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Influence Analysis the Technology Acceptance Model Approach on User Satisfaction and Repurchase on the KAI Access Application Using the SEM Method

Nuarita Tri Kartika*, Minto Waluyo

Department of Industrial Engineering, Faculty of Engineering, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Jl. Rungkut Madya No.1, Gunung Anyar, Surabaya 60294 Indonesia

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A B S T R A C T

The KAI Access application is a transportation service application from PT Kereta Api Indonesia. From a survey conducted by researchers, there is application dissatisfaction by users. This study aims to determine the effect of five TAM variables on user satisfaction and repurchase. In accordance with the research objectives, several TAM variables will be used, namely actual use, perceived ease of use, perceived usefulness, perceived risk, and perceived trust. It will also be known the effect of TAM variables on application user satisfaction, and repurchase of train tickets by application. After analyzing with SEM coherently, the results show that the actual use variable has a C.R. value of 6.095, has a positive and significant value on application user satisfaction. With a C.R. value of 7.668, the perceived usefulness variable has a significant positive value on application user satisfaction. With a C.R. value of 6.763, the perceived risk variable has a significant positive value on application user satisfaction. The perceived trust variable in the application has a C.R. value of 6.094 and has a significant positive value on application user satisfaction. With a C.R. value of 7.434, the application user satisfaction variable has a positive and significant value on the repurchase of train tickets through the application.

***Corresponding Author**
Nuarita Tri Kartika
E-mail: 19032010146@student.upnjatim.ac.id

1. INTRODUCTION

The fast improvement of innovation, many perspectives of life depend on technology innovation. This is because the development of information and communication technology is moving rapidly (Ardianto & Azizah, 2021). A highly competitive business environment will also require competitive advantages and the ability to survive under competitive pressure in order to achieve set goals (Maisaroh & Waluyo, 2023). An example of this rapid development is in the transportation sector. In the transportation sector, there is a train access service, namely the KAI Access application. The application it self is a mobile service that can be downloaded and has certain functions so that it can add value to the functionality of a device (Oktapiani et al., 2020). The KAI Access application was published by PT Kereta Api Indonesia on September 2014, then on September 2017 this application was updated (Anindira et al., 2021). With the mobile ticket application service with the KAI Access application as an intermediary, it will be one of the strategies for utilizing technology and a way to bring consumers or users closer to train services in the form of services (Mujiasih & Wiwoho, 2020). In a product (system), user satisfaction will be very important because it can show how much interest in repurchasing the product (system). A repeat purchase is an action taken by a consumer after a purchase. This is the manifestation of satisfaction or dissatisfaction after purchasing a product that influences subsequent behavior. Satisfied consumers are more likely to buy again (Damaryanti et al., 2022).

From a field survey conducted by researchers on Thursday, March 30, 2023, obstacles were obtained from the KAI Access application that caused users to feel dissatisfied with the application service. These obstacles include applications that often close themselves (force close) when users want to buy local train tickets when people are not doing activities, namely at 00.00, when users want to buy tickets the appearance of the train list and available seats is very long (long loading), local train schedules that do not match the departure time and arrival time, local trains that are possible for the middle to lower economy also need a ticket rescheduling feature because considering the cost they incur also means, and when there is a flash sale program the application is often down because many users access.

In addition to the survey results conducted by researchers, this application has also not received a good response from its users. This can be seen from the application's rating in Google Play Store, which is 2.5. In several reviews from Google Play Store, users complain that the application often experiences a force close when used, QR codes for train tickets that do not appear during the boarding process to enter the station, features that are less interactive, such as there is no refresh menu when selecting seats, so users experience confusion during the process, a login system that cannot be saved automatically, and problems with the payment system that often fails when the application is accessed by many users.

The Technology Acceptance Model (TAM) is an approach to describing the benefits of information systems and their ease of use, as well as their behavior, needs, and users (Astuti & Prijanto, 2021). Based on research (Hidayat & Canta, 2022), there are several TAM variables, namely actual use, perceived ease of use, perceived usefulness, perceived risk, and perceived trust.

Based on the limitations of the KAI Access application in terms of user satisfaction, the researcher would like to find out the causes of this low user satisfaction. This is because user satisfaction with the KAI Access application will have a great impact on repeat purchases. Of course, this research is retrieved from TAM approach with the variables of actual use, perceived ease of use, perceived usefulness, perceived risk, dan perceived trust, and this study uses the SEM technique. SEM method is also often used to test the causal relationship of a variable that is thought to influence other variables. In addition, the use of the SEM method is because in this method, all models are reflective and theory-based. The following is a research framework that will be carried out.

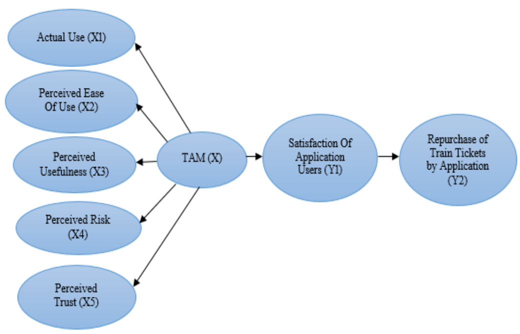

Figure 1. Conceptual research framework

2. LITERATURE REVIEW

Creating satisfaction for a system or application user is a matter of pride because it can increase competitive advantage. Satisfaction itself can be seen when a system user feels a good feeling that meets his expectations, this can improve individual well-being and can affect motivation and subsequent behavior. According to Tjiptono in (Oktarini, 2020) states that user satisfaction is a state that arises from feelings to evaluate a product or service experience. From this, customer satisfaction can be compiled from indicators of meeting expectations, reuse and willingness to recommend. User satisfaction can also be a condition when the user feels a certain level of satisfaction with a product (system) used. The response to the fulfillment of user needs, whether products or services that have met user desires and expectations, is also included in user satisfaction (Sitohang & Rustam, 2022). From this user satisfaction, individual impact or individual performance can also be generated, which will be higher. According to Kotler in (Melda Kolo & Sri Darma, 2020) states that a satisfaction that comes from users will be a Feelings of joy or disappointment due to the performance (results) of a product compared to expectations.

Repurchase interest is the tendency of consumers to repurchase products or services they have purchased in the past. This is an important indicator to measure the success of a product because customers or users who tend to repurchase a product or service indicate that they are satisfied with the previous purchase experience. As stated by Heller in (Damiati et al., 2021) that this repurchase interest includes a person's interest in performing other purchase activities in a particular company based on previous experience. According to Hawkins et al. in (Damaryanti et al., 2022) reveal that repurchase is a repurchase activity carried out by consumers of a product with the same brand without being followed by direction of meaningful feelings for a product. Based on the various opinions above, it can conclude that a repeat purchase decision is a decision to go through the same repeat purchase process for the same goods or services as before, based on meeting the user's or customer's expectations.

According to (Niqotaini & Budiman, 2021) the TAM be a demonstrate that can be utilized to show the acknowledgment of data innovation frameworks utilized by users of that innovation. From TAM, it can also be understood the relationship between people and their acceptance of technology. According to Mandailina in (Pattiwael, 2021) TAM will provide basic information about the factors that will drive individual attitudes users. In addition, TAM also has benefits for its users, namely that it can explain what factors affect the adoption of technology by users, can be used by organizations to design technology that is easier to use, can help to make strategic decisions regarding technology, can increase the effectiveness and efficiency of technology users, and can minimize the risk of user failure with technology. However, TAM itself is only based on behavioral theory, where there will be a theory that explains how individuals will perceive, process, and act on their social environment (Wicaksono, 2022). The variables in the TAM are actual use, perceived ease of use, perceived usefulness, perceived risk, and perceived trust. From all these variables, it can be analyzed the factors that influence human or user behavior in using information technology (Hidayat & Canta, 2022).

Structural Equation Modeling (SEM) is a statistical analysis technique that combines several aspects of path analysis and confirmatory factor analysis to estimate several equations simultaneously (Rahim & Waluyo, 2023). The SEM method outperforms path analysis and multiple regression. This is because SEM is more analytical and predictive (strong predictive power) and can analyze to the deepest level of variables. Structural Equation Modeling (SEM) is a commonly used statistical analysis tool. SEM is also a combination of factor analysis and regression when viewed from the preparation of the model and how to work on it. This is also because SEM is able to answer problems that are correlated, regressive, and able to identify the dimensions of a concept (dimensional).

According to (Waluyo & Rachman, 2020), the concept of SEM is considered a research media in the fields of management, industrial engineering psychology and social, which has a multidimensional nature by explaining various practical phenomena from different dimensions or indicators. SEM is also a set of relationships that are quite "complicated" in stages. In the context of SEM, a complex a relationship can be a set of relationships established by one or more dependent or endogenous variables with one or more independent or exogenous variables. SEM is often referred to as path analysis or confirmatory factor analysis because it aims at building research models., it must have a strong theoretical justification concept or reasoning process, so it requires confirmatory factor analysis. According to Minto in (Waluyo & Rachman, 2020) Confirmatory Factor Analysis has the aim that the need for a confirmation process through the indicators used must have a theoretical basis concept so that it can confirm the variables. Validity and reliability testing are two very important concepts. Validity testing will lead to determining how far the similarity between the variables to be measured is the variable to be studied. And reliability testing is a test that determines the extent to which the variables used will produce consistent and reliable results under the same conditions.

(i) Validity Test.Validity tests performed on questionnaires can be divided into two areas: factor validity and item validity. Factor validity is measured when multiple factors are used. This is done by correlating factor scores with overall factor scores. Item effectiveness is characterized by correlation or support across items, which is calculated by correlating item scores and total scores. The validity test can be divided into 2, namely convergent validity, and discriminant validity. (ii) Reliability Test. Reliability itself is a measurement of the level of internal consistency into indicators that show the degree of each indicator. According to Sugiharo and Simanjutak in (Waluyo & Rachman, 2020) reliability will refer to the instrument used as a data collection medium and which is able to reveal the results of information based on facts in the field. The high and low reliability value will be indicated by the reliability coefficient number. The use of reliability measures such as α-cronbach does not measure unidemensionality but is already in the α-cronbach calculation. SEM counts design reliability by calculating the reliability index of the equipment used from the model. (iii) Significance Test. The analysis used is a t-test on regression weight. The C.R value will be identical for t-count in the regression analysis, so C.R must be compared with t-table. If the C.R should be greater than the t-table, then the variable will be significantly a dimension of the latent variable.

3. RESEARCH METHOD

The problem-solving steps of this research are described in the flowchart below:

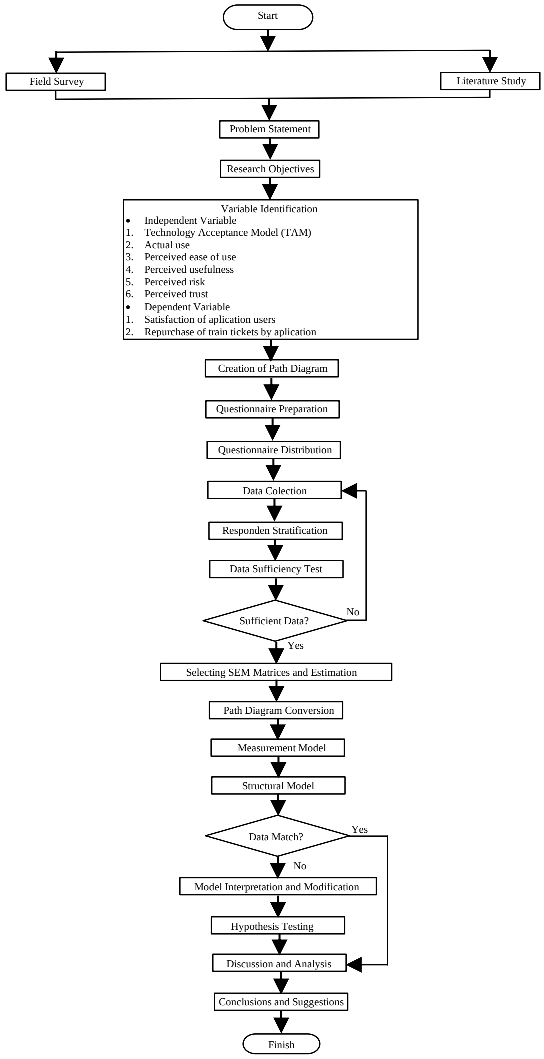

Figure 2. Research flowchart

The flowchart will explain how to complete this research. Starting from the basic things in the research to find a result of the research. Certainly will be combined between the TAM approach and completion using SEM.

4. RESULT AND DISCUSSION

A. Respondent Stratification

The following will show that respondents who are 17 years old and have used the KAI Access application at least once. And the following is an age grouping of respondents.

Table 1. Respondent age grouping

Num	Age (Years)	Number of Frequency (Person)
1	< 17	0
2	≥ 17	122
	Total	**122**

(Source : Processed data)

B. Data Sufficiency Test

In (Waluyo & Rachman, 2020), the SEM sample size prerequisite for the ML method that must be met is at least 100 samples, and the sample used in this study is 122 samples. This means that using a maximum likelihood (ML) technique with a sample size of 122 samples, the SEM assumptions can be explained as sufficient data needed to continue this study.

C. Measurement Model

After running the program with AMOS 24 in accordance with the framework in Fig 1. it turned out that the researcher found unidentified results and caused the inability to do further data processing in accordance with the original purpose of this study. Therefore, researchers made changes to the depiction framework by eliminating variable X. At the measurement model or measurement equation stage, there will be a test on the suitability of A model that passes the goodness-of-fit and bounds checks. On the off chance that the existing demonstrate does not reflect inactive factors and is analyzed utilizing the fit list, the variance-weighted portion of the test covariance lattice inferred from the assessed populace covariance lattice is computed. Tests are performed using parameters with critical values while outputting a confirmatory factor analysis.

a. Goodness of Fit Test of Measurement Model

Table 2. Goodness of fit value of measurement model

Criteria	Results Model Test	Critical Value	Description
X^2 Chi-square	663,023	Small, X^2 with df = 329 with α=0,05	Not Good
Probability	0.000	≥ 0,05	Not Good
CMIN/DF	2,015	≤ 2,00	Not Good
RMSEA	0,092	≤ 0,08	Not Good
GFI	0,722	≥ 0,90	Not Good
AGFI	0,657	≥ 0,90	Not Good
TLI	0,865	≥ 0,95	Not Good
CFI	0,882	≥ 0,95	Not Good

(Source : Processed data)

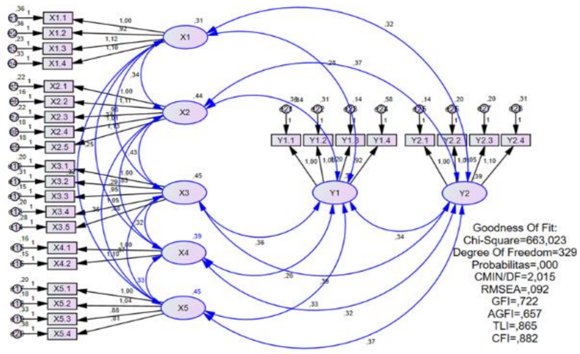

Figure 3. Results of running the amos measurement model program

b. Validity Testing Of Measurement Models

The validity test, which uses the values of the measurement model developed in the study, determines the dimensions of each correctly assessed and measured indicator and the concept being tested. If the indicator has C.R>2SE, the indicates that the indicator is valid (Waluyo & Rachman, 2020). Table 3. will show the results that all indicators are valid, this is because all indicators have a C.R> 2SE value.

Table 3. Estimate standardized regression weight of measurement model

	Estimate	S.E.	C.R.	2.SE	p	Valid Desc.	Significance	Estimate Standardized Regression Weight
X1.1 <--- X1	1.000							0.683
X1.2 <--- X1	0.922	0.138	6.680	0.276	***	Valid	Significant	0.651
X1.3 <--- X1	1.118	0.146	7.648	0.292	***	Valid	Significant	0.796
X1.4 <--- X1	1.102	0.156	7.069	0.312	***	Valid	Significant	0.731
X2.1 <--- X2	1.000							0.818
X2.2 <--- X2	1.114	0.093	11.935	0.186	***	Valid	Significant	0.880
X2.3 <--- X2	0.975	0.094	10.409	0.188	***	Valid	Significant	0.806
X2.4 <--- X2	1.009	0.091	11.065	0.182	***	Valid	Significant	0.845
X2.5 <--- X2	1.127	0.097	11.638	0.194	***	Valid	Significant	0.868
X3.1 <--- X3	1.000							0.835
X3.2 <--- X3	0.834	0.093	8.925	0.186	***	Valid	Significant	0.709
X3.3 <--- X3	0.945	0.080	11.796	0.16	***	Valid	Significant	0.851
X3.4 <--- X3	1.047	0.091	11.553	0.182	***	Valid	Significant	0.841
X3.5 <--- X3	0.880	0.092	9.610	0.184	***	Valid	Significant	0.747
X4.1 <--- X4	1.000							0.839
X4.2 <--- X4	1.100	0.110	10.030	0.22	***	Valid	Significant	0.867
X5.1 <--- X5	1.000							0.828
X5.2 <--- X5	1.043	0.092	11.283	0.184	***	Valid	Significant	0.854
X5.3 <--- X5	0.876	0.104	8.424	0.208	***	Valid	Significant	0.713
X5.4 <--- X5	0.808	0.108	7.505	0.216	***	Valid	Significant	0.660
Y1.1 <--- Y1	1.000							0.710
Y1.2 <--- Y1	0.997	0.127	7.823	0.254	***	Valid	Significant	0.731
Y1.3 <--- Y1	1.205	0.137	8.812	0.274	***	Valid	Significant	0.889
Y1.4 <--- Y1	0.924	0.151	6.139	0.302	***	Valid	Significant	0.589
Y2.1 <--- Y2	1.000							0.862
Y2.2 <--- Y2	1.012	0.089	11.405	0.178	***	Valid	Significant	0.817
Y2.3 <--- Y2	1.049	0.090	11.660	0.18	***	Valid	Significant	0.826
Y2.4 <--- Y2	1.097	0.104	10.570	0.208	***	Valid	Significant	0.776

(Source: Processed data)

c. Significance Test of Measurement Model

Strengths across dimensions are analyzed using the regression weighted t-test shown in the table above, table 3. Where the C.R value will be greater than the t-table, it will indicate that the variable being tested is significant. From Table 3, where the t-table uses a level of 0.05 and df = 28 (number of indicators), we get a t-value of 1.701, which gives all significant indicators.

d. Reliability Test of Measurement Model

Constructs that will be considered reliable if each variable has a value of ≥ 0.70 (Waluyo &

Rachman, 2020). Table 4. shows the reliability result, and the result shows that all reliability is made up are ≥ 0.70 so that the data used is reliable.

Table 4. Results of measurement model reliability test

Variable	Actual Use (X1)		Perceived Ease of Use (X2)		Perceived Usefulness (X3)		Perceived Risk (X4)		Perceived Trust (X5)		Satisfaction of Aplication Users (Y1)		Repurchase Of Train Tickets by Aplication (Y2)	
Indicators	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error
X1.1	0.683	0.317												
X1.2	0.651	0.349												
X1.3	0.796	0.204												
X1.4	0.731	0.269												
X2.1			0.818	0.182										
X2.2			0.880	0.12										
X2.3			0.806	0.194										
X2.4			0.845	0.155										
X2.5			0.868	0.132										
X3.1					0.835	0.165								
X3.2					0.709	0.291								
X3.3					0.851	0.149								
X3.4					0.841	0.159								
X3.5					0.747	0.253								
X4.1							0.839	0.161						
X4.2							0.867	0.133						
X5.1									0.828	0.172				
X5.2									0.854	0.146				
X5.3									0.713	0.287				
X5.4									0.660	0.34				
Y1.1											0.710	0.29		
Y1.2											0.731	0.269		
Y1.3											0.889	0.111		
Y1.4											0.589	0.411		
Y2.1													0.862	0.138
Y2.2													0.817	0.183
Y2.3													0.826	0.174
Y2.4													0.776	0.224
Σ Std. Loading	2.861		4.217		3.983		1.706		3.055		2.919		3.281	
Σ *Error*		1.139		0.783		1.017		0.294		0.945		1.081		0.719
Construct Realiability	0.877846333		0.957826336		0.939755785		0.908252185		0.908056266		0.88741414		0.93739094	
Desciption	Reliable		Reliable		Reliable		Reliable		Reliable		Reliable		Reliable	

(Source: Processed data)

e. Correlation Test of Measurement Model

In the correlation test, decide in the event that there's a relationship or relationship between two factors. The relationship network ranges from to 1. Table 5 shows that the gotten values of the relationship coefficient (r) between the factors are positive and near to a esteem of 1. Therefore all have an influence between variables is strong with a positive direction (unidirectional).

Table 5. Correlation test estimate results on measurement model

	Estimate
X1 <--> X2	0.930
X1 <--> X3	0.897
X1 <--> X4	0.726
X1 <--> X4	0.844
X1 <--> Y1	0.835
X1 <--> Y2	0.913
X2 <--> X3	0.966
X2 <--> X4	0.696
X2 <--> X5	0.816
X2 <--> Y1	0.857
X2 <--> Y2	0.887
X3 <--> X4	0.763
X3 <--> X5	0.824
X3 <--> Y1	0.893
X3 <--> Y2	0.933
X4 <--> X5	0.795
X4 <--> Y1	0.684
X4 <--> Y2	0.832
X5 <--> Y1	0.809
X5 <--> Y2	0.876
Y1 <--> Y2	0.908

(Source: Processed data)

Correlations between exogenous or independent variables based on Table 5 above within the constructed model are all significant. The relationship between these significant exogenous or independent variables is commonly known as multicollinearity. The existence of multicollinearity will be a serious problem in research (Waluyo & Rachman, 2020). This multicollinearity can be overcome by elimination the variables that cause multicollinearity. The variable to be removed is the exogenous or independent variable that has the highest correlation number. In table 5 above, what shows a high value and significant correlation is X2 and X3, so it is necessary to remove one of the variables. The variable to be removed is the ease of application variable (X2) so that it will produce a correlation value between exogenous or independent variables that is smaller than before.

f. Model Goodness of Fit Test after X2 Elimination

Table 6. Goodness of fit value of measurement model after X2 elimination

Criteria	Result Model Test	Critical Value	Description
X^2 Chi-square	434.946	Small, X^2 with df = 215 with α=0,05	Not Good
Probability	0.000	≥ 0,05	Not Good
CMIN/DF	2.023	≤ 2,00	Not Good
RMSEA	0.092	≤ 0,08	Not Good
GFI	0.763	≥ 0,90	Not Good
AGFI	0.696	≥ 0,90	Not Good
TLI	0.875	≥ 0,95	Marginal
CFI	0.894	≥ 0,95	Marginal

(Source: Processed data)

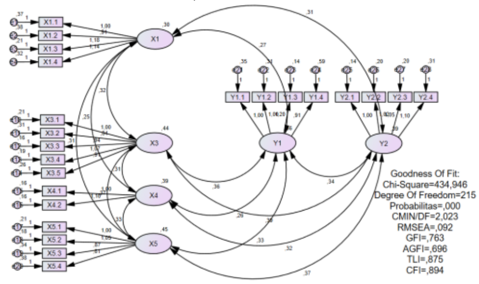

Fig. 4. Results of running the amos measurement model program after X2 elimination

g. Validity Test after X2 Elimination

The table below will show the results of all indicators in the new model, which has a C.R>2SE values for all validated indicators.

Table 7. Estimate standardized regression weight of measurement model after X2 elimination

	Estimate	S.E.	C.R.	2.SE	p	Valid Desc.	Significance	Estimate Standardized Regression Weight
X1.1 <--- X1	1.000							0.666
X1.2 <--- X1	0.915	0.145	6.309	0.29	***	Valid	Significant	0.629
X1.3 <--- X1	1.177	0.159	7.411	0.318	***	Valid	Significant	0.817
X1.4 <--- X1	1.145	0.167	6.848	0.334	***	Valid	Significant	0.740
X3.1 <--- X3	1.000							0.819
X3.2 <--- X3	0.841	0.099	8.515	0.198	***	Valid	Significant	0.701
X3.3 <--- X3	0.946	0.087	10.931	0.174	***	Valid	Significant	0.836
X3.4 <--- X3	1.093	0.096	11.429	0.192	***	Valid	Significant	0.861
X3.5 <--- X3	0.931	0.095	9.751	0.190	***	Valid	Significant	0.775
X4.1 <--- X4	1.000							0.840
X4.2 <--- X4	1.099	0.110	10.002	0.220	***	Valid	Significant	0.867
X5.1 <--- X5	1.000							0.829
X5.2 <--- X5	1.044	0.093	11.270	0.186	***	Valid	Significant	0.855
X5.3 <--- X5	0.871	0.105	8.332	0.210	***	Valid	Significant	0.709
X5.4 <--- X5	0.810	0.108	7.482	0.216	***	Valid	Significant	0.662
Y1.1 <--- Y1	1.000							0.713
Y1.2 <--- Y1	0.998	0.126	7.903	0.252	***	Valid	Significant	0.736
Y1.3 <--- Y1	1.197	0.136	8.809	0.272	***	Valid	Significant	0.888
Y1.4 <--- Y1	0.910	0.149	6.094	0.298	***	Valid	Significant	0.582
Y2.1 <--- Y2	1.000							0.859
Y2.2 <--- Y2	1.020	0.090	11.394	0.180	***	Valid	Significant	0.820
Y2.3 <--- Y2	1.056	0.091	11.655	0.182	***	Valid	Significant	0.828
Y2.4 <--- Y2	1.100	0.105	10.468	0.210	***	Valid	Significant	0.775

(Source: Processed data)

h. Significance Test after X2 Elimination

A variable that can be said to be significant is if the C.R value is greater than the t-table. After removing X2, the t-table at the 0.05 level with a df = 23 value (the number of indicators after X2 came out) obtained a t value of 1.714 so that the data in table 7. can all be said to be significant.

i. Reliability Test after X2 Elimination

If the reliability value is 0.70 or higher, the configuration is reliable. In Table 8, we can see that all configurations are reliable, with reliability test results ≥ 0.70.

Table 8. Results of measurement model reliability test after X2 elimination

Variable	Actual Use (X1)		Perceived Usefulness (X3)		Perceived Risk (X4)		Perceived Trust (X5)		Satisfaction of Aplication Users (Y1)		Repurchase Of Train Tickets by Aplication (Y2)	
Indicators	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error
X1.1	0.666	0.334										
X1.2	0.629	0.371										
X1.3	0.817	0.183										
X1.4	0.740	0.26										
X3.1			0.819	0.181								
X3.2			0.701	0.299								
X3.3			0.836	0.164								
X3.4			0.861	0.139								
X3.5			0.775	0.225								
X4.1					0.840	0.160						
X4.2					0.867	0.133						
X5.1							0.829	0.171				
X5.2							0.855	0.145				
X5.3							0.709	0.291				
X5.4							0.662	0.338				
Y1.1									0.713	0.287		
Y1.2									0.736	0.264		
Y1.3									0.888	0.112		
Y1.4									0.582	0.418		
Y2.1											0.859	0.141
Y2.2											0.820	0.180
Y2.3											0.828	0.172
Y2.4											0.775	0.225
Σ Std. Loading	2.852		3.992		1.707		3.055		2.919		3.282	
Σ *Error*		1.148		1.008		0.293		0.945		1.081		0.718
Construct Realiability	0.876328479		0.94051014		0.908633054		0.908056266		0.88741414		0.93750829	
Desciption	Reliable		Reliable		Reliable		Reliable		Reliable		Reliable	

(Source: Processed data)

j. Correlation Test after X2 Elimination

In table 9 will show the value that has been obtained, namely the correlation coefficient (r) between exogenous or independent variables which is smaller than table 5 so that the structural model measurement and modification model will use a model without involving X2.

Table 9. Correlation test estimate results on measurement model after X2 elimination

	Estimate
X1 <--> X3	0.889
X1 <--> X4	0.725
X1 <--> X5	0.838
X1 <--> Y1	0.826
X1 <--> Y2	0.912
X3 <--> X4	0.762
X3 <--> X5	0.823
X3 <--> Y1	0.892
X3 <--> Y2	0.931
X4 <--> X5	0.794
X4 <--> Y1	0.683
X4 <--> Y2	0.832
X5 <--> Y1	0.808
X5 <--> Y2	0.876
Y1 <--> Y2	0.908

(Source: Processed data)

All variables have a positive relationship and indicate that they are significant. In model testing when X2 is eimination, the correlation value between exogenous variables is still significant but the correlation number is smaller than before. The analysis in this study will continue and no more variables will be removed, because it will affect the objectives of the study, so the research will continue with the removal of variable X2 (Perceived Ease Of Use).

D. STRUCTURAL MODEL

a. Goodness Of Fit Test Of Structural Model

This suitability testing will be carried out by including parameters at C.R values, while the output results from structural model can be seen in the appendix and can be summarized as in the following table 10. For the structural model, we use the model after elimination X2.

Table 10. Goodness Of Fit Value Of Structural Model

Criteria	Result Model Test	Critical Value	Description
X^2 Chi-square	464.144	Small, X^2 with df = 225 with α=0,05	Not Good
Probability	0.000	≥ 0,05	Not Good
CMIN/DF	2.063	≤ 2,00	Not Good
RMSEA	0.094	≤ 0,08	Marginal
GFI	0.749	≥ 0,90	Not Good
AGFI	0.693	≥ 0,90	Not Good
TLI	0.870	≥ 0,95	Marginal
CFI	0.885	≥ 0,95	Marginal

(Source: Processed Data)

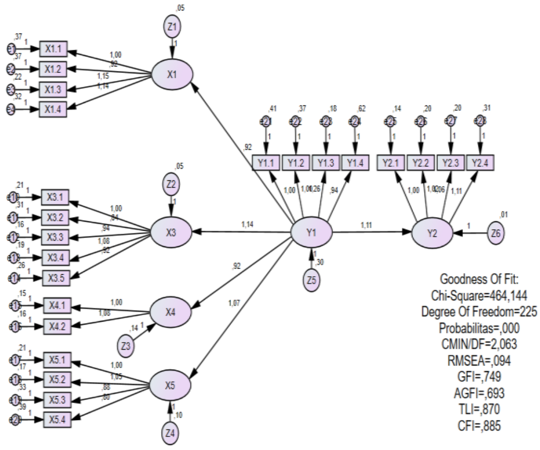

Fig. 5. Result of running the Amos structural model program

Model modification will be carried out by considering the value of modification indices in the output of the structural model program running results starting with the largest number.

Table 11. Covariances value in structural model

			M.I.				M.I.
e28	<-->	Z2	5.416	e12	<-->	e14	5.450
e26	<-->	Z3	4.535	e11	<-->	Z2	6.162
e26	<-->	e28	4.113	e11	<-->	e20	5.489
e26	<-->	e27	4.189	e10	<-->	Z1	5.063
e21	<-->	Z6	8.184	e10	<-->	e26	7.455
e21	<-->	e27	6.684	e4	<-->	Z6	6.660
e21	<-->	e25	4.815	e4	<-->	Z4	4.517
e21	<-->	e22	32.391	e4	<-->	e19	5.416
e20	<-->	Z3	5.863	e4	<-->	e14	4.354
e19	<-->	Z6	5.588	e4	<-->	e10	5.844
e19	<-->	e21	11.019	e3	<-->	e22	7.278
e19	<-->	e20	21.288	e3	<-->	e21	6.928
e18	<-->	e24	5.028	e3	<-->	e18	4.222
e18	<-->	e20	8.645	e3	<-->	e10	4.939
e17	<-->	e25	8.008	e3	<-->	e4	5.914
e16	<-->	Z4	10.221	e2	<-->	e19	4.462
e16	<-->	e28	4.525	e2	<-->	e19	5.128
e16	<-->	e20	9.354	e1	<-->	Z6	4.414
e15	<-->	e22	4.167	e1	<-->	Z3	4.943
e14	<-->	Z1	6,006	e1	<-->	e21	4.828
e14	<-->	e20	9.015	e1	<-->	e19	13.608
e14	<-->	e19	5.964	e1	<-->	e14	6.474
e14	<-->	e17	4.268	e1	<-->	e12	17.968
e13	<-->	Z2	4.100	e1	<-->	e2	10.604
e13	<-->	e14	12.180				

(Source: Processed data)

E. MODIFICATION MODEL

a. Goodness Of Fit Test Of Modification Model

Table 12. Goodness Of Fit Value Of Modification Model

Criteria	Result Model Test	Critical Value	Description
X^2 Chi-square	237,063	Small, X^2 with df = 205 with α=0,05	Good
Probability	0.062	≥ 0,05	Good
CMIN/DF	1.156	≤ 2,00	Good
RMSEA	0.036	≤ 0,08	Good
GFI	0.862	≥ 0,90	Marginal
AGFI	0.814	≥ 0,90	Marginal
TLI	0.981	≥ 0,95	Good
CFI	0.985	≥ 0,95	Good

(Source: Processed Data)

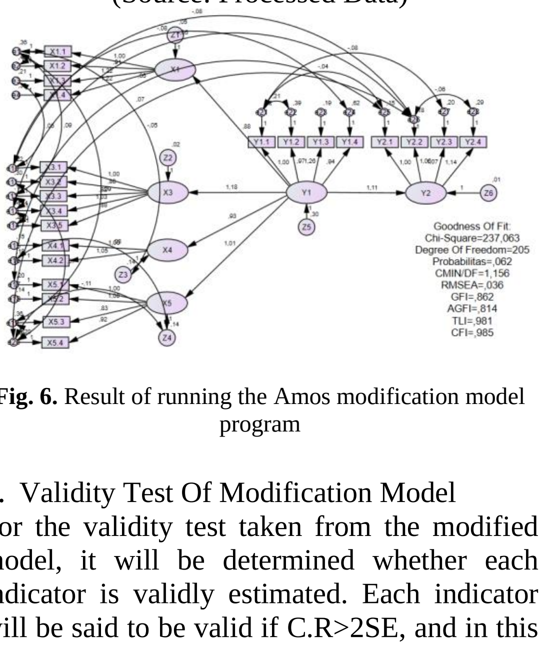

Fig. 6. Result of running the Amos modification model program

b. Validity Test Of Modification Model

For the validity test taken from the modified model, it will be determined whether each indicator is validly estimated. Each indicator will be said to be valid if C.R>2SE, and in this study all variables and indicators show valid values.

Table 13. Estimate standardized regression weight of modification model

	Estimate	S.E.	C.R.	2.SE	p	Valid Desc.	Significance	Estimate Standardized Regression Weight
Y2 <-- Y1	1.115	0.150	7.434	0.300	***	Valid	Significant	0.989
X1 <-- Y1	0.877	0.144	6.095	0.288	***	Valid	Significant	0.914
X3 <-- Y1	1.182	0.154	7.668	0.308	***	Valid	Significant	0.978
X4 <-- Y1	0.933	0.138	6.763	0.276	***	Valid	Significant	0.811
X5 <-- Y1	1.014	0.147	6.904	0.294	***	Valid	Significant	0.830
X1.1 <-- X1	1.000						Significant	0.657
X1.2 <-- X1	0.908	0.134	6.780	0.268	***	Valid	Significant	0.603
X1.3 <-- X1	1.220	0.164	7.429	0.328	***	Valid	Significant	0.817
X1.4 <-- X1	1.219	0.172	7.069	0.344	***	Valid	Significant	0.760
X3.1 <-- X3	1.000						Significant	0.819
X3.2 <-- X3	0.864	0.097	8.899	0.194	***	Valid	Significant	0.722
X3.3 <-- X3	0.925	0.085	10.905	0.170	***	Valid	Significant	0.828
X3.4 <-- X3	1.026	0.097	10.561	0.194	***	Valid	Significant	0.811
X3.5 <-- X3	0.875	0.096	9.123	0.192	***	Valid	Significant	0.734
X4.1 <-- X4	1.000						Significant	0.849
X4.2 <-- X4	1.051	0.105	9.968	0.210	***	Valid	Significant	0.844
X5.1 <-- X5	1.000						Significant	0.835
X5.2 <--X5	1.083	0.093	11.625	0.186	***	Valid	Significant	0.888
X5.3 <--X5	0.829	0.103	8.075	0.206	***	Valid	Significant	0.680
X5.4 <-- X5	0.925	0.127	7.286	0.254	***	Valid	Significant	0.753
Y1.1 <-- Y1	1.000						Significant	0.645
Y1.2 <-- Y1	0.975	0.104	9.392	0.208	***	Valid	Significant	0.652
Y1.3 <-- Y1	1.261	0.157	8.046	0.314	***	Valid	Significant	0.849
Y1.4 <-- Y1	0.937	0.169	5.556	0.338	***	Valid	Significant	0.545
Y2.1 <--Y2	1.000						Significant	0.851
Y2.2 <-- Y2	1.055	0.089	11.806	0.178	***	Valid	Significant	0.837
Y2.3 <--Y2	1.065	0.091	11.693	0.182	***	Valid	Significant	0.827
Y2.4 <-- Y2	1.141	0.105	10.868	0.210	***	Valid	Significant	0.797

(Source: Processed data)

A variable that can be applied to see latent variables along with other variables using regression weighting. The strength of the latent variable dimension can be analyzed using the regression weighted t-test (according to Table 13). The critical ratio value will be identical to the tcount and the C.R must be compared to the ttable. A variable can be said to be significant if it has formed a dimension of that variable significantly, C.R value must be greater than t-table (t-count>t-table). t table is at 0.05 level and df value 23 (number of indicators) is 1.714 so from table 13. above it can be concluded that the indicator is significantly a dimension of the latent variable formed. In table 13. above shows that all variables and indicators have a t-count > t-table value so that it is obtained that all evaluated variables and indicators are significant (influential indicators are indicators that have been evaluated and have significant values). According to (Waluyo & Rachman, 2020) indicators that have a significant influence on their variables can be observed from the regression value ≥ 0.41.

c. Reliability Test Of Modification Model

The model that has been tested must then proceed to the reliability test to show that in the model the indicators have a good degree of fit. Constructs that will be considered reliable are those that have a value ≥ 0.70. And it can be seen in table 14. that in in the reliability test, all results are reliable if the results are ≥ 0.70.

Table 14. Results of modification model reliability test

Variabel	Actual Use (X1)		Perceived Usefulness (X3)		Perceived Risk (X4)		Perceived Trust (X5)		Satisfaction of Aplication Users (Y1)		Repurchase Of Train Tickets by Aplication (Y2)	
Indicators	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error	Construct	Error
X1.1	0.657	0.343										
X1.2	0.603	0.397										
X1.3	0.817	0.183										
X1.4	0.760	0.24										
X3.1			0.819	0.181								
X3.2			0.722	0.278								
X3.3			0.828	0.172								
X3.4			0.811	0.189								
X3.5			0.734	0.266								
X4.1					0.849	0.151						
X4.2					0.844	0.156						
X5.1							0.835	0.165				
X5.2							0.888	0.112				
X5.3							0.680	0.32				
X5.4							0.753	0.247				
Y1.1									0.645	0.355		
Y1.2									0.652	0.348		
Y1.3									0.849	0.151		
Y1.4									0.545	0.455		
Y2.1											0.851	0.149
Y2.2											0.837	0.163
Y2.3											0.827	0.173
Y2.4											0.797	0.203
Σ Std. Loading	2.837		3.914		1.693		3.156		2.691		3.312	
Σ *Error*		1.163		1.086		0.307		0.844		1.309		0.688
Reliabilitas Konstruk	0.873745721		0.933802268		0.903253731		0.921883214		0.846909197		0.940981411	
Desciption	Reliable		Reliable		Reliable		Reliable		Reliable		Reliable	

(Source: Processed data)

d. Interpretation of Model

Estimated model that can continue to be corrected in the developed model if in case the model estimation comes about have large leftover values. A correction step can be performed if the residual values are -2.58 ≤ residual ≤ 2.58. The standardized residual covariance output from model modification shows that the residuals are suboptimal because the results are still outside the range of residuals -2.58 ≤ residuals ≤ 2.58. In this study, the results have not reached the optimal value but are considered sufficient because the GFI and AGFI values are close to good (marginal) and TLI has a good value. And it is expected to facilitate the application of measures in the field because more and more trial traces are considered to complicate the application in the field.

e. Hypothesis testing

In the hypothesis testing of this study, the resulting hypothesis-1 found that the actual usage variable has a significant effect on the user's satisfaction with the application with a C.R value of 6.095 and a t-table of 1.714 (t-calculation > t-table) and a regression coefficient of 0.914, which means that the actual usage variable is highly variable. This is because the respondents of this survey felt that the response of the KAI Access application met their needs. For Hypothesis-2, the test results cannot be proved because the perceived usage variable (X2) is omitted. In the results of Hypothesis-3, the perceived usefulness variable significantly affects the satisfaction of the application users with a C.R value of 7.668 and a t-table of 1.714 (t-calculation > t-table) and a regression coefficient of 0.978, which means that the indicators that make up the variable are very useful. This is because the respondents of this survey found that the KAI Access app can be useful when buying trains. In the results of Hypothesis 4, the variable of perceived risk significantly affects the satisfaction of app users with a C.R value of 6.763 and a t-table of 1.714 (t-calculation > t-table) and a regression coefficient of 0.811, which means that the indicators that make up the perceived risk are very influential. This is because respondents to this survey know that application risks must be borne in order to maintain transaction security for each user. In the results of hypothesis-5, the perceived trust variable significantly affects the satisfaction of the application users with a C.R value of 6.094 and a t-table of 1.714 (t-calculation > t-table) and a regression coefficient of 0.830, which means that the indicators that make up the perceived trust are very influential. This is because the respondents of this survey feel or believe that the KAI Access application can meet the needs and expectations of the application user. In the results of Hypothesis-6 test, there is a significant effect of application user satisfaction on train ticket redemption application with a C.R value of 7.434 and a t-table of 1.714 (t-calculation > t-table) and a regression coefficient value of 0.989, which means that application form variables are very useful user variables. This is because the respondents of this survey feel satisfied after buying from KAI Access, so maybe they want to buy again someday.

5. CONCLUSION

The conclusion of this study is that the variable of actual use has a positive and significant effect on the user's satisfaction with the application that C.R. value is 6.095, t-table value 1.714 (t-count> t-table) and regression coefficient 0.914. The ease of use variable cannot be demonstrated in this work because the perceived use variable (X2) is excluded from the research model. The perceived usefulness variable has a positive and significant effect on user satisfaction with the application with a C.R value of 7.668, a t-table value of 1.714 (t-calculation > t-table) and a regression coefficient of 0.978. The perceived risk variable has a positive and significant effect on the satisfaction of the application with a C.R value of 6.763, a t-table value of 1.714 (t-calculation > t-table) and its regression coefficient of 0.811. The application perceived trust variable has a positive and significant effect on user satisfaction with an application C.R value of 6.094, a t-table value of 1.714 (t-count > t-table) and its regression coefficient of 0.830. The application satisfaction variable has a positive and significant effect on repurchasing train tickets such as the C.R. application. value is 7.434, t-table value 1.714 (t-count> t-table) and regression coefficient 0.989. For the development of this research with the same theme, it is hoped that further influence can be developed with a new approach, certainly with variables that are suitable for the KAI Access application.

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