JUSIKOM PRIMA (Jurnal Sistem Informasi dan Ilmu Komputer Prima)
Vol. 8 No. 1, August 2024 E-ISSN:2580-2879

Analysis of User Behavior of the Digital Korlantas Polri Application with Integrated UTAUT in the Community of East Java Province

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ABSTRACT

Currently, more and more agencies are developing their services by utilizing technology in the form of mobile applications, including the Republic of Indonesia Police agency, especially the Traffic Corps with its mobile application-based service called Digital Korlantas Polri. This research aims to identify what factors influence users' interests, behavior and intentions towards the National Police Traffic Corps Digital application by testing 10 variable hypotheses built from the integration of the Unified Theory of Acceptance and Use of Technology (UTAUT), Technology Acceptance Model (TAM), Theory models. of Planned Behavior (TPB) and Service Quality with the educational level factor proposed as a moderator. The results of this research show that Performance Expectancy and Effort Expectancy are the 2 main factors influencing Behavioral Intention. Other results show that factors such as Social Influence, Facilitating Conditions, and Perceived Risk have a negative influence where they can reduce the user's Behavioral Intention. Apart from that, the research results also show that Behavioral Intention and Word of Mouth can influence users to continue using this application and educational level factors have a negative influence on users' behavioral intention to continue using the application on an ongoing basis.

Keywords: Unified Theory of Acceptance and Use of Technology, Theory of Planned Behavior, Technology Acceptance Model, Service

INTRODUCTION

Technological advances that continue to develop at this time have an impact on all fields to carry out digital transformation to provide positive benefits for people's lives[1]. With digital transformation, almost all societal activities can be carried out anywhere and at any time. Apart from the fields of industry, trade, security and defense, current technological developments have also penetrated the field of public services. The Indonesian government has an important role in providing services to the community as regulated in Law Number 25 of 2009 concerning public services, where the government is also responsible for facilities and infrastructure or public service facilities. The government institution that is always trying to increase public trust at this time is the National Police of the Republic of Indonesia (Polri).

In 2021, the Republic of Indonesia Police officially launched an online mobile-based traffic service application called SINAR which later changed its name to Digital Korlantas Polri to reduce several risks that are detrimental to the country, such as brokering practices and so on. Digital Korlantas Polri is an official mobile-based service application that is integrated to make it easier for the public to get traffic services. The application contains features that cover the duties and functions of the Indonesian Police, such as services related to Driving Licenses (SIM), One-Stop Administration System (Samsat), transparency of traffic activities by the National Traffic Management Center (NTMC), as well as electronic traffic law information notifications. Enforcement (ETLE) which can be accessed in real-time by people throughout Indonesia. One of the provinces that has implemented this application evenly is East Java Province which is under the auspices of the East Java Regional Police (Polda Jatim) especially the Traffic Directorate (Ditlantas).

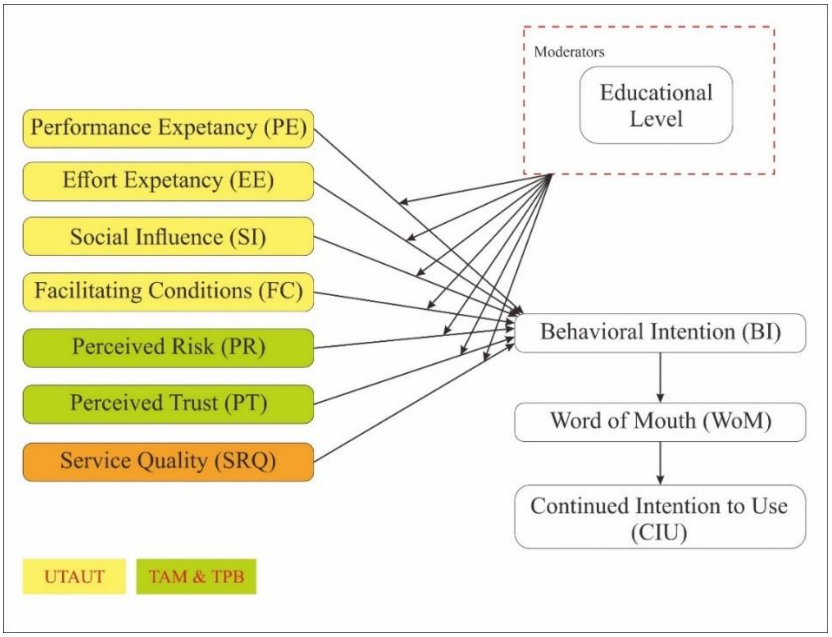
The development and implementation of digital technology in Indonesia is growing rapidly. The top 3 ranking in the Indonesian digitalization competition was achieved by East Java Province, where the same ranking was also achieved by East Java Province in the previous year. This makes East Java Province have very influential potential for the development of the National Police Traffic Corps Digital application in the first year. Even though there are many features on offer, in reality some of these features are still in the development stage, such as the NTMC Polri and ETLE services. However, there is one service that is ready to be used by the public through this application, namely the service for making and extending a driving license or usually abbreviated as SIM on the Sinar feature, extending a vehicle registration number or usually abbreviated as STNK, as well as processing motor vehicle tax or so on. usually called PKB in the Signal feature. Creating and extending SIM and STNK can now be done online and there is no need to queue. In fact, these letters will be sent directly to the home address registered on the Resident's Identity Card. With this application, users can save time and extensions can be made 90 days before the due date. With this application, people no longer need to be afraid of being caught by brokers or other fraudulent practices. All services are based on information technology.

Even though there have been many positive responses regarding the use of this application, in fact the Digtial Korlantas Polri application still reaps many pros and cons as can be seen on several social media platforms such as X and reviews on the Google Play Store application on

Android and the App Store on iOS with different problems. -different. Therefore, it is necessary to carry out an analysis to find out in detail what factors influence the behavioral intentions of users of the National Police Traffic Corps Digital application.

METHODS

The research method used is quantitative with a survey. The data collection instrument is through a questionnaire using a Likert scale. The respondents used were users of the National Police Traffic Corps Digital application in East Java Province. Data processing using Covariance Based Square Structural Equation Modeling (CB-SEM). The conceptual model used is as follows:



Picture 1. Conceptual Model

The Conceptual Model in Figure 1 consists of seven exogenous UTAUT variables which are integrated with TAM, TPB and Service Quality, including Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Perceived Risk, Perceived Trust and Service Quality. And using three endogenous variables, namely Behavioral Intention, Word of Mouth, Continued Intention to Use. This research also uses moderating factors such as Educational Level.

RESULTS

Normality Test

To find out whether the model has a normal distribution or not, a normality test will be carried out. Not all models can have a normal distribution so a research can still be continued provided that the research model used has a marginal to good fit value. Apart from that, data can be declared normal if it has a skewness value of + 3 and kurtosis of + 8[2]. The following are the skewness and kurtosis values:

Table 1. Distribution of Skewness and Kurtosis Values

Indicator	*Skewness*	*Kurtosis*	Information
PE1	-1,040	0.150	Normal
PE2	-0.828	-0.229	Normal
PE3	-0.873	-0.126	Normal
PE4	-0.938	-0.082	Normal
EE1	-0.891	-0.084	Normal
EE2	-1,002	-0.193	Normal
EE3	-0.886	-0.146	Normal
EE4	-0.857	-0.376	Normal
SI1	-0.957	0.092	Normal
SI2	-0.915	-0.090	Normal
SI3	-0.870	-0.408	Normal
SI4	-0.906	-0.237	Normal
FC1	-1,156	0.720	Normal
FC2	-0.932	0.145	Normal
FC3	-0.954	0.018	Normal
FC4	-1,150	0.731	Normal
PR1	-0.993	0.502	Normal
PR2	-0.930	0.439	Normal
PR3	-0.966	0.323	Normal
PT1	-0.842	-0.170	Normal
PT2	-0.867	-0.375	Normal

PT3	-0.855	-0.233	Normal
PT4	-0.880	-0.218	Normal
SRQ1	-0.131	-0.131	Normal
SRQ2	0.019	0.019	Normal
SRQ3	0.050	0.050	Normal
SRQ4	0.017	0.017	Normal
BI1	-0.952	-0.952	Normal
BI2	-0.921	-0.921	Normal
WOM1	-0.863	-0.863	Normal
WOM2	-1,040	-1,040	Normal
CIU1	-1,046	-1,046	Normal
CIU2	-1,096	-1,096	Normal

Validity and Reliability Test

Testing the validity of the model is carried out by testing the loading coefficient of each indicator on each variable. An indicator is declared valid if it has a loading factor of the measured variable of more than 0.7 (loading factor > 0.7)[3]. If the loading factor value for an indicator is less than 7 (loading factor < 0.7) then the measurement tool is considered unsuitable for the latent variable and the indicator should be removed. The following are the results of the validity test for each latent variable:

Table 2. Validity Test Results

Variable	Indicator	Minimum Value	*Factor Loading*	Information
Performance Expectancy	PE1	0.7	0.904	Valid
	PE2	0.7	0.901	Valid
	PE3	0.7	0.873	Valid
	PE4	0.7	0.897	Valid
Effort Expectancy	EE1	0.7	0.851	Valid
	EE2	0.7	0.884	Valid
	EE3	0.7	0.833	Valid
	EE4	0.7	0.859	Valid

Social Influence	SI1	0.7	0.866	Valid
	SI2	0.7	0.897	Valid
	SI3	0.7	0.894	Valid
	SI4	0.7	0.921	Valid
Facilitating Conditions	FC1	0.7	0.871	Valid
	FC2	0.7	0.864	Valid
	FC3	0.7	0.861	Valid
	FC4	0.7	0.863	Valid
Perceived Risk	PR1	0.7	0.785	Valid
	PR2	0.7	0.882	Valid
	PR3	0.7	0.825	Valid
Perceived Trust	PT1	0.7	0.881	Valid
	PT2	0.7	0.922	Valid
	PT3	0.7	0.891	Valid
	PT4	0.7	0.883	Valid
Service Quality	SRQ1	0.7	0.880	Valid
	SRQ2	0.7	0.851	Valid
	SRQ3	0.7	0.908	Valid
	SRQ4	0.7	0.869	Valid
Behavioral Intention	BI1	0.7	0.931	Valid
	BI2	0.7	0.874	Valid
Word of Mouth	WOM1	0.7	0.879	Valid
	WOM2	0.7	0.907	Valid
Continued Intention to Use	CIU1	0.7	0.929	Valid
	CIU2	0.7	0.947	Valid

By paying attention to the loading factor indicators for all variables, it is known that the loading factor value is above the threshold so that it can be declared valid and there is no need for deletion to remove an indicator.

The next test is the reliability or discriminant validity test. Model reliability testing is carried out by testing the construct reliability values of variables based on their measurement

indicators. Construct reliability results above 0.7 are considered satisfactory[4]. Below are the construct reliability values for each variable in the model:

Table 3. Reliability Test

Variable	Indicator	Minimum Value	*Construct Reliability*	AVE	Information
Performance Expectancy	PE1 PE2 PE3 PE4	>0.7	0.941	0.799	Satisfying
Effort Expectancy	EE1 EE2 EE3 EE4	>0.7	0.917	0.734	Satisfying
Social Influence	SI1 SI2 SI3 SI4	>0.7	0.941	0.8	Satisfying
Facilitating Conditions	FC1 FC2 FC3 FC4	>0.7	0.922	0.748	Satisfying
Perceived Risk	PR1 PR2 PR3	>0.7	0.869	0.693	Satisfying
Perceived Trust	PT1 PT2 PT3 PT4	>0.7	0.941	0.8	Satisfying
Service Quality	SRQ1 SRQ2 SRQ3	>0.7	0.930	0.769	Satisfying

	SRQ4				
Behavioral Intention	BI1 BI2	>0.7	0.926	0.816	Satisfying
Word of Mouth	WOM1 WOM2	>0.7	0.930	0.798	Satisfying
Continued Intention to Use	CIU1 CIU2	>0.7	0.949	0.879	Satisfying

As seen in the table above, it shows that all variables in the model meet the reliability test requirements determined by the construct reliability value. There is no variable whose value is less than 0.7. Therefore, it can be assumed that all latent variables have good measurement reliability.

Model Fit Test

Next, Goodness of Fit testing was carried out using a path diagram. By using metrics, the purpose of this test is to find out whether the path diagram obtained corresponds to the quality provided[5]. Below are the results of the path diagram suitability test.

Table 4.Model Fit Results

Fit Test Index	Results	Cut Off Value	Information
CMIN/DF	2,032	*Good fit*(< 2.00)	*Note*Fit
Goodness of Fit Index(GFI)	0.838	*Marginal Fit* (0.8 < GFI < 0.9); Good Fit (< 0.9)	*Marginal Fit*
Adjusted Goodness of Fit Index(AGFI)	0.804	*Marginal Fit*(0.8 < AGFI < 0.9); Good Fit (> 0.9)	*Marginal Fit*
Normed Fit Index(NFI)	0.915	*Marginal Fit* (0.8 < NFI < 0.9); Good Fit (> 0.9)	*Good Fit*
Comparative Fit Index(CFI)	0.954	*Marginal Fit*(0.8 < CFI < 0.9); Good Fit (> 0.9)	*Good fit*

Fit Test Index	Results	Cut Off Value	Information
Root Mean Square Error of Approximation(RMSEA)	0.06	*Good fit*(< 0.8)	*Good fit*

As can be seen in the table above, the path diagram is not appropriate because there are index values below the cut-off value. If you want to increase this value, you need to modify the path diagram according to the modification indices in the output. To modify the path diagram, the author must include the error covariance relationship with the indicators determined by the modification indices. Changes and modifications will stop once all criteria have been met.

Table 5. Modification Suggestions

Indicator	Reduction in Chi-Square	New Estimates
SRQ1 ↔ WOM2	10,761	-,066
WOM1 ↔ WOM2	16,327	,087
WOM1 ↔ CIU2	6,095	-,048

Figure 2 below is a modified version of the path diagram presented in table 5 and corresponds to all conformance test metrics. Table 6 shows the conformity test index values based on the last changes to the path diagram in Figure 2.

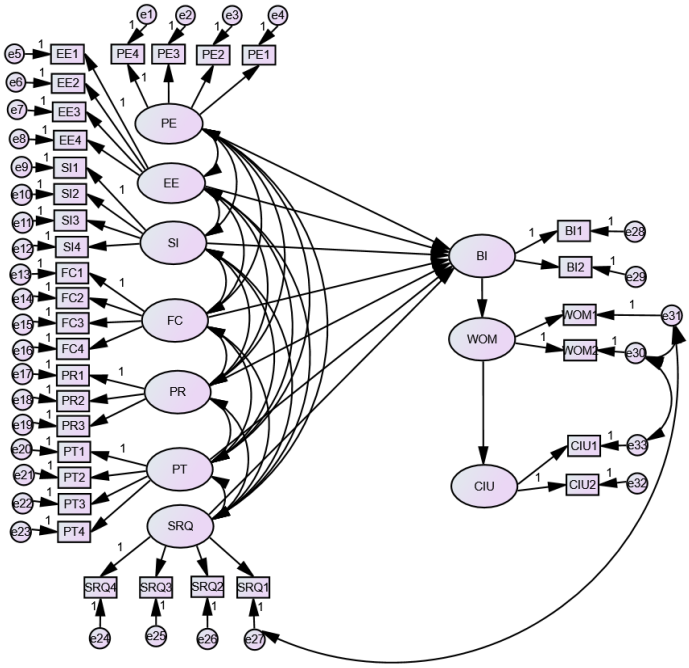


Figure 2. Modified Result Model

The following is the conformity test index after modification

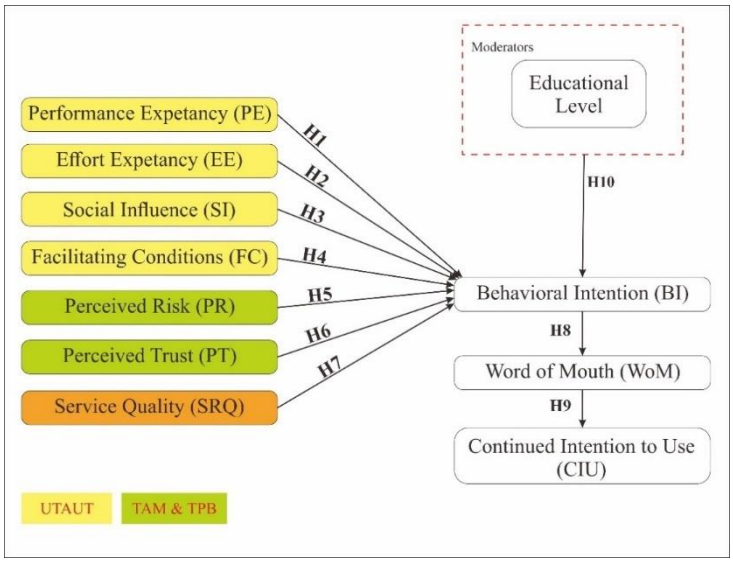
Table4. Conformity Test Value After Modification

Conformity Test Index	Results	Cut Off Value	Information
CMIN/DF	1,959 (CMIN = 905.1 ; DF = 462)	*Good fit*(< 2.00)	*Good fit*
Goodness of Fit Index(GFI)	0.844	*Marginal Fit*(0.8 < GFI < 0.9); Good Fit (> 0.9)	*Marginal fit*
Adjusted Goodness of Fit Index(AGFI)	0.811	*Marginal Fit* (0.8 < AGFI < 0.9); *Good Fit*(> 0.9)	*Marginal fit*
Normed Fit Index(NFI)	0.918	*Marginal Fit* (0.8 < CFI < 0.9); Good Fit (> 0.9)	*Good fit*
Comparative Fit Index(CFI)	0.958	*Marginal Fit*	*Good fit*

		(0.8 < CFI < 0.9); Good Fit (> 0.9)	
Root Mean Square Error of Approximation(RMSEA)	0.058	*Good fit*(< 0.08)	*Good fit*

Hypothesis Analysis

Below is the hypothesis that will be tested in this final assignment. The proposed hypothesis framework is based on several previous studies, and the hypothesis proposed in this final research is proven by analyzing the data model that has been obtained. The proposed hypothesis is shown in Figure 3 below



Picture 2. Research Hypothesis

The following is a list of hypotheses in this final research project, the order in the list below refers to Figure 3

- H1: Performance Expectancy (PE) has a significant positive influence on users' behavioral intention (BI) to use the application.
- H2: Effort Expetancy (EE) has a significant positive influence on users' behavioral intention (BI) to use the application.
- H3: Social Influence (SI) has a significant positive influence on users' behavioral intention (BI) to use the application.

- H4: Facilitating Conditions (FC) have a significant positive influence on users' behavioral intention (BI) to use the application
- H5: Perceived Risk (PR) has a negative influence on users' behavioral intention (BI) to use the application.
- H6: Perceived Trust (PT) has a significant positive influence on users' behavioral intention (BI) to use the application
- H7: Service Quality (SRQ) has a significant positive influence on users' behavioral intention (BI) to use the application
- H8: Behavioral Intention (BI) has a significant positive influence on Word of Mouth (WOM)
- H9: Word of Mouth (WOM) has a significant positive influence on Continued Intention to Use (CIU)
- H10: Educational Level has an influence on Behavioral Intention (BI)

Each relationship is taken from the model by analyzing the t-value and estimated value. The relationship will be said to be significant if it is shown that the t-value is greater than the estimated value and the t-value is greater than the t-table (t-value > 1.96)[6].

Table 5. Significance Value

Hypothesis	Connection	Estimates	T-Value	P-Value
H1	PE BI	0.384	2,506	0.013
H2	EE BI	0.326	2,174	0.03
H3	SI BI	-0.087	1,229	0.220
H4	FC BI	-0.17	0.965	0.335
H5	BI PR	-0.131	0.584	0.56
H6	PT BI	0.097	1,169	0.243
H7	SRQ BI	0.346	0.745	0.457
H8	BI WOM	0.843	22,542	0,000
H9	WOM CIU	1.07	23,542	0,000

*Path coefficient*between latent variables reflects the degree of causal relationship between two variables. In this final research project, AMOS 25.0 software was used to calculate the path

coefficient between the educational level (EDU) moderating variable and seven latent variables. The relationship obtained from the model can be seen in table 8

Table 8. Moderation Hypothesis Analysis

Hypothesis	Connection	Estimates	T-Value	P-Value
H10	PE x EDU → BI	-0.172	3,816	0,000
	EE x EDU → BI	-0.202	4,303	0,000
	SI x EDU → BI	-0.163	3,476	0,000
	FC x EDU → BI	-0.198	4,009	0,000
	PR x EDU → BI	-0.164	4,182	0,000
	PT x EDU → BI	-0.116	2,817	0,000
	SRQ x EDU → BI	-0.143	3,005	0,000

Based on the results of the hypothesis analysis above, the following results were obtained

Table 9. Hypothesis Analysis Results

Hypothesis	Connection	Information
H1	PE → BI	Accepted
H2	EE → BI	Accepted
H3	SI → BI	Rejected
H4	FC → BI	Rejected
H5	BI → PR	Accepted
H6	PT → BI	Rejected
H7	SRQ → BI	Rejected
H8	BI → WOM	Accepted
H9	WOM → CIU	Accepted
H10	EDU → BI	Accepted

DISCUSSION

The results of the direct influence show that hypotheses 1 and 2 relating to a significant positive influence on BI are supported in this study. The results of other research show that Hypothesis 5 which is related to the negative influence in the form of perceived risk is also supported in

this research. On the other hand, Hypotheses 3,4,6,7 which relate to the significant positive influence of latent variables on BI are not supported. The education level factor is written in hypothesis 10 and used as a moderator. It is known that respondents with lower-middle education levels tend to be enthusiastic about using this application. This is a unique finding that deserves further research to find out the reasons for this trend

CONCLUSION

Based on the results of analytical research using the integrated UTAUT model with TAM, TPB and Service Quality with the aim of analyzing the factors that influence the behavioral intentions of users of the National Police Traffic Corps Digital application.The results of the direct effect show that hypothesis 1 which is related to the significant positive influence of PE on BI is supported in this study. Hypothesis 2 relating to the significant positive influence of EE on BI is supported in this research. Users' usage expectancy (PE) and effort (EE) can be increased by providing strong technical support and ensuring the application is easy to understand and more useful so that users feel more confident when using the application. The results of other research show that Hypothesis 5 which is related to the negative influence in the form of perceived risk is also supported in this research. On the other hand, Hypotheses 3, 4, 6, and 7 which relate to the significant positive influence of latent variables on BI are not supported in this final project research. Hypotheses 8 and 9 are supported in this research, this shows that BI and WOM factors greatly influence users' interest in continuing to use this application on an ongoing basis.

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