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FACTORS INFLUENCING INTENTION TO USE E-GOVERNMENT SERVICES AMONG STUDENTS IN UNIVERSITAS SEBELAS MARET INDONESIA

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ABSTRACT
The application of e-government in Indonesia is still under development. This study aims to examine the factors that influence the intention of students to use e-government. The study used a survey method with 102 students as respondents from various departments at Sebelas Maret University, Indonesia, in 2021. The analysis used the Partial Least Squares-Structural Equation Modeling with the R-square test, path coefficients, outer loading, cross-loading, average variance extracted, Cronbach's alpha, and composite reliability. Intention to use e-government is influenced by several factors, including trust in government, perceived ease of use, perceived usefulness, and security risk. It is indicated by the test results, which show that perceived ease of use, perceived usefulness, and security risk have a positive and significant effect on trust in government. The factor of trust in government has a positive and significant effect on the intention to use e-government. The privacy risk factor has no significant effect on trust in government. The results showed that students' trust positively and significantly influenced students' desire to use or access e-government in the government. Students' trust in the government is influenced by factors of perceived usefulness, perceived ease of use, and security risk. The limitation of this research is that there is no analysis of the mediation test and moderation test.

INTRODUCTION

Currently, many countries are implementing and developing e-government strategies in government affairs. It is increasingly driven by the COVID-19 pandemic that is occurring throughout the world. Information and

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communication technology (ICT) can minimize the spread of the virus. The Indonesian government has officially implemented e-government during the pandemic by the mandate in Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies for development E-Government. The implementation of e-government during the Covid-19 pandemic is expected to help improve and maintain interactions between the government, society, and business in a practical, fast, and efficient manner without going through face-to-face meetings (Fitria, 2020).

Regarding the failure of e-government development in Indonesia, it is the source of the problem not always related to the availability of information technology. Problems faced in the development of e-government at the central and local levels are interrelated problems in the development of infrastructure, leadership, and culture of our society. It is recognized that the availability of such technology is embodied in the problem infrastructure is often still an obstacle in developing countries. E-government requires the existence of satellite technology, electricity network, telephone network, and procurement of computers in government institutions along with supporting infrastructure reliable and evenly distributed throughout the region can be resolved immediately (Fitria, 2020).

But for most areas, constraints that cause the failure of implementing e-gov in Indonesia can come from leadership factors. This factor is influenced by the conflict between central government policies with local government, regulations that are still not supportive, allocation of inadequate budget, and unclear system standardization, which is determined by the commitment of leaders or officials to implement e-government. There is a lot of evidence that the responsibility of the Governor, Regent, or Mayor of the area concerned determines the successful use of e-Govt in the regions. Cases of successful implementation of e-gov in the local government of Takalar district in South Sulawesi, Sragen district and Kebumen in Central Java, or in the city of Surabaya confirm how the importance of leadership factors in determining the success of implementation and utilization of e-gov (Fitria, 2020).

Meanwhile, which is very basic but requires a commitment to significant change, it is a cultural factor. The Indonesian government ranks relatively easy to gain access to technology, and nothing less also many leaders who have a vision of service development in a holistic manner electronic. But the

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problem is that e-gov utilization often collides with society's cultural factors, which need more support. This cultural factor among bureaucrats in government agencies often results in a need for more awareness and appreciation of the importance of e-gov. What often arises is fear or anxiety exaggerated that e-gov applications will threaten his existing position established. We also often see that integration among state institutions, departmental and non-departmental institutions, is always constrained because they want to keep data and information private. It is the biggest obstacle fundamental to the serious implementation of e-gov. Because of the barriers of attitudes and ways of narrow thinking among government officials, integration efforts are still leaving the system formation in the form of database islands which are difficult to compile, communicate and integrate (Fitria, 2020).

Several countries in the world have successfully implemented e-government. Many European countries have adopted the concept of e-government by maximizing the use of ICT in government services (Yera et al., 2020). A small city in Europe, the Republic of Cyprus is also successful in implementing e-government because the state has prepared and planned various aspects, such as financial readiness, complete infrastructure facilities, technological innovation, communication management, politics, and clear policy rules (Glyptis et al., 2020). Elbahnasawy (2021) found evidence that e-government is a powerful instrument to improve the country's economy by reducing the internal economic sector and simplifying all state affairs. Furthermore, the level of e-government development can positively affect the outcome of smarter cities through many technological innovations, public sector services, education, and government policy regulation (Kim & Kim, 2021).

Previous research conducted by Li & Shang (2020) in China found that service quality, usability value beliefs, and sustainability of e-government programs determine citizens' willingness to use e-government services. Pérez-Morote et al. (2020) research on the use of e-government by citizens in 27 European countries is influenced by the desire to provide input/evaluation for the government, the trust factor in the government, and the availability of digital facilities. A similar study was also conducted by Mensah & Adams (2020) on students in China. The results show that political trust, technological sophistication, and social influence affect the desire of

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students and students to use e-government. Factors that influence the use of e-government include internet usage habits, the intensity of use, facilities for accessing the internet, ease of use of applications, trust in the government (Chen & Aklikokou, 2020), and website quality (Almaiah & Nasereddin, 2020).

Most research on e-government is about assessing the success of implementing e-government in a country viewed from various aspects. This study takes another focus, looking at it from the perspective of citizens, namely students who are seen as having a critical, intellectual mindset and being the nation's next generation. The study focuses on determining how willingness to use e-government students is assessed from the factors influencing e-government. This study has a research question: to what extent do students use e-government services? To what extent does the student trust factor in the government influence students to use e-government services? To what extent do students' beliefs about the ease of the system, usefulness, security, and privacy of student data affect students' intention to use e-government services?

LITERATURE REVIEW

E-Government is an information technology-based system built to improve government public services to the community (Yusuf & Jumhur, 2018). E-government is part of a government system that utilizes technology for unimpeded access to information and services to public stakeholders, improves government-stakeholder interaction, increases accountability, efficiency, and effectiveness, and underlies e-democracy (Sani, 2017). According to Glyptis et al. (2020), e-government is a tool that changes organizational behaviour to provide public services more efficiently.

Public acceptance and willingness to adopt e-government services are critical factors for these services' success (Carter & Bélanger, 2005). If there is no public participation in adopting e-government services, then e-government services will not function, and their existence will be in vain. The level of public involvement in adopting e-government is influenced by certain factors (Mutaqin & Sutoyo, 2020). Lean et al. (2009) surveyed Malaysian citizens to measure their intention to use e-government services. A structured questionnaire was used to collect data from 195 respondents, but only 150 respondents with complete answers participated in the study. The analysis showed that trust, perceived usefulness, perceived relative advantage, and perceived image have a direct positive significant

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relationship towards intention to use e-government service, and perceived complexity has a crucial negative relationship towards intention to use e-government service. Chatzoglou et al. (2015) studied factors affecting the intention to use e-government services. Data were collected from a sample of 547 Greek citizens. The questionnaire's reliability and validity have been thoroughly examined, while the Structural Equation Modeling (SEM) technique has been used to analyze the data. Results indicate that perceived usefulness is the most crucial determinant of the intention to use e-Government services. Other vital factors are perceived trust, internet experience, peer influence, computer self-efficacy, and perceived risk.

First, the intention to use e-government (IU) is a person's real reaction to certain situations and targets. A person's behavioral intention to use and take advantage of technological innovations is determined by the mindset and comfort of each person. Environmental and social conditions control the intention to use innovation by each individual. In addition, the desire to use is also influenced by the people around (Camilleri, 2019).

Second, trust in government (TG) is defined as citizens' trust in the government to carry out fair and correct policies (Pérez-Morote et al., 2020). Along with the development of e-government, trust in government is also assessed from the level of public trust in e-government services, including information control features, security, and data privacy (Kim & Lee, 2012). Trust is assessed from the extent to which citizens trust government institutions to serve the public interest (Bannister & Connolly, 2011).

Third, perceived ease of use (PEU) is the consumer's or customer's perception of using technology or systems to meet life's needs (Davis, 1989). Perceived ease of use can also describe a condition in which individuals understand, learn, or use something without difficulty or excessive effort. Perceived ease of use is the degree to which a person believes a particular system will make it easier to access or operate something. Dix (2004) argues that the success of a system helps users complete a task.

Fourth, perceived usefulness (PU) can be interpreted as the extent to which the level of confidence in the usefulness of a system will improve performance and be profitable (Davis, 1989). A system recognized for its existence in improving positive performance is a sign that the system has perceived usefulness at a high. A system that does not help improve performance is more likely to be rejected, despite the

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precautionary principle in its implementation. The application's ease of use and perceived usefulness are essential factors in assessing the intention to use information technology (Davis, 1989). In addition, these two factors are also used to evaluate and predict application intention to use (Doll et al., 2010) and e-government implementation (Kurfal et al., 2017; Lallmahomed et al., 2017).

Table 1. Variable

Variable	Indicator	References
Exogenous latent variable	Perceived Ease of Use (PEU) PEU1: E-government applications are easy to understand. PEU2: E-government application is easy to use. PEU3: E-government applications can function as users want.	(Chatzoglou et al., 2015)
	Perceived Usefulness (PU) PU1: E-government applications improve the quality and control of government work. PU2: E-government applications increase productivity. PU3: E-government applications make it easier for governments to get work done quickly.	(Chatzoglou et al., 2015)
	Security Risk (SR) SR1: The e-government system is safe from abuse of home addresses. SR2: The e-government system is safe from misuse of telephone numbers. SR3: The e-government system is secure from misuse of email addresses.	(Chatzoglou et al., 2015)
	Privacy Risk (PR) PR1: The e-government system has the availability of laws/regulations regarding data security. PR2: The e-government system has the availability of SOPs regarding information security. PR3: The e-government system uses username and password to login.	(Lean et al., 2009)
Endogenous latent variable	Trust in Government (TG) TG1: Trust in e-government services. TG2: Trust in applications e-government. TG3: Trust in the confidentiality of user data.	(Lean et al., 2009)
	Intention to Use E-Government (IU) IU1: Likely to use applications e-government. IU2: Interest in using applications e-government in the near future. IU3: Desire to use application arises e-government when the opportunity.	(Lean et al., 2009)

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Fifth, security risk (SR) means protecting the system against information from all attempts to use it and intercepting data by other parties illegally and illegally (Udo, 2001). Smith (2002) states that security protection includes user's data such as name, account number identification number, photo, encryption, signature, and password. Sixth, privacy risk (PR) is a measure of consumer concerns about the security of personal information. Privacy is a state where a person can control personal information about himself and how, why, what, and who knows that information. Another concept of privacy related to the nature of e-government is online privacy (Al-Jamal & Abu-Shanab, 2015).

Research variables consist of exogenous latent variables (perceived ease of use, perceived usefulness, security risk, and privacy risk), moderating variables (trust in e-government), and endogenous latent variables (intention to use).

The following is the theoretical framework for this research.

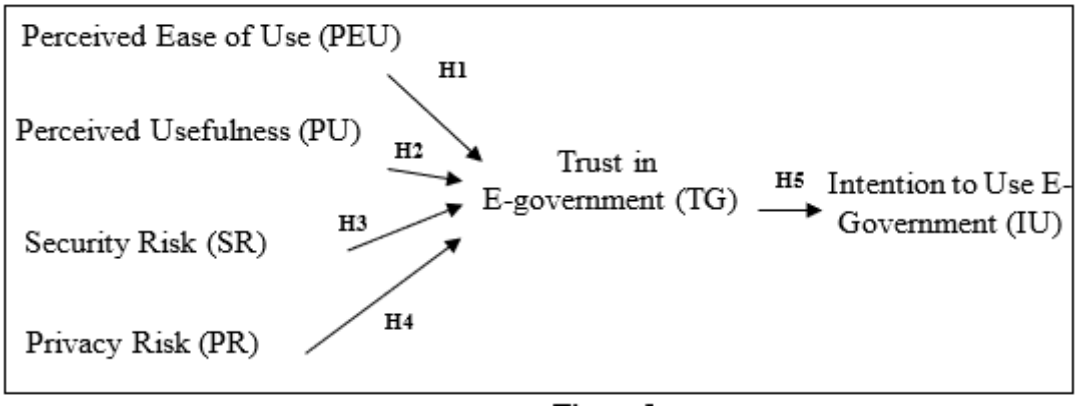

Figure 1. Theoretical Framework

Referring to the theories above, this study has the following hypothesis:

H1. Factors perceived ease of use (PEU) have a positive and significant effect on trust in government (TG).

H2. Factors perceive use (PU) and a significant positive effect on trust in government (TG).

H3. Factors privacy risk (PR) positive and significant effect on trust in government (TG).

H4. The factor security risk (SR) has a positive and significant effect on trust in government (TG).

H5. The factors of trust in government (TG) have a positive and

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significant effect on the intention to use e-government (IU)

METHODS

This research uses quantitative methods. The quantitative approach aims to gain knowledge using numerical data as a tool to analyze what you want to know (Kasiram, 2008) and to describe the data that has been collected. At the same time, the data collection technique of this research used a survey technique with a questionnaire instrument.

The survey was conducted on informatics engineering students. The selection of respondents was based on the fact that students are more digitally literate and understand communication and the use of the latest technology. The total population of informatics students is 201 students. A sample of 102 respondents was obtained using the simple purposive sampling method. Determine the sample size is done through a statistical approach using the formula Slovin:

$$n = \frac{N}{1 + N\,e^2}$$

n = 201/(1+201 (0,1)²)

n = 101

Where, n : Sample size N : Population size e : percentage of inaccuracy due to sampling error of 10%

Data collection using a questionnaire was carried out in January 2021. The data processing is processed by the PLS-SEM method. Data analysis used quantitative descriptive techniques in factor analysis that influenced the intention to use e-government. Another validity test for the hypothesis in this study is using the structural model in PLS evaluated using R-square for the dependent construct, path coefficient values, or t-values for each path to test the significance between constructs in the structural model.

According to Ghozali (2005), the sample size is between 100-200. Another argument comes from Solimun (2002: 78) that if the parameter estimation uses the maximum likelihood estimation method, the recommended sample size is between 100 to 200, with a minimum sample of 50; (2) 5–10 times the number of parameters in the model; (3) Equal to 5-10 times the number of indicators of all latent variables.

There are 18 indicators in this study, and the minimum sample size is 5 x 18 or 90 samples. The authors decided to use 102 students as respondents. The sampling technique is a simple random sampling technique, where each element that makes up the population is given the same opportunity to be selected as a sample (Sugiyono, 2008: 122).

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RESULTS AND DISCUSSION

Demographic Profile of Respondents

The questionnaire was responded to by 102 respondents who were active students at the State University of Surakarta in the class of 2017, 2018, and 2019. The demographic profile of the respondents consisted of gender, age, and education (Table 2). The gender of the respondents is dominated by men, with a percentage of 74%, while women are 26%. The ages of the respondents varied. 75% of respondents are aged 20-25 years, while the other 25% of respondents are 19 years old.

Based on data, 94% of students who became respondents in this study were currently pursuing an undergraduate education, while the other 6% were currently pursuing a D3 education. Students come from various study programs, which include industrial engineering, Indonesian language education, agribusiness, civil engineering, accounting, counseling, sports coaching, Indonesian literature, regional literature, history education, arts crafts, special education, agricultural extension, mathematics, and a small proportion of respondents came from other study programs.

Table 2. Demographic Characteristics of Respondents

Demographic Characteristic	Percentage (%)
Gender	
Male	74
Female	26
Age	
19	25
20-25	75
Education Level	
Bachelor degree	94
Diploma	6

Source: Analysed by authors (2022)

Internet Access

Internet access is a factor to be considered and has the potential to influence respondents' desire to access applications and services of e-government. Data regarding internet access is shown in Table 3. Based on survey data, 75% of respondents have easy access to the internet, which is seen from the availability of wi-fi at their residence (home or boarding house. While 25% of other respondents do not have wi-fi access). at home or at the boarding house. As many as 60% of student respondents daily access the internet using home/boarding wi-fi and another 40% use cellular data. The media used to access information on the

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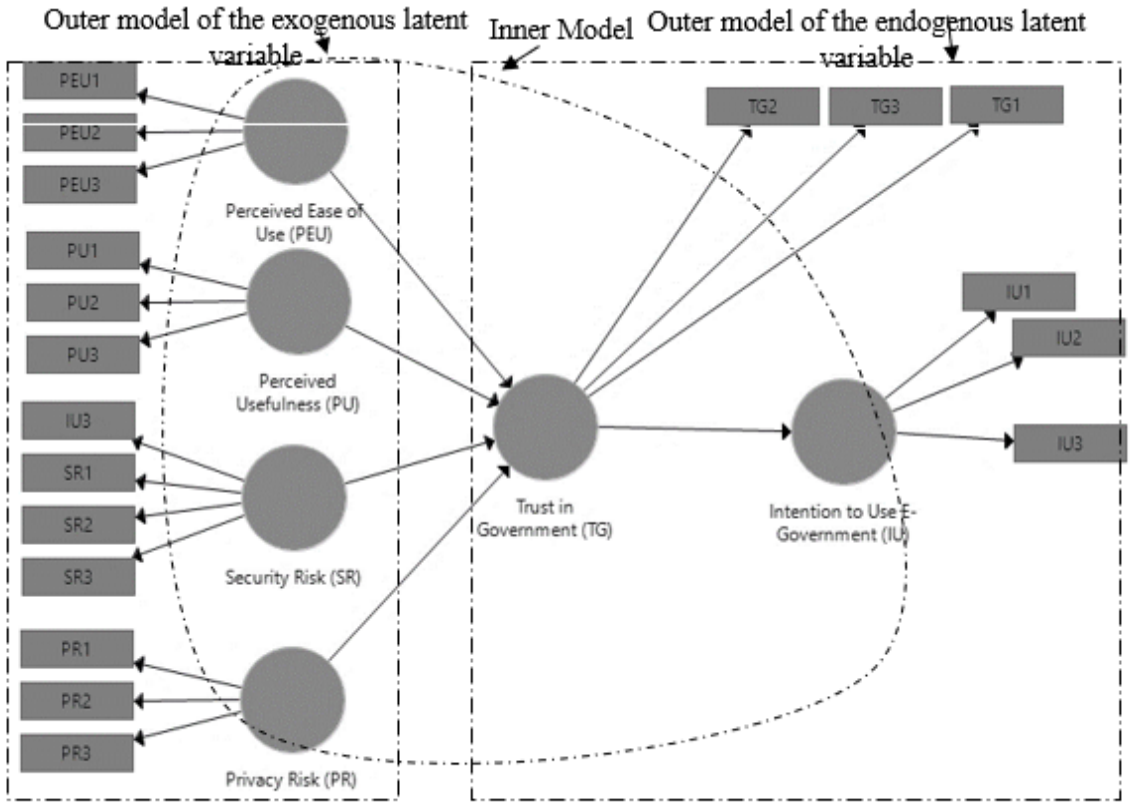
internet is the majority of smartphones, as many as 83%.

Table 3. Internet Access

Internet Access	Percentage (%)
Availability of Internet Facilities	
Available	75
Not Available	25
Frequently Used Internet access Sources	
Wi-Fi	60
Personal mobile data	40
Media Used to access Information on the Internet	
Laptop / computer	17
Smartphone	83

Source: Analysed by authors (2022)

PLS Inner and Outer Model Analysis



Source: Analysed by authors (2022)

Figure 2. Inner and Outer Model

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Test Results Model Measurement (Outer Model)

1. Convergent Validity – Outer Loading

Convergent validity of each variable is seen from the value of outer loading. The first evaluation of the outer model is convergent validity. Convergent validity assessment to determine whether the variable has an adequate discriminant value. The method of assessment is to compare the value of the outer loading of each variable with the others. A construct is said to have convergent validity if the outer loading value is more than 0.5 and the outer loading value for the construct is greater than the outer loading value with other constructs. The outer loading value for evaluating convergent validity is presented in the following table (Table 4)

Table 4. Outer Loading Values

	IU	PEU	PR	PU	SR	TG
IU1	0.891					
IU2	0.815					
IU3	0,656					
IU3	0,836					
PEU1		0.822				
PEU2		0,880				
PEU3		0.842				
PR1			0.905			
PR2			0.943			
PR3			0.938			
PU1				0.885		
PU2				0.905		
pu3				0.883		
SR1					0.859	
SR2					0.871	
SR3					0.844	
TG1						0.894
TG2						0.713
TG3						0.912

Source: Analysed by authors (2022)

Based on the table above, it can be seen that the outer loading value of each indicator is all more than 0.5. The results of the convergent data validity test meet the requirements of the rule of thumb value, that is, if the value is outer loading 0.50, then it meets convergent validity.

2. Discriminant Validity – Cross Loading

Evaluation of discriminant validity is seen from the cross-loading value.

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Discriminant validity occurs when two different instruments measure two constructs that are predicted to be uncorrelated resulting in a score that is indeed uncorrelated. An indicator is said to meet discriminant validity if the value of the cross-loading indicator on that variable is the largest compared to other variables. The cross-loading value in this study is presented in Table 5.

Table 5. Cross Loading Values

	IU	PEU	PR	PU	SR	TG
IU1	0,891	0,580	0,510	0,357	0,616	0,567
IU2	0.815	0,475	0,512	0,289	0,545	0,433
IU3	0.836	0,391	0,512	0,360	0,656	0,540
IU4	0,836	0,391	0,365	0,360	0,656	0,540
PEU1	0,520	0,822	0,407	0,405	0,517	0,556
PEU2	0,455	0,880	0,513	0,463	0,524	0,514
PEU3	0,470	0,842	0,654	0,486	0,522	0,578
PR1	0,453	0,570	0,905	0,470	0,682	0,548
PR2	0,531	0,582	0,943	0,398	0,717	0,578
PR3	0,520	0,581	0,938	0,431	0,711	0,563
PU1	0,378	0,477	0,399	0,885	0,452	0,506
PU2	0,259	0,387	0,337	0,905	0,353	0,454
PU3	0,410	0,543	0,491	0,883	0,517	0,562
SR1	0,466	0,548	0,738	0,361	0,859	0,634
SR2	0,516	0,555	0,722	0,454	0,871	0,657
SR3	0,561	0,493	0,600	0,448	0,844	0,670
TG1	0.562	0,554	0,439	0,512	0,698	0,912
TG2	0,558	0,560	0,468	0,547	0,650	0.894
TG3	0,416	0,538	0,664	0,385	0,609	0,713

Source: Analysed by authors (2022)

Based on the table cross loading above, it can be seen that the cross-loading indicator value of the variable has greater value than the other variables. This shows that all indicators are said to meet discriminant validity.

3. Convergent Validity - Average Variance Extracted (AVE)

Another method to determine discriminant validity is to look at the average variance extracted (AVE) value. The trick is to compare the value of the AVE root of each variable with the correlation involving the variable concerned with other variables in the model. If the value of the AVE root is greater than the correlations that occur, the variable has good discriminant validity. The following is latest discriminant validity using a comparison between the AVE roots and the correlation (Table 6).

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Table 6. Value of Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)
Intention to Use E-government (IU)	0.719
Perceived Ease of Use (PEU)	0.719
Perceived Usefulness (PU)	0.794
Privacy Risk (PR)	0.863
Security Risk (SR)	0.660
Trust in E-government (TG)	0.714

Source: Analysed by authors (2022)

Based on the data in Table 6, the AVE value of all variables has a value >5. This is in accordance with the required minimum AVE value of 0.50, which means that more than half of the variables from each indicator have good convergent validity.

4. Reliability Test - Cronbach's Alpha

Cronbach's Alphais a reliability measure that has a value ranging from zero to one (Hair et al., 2010). Cronbach's Alpha is used to measure the limit value of a construct. The construct is said to be reliable if the Cronbach's Alpha value is greater than 0.60. The value of Cronbach's Alpha in this study is as follows (Table 7).

Table 7. Value of Cronbach's Alpha

Variable	Cronbach's Alpha
Intention to Use E-government (IU)	0.805
Perceived Ease of Use (PEU)	0.805
Perceived Usefulness (PU)	0.871
Privacy Risk (PR)	0.921
Security Risk (SR)	0.823
Trust in E-government (TG)	0.793

Source: Analysed by authors (2022)

Based on Table 7, Cronbach's Alpha value of all variables is more than 0.6. This means that all variables are said to be reliable. According to Eisingerich and Rubera (2010), the value of the reliability level of Cronbach's Alpha Minimum Is 0.70. A Cronbach's Alpha Reliable Value (0.70) can provide support for internal consistency.

5. Reliability Test - Composite Reliability

Cronbach's Alpha measures the lower limit of the reliability value of a construct, while composite reliability measures the real value of the reliability of a construct. However, composite reliability is considered better in estimating the internal consistency of a construct. The rule of thumb used for

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the value composite reliability is greater than 0.7 and Cronbach's Alpha value is greater than 0.7 (Ghozali and Latan, 2015). The composite reliability value shown in Table 8.

Table 8. Composite Reliability

Variable	Composite Reliability Value
Intention to Use E-government (IU)	0.885
Perceived Ease of Use (PEU)	0.885
Perceived Usefulness (PU)	0.920
Privacy Risk (PR)	0.950
Security Risk (SR)	0.885
Trust in E-government (TG)	0.881

Source: Analysed by authors (2022)

Based on Table 8, the value composite reliability of all variables is more than 0.7, so it can be stated that all variables meet the reliability requirements.

Test Results of Structural Model (Inner Model)

Measurement of the inner model (endogenous construct) consists of R-square and path coefficient. Measurement of the inner model to measure the direct or indirect effect between variables in the study.

R-square value is used to measure the degree of variation in the change of independent variables on the dependent variable. The higher the R-square value, the better the prediction model of the proposed research model. The R-Square value shows the influence between variables in the inner model. Hair et al. (2010) stated that 0.75 (very strong), 0.5 (strong), and 0.25 (weak). Based on the results of the structural analysis of the model, the R-square value of the indicator trust in government is 0.671. While the indicator of intention to use e-government has an R-square value of 0.374. That is, the factor of trust in the government has a strong influence on the use of e-government.

Table 9. R-square

Variable	R-square
Intention to Use E-Government (IU)	0.374
Trust in Government (TG)	0.671

Source: Analysed by authors (2022)

Bootstrapping Analysis

Bootstrapping analysis was used to test the hypothesis by looking at the value outer loading and the value of the path coefficients. Figure 3 shows the T-value statistic on the loading factor of

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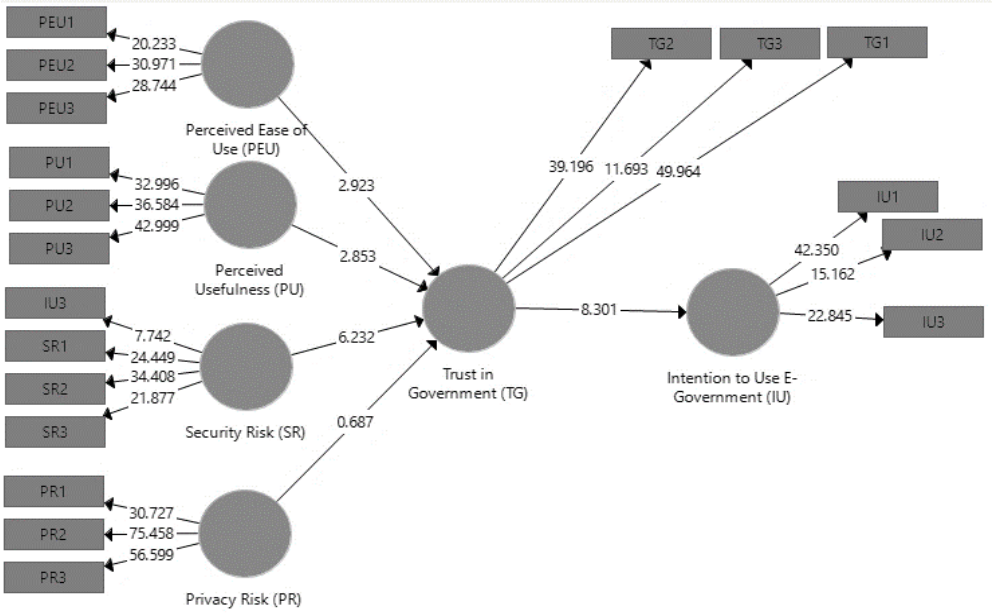
the inner and outer models. The indicator is said to be convergently valid if the value loading factor is 0.5. Based on the figure, the value loading factor for all indicators is more than 0.5. The values loading factor for the inner model are all more than 0.5, meaning that all variables are convergently valid. It can be seen that the value loading smallest in the inner model is the relationship between the variable privacy risk (PR) and trust in government (TG), which is 0.687. While the largest loading factor value in the inner model is the relationship of trust in government (TG) with the intention to use e-government (IU), which is 8.301. Likewise with the outer model, all loading factor indicators of each variable are worth more than 0.5.



Source: Analysed by authors (2022)

Figure 3. Outer-Loading Value

Path Coefficients

Analysis hypothesis Bootstrapping test can also be seen from the path coefficients. Path coefficients are values or the magnitude of the relationship/influence of latent constructs. Path coefficients show the direction of the negative or positive relationship of each indicator. If the T-statistic > 1.96 then the hypothesis is accepted (exogenous variables affect endogenous variables). If the T-statistic value is less than 1.96, then the hypothesis is rejected. The results of the analysis are path coefficients presented in Table 10.

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Table 10. Path Coefficients Analysis Results Bootstrapping

Hypothesis	Standard Deviation	T-Statistic	P Values	Final Decision
Perceived Ease of Use (PEU) -> Trust in Government (TG)	0,084	2,745	0,006	Significant
Perceived Usefulness (PU) -> Trust in Government (TG)	0,067	2,802	0,005	Significant
Privacy Risk (PR) -> Trust in Government (TG)	0,109	0,663	0,508	Not Significant
Security Risk (SR) -> Trust in Government (TG)	0,104	5,691	0,000	Significant
Trust in Government (TG) -> Intention to Use of E-government (IU)	0,069	8,881	0,000	Significant

Source: Analysed by authors (2022)

Based on Table 10, the path coefficient variable perceived ease of use (PEU) on trust in government (TG) is positive and more than 1.96, which is 2.745. That is perceived ease of use (PEU) positively and significantly affects trust in government (TG). This is following H1, which states that the perceived ease of use (PEU) factor has a positive and significant effect on trust in government (TG) (H1 is accepted). This is also confirmed by Davis's Technology Acceptance Model (TAM) (1989). Moreover, this impact is not only statistically significant but is also quite strong (r=0,51).

The path coefficient of the variable perceived use (PU) on trust in government (TG) is positive and is more than 1.96, which is 2.802. That is, perceived use (PU) positively and significantly affects trust in government (TG). This is following H2, which states that perceived usefulness (PU) factors have a positive and significant effect on trust in government (TG) (H2 is accepted). The results of hypothesis testing H1 and H2 align with several expert studies. Perceived usefulness and perceived ease of use have been debated as determinants in adopting e-government services (Kurfali et al., 2017; Lallmahomed, 2017). Many researchers have suggested perceived ease of use and perceived usefulness as the two main factors in technology adoption (Susanto & Aljoza, 2015). The present study found that perceived usefulness has a positive impact on trust. In the same direction, Suh and Han (2002)

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argued that when the user fully understands the usefulness of the online service, his confidence is significantly increased.

The path coefficient of the variable privacy risk (PR) on trust in government (TG) is less than 1.96, which is 0.663. This means that privacy risk (PR) has a negative and insignificant effect on trust in government (TG). This is not following H3, which states that privacy risk (PR) factors have a positive and significant effect on trust in government (TG) (H3 is rejected). This conclusion is in line with the studies of Lee (2009) and Featherman and Pavlou (2003). For example, losing communication between the user and server may hurt user trust. Therefore, the intention to further use the online services.

The path coefficient of the variable security risk (SR) against trust in government (TG) is positive and more than 1.96, which is 5.691. That is, security risk (SR) has a positive and significant effect on trust in government (TG). This is following H4, which states that factors of a security risk (SR) have a positive and significant effect on trust in government (TG) (H4 is accepted). These results are consistent with research conducted by Zhong and Ying (2008), who found that the quality of sites on the web, such as content, security, site design, and ease of use, determines the intention to use sites. Furthermore, several studies have found that the quality of site the web is important in promoting the intention to use (Al-Qeisi et al., 2014; Almaiah, 2018; Almaiah and Almulem, 2018a, 2018b; Collier and Bienstock, 2009; Lee and Kozar, 2006; Tan, 2013).

The path coefficient of the variable trust in government (TG) on the intention to use e-government (IU) is positive and is greater than 1.96, which is 8.881. That is, trust in government (TG) positively and significantly affects the intention to use e-government (IU). This is following H5, which states that trust in government (TG) factors have a positive and significant effect on the intention to use e-government (IU) (H5 is accepted). These results are in line with research conducted by (Nzaramyimana & Susanto, 2019), which proves that the factor of trust in government (TG) affects the intention to use e-government (IU).

CONCLUSION

The results of this research contribute theoretically and practically to ideas for the renewal of e-government systems. The government and developers can implement them to improve the services and applications of e-government. The

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government needs to consider the factors of privacy security, application security, increasing functionality and usability, and increasing public trust, especially students as intellectuals who are more careful and selective in accessing e-government programs. If these factors are considered in improving the quality of e-government, then the desire of students to use e-government can increase.

This study examines Indonesia's e-government; all hypotheses are proven positive and significant. As a result of this research, we better understand the factors that encourage or discourage Indonesians from using e-government infrastructure. The findings of this research add to existing knowledge, making it essential for academics and politicians alike to commit to making improvements. This study is designed to lay the foundation for future research on e-government services in Indonesia. This data will significantly assist Indonesian government agencies tasked with providing e-government services to the public. The government must be prepared to face every problem and make the necessary changes. The primary responsibility of an e-government researcher is to assist policymakers in e-government jurisdictions to see the potential value of e-government in the context of future government programs by identifying critical benefits for those in power and then using these findings to make concrete recommendations for improving e-government implementation. Because the scope and complexity of e-government initiatives can vary widely, there are bound to be many challenges that must be overcome during the launch, operation, and management phases.

The technical challenges of implementing e-government include a need for standardized terminology and incompatible infrastructure between government entities. The Indonesian government has needed help achieving its goal of serving the public interest due to the difficulties inherent in using e-government services to protect citizens' personal information and physical security. Guarantees from the government are only sufficient if accompanied by technical solutions, procedural transparency, and the possibility of independent audits.

Study recommendations and directions for future work can help policymakers in Indonesia and other developing countries. E-government is very important in today's world, and its adoption by Indonesian society should be encouraged. Citizen engagement was

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critical to the adoption process's success, and the current study evaluates the role of e-government by investigating citizens' intentions toward its adoption. When reforming various government agencies in Indonesia, government officials must consider the needs of citizens and their businesses. To ensure the success of its public reforms in Indonesia, the government must devise a strategy to ensure that government services are always available, of high quality, easily accessible, and reliable on time. Ease of use and appropriateness to Indonesian culture and language are critical considerations.

This study has some limitations. This study only provides a snapshot over time and does not consider long-term changes in residents' attitudes and behavior. Studies adopting a longitudinal approach will determine whether citizens' attitudes about access to e-government services change over time. In addition, participants may have unique characteristics compared to people in other regions of the world. The geographic location of the ongoing studies is a further limitation. It is considered that other Southeast Asian countries that share demographic features with Indonesia and offer e-government facilities to their citizens to the same degree may also benefit from the findings. This conclusion may not apply to neighboring countries that are lagging or more advanced than Indonesia in adopting e-government. Therefore, the results of this study may be strengthened and validated with more research conducted in various countries. The final limitations of this study offer fresh opportunities and directions for future research by looking at how to direct determinants influence individual behavioral intentions and the use of e-government services. However, future research can be improved using different research variables, scraping, mining, and complete protection analysis of top trends. However, our research can be applied to enhance emotional protection and social presence online.

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