

# THE INFLUENCE OF ATTITUDE AND SUBJECTIVE NORM ON CITIZEN'S INTENTION TO USE E-GOVERNMENT SERVICES

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**THE INFLUENCE OF ATTITUDE AND SUBJECTIVE NORM ON CITIZEN'S INTENTION TO USE E-GOVERNMENT SERVICES****Syamsul Gultom<sup>1</sup>, Juhriyansyah Dalle<sup>2\*</sup>, Restu<sup>3</sup>, Baharuddin<sup>4</sup>, Hairudinoar<sup>5</sup>, Syawal Gultom<sup>6</sup>**<sup>1,3,4,5</sup>Universitas Negeri Medan, Jl. William Iskandar Ps. V, Medan, Indonesia<sup>2,6</sup> Universitas Lambung Mangkurat, Jl. H. Hasan Basry, Banjarmasin, IndonesiaE-mails:<sup>2\*</sup> [j.dalle@ulm.ac.id](mailto:j.dalle@ulm.ac.id) (Corresponding author)

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**Abstract.** The present study has provided insights into various factors affecting the intention to use e-government (ITUEG) services among the citizens of Indonesia. A Theory of reasoned action (TRA) has been used as an underpinning theory, based on the prior literature and the various empirical studies conducted by past researchers. The total number of 477 citizens were included in the study as a target population. The results of the present study indicated that the attitude and the subjective norms had shown a significant and positive impact on the ITUEG. Also, the additional variable of trust been investigated in the existing study and the study revealed that trust significantly influences the ITUEGS. The demographic variable including age, gender, education level and two control questions, have shown significant results. More than 37 percent of the respondents have already used these online e-government services. Additionally, the findings of the current study have shown that the citizens are not mature and also willing to avail of these online e-government services if the trust level is higher. The government authorities should draft and implement those kinds of policies that can win the trust of the common man or the end-users like citizens and that leads towards the increase in the ITUEG services.

**Keywords:** Trust; Theory of reasoned action (TRA); Intention to use e-Government (ITUEG)**Reference** to this paper should be made as follows: Gultom, S., Dalle, J., Restu, Baharuddin, Hairudinor, Gultom, S. 2020. The influence of attitude and subjective norm on citizen's intention to use e-government services. *Journal of Security and Sustainability Issues*, 9(M), 173-186. [https://doi.org/10.9770/jssi.2020.9.M\(14\)](https://doi.org/10.9770/jssi.2020.9.M(14))**JEL Classifications:** F35, F42**1. Introduction**

The concept of e-government was firstly established in the USA in 1993 and the processes of reformation of public services had been done by using this information and communication technologies (ICTs) (Kurfalı et al., 2017). As per the report of United Nation e-Government survey 2014, out of all the member countries of the world i.e. 193 UN member countries, nearly fifty (50) countries have developed online portals and the number was doubled as compared to the UN report of 2012. The era of the internet has promoted and developed the information and communication technologies (ICTs) around the globe and also provided ease towards the end-users among the stakeholders. On the mass level, the government authorities have many challenges to provide the best way to deliver government-related services to the citizens. Also, these public services offered by the government can evaluate the performance of the government among the public all over the world (Suriansyah et al., 2019; Oliński, 2020; Chrzęścik, 2019; Lincényi, Čársky, 2020). ICTs had changed the way to deliver these services in almost all the sectors that are directly or indirectly influence the common man. In general, ICTs have tendency to the efficient delivery of services for the general public. Likewise, the public services offered by the government can be transformed by using this information and communication technologies in the form of e-government also known as electronic government. Technology development and changes occurring in their processes, functions and policies in various business activities and especially the public sectors, are gaining momentum periodically. E-government

is the remarkable development in the public sector by using technology development (Witarsyah et al., 2017) as it is a fundamental component of any government modernization (Answer et al., 2016). Government through e-Government can renovate their operational activities to serve public (Mateen et al., 2017). E-Government is an important issue (Alghamdi, 2017) and plays vital role to create prearranged service delivery networks with efficiency and make sure about the interactivity, transparency and accountability (Al-Shafi & Weerakkody, 2010). e-Government services have a lot of advantages over traditional ways to offer related public services to the public. In a traditional way, the limited time is available to the end-users to avail of these offered services but, on the e-government services, the citizens can avail of these offered online services 24/7 hours a day. In addition, many other benefits like time saving, transparency, the decrease in cost and most importantly the service quality and speed are there for the end-users (Atkinson & Castro, 2008). The recent report of the (United Nations e-Government survey 2018), the ranking of Indonesia is 73rd in the world.

Additionally, the e-Government rankings of Indonesia is not consistent and there are variations in these ranking as per the reports of the United Nation (2010-2018). As per the previous reports of the United Nations on e-Government Survey (2010-2018), the mixed trend regarding the rankings of Indonesia has been observed. Like, the rankings of Indonesia were at 109<sup>th</sup> place as per the report of 2010, the ranking showed a decline in the UN report of 2012 as 97<sup>th</sup> place. Also, the worse ranking and again showed a decline in the UN report as 106<sup>th</sup> place in 2014, but in the UN report the ranking improved as 116<sup>th</sup> place in 2016 among all the countries around the globe. In the recent report of UN 2018, the ranking of Indonesia is 107<sup>th</sup> among the 193 countries of the world (see in Table 1).

**Table 1.** e-Government Rankings (Indonesia)

SN	United Nations Reports	Rankings
1	2010	109
2	2012	97
3	2014	106
4	2016	116
5	2018	107

**Source:** (UN e-Government Survey Reports 2010-2018)

Digital governance also known as the electronic government<sup>7</sup> has a huge impact on South Asian nations since the 1990s. The government has taken very affirmative steps for the development and implementation of these e-government services to address properly the public problems and economic stability of the nations (Sagarik, Chansukree, Cho, & Berman, 2018). According to the Association of Southern Asian Nations (ASEAN), e-government plays a significant role in the development of the nations and serve the general public with effective services (Haseeb et al., 2020). Therefore, the Indonesian government has taken very positive steps towards the improvement of the delivery of these online e-government services that upgrade the current rankings of the e-government around the globe. The government of Indonesia's plan is strictly connected with the country's economic and socio development. In social development, service delivery towards the general public is the mandatory step for the government (Sagarik et al., 2018). E-Government has become a popular phenomenon over the past few decades and has significant benefits for the citizens. The citizens can access these online services very easily and utilize or used these services with less effort, time and resources. These services are available 24/7 for the general public and the systems are transparent and fully systemized (Dwivedi et al., 2017). Intentions towards the use of technology is very important (Ahmed, Zin & Majid, 2016<sup>8</sup>). Numerous prior researchers and practitioners have shown keen interest to understand the citizen's adoption or intention to use online e-government service (ITUEG services) of the available online services of government offered to the general public (Verkijika & De Wet, 2018).

Also, the government authorities or government decision making authorities have taken a step or implement those strategies that can helpful for the middle-class people of the society and provide them easy to use services offered by the government. In the line of the present study, the TRA was used as an underpinning theory and the role of trust was investigated as an additional construct leads towards the ITUEG services. The direct relationship between the attitude and ITUEG services and the relationship between the subjective norm and ITUEG services have also been investigated in the existing study. Trust is defined as “the extent to which citizens believe that government works in their best interest” (Cleary & Stokes, 2006). The government policies regarding the offered services and mainly the online e-government services to the general public is harmful when the citizens are not able to trust or dis-trust these offered services. Therefore, this distrust of electronic services of government lowers the intention to use, decrease the expectations of the citizens. More importantly, the individual attitude and the other stakeholders of society feel uncomfortable while using these e-government services (Alharbi et al., 2016). Firstly, in this paper, the introduction along with the motivation of the study is provided. Secondly, the literature review accompanied by the hypothesis’s development were reported. Thirdly the comprehensive view of the research methodology was given, and the analysis consists of the measurement model and structural model were reported. Finally, the discussion was written with prior literature empirical evidence and future recommendation and conclusion are drawn for future researchers. While reviewing the prior studies conducted in technology adoption settings in general and particularly in the e-government settings indicated that fewer number of studies have been conducted by researchers or published using TRA as underpinning theory. Also, a very lesser numbers of literature is available where the co-relational relationships have been investigated among individuals like citizens. Therefore, the factor of trust has investigated the independent variable in the existing study.

#### The motivation of the Study

The United Nations has published latest report in 2018 titled as “Gearing e-Government to support transformation towards sustainable and resilient societies,” in 2016 titled as “e-Government in support of sustainable development,” “e-Government for the future we want” in 2014, “e-government for the people” in 2012 and “leveraging e-government at a time of financial and economic crisis” published in 2010. The reports have reported the ranking of Indonesia as 109<sup>th</sup> in the world in 2010, ranked 97<sup>th</sup> in 2012, 106<sup>th</sup> in 2014, 116<sup>th</sup> in 2016 and as per the latest report 2018 as 73<sup>rd</sup> in the world (see in Table1). Therefore, these rankings showed inconsistency since the last five UN Reports from 2010 to 2018 (see in Figure1). The rankings or e-government in Indonesia have shown improvement sometimes and the ranking falls in some recent years like 2014 as 116<sup>th</sup> in the 196 countries of the world. The researchers need to investigate more factors that can directly influence or have a significant and positive impact on the intention of the end-users in the e-government services of Indonesia. The public householders and supply size “the technical side of the e-government services” can also be facilitated by the proposed results.



**Figure 1.** E-Government Rankings of Indonesia  
*Source: United Nation e-Government Reports (2010-2018)*



### Theoretical Foundation and Conceptual Framework

The occurrences of e-government have been investigated by various prior researchers and incorporate many theories to investigate the factors that influence the ITUEG services among the citizens. Numerous prior researchers like “technology acceptance model (TAM) was used by (Lin et al. 2011) in Gambia”, “the theory of planned behavior (TPB) was used by (Ozkan and Kanat 2011) in Turkey”, “the decomposed theory of planned behavior (DTPB) was used by (Susanto, Diani, and Hafidz 2017) in Indonesia”, “the extended version of TAM (TAM2) was used by (Sang et al. 2009) in Cambodia, diffusion of innovation theory (DOI) was used by Lawson-Body et al. 2014) in the United States, and the perceived characteristics of innovation (PCI) was used by (Boon et al. 2013) in Malaysia. Beyond these, social cognitive theory (SCT) WAS used by (Nripendra P Rana & Dwivedi, 2015) in India, the unified theory of acceptance and use of technology (UTAUT) was used by (Rabaai, Zogheib, AlShatti, and AlJamal 2017) in Jordan, and the extended UTAUT (UTAUT2) was used by (Lallmahomed, Lallmahomed, and Lallmahomed 2017) in Mauritius”.

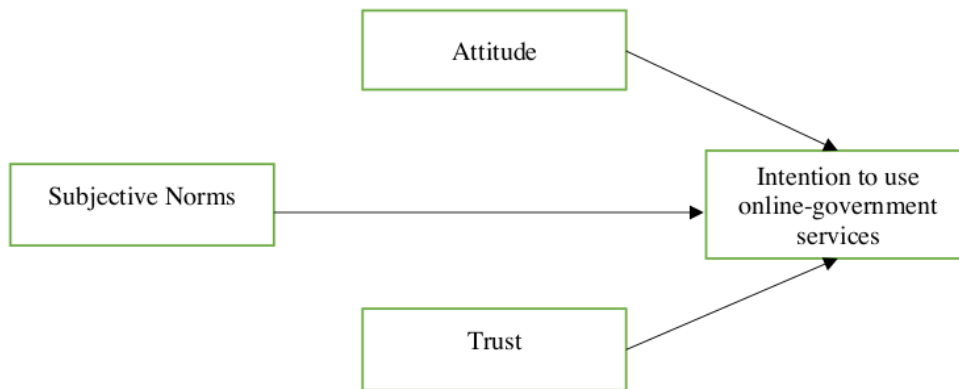


Figure 2. Conceptual Framework

Fewer amounts of empirical research in the prior works have used TRA (TRA) as an underpinning theory while investigating e-government adoption in the Indonesian context. Also, very few studies have investigated the construct of trust in ITUEG services. Therefore, in the present study, the attitude and subjective norm have been investigated directly on ITUEG services, like attitude has a significant and positive influence on ITUEG services among the citizens and subjective norms have a significant and positive influence on ITUEG services. Also, trust is incorporated in the conceptual model to investigate the causal effect of these relationships.

## 2. Literature Review

### Intention

Numerous prior studies have reported and empirically investigated intention as a dependent variable (Rana et al., 2015; Zahid & Haji Din, 2019; Zeithaml et al., 1996; Dalle et al., 2020). As per the findings of (Westaby 2005) and (Ibrahim and Najjar 2008), the intention is considered as a foundation while investigating the individual behavior and the best predictor of individual behavior towards the technology adoption. (Ladhari 2009) defines intention as “behavioral intention of individuals can be either favorable or unfavorable.”( Zeithaml et al. 1996) define attitude as “Favorable behavioral intention often results in bonding with the services provider, increased volume of business, expressing positive praise for the service provider, and a willingness to pay price premiums.

<sup>2</sup> In contrast, unfavorable behavioral intention leads customers to display a higher probability of brand switching, plan to reduce their volume of business, engage in negative word-of-mouth, and display an unwillingness to pay premium prices". (Also, Nor 2005) defines intention as therefore, various prior studies enthusiastic a great exertion to examine factors that affect the acceptance of IT. "Due to a lack of grounded theory in the IT field, researchers have turned to models that have been developed in other areas as a foundation for their research. In the case of predicting an individual's intention to adopt IT, information systems (IS) researchers have borrowed intention models from social psychology as the foundation for their research". Though, the previous researchers have reported that the intention is not carefully considered or conceptualized in the past literature (Söderlund & Öhman, 2005).

### *Attitude*

<sup>8</sup> Attitude is defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991). As per the theoretical perspective, in TRA, the interactions of the human are firstly originated from the attitude of the individual. Two types of feelings "rather positive or negative" towards any specific behavior can be projected. In the words of (Fishbein) attitude is defined as "An individual's positive or negative feelings about performing the target behavior." Therefore, the (I Ajzen and Fishbein 1980) defines attitude as "attitude is favorable or unfavorable depends on its projection." According to the findings of (Icek Ajzen 1991), attitude consists of certain beliefs and personal beliefs that come from the behavior of the individual. Also, as per the findings of (Ajzen and Fishbein 2000), "beliefs means the perceived consequences of the behavior and a person's favorable attitude toward a specific behavior strengthens his/her desire to do the behavior. Positive or negative associations towards an object to determine the favorableness or un-favorableness of attitude towards that object". (Doll and Ajzen 1992) defines the attitude as "Direct observations are a source of belief attainment; beliefs are also obtained indirectly by getting information from different sources or through inferences." Numerous studies in the prior literature have shown attitude as significant and positive predictor of behavioral intention (Aziz et al., 2013; Rana & Dwivedi, 2015; Rana et al., 2015; Rana et al., 2015; Dalle & Mutalib, 2018; Shih & Fang, 2004; Baharuddin et al., 2018). One of the studies conducted in India by (Rana et al. 2015) to investigate the intention of the e-government system and 304 responses have been collected from the state of Bihar. The findings of the study determined the significance of attitude on intention among the citizens of the Bihar state of India.

Additionally, another research conducted by (Hung et al. 2006) have reported that attitude significantly and positively influences on the behavioral intention among the citizens of the "online tax filing and payment system (OTFPS)" in Taiwan. The total number of 8500 responses from the emails and by using a systematic sampling technique. Besides, (Rana et al. 2015) have conducted 377 respondents from six (6) different countries of India and reported that "attitude has a significant and positive influence on the behavioral intention towards e-government services". In the line of the present study, the attitude has been investigated as a predictor of ITUEG services among the citizens of Indonesia. From the abovementioned empirical discussion and evidence from the prior literature of various researchers in technology adoption in general and e-government settings in particular, the succeeding hypothesis was framed towards the influence of attitude on ITUEG.

H1: Attitude has a significant and positive impact on the intention to use e-government services (ITUEG) services.

### *Subjective Norms*

<sup>5</sup> Fishbein "the person's perception that most people who are important to him think he should or should not perform the behavior in question." Besides, (Smith and Paladino 2010) defines subjective norm as "the inner view about key characters in the decision maker's life, making the decision-maker to aspire to perform (or not act) in a certain way." In the setting of TRA and theory of planned behavior, the individual views whether favorable or non-favorable, either positive or negative, reflects the subjective norm towards the particular behavior (Ajzen, 1991). In

other words, the norms can identify and formulate rules and regulations for the society and the individuals in the society can follow these taken for granted norms to perform particular behavior (Webster Jr, 1975). The two components i.e. normative beliefs (like others expect how the individual can perform) and motivation to comply (like positive and negative beliefs) (Ajzen, 1991). Numerous researchers from the prior literature have reported that subjective norm significantly and positively influence the intention towards the e-government settings (Bhattacharjee, 2000; Rana et al., 2015; Shih & Fang, 2007). In the study of (Al-Qeisi 2009) conducted in two countries united kingdom and Jordan by incorporating the “Unified Theory of Acceptance and Use of Technology” UTAUT model and to determine the online behavior of the individuals.

Consequently, among the various determinants of behavior, the subjective norm has shown the significant impact of intention. Additionally, the prior study conducted in Hong Kong to investigate the performance of SMEs by (Lau and Kwok 2007) has reported that the subjective norm is one of the most important predictors of intention and have a significant and positive impact. From the discussion, as mentioned earlier from the prior literature, the following hypothesis is formulated to test the impact of subjective norm on ITUEG services empirically.

**5**  
H2: Subjective norms have a significant and positive impact on the intention to use e-government services (ITUEG) services.

#### ***The support of the additional construct of Trust***

Trust is defined as “to the extent to which an individual believes that another individual or group will act favorably” (Mayer et al., 1995). Another definition of trust is “willingness to rely on an exchange partner, i.e. individual or service seekers whose behavior is not under its control” (Moorman et al., 1992). In e-Government, both sides (demand side as well as supply-side) of the system have equal importance. Especially the demand side plays a vital role in the success of these online integrated systems. Therefore, the factor trust is also playing a significant role in the adoption of these online e-government services and develop a relationship among the service provider and the users, i.e., the citizens (Alharbi et al., 2016).

Additionally, the trust is considered as a strong predictor of e-participation from a psychological perspective (Scherer & Wimmer, 2014). While studying the prior literature, the previous studies have reported trust as a predictor of ITUEG services among the citizens or the end-users (Bélanger & Carter, 2008; Carter & Bélanger, 2005; Schaupp & Carter, 2010). Numerous studies from the past literature have reported that trust is a strong factor that affects the end-users or service seekers or citizens towards the ITUEG services (AlAwadhi & Morris, 2009; Carter & Bélanger, 2005). Besides, (Gefen et al. 2005) concluded that trust plays a role of motivator among the citizen’s ITUEG services. Therefore, trust tends to encourage individuals to participate in and has a sense of cooperation with service providers like government authorities. So, trust is also considered as an external factor that influence the other antecedents of the ITUEG services (Alharbi et al., 2016; Park et al., 2014). (Alharbi and Kang 2014) revealed in the findings that individual’s attitude and the people around them have confident while using the e-government services and have higher level of the trust among them. The individuals in the developed nations like United Kingdom, united states of America, Germany, Indonesia and others have shown less interest while using the online services especially related to the government. Therefore, trust can impact positively on the individual’s behavior and the other stake holders of the society to improve the ITUEG services among the citizens of these developed nations (Reddick, 2011). By considering the above-mentioned discussions, the trust has been taken as an independent variable and extends the theory of TRA leads towards ITUEG services among the citizens of Indonesia. The following hypotheses have been formulated to investigate the causal relationships in the line of the present study.

H3: Trust has a significant and positive influence on intention to use e-government (ITUEG)



### 3. Research Method

The present study aims to investigate the co-relational relationships “attitude, subjective norm, and trust on the intention to use e-government services” among the citizens of Indonesia. To achieve the research objectives of the current study, the mono quantitative approach was used to collect data from the citizens (Sumatera, Jawa, and Kalimantan). Also, the technique of the self-administrative questionnaire was used to evaluate the causal relationships for collecting data leads towards the analysis of the numerical dataset. For the assurance of the content validity, the questionnaire was pre-tested by the senior academic experts. These experts have evaluated the three aspects of the questionnaire. Firstly, the purpose statement that defined the objective of the existing study. Secondly, the demographic questionnaires and lastly the items of the variables of the existing study. A total of 477 responses were received from the respondents of the study and 419 responses were considered valid by eliminating 58 cases due to missing values and the outliers. The questions or items of the study’s variables have been taken from the prior literature from the domain of the e-government studies. The items of the attitude have taken from the study of (Khalid, Pahi & Ahmed, 2016; Nor & Pearson, 2008).

Additionally, the items of the subjective norm have taken from the (Nor & Pearson, 2008). On the other hand, the items of the trust and ITUEG services have been taken from (Nor & Pearson, 2008) and (Taylor & Todd, 1995), respectively to measure the variables of the present study. The items of the present study were measured using seven Likert scale “1 = Strongly disagree to 7 = Strongly agree”. The present study employed the sampling technique of non-probability sampling. In non-probability sampling, the respondents do not have equal chances of being selected. As per the recommendations of (Calder 1981), the “non-probability sampling method is acceptable when the main concern of the study is theory generalizability rather than population.” Therefore, one of the non-probability sampling technique, the convenience sampling technique was used to collect the data from the citizens of Indonesia.

### 4. Results

In the line of the present study, SEM, also known as structural equation modeling, has been used to investigate the relationship. In the present era, the SEM is considered as most influencer and robust technique “that includes a series of statistical methods, i.e., factor analysis, regression analysis or path analysis, and discriminant analysis, which allow researchers to examine the structural relationship between the observed variable and the latent variable” (Hair et al., 2016). The researchers believed that the second-generation analysis technique SEM is more accurate as compared to the first-generation multivariate analysis techniques. Also, the findings of one of the studies conducted by (Zahid and Haji Din 2019) reported that the second-generation multivariate analysis technique SEM is more accurate, efficient and more convenient as compared to the first generation analysis techniques. SEM can be categorized into two “covariance-based (CB-SEM), partial least squares (PLS-SEM), or variance-based (VB-SEM)”. PLS-SEM is considered more efficient as compared to the CB-SEM as “it allows for testing complex relationships in the model” (Hair et al., 2011). In the existing study, PLS-SEM has incorporated by using the software of smart PLS 3.0.

#### *Measurement Model*

In the line of the present study, the reliability test “items reliability and internal consistency reliability” and validity test “convergent validity and discriminant validity” have been conducted for the evaluation of the measurement model of the study. Therefore, as mentioned in (Table 3), all the items or questions of the variables fall between the threshold range of 0.4 to 0.7 recommended by (Hair et al., 2011). Additionally, composite reliability has been measured to test the consistency reliability, and (Table. 2) shows that the values of composite reliability are greater than the cut-off value of 0.7. According to Hair et al. (2016), the threshold value for the average variance extracted



(AVE) of the constructs of the study should be greater than 0.5 and the results showed that the values of AVE are greater than 0.5.

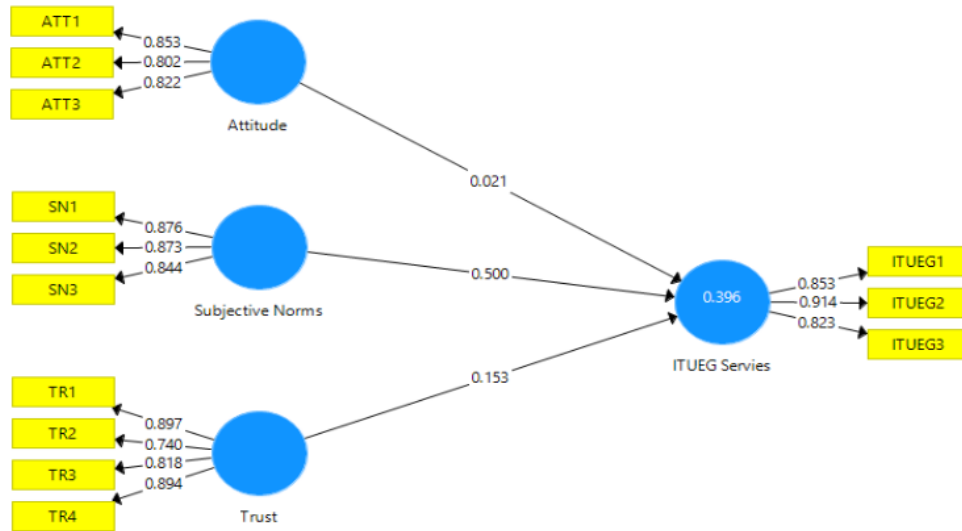


Figure 2. Measurement Model

Table 2. Values of Composite Reliability and AVE

	rho_A	CR	AVE
ATT	0.822	0.865	0.682
ITUEG	0.844	0.899	0.747
SN	0.834	0.899	0.747
TR	0.858	0.905	0.705

Table 3. Factor Loadings of Items of the Constructs

	Attitude	ITUEG	Subjective Norms	Trust
ATT1	0.853	0.468	0.606	0.657
ATT2	0.802	0.307	0.459	0.529
ATT3	0.822	0.298	0.497	0.542
ITUEG1	0.429	0.853	0.556	0.502
ITUEG2	0.394	0.914	0.574	0.460
ITUEG3	0.340	0.823	0.461	0.337
SN1	0.601	0.566	0.876	0.642

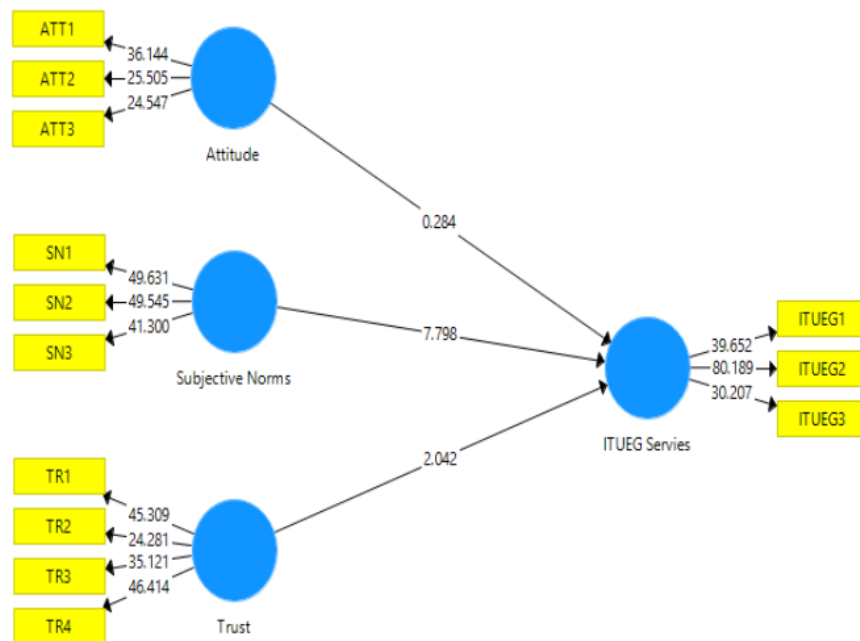
SN2	0.522	0.533	0.873	0.563
SN3	0.544	0.500	0.844	0.554
TR1	0.640	0.408	0.581	0.897
TR2	0.528	0.424	0.537	0.740
TR3	0.570	0.463	0.563	0.818
TR4	0.639	0.397	0.594	0.894

**Table 4.** Heterotrait-Monotrait Ratio (HTMT)

	Attitude	ITUEG	SN	Trust
Attitude				
ITUEG	0.532			
SN	0.780	0.737		
Trust	0.850	0.590	0.802	

**Structural Model**

Once the measurement model was assessed and ensured as reliable and valid, the next step is the assessment of the structural model. Therefore, the structural model has been evaluated by the testing of the proposed hypotheses and predictive accuracy of the proposed model in the study. Additionally, the bootstrapping of 5000 sub-samples can be achieved to examine the significance level of the path co-efficient among the relationships of the proposed hypotheses. Overall, the structural results have presented in (Figure 3), and the proposed conceptual model has explained 39.6 percent of the variance in ITUEG services among the citizens of Indonesia.



**Figure 3.** Structural Model

## **5. Discussion**

In the line of the present study, the proposed hypotheses H1, H2 and H3 were tested by using bootstrapping of 50000 sub-samples in smart PLS. Therefore, the first hypothesis was rejected and the remaining two hypotheses H2 and H3 were accepted. Overall, the proposed model of the existing study has shown a variance of 39.6 percent to predict ITUEG services among the citizens of Indonesia. The findings of the existing study revealed that attitude has an insignificant impact on the ITUEG services among the citizens of Indonesia. The first hypothesis H1 indicated ( $\beta=0.021$ ,  $p<0.05$ ) that attitude insignificantly influences on the ITUEG services among the citizens of Indonesia. Thus, the result is dependable with the finding of the prior studies (Az et al., 2013; Rana et al., 2015; Rana et al., 2017; Zahid & Haji Din, 2019). Additionally, the second hypothesis “subjective norms have significant and positive influence on intention to use e-government services” was accepted ( $\beta=0.500$ ,  $p<0.05$ ) and in line with the prior studies of the technology adoption in general and e-government adoption in particular (Rana et al., 2015; Rana et al., 2015; Zahid & Haji Din, 2019). Lastly, the contribution of the study by extending the TRA with the additional construct of trust has shown a significant and positive impact on the ITUEG services among the citizens of Indonesia. Therefore, the third hypothesis H3 designated ( $\beta=0.513$ ,  $p<0.05$ ) and accepted in the present study. On the other hand, the results of the existing study can help to increase the usage of the government-related services among the citizens and enhance the ITUEG services. The positive word of mouth from the friends, family, peers and especially from the media like print media, electronic media, and the social media now a day can boost the performance of the government and can encourage the end-users i.e. citizens of Indonesia to increase the intention towards the usage of the online e-government services. The factor of trust plays an important and significant role in the usage of e-government. Trust is directly proportional to the usage of ITUEG services; higher the trust level than higher will be the intention towards usage.

### **Limitations and Future Recommendations**

In the line of the present study, there are a lot of limitations as well as equal opportunities for the researchers to conduct future research. The present study is a cross-sectional study because the data were collected at one shot or the same period. The mono quantitative approach was used by the researcher to collect the data like self-administrative questionnaire technique. Therefore, future researchers can focus on the longitudinal study for a better understanding of the phenomena called e-government intention to use.

Moreover, the qualitative approach like focus group discussion, interviews should be conducted by the researchers in the future and mixed mode “both the quantitative and qualitative” methods must be adopted in future studies. The teachers, students, government employees and especially the information technology experts should be incorporated as respondents in future studies. Attitude, subjective norms, trust and perceived behavioral control should be investigated as a mediator in future studies.

Moreover, government support should be used as a moderator in future studies to investigate the predictors of intention in e-government settings. The researcher of the developing world in general and South Asian countries should investigate various predictors, antecedents, and determinants of the intention in e-government settings. Various nations around the globe show a decreasing graph in the development and rankings of the e-government intention among the citizens. Therefore, there is a dire need for future



researchers to conduct studies and help the government authorities to enhance the intention to use in e-government settings.

## Conclusions

The main concern of the present study is to determine the antecedents “attitude, subjective norms and trust” of online ITUEG services among the citizens of Indonesia. The government should deliver many services to the general public in the traditional manner. But the trend has been changed with the last few decades like the conversion of traditional government services towards online e-government services. Therefore, it will attract new users like the citizens to use these online services. These online services can provide easy access to the general public and these are available twenty-four hours. The users can use these online services with a single click, and transparency is there for the general public with an advanced level of speed. The findings of the current study revealed that subjective norms and trust could be the predictor and significant factors towards the ITUEG services among the citizens of Indonesia. On the other hand, individual attitude has a significant impact on the intention of the usage of online e-government services. The government decision making authorities should take affirmative actions and develop policies and implement these policies for the sake of the incremental approach towards the intention of citizens towards the usage of these online e-government services.

## References

- 8  
Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ahmed, U., Zin, M.L.M., & Majid, A.H.A. (2016). Impact of Intention and Technology <sup>16</sup>areness on Transport Industry's E-service: Evidence from an Emerging Economy. *Journal of Industrial Distribution & Business*, 7(3), 13-18. <http://dx.doi.org/10.13106/ijidb.2016.vol7.no3.13>
- 11  
Ajzen, I., & Fishbein, M. (1980). Theory of Reasoned Action in Understanding Attitudes and Predicting Social Behaviour. *Journal of Social Psychology*.
- 5  
Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European review of social psychology*, 11(1), 1-33. <https://doi.org/10.1080/14792779943000116>
- AlAwadhi, S., & Morris, A. (2009). Factors influencing the adoption of e-government services. *Journal of Software*, 4(6), 584-590.
- Alghamdi, S. A. (2017). *Key factors influencing the adoption and utilisation of E-Government systems and services in Saudi Arabia*. University of Sussex.
- Alharbi, A., & Kang, K. (2014). *E-participation service in Saudi Arabian e-government websites: The influencing factors from citizens' perspective*. Paper presented at the European Conference on e-Government.
- Alharbi, A., Kang, K., & Hawryszkiewicz, I. (2016). The Influence of Trust and subjective Norms on Citizens Intentions to Engage in E-participation on E-government Websites. *arXiv preprint arXiv:1606.00746*.
- Al-Qeisi, K. I. (2009). *Analyzing the use of UTAUT model in explaining an online behaviour: Internet banking adoption*. Brunel University Brunel Business School PhD Theses.
- Al-Shafi, S., & Weerakkody, V. (2010). Factors affecting e-government adoption in the state of Qatar.
- Anwer Anwer, M., Esichaikul, V., Rehman, M., & Anjum, M. (2016). E-government services evaluation from citizen satisfaction perspective: A case of Afghanistan. *Transforming Government: People, Process and Policy*, 10(1), 139-167. <https://doi.org/10.1108/TG-03-2015-0017>
- Atkinson, R. D., & Castro, D. (2008). Digital quality of life: Understanding the personal and social benefits of the information technology revolution. Available at SSRN 1278185. <https://dx.doi.org/10.2139/ssrn.1278185>
- Aziz, M. A., Abawajy, J., & Chowdhury, M. (2013). *The challenges of cloud technology adoption in e-government*. Paper presented at the 2013 International Conference on Advanced Computer Science Applications and Technologies. <https://doi.org/10.1109/ACSAT.2013.98>

- Baharuddin, Hadi, S., Hamid, A., Mutalib, A.A., Dalle, J. (2018). Dilemma between applying coherent principle and signaling principles in interactive learning media. *Open Psychology Journal*, 11, 235-248. <https://doi.org/10.2174/1874350101811010235>
- Bélanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *The Journal of Strategic Information Systems*, 17(2), 165-176. <https://doi.org/10.1016/j.jsis.2007.12.002>
- Bhattacharjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on systems, man, and cybernetics-Part A: Systems and humans*, 30(4), 411-420. <https://doi.org/10.1109/3468.852435>
- Calder, A. (1981). *Revolutionary empire: the rise of the English-speaking empires from the fifteenth century to the 1780s*: EP Dutton New York.
- Carter, L., & Bélanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Information Systems Journal*, 15(1), 5-25. <https://doi.org/10.1111/j.1365-2575.2005.00183.x>
- Chrzęścik, M. (2019). Modelling promotion strategies in local government units with the application of structural equation modelling (SEM) with an example of Warmia and Mazury region. *Entrepreneurship and Sustainability Issues*, 7(2), 1258-1278. [http://doi.org/10.9770/jesi.2019.7.2\(32\)](http://doi.org/10.9770/jesi.2019.7.2(32))
- Cleary, M. R., & Stokes, S. (2006). *Democracy and the culture of skepticism: the politics of trust in Argentina and Mexico*: Russell Sage Foundation.
- Dalle, J., & Mutalib, A.A. (2018). The impact of technologies in teaching interaction design. *Journal of Advanced Research in Dynamical and Control Systems*. 10(4 Special Issue), 1779-1783
- Dalle, J., Hastuti, D., Mahmud, Prasetya, I., & Baharuddin. (2020). DeLone and McLean model evaluation of information system success: A case study of master program of civil engineering Universitas Lambung Mangkurat. *International Journal of Advanced Science and Technology*, 29(4s), 1909 – 1919.
- Doll, J., & Ajzen, I. (1992). Accessibility and stability of predictors in the theory of planned behavior. *Journal of personality and social psychology*, 63(5), 754. <https://psycnet.apa.org/doi/10.1037/0022-3514.63.5.754>
- Dwivedi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). *Government Information Quarterly*, 34(2), 211-230. <https://doi.org/10.1016/j.giq.2017.03.001>
- Fishbein, M. leek Ajzen (1975). Belief, attitude, intention and behavior: An introduction to theory and research, 181-202.
- Gefen, D., Rose, G. M., Warkentin, M., & Pavlou, P. A. (2005). Cultural diversity and trust in IT adoption: A comparison of potential e-voters in the USA and South Africa. *Journal of Global Information Management (JGIM)*, 13(1), 54-78. <https://doi.org/10.4018/jgim.2005010103>
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.
- Haseeb, M., Haouas, I., Nasih, M., Mihardjo, L. W., & Jernsittiparsert, K. (2020). Asymmetric impact of textile and clothing manufacturing on carbon-dioxide emissions: Evidence from top Asian economies. *Energy*, 196, 117094. <https://doi.org/10.1016/j.energy.2020.117094>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hung, S.-Y., Chang, C.-M., & Yu, T.-J. (2006). Determinants of user acceptance of the e-Government services: The case of online tax filing and payment system. *Government Information Quarterly*, 23(1), 97-122. <https://doi.org/10.1016/j.giq.2005.11.005>
- Ibrahim, H., & Najjar, F. (2008). Assessing the effects of self-congruity, attitudes and customer satisfaction on customer behavioural intentions in retail environment. *Marketing Intelligence & Planning*, 26(2), 207-227. <https://doi.org/10.1108/02634500810860638>
- Khalid, N., Pahi, M. H., & Ahmed, U. (2016). Losing your best talent: Can leadership retain employees? The dilemma of the banking sector of Hyderabad Sindh, Pakistan: A mediation investigation. *International Review of Management and Marketing*, 6(3), 608-616.
- Kurfalı, M., Arifoğlu, A., Tokdemir, G., & Paçın, Y. (2017). Adoption of e-government services in Turkey. *Computers in Human Behavior*, 66, 168-178. <https://doi.org/10.1016/j.chb.2016.09.041>
- Ladhari, R. (2009). Service quality, emotional satisfaction, and behavioural intentions: A study in the hotel industry. *Managing Service Quality: An International Journal*, 19(3), 308-331. <https://doi.org/10.1108/09604520910955320>

- Lallmahomed, M. Z., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. *Telematics and Informatics*, 34(4), 57-72. <https://doi.org/10.1016/j.tele.2017.01.003>
- Lau, A. S., & Kwok, V. W. (2007). How e-government strategies influence e-commerce adoption by SMEs. *Electronic Government, an International Journal*, 4(1), 20-42. <https://doi.org/10.1504/EG.2007.012177>
- Lincényi, M., Čársky, J. (2020). Policy trusts in public policy in the Slovak Republic. *Insights into Regional Development*, 2(1), 456-468. [http://doi.org/10.9770/IRD.2020.2.1\(5\)](http://doi.org/10.9770/IRD.2020.2.1(5))
- Mateen, A., Sabir, S., & Ullah, K. (2017). A development of hybrid framework for E-Government. arXiv preprint arXiv:1702.02442.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management Review*, 20(3), 709-734. <https://doi.org/10.5465/amr.1995.9508080335>
- Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships between providers and users of market research: the dynamics of trust within and between organizations. *Journal of marketing research*, 29(3), 314-328. <https://doi.org/10.1177/002224379202900303>
- Nor, K. M. (2005). An empirical study of internet banking acceptance in Malaysia: an extended decomposed theory of planned behavior. Southern Illinois University at Carbondale.
- Nor, K. M., & Pearson, J. M. (2008). An exploratory study into the adoption of internet banking in a developing country: Malaysia. *Journal of Internet Commerce*, 7(1), 29-73. <https://doi.org/10.1080/15332860802004162>
- Oliński, M. (2020). Efficiency of the public financial support granted to social enterprises. *Entrepreneurship and Sustainability Issues*, 7(3), 2095-2108. [https://doi.org/10.9770/jesi.2020.7.3\(43\)](https://doi.org/10.9770/jesi.2020.7.3(43))
- Ozkan, S., & Kanat, I. E. (2011). E-Government adoption model based on theory of planned behavior: Empirical validation. *Government Information Quarterly*, 28(4), 503-513. <https://doi.org/10.1016/j.giq.2010.10.007>
- Park, J., Lee, H., & Kim, C. (2014). Corporate social responsibilities, consumer trust and corporate reputation: South Korean consumers' perspectives. *Journal of Business Research*, 67(3), 295-302. <https://doi.org/10.1016/j.jbusres.2013.05.016>
- Rabaai, A. A., Zogheib, B., AlShatti, A., & AlJamal, E. M. (2017). Adoption of e-government in developing countries: the case of the state of Kuwait. *Journal of Global Research in Computer Science*, 6(10), 77-99
- Rana, N. P., & Dwivedi, Y. K. (2015). Citizen's adoption of an e-government system: Validating extended social cognitive theory (SCT). *Government Information Quarterly*, 32(2), 172-181. <https://doi.org/10.1016/j.giq.2015.02.002>
- Rana, N. P., Dwivedi, Y. K., & Lal, B. (2015). Factors Influencing Citizen's Adoption of an E-Government System: Validation of the Decomposed Theory of Planned Behavior. Paper presented at the UKAIS.
- Rana, N. P., Dwivedi, Y. K., Lal, B., & Williams, M. D. (2015). Assessing Citizens' Adoption of a Transactional E-Government System: Validation of the Extended Decomposed Theory of Planned Behavior (DTPB). Paper presented at the PACIS.
- Rana, N. P., Dwivedi, Y. K., Lal, B., Williams, M. D., & Clement, M. (2017). Citizens' adoption of an electronic government system: towards a unified view. *Information Systems Frontiers*, 19(3), 549-568. <https://doi.org/10.1007/s10796-015-9613-y>
- Riddick, C. G. (2011). Citizen interaction and e-government: Evidence for the managerial, consultative, and participatory models. *Transforming Government: People, Process and Policy*, 5(2), 167-184.
- Sagarik, D., Chansukree, P., Cho, W., & Berman, E. (2018). E-government 4.0 in Indonesia: The role of central agencies. *Information Polity*, 23(3), 343-353.
- Schaupp, L. C., & Carter, L. (2010). The impact of trust, risk and optimism bias on E-file adoption. *Information Systems Frontiers*, 12(3), 299-309. <https://doi.org/10.1007/s10796-008-9138-8>
- Scherer, S., & Wimmer, A. (2014). Conceptualising trust in E-participation contexts. Paper presented at the International Conference on Electronic Participation. [https://doi.org/10.1007/978-3-662-44914-1\\_6](https://doi.org/10.1007/978-3-662-44914-1_6)
- Shih, Y.-Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet research*, 14(3), 213-223. <https://doi.org/10.1108/10662240410542643>
- Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal (AMJ)*, 18(2), 93-104. <https://doi.org/10.1016/j.ausmj.2010.01.001>



Söderlund, M., & Öhman, N. (2005). Assessing behavior before it becomes behavior: an examination of the role of intentions as a link between satisfaction and repatronizing behavior. *International Journal of Service Industry Management*, 16(2), 169-185. <https://doi.org/10.1108/09564230510592298>

Suriansyah, A., Aslamiah., Noorhapizah., Winardi, I., & Dalle, J. (2019). The relationship between university autonomy, lecturer empowerment, and organizational citizenship behavior in Indonesian universities. *Journal of Social Studies Education Research*. 10(4), 127-152

Susanto, T. D., Diani, M. M., & Hafidz, I. (2017). User acceptance of e-government citizen report system (a case study of city113 app). *Procedia Computer Science*, 124, 560-568. <https://doi.org/10.1016/j.procs.2017.12.190>

Taylor, S., & Todd, P. (1995). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International journal of research in marketing*, 12(2), 137-155. [https://doi.org/10.1016/0167-8116\(94\)00019-K](https://doi.org/10.1016/0167-8116(94)00019-K)

Verkijika, F., & De Wet, L. (2018). E-government adoption in sub-Saharan Africa. *Electronic Commerce Research and Applications*, 30, 83-93. <https://doi.org/10.1016/j.elerap.2018.05.012>

Webster Jr, F. E. (1975). Determining the characteristics of the socially conscious consumer. *Journal of consumer research*, 2(3), 188-196. <https://doi.org/10.1086/208631>

Westaby, J. D. (2005). Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. *Organizational behavior and human decision processes*, 98(2), 97-120. <https://doi.org/10.1016/j.obhdp.2005.07.003>

Witarsyah, D., Sjafrizal, T., Fudzee, M., Farhan, M., & Salamat, M. A. (2017). The critical factors affecting e-government adoption in Indonesia: A conceptual framework. *International Journal on Advanced Science, Engineering and Information Technology*, 7(1), 160-167. <https://doi.org/10.18517/ijaseit.7.1.1614>

Zahid, H., & Haji Din, B. (2019). Determinants of Intention to Adopt E-Government Services in Pakistan: An Imperative for Sustainable Development. *Resources*, 8(3), 128. <https://doi.org/10.3390/resources8030128>

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of marketing*, 60(2), 31-46. <https://doi.org/10.1177/002224299606000203>

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