Determining Factors Affecting E-Service Quality for Environmental Permits in Indonesia

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Abstract

Indonesia is one of the countries that implement e-government to overcome the problem of decentralization so that it can improve and expand the relationship between the government and other parties by utilizing information technology. Based on Presidential Regulation Number 95 of 2018 regarding the Electronic-Based Government System, the government has begun to implement an electronic-based government system through e-government to encourage the improvement of public services. Environmental Management Efforts and Environmental Monitoring Efforts (UKL-UPL) is one of the environmental permits that has to be made for decision making and the basis for issuing permits to conduct businesses and or activities. UKL-UPL is made for projects whose environmental impacts can be overcome and the scale of control is small and complex. This study aims to build a service quality model on a government website that combines eGovQual and TAM so that it can improve service quality which can lead to an increase in the reputation of the service quality. Partial Least Square Structural Equation Modelling (PLS-SEM) was used to create a service quality model. This research produces priority service quality improvements in efficiency and suggests several improvements that the government of Jakarta can implement.

Keywords
Service, Quality, e-GovQual, Technology Acceptance Model, PLS-SEM

1. Introduction

Governments worldwide are actively promoting e-government to build online connections with citizens and other stakeholders (Wang and Teo 2020). E-government can be defined as the government's use of web-based technologies and applications, or electronic services, that improve accessibility and provide services to citizens, residents, businesses, and other entities (Layne and Lee 2001). Indonesia is one of the countries that implement e-government to overcome the problem of decentralization to improve and expand the relationship between the government and other parties by utilizing information technology (Susanto and Bahaweres 2013). Based on Presidential Regulation Number 95 of 2018 regarding the Electronic-Based Government System, the government has begun to implement an electronic-based government system through the government to encourage the improvement of public services. This regulation requires all public institutions to digitize public services to reduce budget and resources (Sulistya et al. 2019).

According to the Regulation of the Minister of Environment of the Republic of Indonesia Number 16 of 2012 concerning Guidelines for Preparation of Environmental Documents, Environmental Management Efforts and Environmental Monitoring Efforts (UKL-UPL) is an environmental permit to manage and monitor the businesses or activities that do not have a significant impact on the environment. UKL-UPL is made for decision making and the basis for issuing permits to conduct business and or activities. UKL-UPL with business locations or activities in Jakarta can be managed through Jakarta's government website, called jakevo.jakarta.go.id. The UKL-UPL permit process has a standard completion time of 14 working days. Based on data from the Investment and One-Stop Integrated Service Agency of Jakarta Provincial Government (DPMPTSP DKI Jakarta), the percentage of late issuance tends to increase from early February to October 2021, with the highest in October. The percentage of delays from February to October 2021 respectively are 0%; 27.3%; 19.1%, 39.2%; 43.7%; 42.6%; 41.3%; 43%; 48.1%.

This finding is in line with Dada (2006) that 85% of e-government implementation in developing countries failed, with 35% classified as a total failure (e-government was not implemented or was implemented but was later abandoned) and 50% classified as partial failure (main objectives are not achieved or there are undesirable results). When e-government does not always meet user expectations, then e-government fails to meet user needs.

Previous research has examined the service quality of e-government in several countries. Hu, Brown, Thong, Chan, and Tam (2009) investigated service quality and intention to continue using eTax services in Hong Kong using ServQual. Kaisara and Pather (2011) also use ServQual to investigate the quality of e-government website services in South Africa. Li and Shang (2020) investigated the relationship between service quality and perceived value and how they could influence the intention to continue to use e-government in China. Papadomichelaki and Mentzas (2012) measure the quality of Greek government web services developed and designed to provide information and electronic services to users using e-GovQual. Sachan et al. (2018) also use e-GovQual to measure satisfaction and adoption intentions of e-government in India. They integrate the Technology Acceptance Model with the eGSDS (Electronic Government Service Delivery System) process and adapt it in the context of e-government services.

This research was conducted to examine the factor affecting e-government service for environmental permits in Jakarta. The research used the e-GovQual model combined with TAM to determine the factors that affect citizen satisfaction. This study also considers the perspective of policymakers to identify and validate the factors that affect the services quality of e-government found in the prior literature study. Furthermore, the characteristics of service users are also considered, such as gender, age, education, experience using the internet, and e-government to find out whether there is an influence of the respondent profile toward citizen satisfaction.

1.1 Objectives

Government regulations require all public institutions to digitalize public services, but this is not followed by improving the quality of these services. In Jakarta, the delay issuance for UKL-UPL permits reaches a percentage of delays of up to 48% on October 2021. This study aims to improve the service quality of Jakarta's government website by identifying factors that influence service quality, determining service quality factors that must be improved to achieve citizen satisfaction and formulating a service quality improvement plan based on the factors that became a priority for the improvements.

2. Literature Review

2.1 Service Quality

Defining the characteristics of a pure service is formless. Pure services cannot be seen, held, or stored, and they have no physical manifestation. Pure service is essentially an experienced process. Services are different from products, where production and service delivery are related to the interaction between service providers and consumers. The result obtained is that no two services are identical. Therefore, different consumers are likely to have different demands to fulfill, or different service providers will be different in meeting the exact consumer needs (Schneider and White 2004).

According to Parasuraman et al. (1988), one strategy to achieve success in business is to provide high-quality service. However, in contrast to product quality, which can be measured objectively with indicators such as durability and number of defects, service quality is an abstract and challenging concept to understand. Because of the three unique characteristics possessed by services, namely intangibles, heterogeneity, and cannot be separated from production and consumption. In the absence of objective measures, the most appropriate approach to assessing a company's service quality is to measure consumer perceptions of quality.

Wang and Teo (2020), Papadomichelaki and Mentzas (2009) and Khan et al. (2021) emphasize the benefits of e-government in China, South Africa, and Pakistan and find that the quality of government services is a crucial factor influencing the success of e-government. Therefore, service quality has a crucial role in the success of e-government in both developing and developed countries. Users will not reuse an e-government system if they experience poor service quality and decide that the service is worthless or does not provide value. This reaction directly determines the legitimacy of investment in e-government infrastructure and programs (Li and Shang 2020).

2.2 e-GovQual

Papadomichelaki and Mentzas (2012) first discovered e-GovQual, used to measure user perceptions of e-government websites. The e-GovQual model uses four factors, namely reliability, efficiency, user support, and trust. The results obtained are that these four factors affect the perception of service quality from e-government websites. By understanding service quality dimensions on government websites, organizations will have a better chance of getting and serving more users.

Kumar et al. (2018) apply the findings related to e-GovQual by applying the dimensions of efficiency, trust, reliability, and user support. The results obtained are that e-GovQual affects e-GUV (e-government user value), consisting of socio-functional and economic values. Furthermore, e-GUV has a positive effect on e-GovSat (e-government satisfaction). Then, e-GovSat positively affects e-GovAI (e-government adoption intention).

2.3 Technology Acceptance Model (TAM)

According to Venkantesh and Davis (2000), the Technology Acceptance Model (TAM) theorizes that an individual's behavioral intention to use the system is determined by two beliefs, namely perceived usefulness and perceived ease of use. Perceived usefulness is defined as the extent to which a person believes that using the system can improve his or her job performance. Meanwhile, perceived ease of use is related to how a person believes that using the system does not need to expend effort. Furthermore, according to TAM theory, perceived usefulness will be influenced by perceived ease of use. Even though they are considered the same, the easier a system is to use, the more valuable the system will be.

Sachan et al. (2018) integrate TAM with the eGSDS (electronic government service delivery system) process and adapt it in the context of e-government services. The results obtained are that eGSDS positively impacts perceived ease of use and perceived usefulness, which significantly affects user satisfaction.

2.4 PLS-SEM

Partial Least Square Structural Equation Modeling (PLS-SEM) is used to develop theory in exploratory research. PLS-SEM focuses on explaining the variance in the dependent variable when examining the model. PLS-SEM allows researchers to estimate complex models with many constructs, indicator variables, and structural paths without imposing distributional assumptions on the data (Hair et al. 2019).

The minimum sample size used in the PLS-SEM analysis must be equal to or greater than the following rules (10 times rule): (1) 10 times the largest number of indicators used to measure one construct or (2) 10 times the number the largest of the maximum number of arrows pointing to latent variables in the PLS model (Hair et al. 2016).

Sachan et al. (2018); Kumar et al. (2020); and Li and Xue (2021) used the SEM method in their research on user satisfaction issues in using e-government. PLS is used by Sharma and Mishra (2017), Li and Shang (2020), and Wang and Teo (2020) as a method for solving problems in the context of e-government service quality. Furthermore, Abdulkareem and Ramli (2021) and Khan et al. (2021) used the PLS-SEM method.

The first step in evaluating the results of the PLS-SEM is to examine the measurement model. There are four steps to examine the measurement model: assessing indicator loadings, internal consistency reliability, convergent validity, and discriminant validity. The researcher can assess the structural model if the measurement model meets the criteria. Standard assessment criteria, which must be considered, include the coefficient of determination (R2), the measure of the Q2 redundancy cross-validated on a blindfolding basis, as well as the statistical significance and relevance of the path coefficient (Shmueli et al. 2019).

3. Methods

The source of data collection used in this study uses primary data from the results of questionnaires that have been distributed to users of the Jakevo website who have made UKL-UPL environmental permits. The questionnaire's preparation and design started from identifying service indicators from a combination of e-GovQual and TAM models and validated by experts. The expert's assessment was carried out using a Likert scale (1-4) to measure the importance of service indicators in making UKL-UPL environmental permits on the Jakevo website. The 1-4 scale was explicitly chosen to avoid the tendency of respondents to choose values that are in the middle (Mohaputra, Mohanty, and Dhalla, 2010). In this study, seven experts validated the indicators. Table 1 displays the results of the

expert's assessment using the geometric mean. The minimum limit of the geomean for each indicator to be considered significant is 2.75 (Mohaputra, Mohanty, and Dhalla, 2010). According to Table 1, the results obtained from the experts' assessment are that 32 service indicators exceed the value of 2.75, and 1 service indicator is less than 2.75 (USE 6). Therefore, one service indicator worth less than 2.75 will be removed from the questionnaire.

Tabel 1. Results of expert's assessment

Variable	Notation	Indicator	Source	Geomean Value
Perceived Ease of Use	EOU1	Learning to access jakevo service is easy for me	(Kumar et al. 2018)	3.839
	EOU2	My interaction with jakevo website is clear and understandable	Kumar et al. 2018)	3.684
	EOU3	I find jakevo website to be flexible to interact with	(Kumar et al. 2018)	3.839
	EOU4	It is easy for me to become skillful at using jakevo services	(Kumar et al. 2018)	3.536
	EOU5	I find jakevo service easy to use	(Kumar et al. 2018)	3.684
Perceived Usefulness	USE1	Using jakevo services enables me to accomplish tasks more quickly	(Kumar et al. 2018)	3.394
	USE2	Using jakevo services improves my performance of accessing public services	(Kumar et al. 2018)	3.394
	USE3	I find jakevo useful in availing public services	(Kumar et al. 2018)	3.536
	USE4	It is important to use the website from anywhere convenient for me	(Sachan, Kumar and Kumar, 2018)	3.684
	USE5	It is important to use the website at any time convenient for me	(Kumar et al. 2018)	3.684
	USE6	Using jakevo site is more costly in terms of the service it provides than using physical government office	(Kumar et al. 2018)	2.38
Efficiency	EFF1	The jakevo site's structure is clear and easy to follow	(Kumar et al. 2020)	3.684
	EFF2	The jakevo site's site map is well organized	(Kumar et al. 2020)	3.684
	EFF3	The information displayed in this jakevo site is appropriate detailed	(Kumar et al. 2020)	3.839
	EFF4	The information displayed in this jakevosite is fresh	(Kumar, Kumar, Sachan and Gupta, 2020)	4
	EFF5	The layout of the jakevo site is clear and simple	(Kumar et al. 2020)	3.839
Trust	TRU1	Acquisition of username and password in this jakevo site is secure	(Kumar et al. 2020)	4
	TRU2	Only necessary personal data are provided for authentication on the jakevo site	(Kumar et al. 2020)	3.536
	TRU3	Data provided by users in this jakevo site are archived securely	(Kumar et al. 2020)	4
	TRU4	Data provided in this jakevo site are used only for the reason submitted	(Kumar et al. 2020)	3.684

Variable	Notation	Indicator	Source	Geomean Value
Reliability	REL1	Forms in this jakevo site are downloaded in short time	(Kumar et al. 2020)	3.536
	REL2	This jakevo site is available and accessible whenever you need it	(Kumar et al. 2020)	3.839

	REL3	This jakevo site performs the service successfully upon first request	(Kumar et al. 2020)	3.536
	REL4	This jakevo site provides services in time	(Kumar et al. 2020)	3.684
	REL5	Jakevo site's pages are downloaded quickly enough	(Kumar et al. 2020)	3.839
	REL6	This jakevo site works properly with your default browser	(Kumar et al. 2020)	3.536
Citizen Support	SUP1	Employees showed a sincere interest in solving users' problem	(Kumar et al. 2020)	3.839
	SUP2	Employees give prompt replies to users' inquiries	(Kumar et al. 2020)	3.684
	SUP3	Employees have the knowledge to answer users' questions	(Kumar et al. 2020)	3.839
	SUP4	Employees have the ability to convey trust and confidence	(Kumar et al. 2020)	3.684
Citizen Satisfaction	SAT1	I am satisfied with my decision to use jakevo service	(Kumar et al. 2018)	3.536
	SAT2	My choice to access jakevo service is a good one	(Kumar et al. 2018)	3.536
	SAT3	I am confident it is the right thing to access public service from jakevo web site	(Kumar et al. 2018)	3.684

The population used in this study are users of the jakevo website who have applied for UKL-UPL environmental permits spread across North Jakarta, West Jakarta, East Jakarta, Central Jakarta, and South Jakarta. Sampling was done by the non-probability sampling method in convenience sampling. The analytical technique used in this research is Partial Least Square Structural Equation Modeling (PLS-SEM). Based on the second rule related to the minimum number of sample sizes, the maximum number of arrows leading to the latent variable in the PLS-SEM model is six, so the minimum required sample size for this research is 60 samples.

4. Data Collection

The questionnaires were distributed online using the google form platform for one week, starting from January 26, 2022 to February 2, 2022. From the data collected for one week, 122 responses were obtained. Table 2 displays the respondent's profile. The profile of the respondents consisted of 64.8% men and 35.2% women. The age of the respondents varied from the age of 25-60 years, with the highest proportion of age being in the 35-44 year age category, which was 54.9%. Respondents' education also varies from high school to master's degree, with most respondents' education level being in the D4 / S1 category, which is 58.2%. The location of respondents varies spread across North Jakarta, West Jakarta, East Jakarta, Central Jakarta, and South Jakarta, with the majority of respondents located in Central Jakarta, which is 36.9%. Meanwhile, 7.4% of respondents who chose other locations were consulting companies that provide permit-making services spread throughout DKI Jakarta, so the locations chosen were all of Jakarta area. Experience in using the internet varies, with most respondents being in the 3-5 year category, which is 90.2%. Experience in using the Jakevo website varies significantly, with the majority of respondents being in the 3-5 year category, which is 45.9%.

Table 2. Respondent profile

Respondent Profile	Category	Frequency	Percentage
Gender	Male	79	64.8%
	Female	43	35.2%
Age	25 - 34	25	20.5%
	35 - 44	67	54.9%
	45 - 60	30	24.6%
Education	High School	2	1.6%
	Diploma	5	4.1%

	Undergraduate	71	58.2%
	Graduate	44	36%
Location	North Jakarta	25	20.5%
	West Jakarta	5	4.1%
	East Jakarta	23	18.9%
	Central Jakarta	45	36.9%
	South Jakarta	15	12.3%
	Other	9	7.4%
Internet Experience	1 – 3 years	2	1.6%
	3 - 5 years	1	0.8%
	5 - 7 Tahun	9	7.4%
	> 7 years	110	90.2%
Jakevo Experience	< 1 years	10	8.2%
	1 - 3 years	38	31.1%
	3 - 5 years	74	60.7%

5. Results and Discussion

5.1 Measurement Model Evaluation

Several things are done in testing the measurement model in the form of reflective models. The first is to test composite reliability to evaluate internal consistency. The second is to test the reliability of individual indicators. The third is to calculate the average variance extracted (AVE) value to evaluate convergent validity. The last is to calculate the Fornell-Larcker criteria and cross-loadings to test the discriminant validity. The initial model path can be seen in Figure 1.

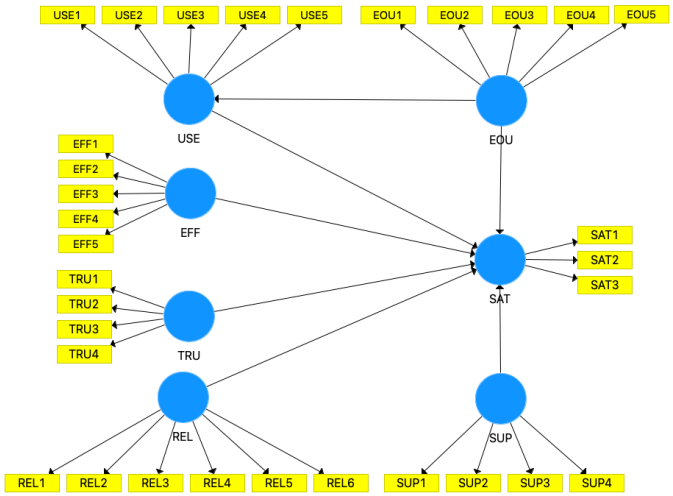

Figure 1. Initial path model

Seven hypotheses will be tested in this study.
H1: Perceived Ease of Use affects Citizen Satisfaction
H2: Perceived Usefulness affects Citizen Satisfaction
H3: Efficiency affects Citizen Satisfaction
H4: Trust affects Citizen Satisfaction
H5: Reliability affects Citizen Satisfaction
H6: Citizen Support affects Citizen Satisfaction
H7: Perceived Ease of Use affects Perceived Usefulness

The first criterion that is evaluated is internal consistency reliability. The right size to measure internal consistency reliability is composite reliability. The value of good composite reliability is in the range of 0.7 – 0.9. However, a

value above 0.95 is considered undesirable because it indicates that the indicator on the latent variable calculates the same phenomenon, so it is probably not a valid measure for measuring the latent variable (Hair et al. and Sarstedt 2016). Table 3 summarizes all the results for measurement models.

Table 3. Summary of measurement model

Variable	Indicator	Outer Loadings	Composite Reliability	Average Variance Extracted (AVE)	Cross Loadings	Fornell-Larcker
Perceived Ease of Use	EOU1	0.775	0.934	0.739	0.816	0.828
	EOU2	0.837			0.775	
	EOU3	0.858			0.837	
	EOU4	0.849			0.858	
	EOU5	0.816			0.849	
Perceived Usefulness	USE1	0.824	0.916	0.685	0.824	0.854
	USE2	0.896			0.896	
	USE3	0.901			0.901	
	USE4	0.839			0.839	
	USE5	0.807			0.807	
Efficiency	EFF1	0.852	0.906	0.616	0.852	0.86
	EFF2	0.866			0.866	
	EFF3	0.926			0.926	
	EFF4	0.793			0.793	
	EFF5	0.857			0.857	
Trust	TRU1	0.809	0.921	0.797	0.809	0.845
	TRU2	0.821			0.821	
	TRU3	0.898			0.898	
	TRU4	0.848			0.848	
Reliability	REL1	0.798	0.942	0.801	0.798	0.785
	REL2	0.738			0.738	
	REL3	0.763			0.763	
	REL4	0.821			0.821	
	REL5	0.823			0.823	
	REL6	0.763			0.763	
Citizen Support	SUP1	0.886	0,909	0.714	0.886	0.895
	SUP2	0.893			0.893	
	SUP3	0.904			0.904	
	SUP4	0.897			0.897	
Citizen Satisfaction	SAT1	0.928	0,931	0,73	0.928	0.892
	SAT2	0.849			0.849	
	SAT3	0.899			0.899	

All variables have a composite reliability value above 0.7 and do not have a composite reliability value above 0.95. Therefore, it can be concluded that the seven variables have met the requirements for testing composite reliability. The next step is to test the reliability of the indicator (indicator reliability). The indicator reliability test is carried out using outer loadings. The value of outer loadings must be above 0.708. All indicators have an outer loading value of more than 0.708. Therefore, it can be concluded that testing using reliability indicators has been fulfilled for all indicators, and there is no need to delete indicators.

The next step is to test convergent validity. The AVE value must be above 0.5, which indicates that the latent variable explains more than half of the indicator variance. All variables have an Average Variance Extracted (AVE) value greater than 0.5. Therefore, it can be concluded that testing using convergent validity has been fulfilled.

The next step is to test discriminant validity. The method used to test discriminant validity tests the cross-loading of the indicators and uses the Fornell-Larcker criteria. Tests using cross-loading are met if the value of cross-loading on indicators in a latent variable has an enormous value compared to cross-loading on other latent variables. While testing using Fornell-Larcker, criteria are met if the square root of the AVE value in each latent variable has a greater value than the highest correlation with other latent variables.

5.2 Structural Model Evaluation

The first step that must be done is to do a collinearity test on the structural model. In conducting the collinearity test, the value used is the Variance Inflation Factor (VIF) value. When the VIF value is above 5.00 on the latent predictor variable, collinearity is indicated (Hair et al. and Sarsted 2016). Based on the results of collinearity testing, it was found that the overall VIF value of the latent predictor variable had a value below 5.00. This result shows that the path model does not indicate collinearity.

The next test is testing the significance and relevance of the structural model relationship. This test uses the path coefficient, where the path coefficient value is in the range of -1 to +1. When the estimated path coefficient approaches the value of +1, it represents a strong positive relationship (and applies to negative values), which is statistically significant. The significance value used in this study is 5%, so the t value is 1.96.

Based on the significance test results, it was found that the four initial hypotheses were not rejected, and the three initial hypotheses were rejected. Perceived usefulness, efficiency, and citizen support are proven to affect citizen satisfaction significantly. On the other hand, perceived ease of use, trust, and reliability do not affect citizen satisfaction. Furthermore, perceived ease of use is proven to affect perceived usefulness significantly. This finding aligns with Venkantesh and Davis (2000) and Sachan et al. (2018) that in TAM, perceived ease of use affects perceived usefulness. However, the results of this study are different from the findings of Kumar et al. and Gupta (2020). Their findings show that efficiency, reliability, and citizen support affect user satisfaction, but trust has no significant effect. Meanwhile, in this study, only efficiency and citizen support have an effect, while reliability and trust have no significant effect. Figure 2 shows the final path model.

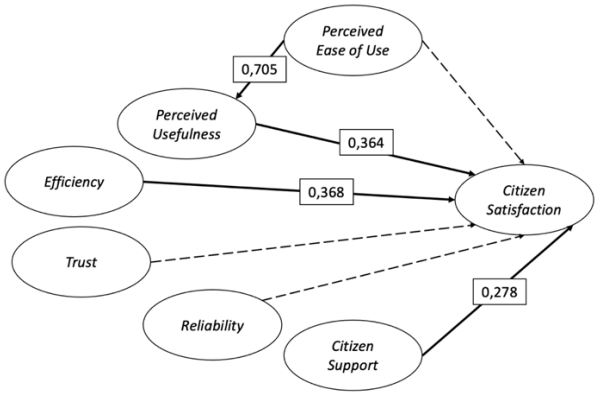

Figure 2. Final path model

The next step is to test the value of the coefficient of determination (R2) to evaluate the structural model. The coefficient of determination represents the effect of the combination of exogenous latent variables on endogenous latent variables. The R2 value of 0.75 is included in the high category, the R2 value of 0.5 indicates moderate, and the R2 value of 0.25 indicates weak (Hair et al. and Sarstedt 2016). Based on the test results, it can be seen that the latent variable of citizen satisfaction has an R^2 value of 0.762. This value is included in the high category. It can be concluded that citizen satisfaction can be explained by 0.762 by the predictor variable. Meanwhile, the perceived usefulness latent variable has an R^2 value of 0.504. This value is included in the moderate category. It can be concluded that perceived usefulness can be explained by 0.504 by the predictor variable. Table 4 summarizes all the results for structural models.

Table 4. Summary of structural model

Hypothesis		Path Coefficient	T-Statistics	P-Value	Conclusion	R Square	R Square Adjusted	VIF Value
H1	Perceived Ease of Use affects Citizen Satisfaction	-0.123	1.066	0.287	Hypothesis rejected	0.762	0.75	2.833
H2	Perceived Usefulness affects Citizen Satisfaction	0.364	3.244	0.001	Hypothesis not rejected			3.642
H3	Efficiency affects Citizen Satisfaction	0.368	2.435	0.015	Hypothesis not rejected			2.845
H4	Trust affects Citizen Satisfaction	0.082	0.969	0.333	Hypothesis rejected			2.389
H5	Reliability affects Citizen Satisfaction	0	0.001	1	Hypothesis rejected			3.979
H6	Citizen Support affects Citizen Satisfaction	0.278	2.248	0.025	Hypothesis not rejected			3.191
H7	Perceived Ease of Use affects Perceived Usefulness	0.705	13.573	0	Hypothesis not rejected	0.504	0.472	1

Based on the structural model results, the variables that affect citizen satisfaction are perceived usefulness, efficiency, and citizen support. To find out the variables that are prioritized in improving service quality in making UKL-UPL environmental permits on the Jakevo website is to look at the path coefficient values. Perceived usefulness has a value of 0.364; efficiency has a value of 0.368; citizen support has a value of 0.278. Based on these results, efficiency has the most significant path coefficient value and is the first priority in improving the service quality.

Efficiency is related to the time it takes to find information and the quality of the information provided by the website. Efficiency considers a website structure that is clear and easy to follow, how well the website layout is, how well the website can be customized according to the user's wishes, whether the information listed is detailed and new, and whether there is sufficient information to complete permit processing through the website (Papadomichelaki and Mentzas 2012). Therefore, the solution that researchers can suggest is to design a user-friendly website by implementing the following things, 1) Easy-to-use navigation is applied. Navigation is one of the most important aspects of making a user-friendly website. Navigation serves to guide web visitors to find information and content, so the navigation provided on the website should be easy to use. 2) Content that is comfortable to read. Longer paragraphs can be divided into several shorter paragraphs to make it easier for visitors to read the content. In addition, the font size, font type, text colour, and background colour can make visitors comfortable when reading it. 3) The information provided is the latest. 4) Have a responsive design. Currently, many users on the internet access websites via smartphones or other mobile devices. Responsive design can provide convenience for web visitors because the web display will automatically adjust the size used. With this design, the appearance and content on the website page can look neat on all the devices used.

6. Conclusion

This study objective is to improve the service quality of Jakarta's government website by determining service quality factors that must be improved to achieve citizen satisfaction and formulating a service quality improvement plan based on the factors that became a priority for the improvements. This research integrates TAM and the e-GovQual model. The result of hypotheses testing shows that among seven hypotheses formulated, four hypotheses were not rejected since the hypotheses were statistically significant. Perceived usefulness, efficiency, and citizen support proved to affect citizen satisfaction while perceived ease of use shows to affect perceived usefulness. Based on the path coefficient result, efficiency has the most significant value. Therefore, the improvement must be focused on increasing efficiency.

This research has theoretical and practical contributions. Theoretically, this research becomes the first study to combine e-GovQual and TAM in the context of e-government service quality. This model could be used in other similar research related to the online service quality in the e-government sector, in a different country, or a different region. This research finding found the most critical variable that must be improved to achieve citizen satisfaction. For that reason, the government of Jakarta can implement the strategy suggested by this research.

Giri and Masanta (2018); Shah, Chaudhari and Barron (2017), Giri and Bardhan (2014), Sarkar and Giri (2018), Rabbadni, Mokhalesun, Ordibazar and Asl (2018) build a supply chain model in a manufacturing context. Future research can broaden the boundaries and examine the role of service quality in the manufacturing supply chain to increase supplier satisfaction and loyalty.

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