




Analysis of System Quality, Information Quality, and Service Quality on E-Filing User Satisfaction

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ARTICLE INFO	ABSTRACT
<p><i>Keywords:</i> e-Filing, Information System Success Model, Individual Taxpayers</p> <p><i>Received :</i> 6, June <i>Revised :</i> 16, July <i>Accepted:</i> 20, August</p> <p>©2024 Awaliah, Kartini, Pontoh (s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International.</p> 	<p>E-filing is a tax reporting system using an Annual Tax Return (SPT) that is conducted electronically. This study aims to test and analyze the success of the e-Filing system using the Information System Success Model approach by DeLone & McLean (2003). The data used in this study is primary data collected through questionnaires, with a total sample of 70 individual taxpayers registered as employees at the Bulukumba Tax Office. The measurement variables used include system quality, information quality, service quality, and user satisfaction. The results show that information quality has a positive and significant effect on user satisfaction, and service quality also has a positive and significant effect on user satisfaction. This research can contribute to tax authorities in developing electronic systems to facilitate taxpayers in filing their tax returns. It also highlights the importance of information quality and service quality in the use of the e-filing system to ensure that taxpayers feel satisfied in fulfilling their tax obligations.</p>

INTRODUCTION

Taxes are one of the main sources of state revenue. **This** fact is evidenced by the realization of the 2022 State Revenue Budget (APBN), which reached IDR 2,626.4 trillion, with contributions from the tax sector amounting to IDR 2,034.5 trillion (Ministry of Finance, 2023). Taxes are aimed at financing and advancing regions through the implementation of policies to optimize tax revenue, ensuring that every taxpayer fulfills their tax obligations. To achieve this goal, the government, in collaboration with the Directorate General of Taxes (DJP), conducts tax collection through the internet via e-filing, which can be accessed through the DJP website.

E-filing is a reporting system used by taxpayers to submit their tax returns (SPT) online and in real-time through the Directorate General of Taxes website (Syahnur and Dharsana, 2022). The DJP developed the e-filing system to facilitate taxpayers in filing their Annual Tax Returns (SPT). E-Filing focuses on improving services for Individual Taxpayers (WPOP), so currently, e-filing supports the submission of three types of tax returns: the Annual Income Tax Return for WPOP forms 1770, 1770S, and 1770SS.

Based on data from the Bulukumba Tax Office (KPP Pratama Bulukumba), the interest in using e-filing in Bulukumba Regency is at a high level. Table 1.1 shows the number of registered taxpayers at KPP Pratama Bulukumba from 2018-2022. The number of registered taxpayers at KPP Pratama Bulukumba has increased each year, as has the number of individual taxpayer Annual Tax Return submissions, as seen in Table 1.2. Table 1.3 shows the number of individual taxpayers who reported their tax returns using the e-filing system from 2018-2022, which has increased over the past five years.

Table 1. Number of Registered Taxpayers 2018 – 2022

	Year				
	2018	2019	2020	2021	2022
Registered Individual Taxpayers (WPOP)	88.667	100.504	157.762	167.739	181.895
Employess	66.232	71.933	75.960	81.603	88.857
Non Employess	22.435	28.571	81.802	86.136	93.038

Source: Bulukumba Tax Office (KPP Pratama Bulukumba)

Table 2. Number of Realized Annual Tax Return Submissions by Taxpayers
2018 – 2022

	2018	2019	2020	2021	2022	Total
Employess	32.791	34.584	41.630	45.928	48.695	203.628
Non Employess	3.694	5.636	5.736	6.663	9.633	31.362
Total	36.485	40.220	47.366	52.591	58.328	234.990

Source: Bulukumba Tax Office (KPP Pratama Bulukumba)

Table 3. Number of Realized Annual Tax Return Submissions by Individual
Taxpayers Using e-Filing 2018-2022

	2018	2019	2020	2021	2022	Total
Employess	22.823	31.857	36.893	43.525	46.715	181.813
Non Employess	601	2.192	4.659	5.006	7.474	19.932
Total	23.424	34.049	41.552	48.531	54.189	201.745

Source : Bulukumba Tax Office (KPP Pratama Bulukumba)

Many factors influence the increased use of the e-filing system, primarily due to increased user satisfaction driven by factors such as system quality, information quality, and service quality. System quality is related to the processes involved in managing the information system. If users feel that the system is stable, helps lighten their workload, makes their tasks faster, and saves time, it can be concluded that they are satisfied with the information system provided. User satisfaction can also be achieved when the information delivered is up-to-date, consistent, highly accurate, and precise. As user satisfaction with the information system increases, overall user satisfaction also tends to rise. Additionally, good service quality makes users feel pleased and supported by the service provided. Service quality is the solution to meet users' needs and desires, and its accuracy in delivery helps balance user expectations.

E-filing reporting needs to be evaluated and assessed to determine the success of the e-filing service implementation. Hartono (2017) states that many measurements can be used to assess the success of an information system. The choice of measurement should consider several aspects, such as the research objectives, the organizational context that uses the information system, the independent variables used to assess success, the research method, and the level of analysis at the individual, organizational, or societal level. One of the theories explaining the model of information system success is the Information Systems Success Model (ISSM) developed by DeLone and McLean in 1992 to measure the success of information systems, which was refined in 2003 to include service quality as a metric. DeLone and McLean's model is one of the most commonly used frameworks for analyzing the success or failure of an information system, particularly from the user's perspective at the organizational level. This model is

used in various contexts (Pontoh et al., 2024). Therefore, this study aims to assess the success of e-filing implementation using the Information Systems Success Model by DeLone and McLean.

LITERATURE REVIEW

Information Systems Success Model (ISSM) Theory by DeLone and McLean (2003) DeLone and McLean (1992) introduced the D&M Information Systems Success Model, a theory that addresses the success of information systems. This model consists of six key variables: system quality, information quality, use, user satisfaction, individual impact, and organizational impact (DeLone and McLean, 1992). Information quality and system quality are the two main dimensions in this framework.

DeLone and McLean (2003) developed this model in response to the evolving role and management of information systems. They added several variables, including service quality, intention to use as an alternative to use, and combined organizational impact and individual impact into a single variable called net benefits. According to DeLone and McLean (2003), information quality, service quality, and system quality affect user satisfaction and intention to use/use. User satisfaction and use also impact net benefits

End User Computing Satisfaction (EUCS) Theory The End User Computing Satisfaction (EUCS) theory was proposed by Doll & Torkzadeh in 1988 to assess the level of user satisfaction with an information system by comparing their expectations with the actual experience. The definition of user satisfaction in End User Computing Satisfaction in the context of information systems involves an overall evaluation by users based on their experience using the system. In the model introduced by Doll and Torkzadeh (1988), five factors influence the level of user satisfaction with an information system: content, accuracy, format, ease of use, and timeliness.

The Influence of System Quality on User Satisfaction System quality influences user satisfaction because the quality of information provided by the system affects user satisfaction. The better the system quality in processing data into information that is useful for users, the more frequently users will use the system because they find it helpful in completing their tasks. This theory is supported by Pramanita & Rasmini (2020), who found that system quality has a positive effect on user satisfaction with the e-filing system. Research by Muharsyah and Ekwati (2021) also found that system quality has a positive and significant effect on user satisfaction. Hidayatullah et al. (2020) stated that system quality positively influences user satisfaction. Similarly, Azwar and Ihsan (2018) found that system quality positively and significantly affects user satisfaction. Additionally, research by Hami and Anggriani (2022) concluded that system quality positively and significantly influences user satisfaction. Therefore, the

hypothesis in this study can be formulated as follows:
H1: System quality has a positive and significant effect on user satisfaction.

The Influence of Information Quality on User Satisfaction Information quality is the assessment provided by users regarding the performance of the information system in providing information, based on their experience using the system. Information quality influences use and user satisfaction because it encompasses the necessary information for using the system, such as e-filing. Pramanita and Rasmini (2020) stated that information quality positively affects user satisfaction with the e-filing system. Azwar and Ihsan (2018) found that information quality has a positive and significant impact on use and user satisfaction. Similarly, Hidayatullah et al. (2020) found that information quality positively influences user satisfaction. Additionally, research by Hami and Anggriani (2022) concluded that information quality positively and significantly affects user satisfaction. Based on the above explanation, the hypothesis in this study can be formulated as follows:
H2: Information quality has a positive and significant effect on user satisfaction.

The Influence of Service Quality on User Satisfaction Service quality is one of the factors influencing satisfaction. Good service quality in a system, such as the level of security and response provided by the system, will increase the use and satisfaction of the system. It can be concluded that if users perceive high service quality from an information system, their satisfaction will increase. According to research by Pramanita and Rasmini (2020), service quality has a positive effect on user satisfaction with the e-filing system. Similarly, Muharsyah and Ekwati (2021) concluded that the service quality variable partially has a positive and significant effect on user satisfaction. Hami and Anggraini (2022) concluded that service quality positively influences user satisfaction. Research by Hidayatullah et al. (2020) found that service quality impacts user satisfaction. Additionally, research by Amarin and Wijaksana (2021) stated that service quality has a significant relationship with consumer satisfaction. Based on the above explanation, the hypothesis in this study can be formulated as follows:
H3: Service quality has a positive and significant effect on user satisfaction.

METHODOLOGY

This study uses a quantitative approach and employs primary data through data collection in the form of numbers that can be processed and analyzed using statistical calculations (Sekaran & Bougie, 2017:43). The research was conducted at the Bulukumba Tax Office (KPP Pratama). The population for this study includes all employees at KPP Pratama Bulukumba registered as e-filing system users. The sample consists of 70 respondents who are employees at KPP Pratama Bulukumba. The study uses purposive sampling technique. Data used in this study are subject data obtained directly from respondents through questionnaire completion. The data collection technique involved a survey by distributing questionnaires to employees at KPP Pratama Bulukumba.

The independent variables in this study are system quality, measured by 5 indicators introduced by DeLone and McLean (2003); information quality, measured by 5 indicators introduced by DeLone and McLean (2003); and service quality, measured by 3 indicators introduced by DeLone and McLean (2003). The dependent variable is user satisfaction, measured by 3 indicators introduced by Doll & Torkzadeh (1998). All indicators are measured using a Likert scale with five response options. Data analysis in this study is performed using Partial Least Squares (PLS) method with SmartPLS 4.0 software. PLS is a technique in Structural Equation Modeling (SEM) specifically designed to address multiple regression issues when there are specific data problems such as a small research sample.

RESEARCH RESULT

Descriptive Analysis

Table 4. Descriptive Analysis

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Sum</i>	<i>Mean</i>	<i>Std. Deviation</i>
KS	70	16	25	1,873	23,44	2,505
KI	70	14	25	1,830	23,165	3,140
KL	70	3	25	1.053	13,329	2,566
KP	70	10	25	1.139	14,418	1,290
Valid N	70					

The PLS analysis begins with designing the structural model of the study. This model illustrates latent variables in blue with indicators in yellow. Arrows are used to show the relationships between latent variables and between latent variables and their indicators. Subsequently, the structural model in SmartPLS is processed using the PLS Algorithm.

Evaluating the Outer Model or Measurement Model

1. Validity Test

Table 5. Loading Factor

Variabel	Loading Factor
Kualitas Sistem	
KS 1	0.901
KS 2	0.892
KS 3	0.849
KS 4	0.856
KS 5	0.704
Kualitas Informasi	
KI 1	0.795
KI 2	0.887
KI 3	0.848
KI 4	0.742
KI 5	0.767
Kualitas Layanan	
KL 1	0.747
KL 2	0.804
KL 3	0.939
Kepuasan Pengguna	
KP 1	0.705
KP 2	0.922
KP 3	0.912

Tabel 6. Average Variance Extracted (AVE)

	AVE
KP	0.726
KS	0.712
KI	0.655
KL	0.695

Convergent Validity Testing can be assessed by examining the values of outer loading and average variance extracted (AVE) in Tables 5 and 6. The outer loading values for each indicator in this study are greater than 0.7, and the AVE values for each construct are above 0.5. Therefore, the results of the test indicate that convergent validity is met, meaning that the indicators for each variable in this study are valid.

Table 7. Cross Loading

	KS	KI	KL	KP
KS 1	0.901	0.639	0.349	0.367
KS 2	0.892	0.641	0.364	0.321
KS 3	0.849	0.620	0.306	0.344
KS 4	0.856	0.570	0.528	0.406
KS 5	0.704	0.393	0.460	0.325
KI 1	0.621	0.795	0.429	0.328
KI 2	0.504	0.887	0.460	0.549
KI 3	0.635	0.848	0.441	0.467
KI 4	0.589	0.742	0.249	0.443
KI 5	0.446	0.767	0.456	0.439
KL1	0.321	0.371	0.747	0.331
KL 2	0.475	0.495	0.804	0.499
KL 3	0.397	0.396	0.939	0.580
KP 1	0.380	0.377	0.388	0.705
KP 2	0.323	0.461	0.527	0.922
KP 3	0.387	0.574	0.555	0.912

Discriminant Validity can be determined from the cross-loading values. Based on Table 7, the cross-loading values for the system quality, information quality, service quality, and user satisfaction variables meet the criteria for discriminant validity with cross-loading values greater than 0.7, indicating good discriminant validity.

Structural Model Testing (Inner Model) The inner model testing is conducted to examine the relationships between constructs, significance values, and R-squared values of the research model. According to the SmartPLS output, the R-squared value for user satisfaction is 0.414 (moderate). This result indicates that 41.4% of the variance in user satisfaction can be explained by the system quality, information quality, and service quality variables, while 58.6% is influenced by other variables not studied.

Hypothesis Testing Hypothesis testing is conducted by examining the path coefficients that indicate the parameter coefficients and the significance values of t-statistics using the bootstrapping feature in SmartPLS. If the t-statistics exceed 1.96, the value is significant, and the hypothesis can be accepted if the p-values are less than 0.05. The results of hypothesis testing are presented in Table 8.

Table 8. Hypothesis Testing Results

	Original sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P values	Ket
KS->KP	-0,032	0,005	0,154	0,209	0,835	Not Accepted
KI->KP	0,378	0,384	0,190	1,994	0,047	Accepted
KL->KP	0,407	0,393	0,183	2,226	0,026	Accepted

DISCUSSION

The results of this study indicate that **System Quality** has a negative and significant impact on **user satisfaction**. This suggests an inverse relationship between system quality and user satisfaction with the e-filing system. **Information Quality** has a positive and significant effect on user satisfaction. This demonstrates that higher information quality leads to increased user satisfaction, which can be useful for future decision-making and ultimately improve e-filing user satisfaction. **Service Quality** also has a positive and significant effect on user satisfaction with the e-filing system. This confirms that better service quality results in higher user satisfaction, indicating that improvements in service aspects such as responsiveness, guidance, and system security will enhance user satisfaction with the system.

CONCLUSIONS AND RECOMMENDATIONS

The results of this study show that **System Quality** has a negative and significant effect on **user satisfaction**. This indicates an inverse relationship between system quality and user satisfaction with the e-filing system. **Information Quality** has a positive and significant effect on user satisfaction. This demonstrates that as the quality of information increases, it positively impacts user satisfaction, indicating that better information quality can help in decision-making and ultimately enhance e-filing user satisfaction. **Service Quality** also has a positive and significant effect on user satisfaction with the e-filing system. This confirms that higher service quality leads to greater user satisfaction, meaning that improvements in aspects such as responsiveness, guidance, and system security will increase user satisfaction with the system.

ADVANCED RESEARCH

Based on the analysis and discussion of this study, it is recommended that future research consider including respondents who are individual taxpayers not employed by an organization.

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