

Factors Influencing Community Behavior towards SIKER: An Extension of the TAM model

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ABSTRACT

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Sistem Kerja (SIKER) is a system that allows the public to make yellow cards/AK1, join job training, looking for job vacancies and call for interviews. In its implementation, there are still many Semarang residents who have not adopted SIKER, even though Semarang City is ranked 2nd in the superior category in Central Java province in the e-government ranking. This study will observe the effect of perceived usefulness, perceived ease of use, facilitating conditions, and social influence on the behavioral intention of Semarang residents in utilizing SIKER, also the variables age and perceived trust will be used as intervening variables. This study uses a quantitative descriptive method with a data analysis approach using Partial Least Square Structural Equation Modeling (PLS-SEM) by utilizing SmartPLS version 3.2.9 tools. There are 330 valid respondents participated in this study. The results of this study show that the factors influence behavioral intention of Semarang residents are perceived trust, perceived usefulness, facilitating conditions, and age with a negative direction. Perceived trust is proven to be the biggest factor influencing the behavioral intention to use SIKER services. Whereas the intervening effect of perceived trust is proven to intervene with perceived ease of use and perceived usefulness towards behavioral intention with the intervening effects of full mediation and partial mediation. However, for age, it has been shown to be non-intervening without an intervening effect and without an intermediary effect.

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1 Introduction

Information and Communication Technology (ICT) is developing rapidly, so that the government is now taking advantage of the role of ICT to serve the public. ICT is considered a key factor in building society in a country (Elkeshin & Saleeb, 2020). E-government is the provision of public services using information technology for provide convenience to citizens, organizations with information, and government services (Lin et al., 2011; Mensah, 2019; Susanto & Aljoza, 2015). The use of information technology in the public sector also provides excellent opportunities to improve service quality and reduce spending for the government (Lin et al., 2011). According to the public, e-government makes it accessible to the public 24/7, anywhere and anytime, at a lower cost and the same standard, simple and fast (Susanto & Aljoza, 2015). Sistem Kerja (SIKER) was created to provide benefits for the government and the society of the Semarang City. SIKER is an integrated employment information system for the Semarang City Government, the business community, society, and job seekers. SIKER was developed based on the vision and mission of the Semarang City to reduce unemployment in there. SIKER is a system that allows people to make yellow cards/AK1, attend job training, find job vacancies and call for interviews.

The E-Government Development Index (EGDI) data reported that Indonesia ranked 88th out of 193 countries, with an average score above the Southeast Asian region with a value of 0.6612 out of 0.6321, different from 2018 which was ranked 107th (Nations, 2020). So, in conclusion the use of e-

government cannot be said to be successful at the user level (Pandey & Nugroho, 2020). The same thing also happened in the Semarang City from the results of city or district e-government rankings executed by the Central Java Dinas Komunikasi dan Informatika (Diskominfo) in 2017, Semarang City obtain second place in the good category (Diskominfo, 2017). However, this is different from the user data recorded in SIKER, showing that the data for active and inactive job seekers total 5552 (Disnaker, 2022a), and unemployment data recorded in semester one of 2022 at SIKER total 392 (Disnaker, 2022b). This data is still far from the total population of the Semarang City who are ready to work, with an age range of 15-64 years, as many as 1,125,180 people (BPS, 2019). It can be said that the residents of the Semarang City are still lacking in accepting technology which has resulted in the success of the government in serving the public.

The lack of implementation from e-government services is not related to the quality and capacity of the system but rather to the low level of acceptance by users of e-government services, even though technology provides benefits to institutions and society (Jonar, 2017). Acceptance of technology is the willingness of users to apply technology to help their work. The information system acceptance model that focuses more on individuals is the Technology Acceptance Model (TAM), which was popularized by Davis et al. (1989). TAM provides a framework for predicting the level of using new technology when external factors influence the internal factors of attitudes, intentions, and beliefs that may influence usage. TAM can also provide insight and predictions about individual acceptance of new technologies (Lin et al., 2011; Mensah, 2019).

The public needs to trust the government and its technology. People see e-government as a system that promises to improve government operations. However, knowing how to share personal information with governments on the internet can be a concern for their privacy and information can be misused (Sharma et al., 2014). In the first relationship, people use information technology, such as e-government, and it is necessary to assume trust. Because internet-based e-government is open, security is an important factor in e-government functioning. Age is an important demographic variable that significantly impacts behavioral intention in technology adoption (Abu-Shanab et al., 2010). Age is studied in the context of using and adopting government services via the internet (Al-Jamal & Abu-Shanab, 2015). The adoption and development of new technology is expected to change the level of technology use. Compared to young people who frequently visit and use e-government websites, older people are less skilled and interested in using new technologies (Al-Jamal & Abu-Shanab, 2015; Hong et al., 2013).

Facilitating Conditions (FC) is defined as the extent to which a person believes that the organizational and technical infrastructure is available to support the use of the system (Venkatesh et al., 2003). Facilitating working conditions is more like controlling perceived behavior and influencing behavioral intentions (BI) (Venkatesh et al., 2012). Empirical evidence from several studies, for example, Chiu et al. (2012) on technology adoption by individuals, has also supported the significant impact of FC on BI. In addition, the relationship between FC and BI in e-government adoption research has been explored in several studies. For example, Carter et al. (2012) found that FC has a significant impact on an individual's intention to use the system. Social Influence (SI) is the degree to which an individual perceives that others who are important to them believe they should use the system (Venkatesh et al., 2003). It has also been found that SI constructs contain the explicit or implicit notion that people behave influenced by the way they believe others will perceive them as a result of using technology (Venkatesh et al., 2003). Previous e-government literature has investigated SI as a significant predictor of BI for use (Carter et al., 2012; Schaupp et al., 2010; Susanto & Aljoza, 2015). This study observes the effect of perceived usefulness, perceived ease of use, facilitating conditions, and social influence on the behavioral intention of the public of Semarang in utilizing SIKER. Age and perceived trust variables will be used as intervention variables. Two research questions are posed:

RQ1. What factors influence the behavioral intention of the public of Semarang in using SIKER?

RQ2. Do the variable perceived usefulness and perceived ease of use influence the behavioral intention of the public of Semarang City in using SIKER with age and perceived trust as intervention variables?

2 Research Model and Hypothesis

2.1 Perceived Usefulness

Davis et al. (1989) concluded that perceived usefulness (PU) is the primary determinant of BI. It was also found that the positive relationship between PU and BI was more attractive to individuals with high levels of internet experience (Alryalat, 2017). Several studies like (Abu-Shanab, 2014; Al-Jamal & Abu-Shanab, 2015; Alryalat, 2017) in the context of e-government adoption have established the relationship between PU and BI. In this study, PU refers to the use of SIKER services and it will help the public of Semarang to save time by avoiding physical visits to the Semarang City Labor Office. With the explanation above, the hypothesis developed is as follows.

H1: There is a positive and significant perceived usefulness effect on behavioral intention in using SIKER in the public of Semarang City.

According to Morris and Venkatesh (2000) studies of age, discrepancies have been common in psychological research since the last few decades. In the context of this study, the benefits of using SIKER, such as completing government services more quickly, effectively, and efficiently can influence various age groups in adopting SIKER services. With this explanation, the research hypothesis is as follows.

H2: There is a positive and significant perceived usefulness effect on age in the use of SIKER for the public of Semarang City.

According to Koufaris and Hampton-Sosa (2004), website benefits correlate with performance and increased productivity of site purchases. Performance is related to the speed of access when using the website, while productivity is correlated with the perceived benefits of finding easily obtained features. In terms of SIKER, it is easy to make AK1, register at work training centers, and looking for a job. Research conducted by Ghazizadeh *et al.* (2012) and Faradila and Soesanto (2016) have found a positive relationship between benefits and trust in technology adoption. With this, the research hypothesis is as follows.

H3: There is a positive and significant influence of perceived usefulness on perceived trust in the use of SIKER in the public of Semarang City.

2.2 Perceived Ease of Use

According to Davis et al. (1989), perceived ease of use (PEOU) is a significant secondary determinant of an individual's intention to use the system. If using the SIKER service requires a high effort, the public may not like using the system to make AK1, find lockers or register for work training centers. The revised TAM model has verified the relationship between PEOU and BI (Davis et al., 1989). This construct is significant in several studies (Abu-Shanab, 2014; Al-Jamal & Abu-Shanab, 2015; Alryalat, 2017). In this study, PEOU will be examined based on the user's perceived ease of use regarding the SIKER service and comfort in learning about this service. The research hypothesis is formulated as follows.

H4: There is a positive and significant influence of perceived ease of use on behavioral intention in using SIKER in the public of Semarang City.

PEOU must also increase trust through the perception that service providers or, in this case, the Semarang City Labor Office, build relationships with the society. The website is a place where the public has the main interaction with service providers using a character for that activity. If the website is easy to understand, the public will tend to trust the website; otherwise, the service provider is considered dishonest and hides something through a complicated also unnecessary interface (Ella et al., 2012; Faradila & Soesanto, 2016; Gefen et al., 2003). The relationship between PEOU and trust is positive to previous studies (Ella et al., 2012; Faradila & Soesanto, 2016; Gefen et al., 2003; Pavlou, 2003). The formulation of the hypothesis from the above explanation is as follows.

H5: There is a positive and significant influence of perceived ease of use on perceived trust in using SIKER in the public of Semarang City.

Age is an internal factor that influences the use of the new information system. Age differences are associated with difficulties in processing comprehensive stimuli and paying attention to

information (Hoyer & Plude, 1980). In terms of convenience, evidence shows that older users find it more challenging to learn and use unfamiliar technology. Many older people also do not have a skill level compared to the younger ones (Agarwal & Prasad, 1999). It is assumed that older people feel more uncomfortable and less competent in using new technologies (Cutler et al., 2003). Therefore, in this study, it is hoped that the PEOU can influence the age of the Semarang City residents in adopting SIKER. Then the formulation of the hypothesis proposed is as follows.

- H6: There is a positive and significant influence of perceived ease of use on age in using SIKER for the public of Semarang City.

2.3 Perceived Trust

Perceived trust (PT) has a moderate perception of e-government services. The establishment of public trust is necessary for the adoption of e-government services (Liu & Zhou, 2010). In addition, it has also been established that a higher level of trust is positively associated with a higher level of behavioral intention to use e-government services (Abu-Shanab *et al.*, 2010; Alryalat, 2017; Hussein *et al.*, 2010; Schaupp *et al.*, 2010). With theoretical foundations and empirical evidence, the researchers hope that trust will positively and directly affect behavioral intentions in using SIKER.

- H7: There is a positive and significant influence of perceived trust on behavioral intention in using SIKER in the public of Semarang City.

Trust is known to be a key determinant of dependability and acceptance of automation, standing between people's belief in automation and their behavioral intention to use it (Carter & Bélanger, 2005; Gefen *et al.*, 2003; Pavlou, 2003). Thus, the TAM model is augmented by reliance on SIKER, which is included in the model as a BI predictor. It is hypothesized that PU and PEOU, as beliefs, both have a positive effect on trust, and trust will in turn have a positive impact on BI.

- H8: Perceived ease of use influences the behavioral intention of the public of Semarang City to use SIKER through perceived trust as an intervening variable
- H9: Perceived usefulness influences the behavioral intention of the public of Semarang City to use SIKER through perceived trust as an intervening variable

2.4 Age

Age is an essential demographic variable that significantly impacts BI and technology acceptance (Abu-Shanab *et al.*, 2010). The elderly are expected to have the skills and enthusiasm to use e-government services. According to Al-Jamal and Abu-Shanab (2015), based on Nations (2010), most internet users are citizens of English-speaking countries under the age of 35. This is also supported by research conducted by Al-Jamal and Abu-Shanab (2015) and Morris and Venkatesh (2000) that elderly citizens will have lower intentions to use government services. Thus, the researchers hope that age will positively and directly influence behavioral intentions in using SIKER.

- H10: There is a positive and significant influence of age on behavioral intention in using SIKER in the public of Semarang City.

Age is theorized to have a moderating role (Venkatesh *et al.*, 2003). Wirjono (2010) also states that age is a factor that can weaken or strengthen the relationship between the implementation of a new information system for each individual. Until now, age differences have been found to influence technology adoption decisions in organizations. Morris and Venkatesh (2000), proved that age moderates the relationship between attitudes toward technology use and short-term use; that is, attitudes toward technology use are stronger for younger than older ones.

- H11: Perceived usefulness influences the behavioral intention of the public of Semarang City to use SIKER through age as an intervening variable.
- H12: Perceived ease of use influences the behavioral intention of the public of Semarang City to use SIKER through age as an intervening variable.

2.5 Facilitating Conditions

Analysis of the relationship between FC and BI in e-government adoption research has been explored and found to be significant in several studies (Alryalat, 2017; Carter *et al.*, 2012; Dwivedi *et al.*, 2017). In this study, it was stated that FC had a positive effect on BI. The higher trust given by

society, the organization will support them to use SIKER by providing information media. Based on the above information, the research hypothesis is proposed as follows.

H13: There is a positive and significant influence of Facilitating conditions on behavioral intention in using SIKER in the public of Semarang City.

2.6 Social Influence

In their research, Venkatesh *et al.* (2003) state that social influence has a significant positive effect on BI. This was also validated in research by Susanto and Aljoza (2015). With this research, there is a positive influence of SI on BI where the higher feeling of society around to be important in adopting e-government, it can increase one's intention to use e-government system.

H14: There is a positive and significant influence of Social influence on behavioral intention in using SIKER in the public of Semarang City.

The proposed research model used is shown in Figure 1.

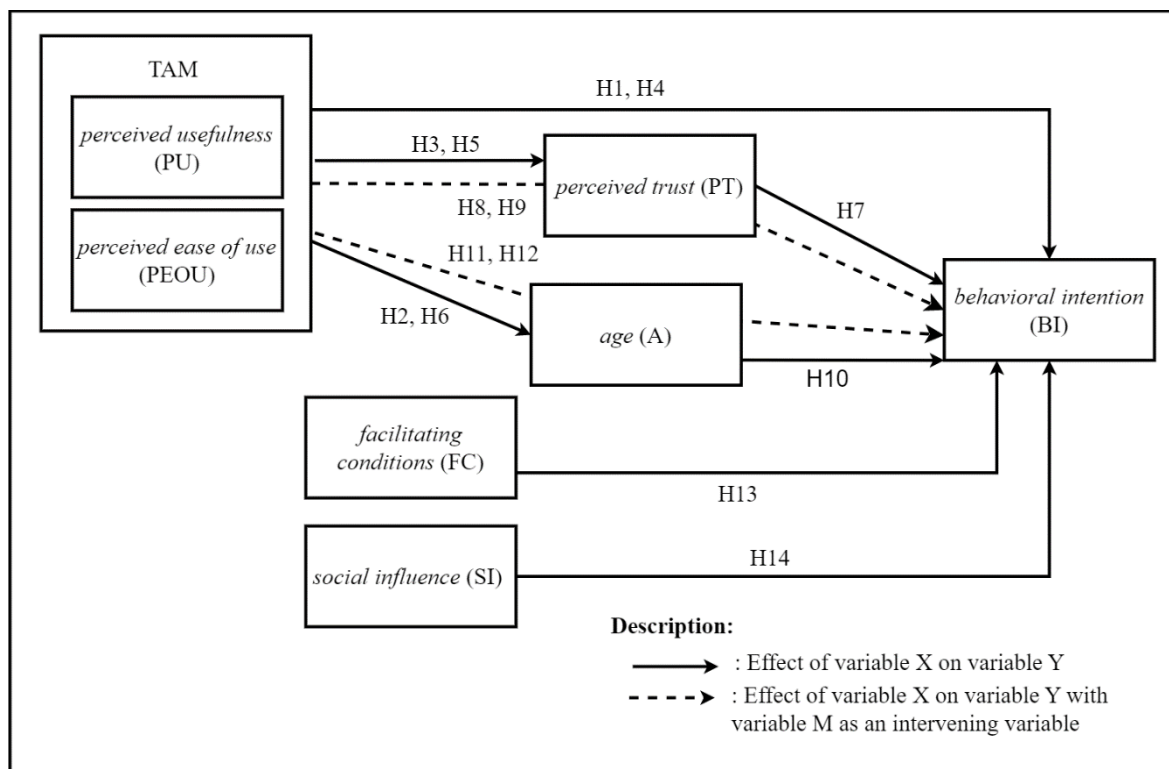


Figure 1. Proposed Research Model

3 Method

This study used quantitative methods to observe the effect of perceived usefulness, perceived ease of use, facilitating conditions, and social influence on the behavioral intention of Semarang City residents in utilizing SIKER with the variables age and perceived trust to be used as intervening variables. The data collection technique was conducted by administering a questionnaire survey to respondents online. The questionnaire consisted of 29 items. Questionnaires were distributed to SIKER users both online and offline.

Simple random sampling was used for the sampling technique in this study with the criteria of Semarang City residents with an age range of 15-64 years and the multitude of Semarang City who had used SIKER at least 1 time. While the minimum sample used is based on Hair Jr *et al.* (1995) in Ferdinand (2006), which states determining the number of the sample by multiplying 5-10 times the number of items in the study. With a minimum sample size of 290 respondents. In addition, according to Willaby *et al.* (2015), PLS-SEM suggests a minimum sample size of 250 to assess the complexity of the model.

3.1 Participants

This study obtained 330 valid respondents. Based on gender, 161 (49%) of the 330 respondents were female and 169 (51%) were male. Most respondents based on age are 15 – 24 years 211 (64%). Meanwhile, based on education, the most were SMA/equivalent 170 (51.5%), followed by S1 130 (39.4%). Table 1 shows the profile of the respondents.

Table 1. Demographic information of the participants

Category	Number	Percentage (%)
<i>Gender</i>		
Male	161	49
Female	169	51
<i>Age</i>		
<15 years old	0	0.0
15-24 years old	211	64
25-34 years old	111	34
35-44 years old	8	2
45-54 years old	0	0.0
55-64 years old	0	0.0
>65 years old	0	0.0
<i>Last education</i>		
Elementary School/Equivalent	0	0.0
Junior High School/Equivalent	1	0.3
Senior High School/Equivalent	170	51,5
D3	19	5,8
D4	2	0.6
Bachelor's degree (S1)	130	39.4
Master's degree (S2)	5	1.5
Doctoral degree (S3)	0	0.0
Other	1	0,3

3.2 Measures

Data were obtained from a survey using a questionnaire. The questionnaire consists of seven constructs and 29 items. They are perceived usefulness (PU), perceived ease of use (PEOU), facilitating conditions (FC), and social influence (SI), all of which have five items and for perceived trust (PT) have four items. The research questionnaire consisted of demographic information and construct questions. The questionnaire uses 5 Likert scale options with 1=strongly disagree, 2=disagree, 3=Undecided, 4=Agree, and 5=Strongly disagree. The items used in this study were adapted from several sources.

3.3 Data Analysis

The data analysis was carried out in two steps: demographic analysis and statistical analysis. Demographic analysis by processing and analyzing demographic data from the results of distributing questionnaires. The next stage is a statistical analysis to test the model and test the proposed hypotheses using the Partial Least Square-Structural Equation Modeling (PLS-SEM) approach with SmartPLS version 3.2.9. According to Ghazali and Latan (2015), the purpose of PLS-SEM is to develop or build a theory (predictive orientation). PLS is used to mean whether there is a relationship between latent variables (predictions). PLS is a powerful analytical technique because the data does not have to be measured at a certain scale and the number of samples is small (Ghozali, 2011).

4 Results and Discussion

4.1 Evaluation of the Measurement Model (Outer Model)

4.1.1 Convergent Validity

Convergent validity testing is done by looking at the standardized loading factor. This value describes the magnitude of the relationship between each question item and its construct. A loading factor

value above 0.7 can be said to be ideal (Ghozali & Latan, 2015). Table 2 shows three question items with scores below 0.7, namely BI4, PU3, and SI4. All three items were removed for not fulfilling the requirements.

Table 2. Outer loading value

	A	BI	FC	PEOU	PT	PU	SI
A	1,000						
BI1		0,804					
BI2		0,829					
BI3		0,736					
BI4*		0,657					
BI5		0,806					
FC1			0,758				
FC2			0,784				
FC3			0,761				
FC4			0,779				
FC5			0,744				
PEOU1				0,752			
PEOU2				0,736			
PEOU3				0,782			
PEOU4				0,803			
PEOU5				0,777			
PT1					0,815		
PT2					0,846		
PT3					0,817		
PT4					0,805		
PU1						0,780	
PU2						0,750	
PU3*						0,630	
PU4						0,733	
PU5						0,786	
SI1							0,729
SI2							0,827
SI3							0,862
SI4*							0,482
SI5							0,795

Note: * mean items excluded from this study

Testing the Average Variance Extracted (AVE) value. The AVE value describes the amount of variance or diversity of items a variable can load. The AVE value must be greater than 0.5, so it can be said to be ideal. This value means that the variable is able to explain > 50% of the diversity of the items in it. In this study, all AVE values were above 0.5 so that all variables could be used in research. The AVE value for each variable can be seen in Table 3.

Table 3. AVE value

Variable	AVE
Age (A)	1,000
Behavioral Intention (BI)	0,650
Facilitating Conditions (FC)	0,585
Perceived Ease Of Use (PEOU)	0,594
Perceived Trust (PT)	0,674
Perceived Usefulness (PU)	0,603
Social Influence (SI)	0,684

4.1.2 Discriminant Validity

Discriminant validity testing by looking at the cross-loading values between indicators and their variables. While the Fornell-Lacker's cross-loading value is used to compare the correlation between variables with variables from other blocks. The cross-loading value must show a higher correlation

between indicators and variables compared to other variables. In this current study, the cross-loading value for each indicator has met the existing requirements, so it can be applied to this research. The value of cross-loading between indicators on the variables can be seen in Table 4. Then the Fornell-Lacker cross-loading value, the AVE root value between variables must be greater when compared to other variables. In this study, the AVE root value met the criteria, so it could be used and could be continued for further testing. Fornell-Lacker's cross-loading value can be seen in Table 5.

Table 4. Cross loading

	A	BI	FC	PEOU	PT	PU	SI
A	1,000	0,050	0,153	0,134	0,119	0,126	0,090
BI1	0,074	0,809	0,542	0,503	0,597	0,545	0,443
BI2	0,034	0,839	0,626	0,569	0,668	0,538	0,533
BI3	0,020	0,760	0,482	0,395	0,525	0,458	0,346
BI4							
BI5	0,032	0,814	0,521	0,470	0,640	0,501	0,421
FC1	0,107	0,479	0,758	0,585	0,539	0,522	0,485
FC2	0,127	0,555	0,785	0,593	0,545	0,537	0,495
FC3	0,118	0,495	0,758	0,528	0,561	0,500	0,507
FC4	0,086	0,546	0,780	0,576	0,625	0,560	0,600
FC5	0,149	0,507	0,744	0,633	0,572	0,516	0,481
PEOU1	0,083	0,459	0,576	0,753	0,571	0,549	0,455
PEOU2	0,076	0,417	0,567	0,735	0,482	0,518	0,418
PEOU3	0,117	0,501	0,597	0,783	0,512	0,570	0,430
PEOU4	0,139	0,483	0,599	0,802	0,557	0,540	0,534
PEOU5	0,096	0,468	0,595	0,777	0,562	0,556	0,555
PT1	0,081	0,611	0,633	0,614	0,815	0,568	0,541
PT2	0,132	0,654	0,629	0,599	0,846	0,572	0,571
PT3	0,114	0,596	0,616	0,547	0,817	0,550	0,558
PT4	0,062	0,625	0,559	0,529	0,805	0,521	0,525
PU1	0,033	0,494	0,548	0,568	0,527	0,771	0,453
PU2	0,114	0,420	0,518	0,508	0,476	0,770	0,466
PU3							
PU4	0,112	0,504	0,513	0,496	0,494	0,769	0,424
PU5	0,130	0,540	0,558	0,620	0,585	0,794	0,490
SI1	0,061	0,324	0,402	0,424	0,431	0,360	0,747
SI2	0,098	0,428	0,545	0,527	0,541	0,465	0,850
SI3	0,084	0,504	0,618	0,573	0,585	0,570	0,893
SI4							
SI5	0,054	0,510	0,615	0,518	0,622	0,522	0,813

Table 5. Cross Loading Fornell-Larcker

	A	BI	FC	PEOU	PT	PU	SI
A	1,000						
BI	0,071	0,807					
FC	0,154	0,735	0,806				
PEOU	0,120	0,670	0,784	0,800			
PT	0,139	0,805	0,805	0,773	0,828		
PU	0,125	0,691	0,710	0,771	0,725	0,792	
SI	0,104	0,601	0,708	0,696	0,723	0,668	0,856

4.1.3 Composite Reliability

Composite reliability testing by looking at the value of composite reliability with a cut-off value of 0.7 (Hair Jr *et al.*, 1998). The composite reliability value for the seven variables used in this study is above 0.7, so it can be said to be reliable for use in this study. Composite reliability values for each variable can be seen in Table 6.

Table 6. Composite reliability and Cronbach's alpha value

Variable	Composite reliability	Cronbach's alpha
Age (A)	1,000	1,000
Behavioral Intention (BI)	0,881	0,820
Facilitating Conditions (FC)	0,876	0,823
Perceived Ease Of Use (PEOU)	0,879	0,829
Perceived Trust (PT)	0,892	0,838
Perceived Usefulness (PU)	0,858	0,781
Social Influence (SI)	0,896	0,847

4.2 Evaluation of the Structural Model (Inner Model)

4.2.1 R-Squared

The R-Squared test is used to measure how much the independent variable explains the dependent variable with a value of 0.75, which is said to be strong, 0.50 is said to be moderate, and 0.25 is said to be weak (Ghozali, 2011). The following is the R2 value for this study's three dependent variables, which can be seen in Table 7.

Table 7. R-Squared

Variable	R ²	Description
Age (A)	0,020	Weak
Behavioral Intention (BI)	0,620	Moderate
Perceived Trust (PT)	0,552	Moderate

4.2.2 Effect Size

Effect size is useful for reviewing the effect of a variable on other variables. According to Hair Jr *et al.* (1998), the effect size has a small effect if it has a value of around 0.02, a value of 0.15 has a medium effect, and a value of around 0.35 has a large effect. Table 8 shows the value of effect size.

Table 8. Effect size

Hypothesis		f ²			Influence
No	Path	R ² included	R ² excluded	∑f ²	f ²
H1	PU → BI	0,620	0,607	0,034	Small
H2	PU → A	0,020	0,018	0,002	Not supported
H3	PU → PT	0,552	0,488	0,142	Medium
H4	PEOU → BI	0,620	0,62	0	Not supported
H5	PEOU → PT	0,552	0,454	0,218	Large
H6	PEOU → A	0,020	0,016	0,004	Not supported
H7	PT → BI	0,620	0,524	0,252	Large
H10	A → BI	0,620	0,616	0,010	Small
H13	FC → BI	0,620	0,606	0,036	Small
H14	SI → BI	0,620	0,619	0,002	Not supported

4.2.3 Predictive Relevance

Predictive relevance is useful for seeing the predictive relationship between a variable and other variables. If the value of predictive relevance is above zero, then it can be concluded that the variable has a predictive correlation with other variables (Hair *et al.*, 1998). In Table 9, the overall value of the dependent variable, which is above zero, has a predictive relationship with other variables.

Table 9. Predictive relevance

Variable	Q ²
Age (A)	0,006
Behavioral Intention (BI)	0,389
Perceived Trust (PT)	0,366

4.2.4 Relative Impact

The relative impact is useful to see the relative effect on the predictive relationship between variables and other variables. If a relative impact value of around 0.02 has a small effect, around 0.15 has a medium effect, and 0.35 has a large effect (Hair *et al.*, 1998). Table 10 shows the value of relative impact.

Table 10. Relative impact

Hypothesis		q^2			Influence
No	Path	$Q^2_{included}$	$Q^2_{excluded}$	Σq^2	q^2
H1	PU → BI	0,389	0,381	0,013	Large
H2	PU → A	0,006	0,014	-0,008	Small
H3	PU → PT	0,366	0,324	0,066	Small
H4	PEOU → BI	0,389	0,389	0	Not Supported
H5	PEOU → PT	0,366	0,301	0,102	Small
H6	PEOU → A	0,006	0,009	-0,003	Small
H7	PT → BI	0,389	0,329	0,098	Small
H10	A → BI	0,389	0,387	0,003	Not Supported
H13	FC → BI	0,389	0,380	0,014	Small
H14	SI → BI	0,389	0,389	0	Not Supported

4.2.5 Model Fit

Model fit aims to assess how well the hypothesized model structure fits the empirical data to help identify model specification errors (Hair *et al.*, 1998). Model fit was evaluated by looking at the SRMR, Chi-Square, and NFI values. Based on Table 11, it can be seen that the SRMR value is 0.058, which is said to be a good fit model in this study. Meanwhile, the Chi-Square value is 901.955, representing that the research model is a good fit. The NFI value, which is equal to 0.815, means that this research model's suitability is still acceptable (marginal fit). Values ranging from $0.80 \geq \text{NFI} < 0.90$ are still acceptable (Khairi *et al.*, 2021).

Table 11. Results of model fit

	Limit	Value	Description
SRMR	< 0.08	0,058	Good fit
Chi-square	> 0.05	901,955	Good fit
NFI	≥ 0.90	0,815	Marginal fit

4.2.6 T-Test

Table 12 presents the results of hypothesis testing on the structural model. The hypothesis was tested with a two-tailed test using the bootstrapping method with a significance level of 5%. The hypothesis can be accepted if the t value is greater than 1.96. The results showed that the nine hypotheses were accepted because the t-value was greater than 1.96. The other three were rejected because they had t values less than 1.96.

Table 12. Results of T-Test

Hypothesis	Path	Original Sample	Standard Deviation	T-Statistic	Significance	Description
H1	PU → BI	0,176	0,072	2,428	0,016	Accepted
H2	PU → A	0,063	0,069	0,906	0,366	Rejected
H3	PU → PT	0,360	0,071	5,087	0,000	Accepted
H4	PEOU → BI	-0,017	0,098	0,171	0,864	Rejected
H5	PEOU → PT	0,443	0,061	7,222	0,000	Accepted

H6	PEOU → A	0,089	0,071	1,257	0,209	Rejected
H7	PT → BI	0,524	0,093	5,608	0,000	Accepted
H10	A → BI	-0,062	0,030	2,082	0,038	Accepted
H13	FC → BI	0,212	0,095	2,224	0,027	Accepted
H14	SI → BI	-0,035	0,065	0,545	0,586	Rejected

4.3 Intervening Test

Table 13 presents the results of the intervening test. The hypothesis was tested with a two-tailed bootstrapping procedure by looking at the Specific Indirect Effects value. The hypothesis is declared accepted if the t-statistic value is greater than 1.96 and the significance is less than 0.05. According to Baron and Kenny (1986), there are three analytical models that involve intervening variables, namely as follows:

1. Full mediation means that the independent variable cannot significantly influence the dependent variable without going through the intervening variable.
2. Partial mediation means that the independent variable can directly influence the dependent variable or indirectly by involving intervening variables.
3. Unmediated, meaning that the independent variables can directly influence the dependent variable without involving intervening variables.

Table 13. Results of the Intervening Test

Hypothesis	Path	Original Sample	Standard Deviation	T-Statistik	Significance	Description
H8	PEOU → PT → BI	0,232	0,048	4,823	0,000	Accepted
H9	PU → PT → BI	0,188	0,053	3,538	0,000	Accepted
H11	PU → A → BI	-0,004	0,005	0,821	0,412	Rejected
H12	PEOU → A → BI	-0,006	0,006	0,944	0,346	Rejected

4.4 Discussion

Based on the processed data above, there are four hypotheses that are not supported out of 10 hypotheses on the t-test. Perceived usefulness and perceived ease of use have no effect on age, while perceived ease of use and social influence has no effect on behavioral intentions to use SIKER. For the intervening test, there are two accepted hypotheses and two rejected hypotheses. The results show that perceived usefulness influences behavioral intention in using SIKER. This result inlines with previous research (Abu-Shanab, 2014; Al-Jamal & Abu-Shanab, 2015; Alryalat, 2017) which determines the relationship between PU and BI in the context of e-government has a positive and significant relationship. This relationship indicates that the higher PU or benefits perceived by SIKER users, the higher BI to use SIKER in the future. Effectiveness, saving time, and fulfilling expectations for the services needed in using SIKER are considered by users as the benefits that users experience from SIKER services.

The results show that perceived usefulness does not affect age in using SIKER. This relationship shows that the benefits felt by users in using SIKER, such as completing government services more quickly, effectively, and efficiently have not been able to influence various age groups, especially the elderly, to adopt SIKER services. This is by Al-Jamal and Abu-Shanab (2015) in Nations (2010) that most internet users are english-speaking citizens under the age of 35, so older people are considered not to benefit from the internet. The results show that perceived usefulness influences perceived trust in using SIKER. This result also aligns with a study conducted by Ghazizadeh et al. (2012) and Faradila dan Soesanto (2016), which found that the relationship between PU and PT is in technology adoption. This relationship shows that the higher the PU or the benefits perceived by

SIKER, the more confident the user will share their personal information through SIKER. Users feel that the perceived benefits are one of the factors that influence user confidence in using SIKER. This refers to the speed of access when using SIKER and the benefits felt when finding easily obtained features such as making yellow cards/AK1, registering for work training centers, and looking for work.

The results show that perceived ease of use does not affect behavioral intention in using SIKER. This is not relevant to previous research, which found a significant relationship between PEOU and BI (Abu-Shanab, 2014; Al-Jamal & Abu-Shanab, 2015; Alryalat, 2017). This relationship shows that convenience does not affect the user's intention to continue using SIKER services. Users feel that ease of use is not the main factor for using SIKER. This is because the majority of respondents are young and in senior high school, so the perceived ease of use factor is ruled out. The results show that perceived ease of use has an effect on perceived trust in the use of SIKER. This is relevant to previous studies (Ella *et al.*, 2012; Faradila & Soesanto, 2016; Gefen *et al.*, 2003; Pavlou, 2003) who found a positive relationship between PEOU and PT. This relationship shows that the higher PEOU by SIKER users, the higher user's level of trust in using SIKER. With this, the Semarang City Labor Office has built relationships with the community through the ease of using SIKER by not making a complicated appearance so that it is easy to use and can increase public trust.

The results show that perceived ease of use does not affect age in using SIKER. This relationship shows that perceived ease of use is not a determinant factor that can affect age in adopting SIKER services. According to Marchewka and Kostiwa (2007), young people who are familiar with using technology are considered skilled in using technology. This is also supported in this study, where the majority of SIKER users are young and perceive ease of use to be familiar with the technology. The results show that perceived trust influences behavioral intention in using SIKER. This follows previous studies (Abu-Shanab *et al.*, 2010; Alryalat, 2017; Hussein *et al.*, 2010; Schaupp & Carter, 2010) where it stipulates that the higher level of trust is positively related to the higher intention to use e-government services. This relationship is in line with previous research where the higher perceived trust, the higher community's intention to use SIKER. Users feel that perceived trust can affect their future behavioral intention to use SIKER. To increase public trust in e-government, governments must be willing to provide secure services and information to meet societal needs (Carter & Bélanger, 2005). Perceived ease of use affects behavioral intention in using SIKER through perceived trust. However, based on hypothesis 4, perceived ease of use does not affect behavioral intention in using SIKER. So it can be concluded that the effect of intervening is full mediation. This is because perceived convenience, such as an easy-to-use display, creates trust. Then trust in turn, will affect the intention to use SIKER in the future.

Whereas perceived usefulness on behavioral intention through perceived trust. Meanwhile, for hypothesis 1 perceived usefulness equally influences behavioral intention. Thus inferring the effect of intervening in partial mediation. This is because perceived benefits such as effectiveness in using SIKER generate trust. Then trust will affect the intention to use SIKER in the future. The results show that age has a negative effect on behavioral intention in using SIKER. This is in accordance with previous research (Al-Jamal & Abu-Shanab, 2015; Morris & Venkatesh, 2000) where in he study found that older people will have lower intentions to use government services. This relationship indicates that the young people, the higher BI to use SIKER in the future. This is also supported by the demographic data of respondents in Table 1, where the majority of respondents are young, ranging from 15-24 years old, with a percentage of 64%. Perceived usefulness does not affect behavioral intention in using SIKER through age, whereas based on hypothesis 1, perceived usefulness influences behavioral intention in using SIKER. So, we can conclude that the age variable does not significantly influence the perceived usefulness of behavioral intention. This is because the perceived usefulness does not affect age. It turns out that age does not make the intention to use SIKER in the future. The direct relationship between perceived benefits and intention to use SIKER is better, which has been shown to have a positive and significant relationship. Perceived ease of use has no effect on behavioral intention through age.

Meanwhile, for hypothesis 4, perceived ease of use has no effect on behavioral intention. Thus it was concluded that there was no intervening effect. This is because the perceived ease of use does not affect age. Then age, also does not create an intention to use SIKER in the future. This is the same as the direct effect of perceived ease of use on behavioral intention to use SIKER, which was also found to be insignificant. The results show that facilitating conditions affect behavioral intention

in using SIKER. This is relevant to previous research (Alryalat, 2017; Carter *et al.*, 2012; Dwivedi *et al.*, 2017). This establishes the significant relationship of FC to BI in e-government adoption. This relationship shows that the higher facilities provided by the Semarang City Labor Office, the higher community's behavioral intention to use SIKER. With this, users feel that the organization, in this case, the Semarang City Labor Office, has supported them in using SIKER by providing information media to be able to assist users in adopting SIKER. The results show that social influence does not affect behavioral intention in using SIKER. This is not irrelevant to previous research (Susanto & Aljoza, 2015; Venkatesh *et al.*, 2003) which states that individual social influence has a significant positive effect on BI. However, these results are relevant to research conducted by Jacob *et al.* (2017), who found SI did not affect BI in the e-government context. This relationship shows that social influence does not affect the intention to use SIKER. Of all the items, important people, such as family, friends, and co-workers, do not affect users' continued use of SIKER. This is because users tend to use SIKER based on their own will and needs.

5 Conclusion

According to the results of research on the factor that influence the behavioral intention of the public of Semarang City in using SIKER with age and perceived trust as variables intervening can be concluded that factors that influence the behavioral intention of the public of Semarang City in using SIKER service are perceived usefulness, perceived trust, age with a negative direction, and facilitating conditions. The factors that influence the most are perceived trust, perceived usefulness, facilitating conditions, and age. Thus, trust in SIKER is the main factor for using SIKER service in the future. Also the role of perceived trust and age as intervening variables on perceived usefulness and perceived ease of use on the behavioral intention of Semarang City resident in using SIKER. The results show perceived trust is proven to be able to intervene in perceived usefulness and perceived ease of use on the behavioral intention of Semarang City resident in using SIKER. Perceived trust intervening in perceived ease of use on the behavioral intention with full mediation intervening effect. Meanwhile, perceived trust intervenes in the perceived usefulness of the behavioral intention with partial mediation intervening effect. The role of age isn't proven to intervene with perceived usefulness and perceived ease of use on the behavioral intention of Semarang City resident in using SIKER. Age didn't intervene in perceived usefulness on the behavioral intention with an unmediated intervening effect. Whereas age didn't intervene in perceived ease of use on the behavioral intention with no intervening effect found.

6 References

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