→B	0.243	0.250	0.086	**2.815**	0.005

T-Statistic has a value> 1.96 can be said to be significant, if the T-Statistic value < 1.96 then it is not significant. The results of the bootstrapping process in Table 8 are as follows:

1. PEOU (Perceived Ease of Use) is not significant to BI (Behavior Intention) with a value of 0.695 < 1.96.

2. PEOU (Perceived Ease of Use) is not significant to ATT (Attitudes) with a value of 1.468 < 1.96.
3. PU (Perceived Usefulness) is significant to ATT (Attitudes) with a value of 8.750> 1.96.
4. PEOU (Perceived Ease of Use) is significant to PU (Perceived Usefulness) with a value of 15.925> 1.96.
5. ATT (Attitudes) is significant to BI (Behavior Intention) with a value of 3.152> 1.96.
6. SN (Subjective Norm) is significant to BI (Behavior Intention) with a value of 4,774> 1.96.
7. PBC (Perceived Behavior Control) is significant to BI (Behavior Intention) with a value of 2.939> 1.96.
8. PBC (Perceived Behavior Control) is not significant to B (Actual Behavior) with a value of 0.714 < 1.96.
9. SN (Subjective Norm) is significant to B (Actual Behavior) with a value of 6.517> 1.96.
10. BI (Behavior Intention) is significant to B (Actual Behavior) with a value of 2.815 > 1.96.

e. Predictive Relevance

Predictive Relevance analysis provides insight into how well the tested model predicts the behavior of endogenous variables based on existing data. The higher the Q^2 Predict value, the better the model is at explaining variations in the behavior of endogenous variables. RMSE and MAE values are used to measure the accuracy and precision of model predictions against actual data.

Table 9 Predictive Relevance of KAI Access Users

Predictive Relevance			
Variable	**Q^2 Predict**	**RMSE**	**MAE**
ATT	**0.429**	0.774	0.602
B	**0.568**	0.671	0.525
BI	**0.594**	0.649	0.468
PU	**0.558**	0.689	0.476

Table 9 provides the results of the Predictive Relevance analysis as follows:

1. The ATT (Attitudes) variable has a Q^2 Predict of 0.429, which indicates that 42.9% of the variation in the variable's behavior can be explained by other endogenous variables in the model. The RMSE (Root Mean Square Error) value of 0.774 and MAE (Mean Absolute Error) of 0.602 are used to measure the accuracy of model predictions against actual data.
2. Variable B (Actual Behavior) has a Q^2 Predict of 0.568, which indicates that 56.8% of the variation in the variable's behavior can be explained by other variables in the model. The RMSE of 0.671 and MAE of 0.525 provide information on how close the model predictions are to the actual data.
3. The BI (Behavior Intention) variable has a Q^2 Predict of 0.594, which illustrates that 59.4% of the variation in the behavior of this variable can be explained by other endogenous variables in the model. The RMSE of 0.649 and MAE of 0.468 are used as indicators of the model's prediction accuracy.
4. The PU (Perceived Usefulness) variable has a Q^2 Predict of 0.558, indicating that about 55.8% of the variation in the behavior of this variable can be explained by other variables in the model. The RMSE of 0.689 and MAE of 0.476 measure the extent to which the model predictions match the actual data.

f. Model Fit

Model fit analysis provides an overview of how well the estimated model matches the saturation model which is an ideal model with perfect correlation between indicators. The relatively low value of SRMR indicates that the estimated model is good enough in describing the relationship between indicators. The lower values of d_ULS and d_G also indicate that the model parameter estimates are relatively good.

Table 10 Model Fit

Model Fit		
Indicator	**Model Saturated**	**Model Estimasi**
SRMR	**0.101**	0.148
d_ULS	2.795	6.074
d_G	1.095	1.288
Chi-square	881.714	943.333
NFI	0.688	0.666

Based on Table 10 the results of the fit model analysis conducted, the following conclusions can be drawn:

1. Model Fit: The Estimation Model shows a fairly good level of fit with the Saturated Model, as reflected in the relatively low SRMR value (0.148). This indicates that the estimated model has a decent ability to describe the relationship between indicators.
2. Parameter Accuracy: Although the Estimated Model has higher d_ULS (6.047) and d_G (1.288) values than the Saturated Model, it is still within the acceptable range. This indicates that the estimated model provides relatively accurate parameter estimates.
3. Goodness of Fit: The Estimated Model has a higher Chi-Square value (943.333) than the Saturated Model (881.714). However, in this context, a lower Chi-Square value would be more desirable. The NFI value also showed a decrease in the Estimated Model (0.666) compared to the Saturated Model (0.688), indicating a decrease in goodness of fit.

The recommended communality value = 0.50 and the R-square value of Small = 0.02, Medium = 0.13 and Large = 0.26. In this study, the results obtained were 0.101, so the GoF index value was included in the small category. Overall, the estimation model is still able to provide an adequate description of the relationship between indicators even though there are indicators of goodness of fit showing a decrease.

4. Hypothesis Testing

Table 11 KAI Access User Research Hypothesis

Mean, STDEV, T-Values, P-Values

Hypothesis	Variable	Original Sample(O)	Sample Mean	Standard Deviation	T Statistic	P Values
H1	PEOU→BI	0.069	0.065	0.099	**0.695**	**0.487**
H2	PEOU→ATT	0.138	0.134	0.094	**1.468**	**0.142**
H3	PU→ATT	0.693	0.696	0.079	**8.750**	**0.000**
H4	PEOU→PU	0.755	0.759	0.047	**15.925**	**0.000**
H5	ATT→BI	0.329	0.333	0.104	**3.152**	**0.002**
H6	SN→BI	0.399	0.398	0.084	**4.774**	**0.000**
H7	PBC→BI	0.221	0.226	0.075	**2.939**	**0.003**
H8	PBC→B	0.048	0.047	0.067	**0.714**	**0.475**
H9	SN→B	0.550	0.544	0.084	**6.517**	**0.000**
H10	BI→B	0.243	0.250	0.086	**2.815**	**0.005**

Table 4.13 shows that there are 7 accepted research hypotheses and 3 rejected hypotheses, those are:

a. PU→ATT, PEOU→PU, ATT→BI, SN→BI, PBC→BI, SN→B, BI→B are **accepted**, because the T-Statistic value> 1.96 and P-Value <0.05.
b. PEOU→BI, PEOU→ATT, PBC→B are **rejected**, because the T-Statistic value < 1.96 and P-Value > 0.05.

III. RESULTS AND DISCUSSION

The following data presents the results of hypothesis testing:

Table 12 Hypothesis Acceptance Results

Hypothesis		Result	Reason
H1	PEOU→BI	Rejected	T Statistic<1.96 and P- Values>0.05
H2	PEOU→ATT	Rejected	T Statistic<1.96 and P- Values>0.05
H3	PU→ATT	Accepted	T-Statistic>1.96 and P-Values<0.05
H4	PEOU→PU	Accepted	T-Statistic>1.96 and P-Values<0.05
H5	ATT→BI	Accepted	T-Statistic>1.96 and P-Values<0.05
H6	SN→BI	Accepted	T-Statistic>1.96 and P-Values<0.05
H7	PBC→BI	Accepted	T-Statistic>1.96 and P-Values<0.05
H8	PBC→B	Rejected	T Statistic<1.96 and P- Values>0.05
H9	SN→B	Accepted	T-Statistic>1.96 and P-Values<0.05
H10	BI→B	Accepted	T-Statistic>1.96 and P-Values<0.05

a. Hypothesis 1 (H1): This hypothesis is **rejected** because the T-Statistic value is less than 1.96 and the P-Values are greater than 0.05. This indicates that there is no significant influence between perceived ease of use (PEOU) on Behavior Intention (BI) in using KAI Access.
b. Hypothesis 2 (H2): This hypothesis **rejected** because the T-statistic value in testing perceived ease of use (PEOU) on Attitude (ATT) and the P-value exceed the significance threshold.
c. Hypothesis 3 (H3): In testing the influence between Perceived Usefulness (PU) on Attitude (ATT), this hypothesis is **accepted** because the T-statistic value > 1.96 and P-value < 0.05. This indicates that individuals' belief in the usefulness of the application has a positive and significant influence on their attitude towards the application.
d. Hypothesis 4 (H4): The effect of perceived ease of use (PEOU) on Perceived Usefulness (PU) in using KAI Access is **accepted**. This shows that belief in ease of use has a positive and significant impact on perceptions of application usability.
e. Hypothesis 5 (H5): This hypothesis **accepted**, there is a positive and significant influence between Attitude (ATT) on Behavior Intention (BI) in using KAI Access. That is, individuals' attitudes towards the application have a positive and significant effect on their intention to use the application further.
f. Hypothesis 6 (H6): The effect of Subjective Norm (SN) on Behavior Intention (BI) is **accepted**. This indicates that subjective social norms have a positive and significant impact on individuals' intention to use the application.
g. Hypothesis 7 (H7): This hypothesis **accepted**, there is a positive and significant influence between Perceived Behavior Control (PBC) on Behavior Intention (BI) in using KAI Access. This means that the perception of individual behavior control over the use of the application has a positive and significant effect on their intention to continue using the application.
h. Hypothesis 8 (H8): This hypothesis **rejected** because the T-statistic value in testing Perceived Behavior Control (PBC) on B and the P-value exceed the significance threshold.
i. Hypothesis 9 (H9): This hypothesis **accepted**, there is a positive and significant influence between Subjective Norm (SN) on B in using KAI Access. Subjective social norms have a positive and significant effect on the actual behavior of individuals in using the application.
j. Hypothesis 10 (H10): The effect of Behavior Intention (BI) on B is **accepted**. Individuals' intention to use the application has a positive and significant influence on their actual behavior in using KAI Access.

IV. CONCLUSION

Based on the results of the analysis that has been carried out, it can be concluded that the C-TPB-TAM Model is an appropriate and relevant tool for analyzing the factors that influence user acceptance of the KAI Access application. Of the total 31 indicators evaluated using the outer loading method, 8 indicators need to be removed because the factor loading value does not meet the 0.7 threshold but as many as 23 other indicators have met the expected validity and reliability standards. The findings confirm the ability of the C-TPB-TAM model in identifying key factors that contribute to user acceptance of the KAI Access application. Thus, the evaluation results conclude that this model is an effective and appropriate tool for further analysis of user acceptance of the KAI Access application. Factors that influence users to reuse the KAI Access application have also been obtained based on the results of the T-Statistic test.

For future research as an extension of this study, it is recommended to observe further variations in the sample, including different demographic groups, diverse geographic regions, or different industries. This may provide insights into differences in technology acceptance in various contexts. Delving deeper through in-depth interviews with users or conducting text analysis of user reviews can provide deeper insights into users' perceptions, attitudes, and behaviors towards technology.

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