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DETERMINANT ANALYSIS OF THE NET BENEFITS OF THE USE OF SAKTI: USER SATISFACTION MEDIATION

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Abstract: This study aims to analyze the effect of system quality, information quality, and service quality of the system on net benefits of SAKTI implementation mediated by user satisfaction. The study uses primary data obtained from 112 respondents at the working units in the BPPK through questionnaires using the purposive sampling technique. This study uses path analysis technique. The type of research is causal explanatory using inferential statistical analysis technique in the form of path analysis. The results showed that the quality of the system, the quality of information and service quality from the implementation of the SAKTI proved empirically not able to provide user satisfaction and optimal net benefits. The quality of the system affects the user satisfaction and user satisfaction also affects the net benefits. However, the quality of information and service quality does not affect the satisfaction of SAKTI users in an integrated way. User satisfaction cannot be a intervening variable between service quality and the net benefit obtained. DJPB is expected to improve the quality of information and services thoroughly and continuously so that the user satisfaction and the benefits of SAKTI can be obtained optimally.

Keywords: *information, service, quality, user satisfaction, net benefit*

1. Introduction

Conducting the mandate of Law (UU) Number 17 of 2003 as regard State Finances, the implementation of government accounting and accountability reports for state revenues and expenditures must be carried out using an accrual basis, which is poured into financial reports prepared in accordance with Government Accounting Standards (SAP) (Iskandar, Amriani, and Subekan, 2016).

Furthermore, the Government and the House of Representatives (DPR) have made an agreement stating that the implementation of accrual-based governsment accounting is suspended until no later than 2015 to increase transparency, accountability and the quality of decision making as part of public financial management reform. This agreement was implemented in the APBN Accountability Law, which was further followed up by the issuance of Government Regulation Number 71 of 2010 concerning Government Accounting Standards (Accrual-Based) as a substitute for Government Regulation Number 24 of 2005. In accordance with the accrual-based GAS implementation timeframe as regulated in Government Regulation Number 71 of 2010, 2014 was the last year that the government was allowed to use the cash toward accrual basis. In 2015, central and local governments obligate to use an accrual basis in the presentation of financial statements (Iskandar, Amriani, and Subekan, 2016).

Moreover, the Directorate General of Treasury has established (upgraded) the accounting applications that have been expended from the cash to accrual basis (cash toward accrual), namely the Agency Accounting System (SAI) to the State Treasury and Budget System (SPAN) and the Agency Level Financial Application System (SAKTI) to encourage the implementation of accrual-based accounting. SPAN is an application system that supports the budget management process used by the Directorate General of Budget for budget preparation, the Directorate General of Treasury for budget implementation, and the 999 Budget Unit (BA) management work unit at the Ministry of Finance and several designated agencies. SAKTI is basically an SPAN for the work unit level that does not have direct access to the SPAN. With this SAKTI, work units (accounting and reporting entities) manage budgets and compile accrual-based financial reports.

The application of SKATI is an application of the Integrated Financial Management Information System (IFMIS), which is used mandatory by agencies/work units managing funds sourced from the State Budget (Amriani and Iskandar, 2019). This system was built to support the principles of orderly, effective, efficient, economical, transparent, accountable, integrated and performance-based financial management. The SAKTI's main features include database integration, single entry point, applying accrual-based accounting, and guaranteeing data security.

In addition, it is essential that using the SAKTI application is an information system based accounting system, effective and efficient management of the information system within the State Ministries / Institutions. This is because the adoption and development of information systems is a costly investment. Unfortunately, an expensive investment does not necessarily guarantee to get a quality system and in accordance with what the organization expects. Information systems that are built and run, can run successfully or fail to meet organizational needs. Research by Sauer and Cuthbertson (2003) found that only about 16% of public sector Information and Technology (IT) projects in the UK were declared successful, while 84% experienced failures at various levels. In their findings, Sauer and Cuthbertson (2003) stated that failure was caused among others due to elements of simplicity, certainty and inadequate stability in the system.

The SAKTI application as an information system on a national scale and with a large cost is also at risk of experiencing failure in its implementation. The Directorate General of Treasury (DJPB), Ministry of Finance, which is responsible for developing SAKTI should make it one of the top priorities in strategic initiatives. Moreover, in the initial piloting stage, Nasrudin (2017) stated that several problems were still found related to complex application features (unsimplicity) because they were considered too sophisticated, the internet signal was unstable, could not display reports in full, lack of technical training, lack of communication between admin with operators, both central and regional as well as other issues. Therefore, it is important to see how far the SAKTI application is currently implemented. The research problem that begs to be answered is how the quality of systems, information and services affects user satisfaction and the benefits that can be obtained from implementing the system.

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Hence, the aims of this research are to analyze the effect of system quality, information quality and service quality on the net benefits obtained from the implementation of SAKTI mediated by user satisfaction. The research is based on the user's point of view (user) as a mandatory system, so that the results of this empirical test are expected to produce policy recommendations for a more effective implementation of SAKTI in the future.

The achievement of an information system can be perceived from several things, including through a model that is used to assess the success of an information system, namely the DeLone and McLean model. The information technology system success model developed by DeLone and McLean uses six data factors that are used as the basis for measuring the success of an information system, namely system quality, information quality, service quality, and intensity of use. intention to use or use, user satisfaction, and net benefits from information systems (Delone and McLean, 2003). However, in this study, researchers only used system quality, information quality, service quality as the independent variable, user satisfaction as an intervening variable, and net benefits. as the dependent variable by eliminating intervening variables (intention to use) or use and (use) (Peter, Delone, & McLean, 2008). This is reinforced by the research of Delone and Mclean (2003) suggesting that the intensity of use (intention to use) or use is only as an alternative in their research, in the context of mandatory use of systems (mandatory), variable use (use) can be ruled out. , because it is mandatory that the user must use the system, whether he wants it or not.

This research was conducted at the Financial Education and Training Agency (BPPK). Previous research by Nasrudin (2017) was conducted in the early stages of piloting (stages I and II) where the user or SAKTI user was still within the scope of the DJPB (in fact as a system developer). Meanwhile, this research was focused on the scope of the BPPK during the piloting phase III. In previous research, Nasrudin (2017) used an integrated model of the TAM (Technology Acceptance Model), UTAUT (Unified Theory of Acceptance and Use Of Technology) model and the success of information systems. Meanwhile, for the implementation of a mandatory system such as SAKTI, the TAM and UTAUT testing models are considered less relevant. The test variable *behavorial intention to use* in the TAM model and *the voluntariness of use* variable in the UTAUT model, is more appropriate if used for systems that are not mandatory (not mandatory). Therefore, this study only uses the information system success model by DeLone and McLean (2003) with the modification as stated above because it is considered relevant for this study. The intention to use variable is as indicated by the research of Nasrudin (2017) and Mardiana et al. (2015) in the public sector, was not used in this study because it was less relevant in the context of using a mandatory (mandatory) system, as previously explained. In addition, the absence of a standard model in assessing the success of implementing information technology systems, especially in the public sector or government (which is mandatory), makes the opportunity to choose a relevant model still wide open (Amriani and Iskandar, 2019).

2. Literature Review

2.1. Information Systems Success

The system of information is a set of interconnected components that functions to collect, process, store, and distribute information to support the preparation of satisfaction and supervision in the organization (Laudon and Laudon, 2000). In information systems research, there are several factors used in assessing the success of information technology systems.

This has caused several studies to determine different variables. The absence of a standard standard makes measuring the success of an information system difficult, there must be several aspects that are taken into consideration, such as environmental factors in which the system is implemented, what type of system will be applied and so on.

Ives et al. (1983) stated that information user satisfaction is a perceptual or subjective measure of system success. The use of the system can be used as an indicator of the success of the system based on certain conditions. If users consider the system to be unreliable or the data inaccurate, their use of the system presents doubt. If in a voluntary environment, the system will be avoided by users. In addition, Goodhue and Thompson (1995) stated that the success of a company's information system depends on how the system is run, the ease of the system for its users, and the utilization of the technology used. DeLone and McLean (1992) proposed a framework for measuring the success of system information by differentiate system quality, information quality, user satisfaction, usability, individual impact and organizational impact. They also suggest a causal model to measure its success. The quality of the system and the quality of information, individually and collectively, affect user satisfaction and usage. It also argues that user satisfaction and use are interdependent relationships and are considered to be direct antecedents of individual impacts, which in turn also affect organizational impacts.

2.2. Delone & McLean Information System Success Model

The Delone & McLean Information System Success Model has six measurement dimensions, namely system quality, information quality, user satisfaction, usage intensity, individual impact, and organizational impact. System quality and information quality are the first two dimensions of the Delone & McLean Information System Success Model, where system quality shows the product quality of the information system application and information quality shows the quality of the product produced by the information system application. These two qualities determine the attitude of the user as the recipient of the information. The use of the system and its information will have an impact on its users and on the system. The influence on the user will determine the satisfaction of the user and the impact on the individual. The influence of the system will affect the impact of the organization.

In history, DeLone and McLean's (1992) model of success were criticised by Seddon and Kiew (1996) who stated that system use is a behavior so it is not suitable for use in a causal model. They said that definite use precedes the impacts and benefits of an information system, but use cannot be categorized as the cause of these impacts and benefits. Then, Seddon reformulated the information system success model into two separate variance models. Research by Rai et al. (2002) compared DeLone and McLean's (1992) information system success model with Seddon and Kiew's (1996) information system success model and found that DeLone and McLean's model successfully passed the validation test and outperformed Seddon's model.

Based on the criticism and suggestion from several studies using the DeLone and McLean models since their introduction, DeLone and McLean (2003) proposed improvements to the information system success model and introduced an updated model.

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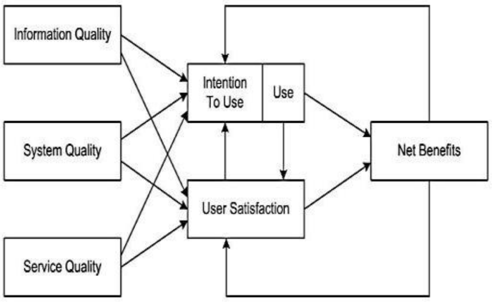

Figure 1. An updated Model of Information Systems Success by DeLone and McLean
Source: DeLone and McLean (2003)

DeLone and McLean (2003) added a new dimension to the updated model, namely service quality. Another change found in the updated model is the unification of the individual impact variable and organizational impact into one variable, namely net benefits. The intention to use dimension is also added as an alternative to the use dimension. The use intention variable can be used in several specific contexts because of the difficulty in interpreting the multidimensional aspects of the usage variable. The incompatibility of use variables in a causal model as presented by Seddon and Kiew (1996) can be resolved by the use intention variable because the variable is not a behavior but an attitude.

2.3. Previous Research

Rai et al. (2002) conducted a study to exam DeLone and McLean's (1992) model in the context of using voluntary information systems. Data were collected by means of a questionnaire from 274 students using the integrated student information system at Midwestern University. Data were analyzed by structural modeling (SEM). The empirical test results support DeLone and McLean's (1992) model, namely, the quality of information has a significant effect on usage and user satisfaction, user satisfaction has a significant effect on usage but not the other way around. As a side note, Rai et al. (2002) did not test the model down to organizational impact.

Livari (2005) conducted a study to exam DeLone and McLean's (1992) model of accounting information systems in Oulu, Finland. The field study was carried out using longitudinal data by taking 78 samples that are the main users of the system. Consistent with the research of Roldan and Leal (2003), this study proves that perceived system quality is a significant predictor of user usage and satisfaction. Meanwhile, perceived information quality has an effect on user satisfaction but has no effect on usage. Between use and user satisfaction is not proven to influence each other (reciprocaly). Individual impact is significantly affected by user satisfaction, but not by usage.

Radityo (2007) conducted a study to exam the use of the SIMAWEB application (Website-Based Academic Information System) at the Faculty of Economics, Diponegoro University. Samples were taken from 200 people consisting of students and lecturers at the Faculty of Economics, Diponegoro University. The result, of the 8 hypotheses, only 2 are significant, namely use has a positive effect on individual impacts and individual impacts have a significant positive effect on organizational impacts. Meanwhile, the other 6 hypotheses are not proven empirically.

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By referring to some of the previous studies above, this study conducted an empirical test on the SAKTI application that was different from previous studies because the Delone & McLean Information System Success Model empirical test related to the implementation of the SAKTI application only used system quality, information quality, service quality as the independent variable, user satisfaction as an intervening variable, and net benefit as the dependent variable.

2.4. Hypothesis Development and Thinking Framework

This study uses DeLone and McLean's (2003) model to analyze and to measure the net benefits obtained from the implementation of SAKTI that have run. System quality reflects the characteristics inherent in the system concerned in order to produce information. DeLone and McLean (2003) stated that system quality is a combined measure of the performance of hardware and software in an information system. DeLone and McLean (1992) stated that the better the quality of the information system, the more user satisfaction the system will be. This statement is also supported by research results, among others, Seddon and Kiew (1996), Rai et al. (2002), and Wixom and Todd (2005). Therefore, the researchers suspect that (ceteris paribus) the better the quality of the system will have a positive and significant effect on SAKTI user satisfaction. Based on this, the first hypothesis (H1) proposed in this study is:

H1: *System quality affects user satisfaction.*

Information quality is a measure of the output produced by an information system, including the report format (DeLone and McLean, 1992). The quality of information is related to the value, benefit, relevance and urgency of the information produced by an information system. The results of Seddon and Kiew's (1996) study indicate that information quality is a strong predictor of user satisfaction. DeLone and McLean (1992) stated that the higher the quality of information produced by an information system, the more user satisfaction it will be. Various research results have supported this statement and found a strong relationship between information quality and user satisfaction of information systems, among others, Seddon and Kiew (1996); Rai et al., (2002); Wixom and Todd (2005); Halawi and McCarthy (2007); and Pambudi (2018). Therefore, researchers suspect that (ceteris paribus) the better the quality of information produced by SAKTI will have a positive and significant effect on user satisfaction. Based on this, the second hypothesis (H2) proposed in this study is:

H2: *The quality of information affects user satisfaction.*

According to Petter et al. (2008), service quality is the quality of support or assistance received by users from the information systems department and officers associated with it, which includes the level of responsiveness, accuracy, reliability of support, as well as technical competence and empathy from system officers. DeLone and McLean (2003) state that the higher the quality of service an information system produces, the more user satisfaction it is. Researchers suspect that (ceteris paribus) the better service quality of the Directorate of Information Systems & Treasury Technology (SITP), DJPB, which is responsible for implementing SAKTI, will affect SAKTI user satisfaction. Therefore, the third hypothesis (H3) proposed in this study is:

H3: *Service quality affects user satisfaction.*

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The term net benefit is expressed by DeLone and McLean (2003) to describe the characteristics of the expected results on the implementation of information systems. Net benefit relates to the extent to which information systems contribute to the success of individuals, groups, organizations, industries, or countries. If SAKTI users are satisfied with the system's capabilities, they will tend to feel that using this information system makes it easier and faster to complete work, and improves work performance. Therefore, researchers suspect that (ceteris paribus) increasing user satisfaction will affect the net benefits of SAKTI concerning the individual performance of its users. Based on the description that has been presented, the fourth hypothesis (H4) proposed in this study is:

H4: *User satisfaction has a positive and significant effect on net benefits.*

The user satisfaction will not be meaningful if the system does not increase individual performance and has a positive influence on the organization. When users are satisfied with an information system, system quality, information quality, and service quality, they will be more productive because the information needs related to their work are available on time when needed (Almutairi, 2001). Therefore, researchers suspect that (ceteris paribus) user satisfaction can be an intervening variable in mediating the effect of system quality, information quality, service quality and a positive, and significant effect on net benefits. Based on this, the fifth hypothesis (H5) proposed in this study is:

H5: *User satisfaction can mediate the effect of information quality; service quality has a positive and significant effect on net benefits.*

Based on the description of the literature review, previous research, and formulated hypotheses, the framework for this research can be described as follows:

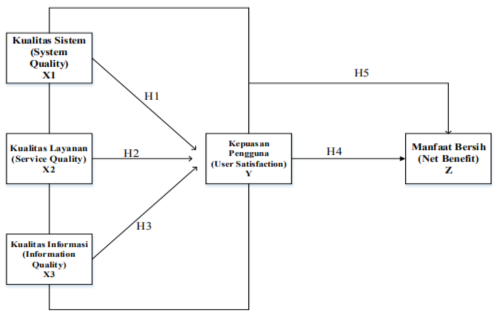

Figure 2. Research Framework

3. Research Method

This research uses causal explanatory research with a quantitative approach because this study explains the relationship between the independent variable and the dependent variable through hypothesis testing and in general the data presented in the form of numbers is calculated through statistical tests (Sekaran, 2006). The type of data source that will be used is primary data obtained by the survey method by sending questionnaires to users or users of the SAKTI application in 2019. This study uses five variables from the success model of DeLone and McLean's information systems (2003). These variables consist of exogenous variables and endogenous variables. Exogenous variables are independent variables (free) that affect the dependent variable (dependent) which is indicated by the presence of arrows coming from these variables towards the endogenous variables in the model. Endogenous

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variable is the dependent variable (dependent), which is influenced by the independent variable (free), which is indicated by the presence of arrows leading to these variables in the model. The exogenous variables of this study consist of variables of information quality, system quality, and service quality. While the endogenous variables of this study consist of user satisfaction and net benefits.

The definition of operational, description and indicators of each of these variables are described in Table 1. Each variable is measured using a 5-point Likert scale, namely strongly agree: 5; agree: 4; disagree: 3; disagree: 2; strongly disagree: 1. Measurement items that represent indicators for measuring exogenous and endogenous variables in this study are adjusted to the conditions of SAKTI utilization to make them relevant to the research objectives.

Tabel 1. Definition of Operational Variabel

No.	Variable	Description	Indicators
1	System Quality	System quality is related to system flexibility, system integration, ease and convenience of use, system reliability, and the presence of intuitive, sophisticated, and responsive system features.	*Flexibility*, *integration*, *reliability*, *ease of use*, *response time*, *security* and *language* (Bailey and Pearson, 1983).
2.	Information Quality	The quality of information is related to the accuracy, completeness, timeliness, and ease of understanding, up-to-dateness, and the form of output produced by SAKTI.	*Accuracy*, *completeness*, *timeliness*, *understandibility*, *currency* and *format* (Bailey and Pearson, 1983).
3.	Service Quality	Service quality relates to physical support, reliability, responsiveness, attitude and technical competence and empathy of service providers.	*tangibles*, *reliability*, *responsiveness*, *assurance*, and *empathy* (Parasuraman *et al.*, 1988).
4.	User Satisfaction	Overall, the user satisfaction is related to satisfaction with SAKTI's system, information (output) and support services.	*system fit for need*, *system effectiveness*, *system efficiency* and *overall satisfaction* (Seddon and Yip, 1992).
5.	Net benefits	User perceptions regarding SAKTI's ability to contribute to individual performance include increased productivity, ease and speed of work completion, increased work performance and the effectiveness of decision making.	*usefulness* and *effectiveness* (Segars and Grover, 1993).

The population of this study is the users of SAKTI in all work units within the BPPK who carry out the SAKTI piloting. The sample selection technique used is purposive sampling, which is a sampling technique that is limited only to certain people who can provide the desired information, or because they meet several criteria set by the researcher

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(Sekaran, 2006). The sample of this research is SAKTI users with the following criteria: having a module operational authority level, namely operators, validators, and approvers who represent all work units within the BPPK. Based on these criteria, the sample is 112 users/person. The method of collecting data in this study using a survey method through a questionnaire. The research questionnaire was distributed online to all respondents using the Google Forms device, which was sent to an e-mail address or the WhatsApp application.

This study uses inferential statistical analysis techniques in the form of path analysis with the help of the IBM Statistics SPSS 22 computer program. The analysis model is used to analyze the pattern of relationships between variables in order to determine the direct or indirect effect of a set of causal variables (exogenous variables) on a set of variables. Consequent variable (endogenous variable) (Kusnendi, 2008). In the use of path analysis, there are several assumptions that must be met, among others (Somad, 2013): a) Observed variables are measured without error (measurement instruments must be valid and reliable); b) The relationship between variables in the path analysis model is linear; c) Only the recursive model (one-way causal flow system) can be considered, whereas the model containing reciprocal causal (reciprocal flow system) is not considered; d) Minimum exogenous and endogenous variables in the interval measurement scale; e) The analyzed model is correctly identified (identified) based on the relevant theories and concepts. Therefore, the instruments, and research data will first go through the Reliability Test, Data Validity Test and Linearity Test (Somad, 2013).

Based on the framework and analysis techniques, the structural model of the study is formulated as follows:

(1) $Y = {}_{\rho}X_1 + {}_{\rho}X_2 + {}_{\rho}X_3 + e_1$;

(2) $Z = {}_{\rho}X_1 + {}_{\rho}X_2 + {}_{\rho}X_3 + {}_{\rho}Y + e_2$

where X1 = System Quality, X2 = Information Quality, X3 = Service Quality, Y = User Satisfaction, Z = Net Benefits, and ρ = Path Analysis Regression Coefficient and e= Error Value.

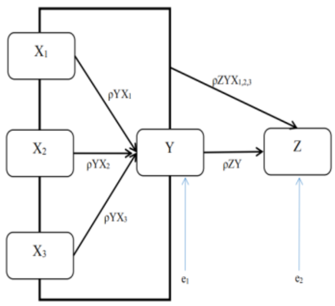

Figure 3. Structural Research Model

To test the research hypothesis, a path coefficient test was conducted to determine whether the independent/independent variable had a positive or negative influence on the dependent/dependent variable. The positive effect is indicated by a positive sign on the regression coefficient. Meanwhile, the negative effect is indicated by a negative sign of the regression coefficient. The t statistical test (partially), according to Imam Ghozali (2006), basically shows how far the influence of one independent variable individually in explaining the dependent variable. For this study, testing was carried out using a significant level of 0.05 (α = 5%). The criteria for acceptance or rejection of the hypothesis are:

If the significant value (Sig.)> 0.05 or tcount <ttable (minus values are ignored) then the hypothesis is rejected or the regression coefficient is not significant. This means that partially the independent variable does not have a significant effect on the dependent variable.

If the significant value (Sig.) ≤ 0.05 or tcount> ttable (minus values are ignored) then the hypothesis is accepted or the regression coefficient is significant. This means that partially the independent variable has a significant effect on the dependent variable.

4. Results And Discussion

The questionnaire of research was sent by online to all respondents via their email address or the WhatsApp Messenger application using the Google Forms device. Until the deadline for returning/filling out the specified questionnaire, the number of respondents who returned the questionnaire completely filled was only 38 users/person. This means that the return rate of the questionnaire (response rate) reached 33.92% of the total questionnaires distributed. The completed questionnaire is then tabulated, and then data processing is carried out. Even though the response rate does not reach 100%, the research can still be continued into the analysis stage. Hartono (2011) states that the response rate does not have to reach 100%, but it will be better if the response rate is higher. Even a questionnaire sent via media (such as post or e-mail) with a response rate of 30% is sufficient. The completed questionnaire was then tabulated, followed by a description and classification of respondents based on gender, experience and education as well as data processing (Iskandar and Amriani, 2015).

4.1. Validity and Reliability Test

According to Ghozali (2006), the validity test is used to measure whether a questionnaire is valid or not. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The significance test is done by comparing the calculated r value with the r table for degree of freedom (df) = n-2, in this case n is the number of samples. To test whether each indicator is valid or not, it can be seen in the Cronbach Alpha output display in the Correlated Item-Total Correlation (r) column. If r count is greater than r table and the value is positive, then the item or question or indicator is declared valid (Ghozali, 2006). Based on the results of the validity test of the research data, by comparing each calculated r value (Correlation Item-Total Correlation) in each question item with r table for degree of freedom (df) = n-2, where r table = 0.3202, it is found that all the calculated r value of each question used as an instrument to measure the research variable is greater than the value of r table (See Table 2). So it can be stated that the research instrument to measure all variables in this study is valid.

Table 2. Validity Test Results

Variabels	Questions	*Corrected Item-Total Correlation*	Information
System Quality	1	.555**	Valid
	2	.662**	Valid
	3	.689**	Valid
	4	.596**	Valid

	5	.724**	Valid
	6	.584**	Valid
	7	.802**	Valid
Information Quality	1	.859**	Valid
	2	.832**	Valid
	3	.925**	Valid
	4	.909**	Valid
	5	.854**	Valid
	6	.806**	Valid
Service Quality	1	.605**	Valid
	2	.694**	Valid
	3	.804**	Valid
	4	.873**	Valid
	5	.836**	Valid
	6	.787**	Valid
	7	.744**	Valid
	8	.771**	Valid
	9	.794**	Valid
User Satisfaction	1	.897**	Valid
	2	.896**	Valid
	3	.921**	Valid
	4	.907**	Valid
Net Benefits	1	.939**	Valid
	2	.894**	Valid
	3	.922**	Valid
	4	.917**	Valid
	5	.874**	Valid

**. *Correlation is significant at the 0.01 level (2-tailed).*
Source: Results of data processing

On the other hand, reliability, according to Ghozali (2006), is a tool to measure the reliability of a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if a person's answer to a statement is consistent or stable over time. The reliability test used in this study was the Cronbach Aplha test. A construction or variable is declared reliable if it gives a Cronbach Alpha value> 0.60 (Ghozali, 2006). The results of the validity test of the research data, by comparing each Cronbach's Alpha value on each variable or research instrument, found a value greater than 0.6, so it can be stated that the research instrument to measure the variables in this study is reliable (See Table 3).

Table 3. Reliability Test Results

Variabel	*Cronbach's Alpha*	Information
System Quality	0.781	*Reliable*
Information Quality	0.927	*Reliable*
Service Quality	0.910	*Reliable*

User Satisfaction	0.925	*Reliable*
Net Benefits	0.947	*Reliable*

Source: Results of data processing

4.2. Assumption Test

Before the path, analysis is carried out; first the assumption test that underlies the path analysis is carried out, namely the linearity test. This test aims to test whether the form of the relationship between the independent variable and the dependent variable is linear or not. A good path model is a model where the relationship between the two variables is linear. The method used in testing linearity is the ANOVA Table. With the ANOVA table, the Sig value will be seen. The linearity of each independent variable with the dependent variable is compared with the level of significance (α). Sig value. Linearity shows the extent to which the independent variables are directly proportional to a straight line. If the Sig. Linearity is smaller than the level of significance ($\alpha = 0.05$), so linear regression can be used to explain the influence between the existing variables (Prihadi, 2007). The results of the linearity test on the research data are shown in Table 4. The results of the test in Table 4 above indicate that the Sig. Linearity in all variable relationship paths is less than $\alpha = 0.05$, so it can be concluded that the linearity assumption is met.

Table 4. Linearity Testing Results

			Sum of Squares	df	Mean Square	F	Sig.
User Satisfaction * System Quality	Between Groups	(Combined)	415.292	14	29.664	11.554	0.000
		Linearity	331.891	1	331.891	129.272	0.000
		Deviation from Linearity	83.401	13	6.415	2.499	0.027
	Within Groups		59.05	23	2.567		
	Total		474.342	37			

			Sum of Squares	df	Mean Square	F	Sig.
User Satisfaction* Information Quality	Between Groups	(Combined)	360.675	14	25.763	5.213	0.000
		Linearity	201.177	1	201.177	40.707	0.000
		Deviation from Linearity	159.498	13	12.269	2.483	0.027
	Within Groups		113.667	23	4.942		
	Total		474.342	37			

			Sum of Squares	df	Mean Square	F	Sig.
User Satisfaction* Service Quality	Between Groups	(Combined)	308.842	17	18.167	2.195	0.047
		Linearity	127.873	1	127.873	15.453	0.001
		Deviation from Linearity	180.969	16	11.311	1.367	0.251
	Within Groups		165.5	20	8.275		

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			Sum of Squares	df	Mean Square	F	Sig.
	Total		474.342	37			
Net Benefits* User Satisfaction	Between Groups	(Combined)	495.978	10	49.598	11.029	0.000
		Linearity	409.561	1	409.561	91.076	0.000
		Deviation from Linearity	86.417	9	9.602	2.135	0.062
	Within Groups		121.417	27	4.497		
	Total		617.395	37			

Source: Results of data processing

4.3. Analysis Results

After conducting the validity test, reliability test and assumption test, the data were analyzed using path analysis techniques according to the previously formulated structural model. The results of the path analysis are shown in Tables 5 and 6.

Table 5. Results of Structural Model Path Analysis 1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845[a]	0.714	0.689	1.99814

a. Predictors: (Constant), Service Quality, Information Quality, System Quality

ANOVA[a]

Model		Sum of Squares	df	Mean	F	Sig.
1	Regression	338.595	3	112.865	28.269	.000[b]
	Residual	135.747	34	3.993		
	Total	474.342	37			

a. Dependent Variable: User Satisfaction (Y)

b. Predictors: (Constant), Service Quality, Information Quality, System Quality

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-4.976	2.437		-	0.049
	System Quality	0.704	0.132	0.755	5.342	0.000
	Information Quality	0.126	0.098	0.161	1.28	0.209
	Service Quality	-0.028	0.078	-0.043	-	0.723

a. Dependent Variable: User Satisfaction (Y)

Source : Results of data processing

From Table 5 above, the equations formed for Structural Model 1:

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$Y = 0.704\ X_1 + 0.126\ X_2 - 0.028\ X_3 + \varepsilon_1$

The description of the Structural Model 1 equation above is as follows:

1. The system quality variable has a positive and significant effect on user satisfaction by looking at the path coefficient value of 0.704 and the significance of the effect on the X1 → Y path of 0.000 which is smaller than α = 0.05. This means that the quality of the SAKTI application system has a positive and significant effect of 7.04% on user satisfaction of the system. Thus it can be concluded that H1 is accepted.
2. Information quality variables have a positive and insignificant effect on user satisfaction by looking at the path coefficient value of 0.126 and the significance of the effect on the X2 → Y path of 0.209 which is greater than α = 0.05. This means that the information quality of the SAKTI application has a positive but insignificant effect on user satisfaction of the system. Thus it can be concluded that H2 is rejected.
3. Service quality variables have a negative and insignificant effect on user satisfaction by looking at the path coefficient value of -0.028 and the significance of the influence on the X3 → Y path of 0.723 which is greater than α = 0.05. This means that the quality of the SAKTI application system has a negative and insignificant effect on user satisfaction of the system. Thus it can be concluded that H3 is rejected.

Meanwhile, the error value in the structural equation is obtained: $_{\rho}Ye = \ = 0.534$. The results of the F test based on the ANOVA output in Table 5 show that the influence of the variables X1, X2, and X3 together has an effect on variable Y. The F test value is 28,269 and the Sig. amounting to 0.000 indicates that the effect is significant and there is a positive effect (with alpha 0.05). Therefore, it can be concluded that the variables of System Quality (X1), Information Quality (X2), and Service Quality (X3) simultaneously affect User Satisfaction (Y). From the test results above, it can be seen that the adjusted R square is 0.6897 or indicates that 68.9% User Satisfaction (Y) can be influenced by the System Quality (X1), Information Quality (X2), and Service Quality (X3) variables. The effect of other variables not included in the regression equation in this study was 31.1%.

Table 6. Results of Structural Model Path Analysis 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835[a]	0.697	0.66	2.38122
a. Predictors: (Constant), User Satisfaction, Service Quality, Information Quality, System Quality				
ANOVAa				

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	430.278	4	107.57	18.971	.000[b]
	Residual	187.117	33	5.67		
	Total	617.395	37			

a. Dependent Variable: Net Benefits
b. Predictors: (Constant), User Satisfaction, Service Quality, Information Quality, System Quality

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-0.107	3.077		-0.035	0.973
	System Quality	0.312	0.213	0.293	1.464	0.153
	Information Quality	-0.056	0.12	-0.063	-0.471	0.641
	Service Quality	0.052	0.093	0.07	0.556	0.582
	User Satisfaction	0.655	0.204	0.575	3.207	0.003

a. Dependent Variable: Net Benefits
Source: Results of data processing

From Table 6 above, the equations are formed for Structural Model 2:

$Z = 0.312X_1 - 0.056X_2 + 0.052X_3 + 0.665Y + e_2$

Based on the results of the analysis on Structural Models 1 and 2, the calculation of the total effect on each variable is obtained as follows:

Table 7. Total Effect of Each Variable

Path	Path Coefficient	Effect: Direct	Effect: Indirect	Totally
$X_1 \rightarrow Y$	0.704	0.704		0.704
$X_2 \rightarrow Y$	0.126	0.126		0.126
$X_3 \rightarrow Y$	-0.028	-0.028		-0.028
$X_1 \rightarrow Z$	0.312	0.312	0.704 x 0.665 = 0.468	0.780
$X_2 \rightarrow Z$	-0.056	-0.056	0.126 x 0.665 = 0.083	0.027
$X_3 \rightarrow Z$	0.052	0.052	-0.028 x 0.665 = -0.018	0.034
$Y \rightarrow Z$	0.665	0.665		0.665

Source: Results of data processing

The Information from the equation for Structural Model 2 and Table 7 above is as follows:
1. The user satisfaction variable has a positive and significant effect on net benefits by looking at the path coefficient value of 0.665 and the significance of the effect on the Y

→ Z path of 0.003 which is smaller than α = 0.05. This means that user satisfaction of the SAKTI application has a positive and significant effect of 76.65% on the net benefits of using the system. Thus it can be concluded that H4 is accepted.

2. The system quality variable has a positive but insignificant effect on net benefits by looking at the path coefficient value of 0.312 and the significance of the effect on the path X1 → Z of 0.153 which is greater than α = 0.05. This means that the quality of the SAKTI application system has a positive but insignificant effect on the net benefits of using the system. It is different with the information quality variable which has a negative and insignificant effect on net benefits by looking at the path coefficient value of -0.056 and the significance of the effect on the X2 → Z path of 0.641 which is greater than α = 0.05. This means that the information quality of the SAKTI application has a negative and insignificant effect on the net benefits of using the system. The service quality variable has a positive but insignificant effect on the net benefits by looking at the path coefficient value of 0.052 and the significance of the effect on the X3 → Z path of 0.582 which is greater than α = 0.05. This means that the service quality of the SAKTI application has a positive but insignificant impact on the net benefits of using the system.
3. If you look at the total influence between the variable quality of the system and the quality of information on the net benefits of using the system, the coefficient of influence is higher than the direct effect. That is, the quality of the system and the quality of information that is balanced (mediation) with user satisfaction will have a good effect on net benefits. However, on the total effect of the service quality variable on net benefits, the coefficient of influence is lower than the direct effect. This means that user satisfaction cannot be an intervening variable or a mediator between service quality and net benefits. Thus it can be concluded that H5 is rejected.

4.4. Discussion

The results of the first hypothesis test (H1) show that the system quality variable has an effect on user satisfaction. The direction of positive influence, as indicated by the path coefficient value, means that the higher the quality of the system, the higher the satisfaction of SAKTI users. Respondents' responses to the quality of the SAKTI system can empirically be explained from the statements put forward in the questionnaire of this study. Users give a positive assessment of the quality of the SAKTI integrated system. The results of this study indicate that the user's perception of the quality of the system that meets the characteristics of a system that is well integrated, reliable, safe, easy and comfortable to use, responsive, and using easy-to-understand terms on its menus will encourage satisfaction with the system. These results support the SI model of success by DeLone and McLean (2003), which states that system quality is one of the dimensions that determine the success of information systems. The results of this study are consistent with the results of Livari's (2005) research on accounting and financial information systems, which are implemented mandatory in the city council of Oulu, Finland. The study found that user perceptions of system quality have a positive effect on user satisfaction. This study also supports the research conducted by Iskandar et al. (2016) on the SAIBA application which states that the higher the quality of the system, the higher the level of user satisfaction. Similar research results were also found in other studies conducted by Wixom and Todd (2005), Noviyanti (2016), and Pambudi et al

(2018), which proved that system quality had a positive and significant effect on user satisfaction.

The result of the second hypothesis test (H2) states that the information quality variable has no significant effect on user satisfaction. The results of this insignificant analysis are not in line with research by DeLone and McLean (2003) and Seddon and Kiew (1996) on 96 Departmental Accounting System (DAS) users who state that the quality of information has a positive effect on user satisfaction. Although the quality of information in the current SAKTI application basically helps users in their work in the field of state financial management, unfortunately SAKTI application users have not received sufficient satisfaction. The information in the report is true and accurate, complete, on time as needed, easy to understand, up to date and in good format has not been proven to be able to encourage SAKTI user satisfaction.

The results of the third hypothesis test (H3) state that the service quality variable has no significant effect on user satisfaction. The direction of positive influence, as shown by the path coefficient value, means that the higher the service quality, the higher the satisfaction of SAKTI users in an integrated manner. The insignificant analysis result does not support the information system success model by DeLone and McLean (2003), which states that service quality, is one of the dimensions of information system success. This insignificant result indicates that SAKTI assistance services from officers of the SITP Directorate, HAI-DJPB, and KPPN / Kanwil DJPB are perceived as still having many obstacles for SAKTI users at BPPK.

The result of the fourth hypothesis test (H4) states that the user satisfaction variable has an effect on net benefits. The positive influence value, as indicated by the path coefficient value, means that the higher the satisfaction of SAKTI users, the higher the net benefits of SAKTI on the individual performance of its users. The responses of respondents regarding their satisfaction with SAKTI can empirically be explained from the statements put forward in the questionnaire of this study. User satisfaction in this study is a perception regarding the suitability between the system attributes required to complete the tasks and responsibilities of managing state finances and the real capabilities of SAKTI. Users rate that they feel quite satisfied with SAKTI. The results of this study indicate that satisfaction with systems that meet the attributes of usefulness and effectiveness will encourage the ability of the system to make a contribution that impacts individual performance. These results support previous research conducted by Livari (2005), Noviyanti (2016) and Pambudi et al. (2018) which states that information system user satisfaction has a significant positive effect on the net benefits received from the system.

The results of the fifth hypothesis test (H5) state that user satisfaction cannot be an intervening variable or mediate the effect of system quality, information quality, and service quality on overall net benefits. The user satisfaction variable can only mediate: (i) the relationship pathway / influence of the system quality variable and net benefits; and (ii) the relationship path / influence of the information quality and net benefit variables. Meanwhile, in the relationship / influence path of service quality and net benefit variables, user satisfaction cannot be an intervening variable. This can be interpreted that the services provided can help users improve their performance and productivity (get benefits) even though they do not get maximum satisfaction with the use of the system.

5. Conclusion

Based on the results of analysis and hypothesis testing, it can be concluded that in general the system quality, information quality and service quality from the implementation of the SAKTI application have been empirically proven to have not been able to provide optimal user satisfaction and net benefits. Of the five hypotheses proposed, not all of them are proven and acceptable. System quality affects user satisfaction and user satisfaction also affects net benefits. However, information quality and service quality do not affect SAKTI's user satisfaction in an integrated manner. User satisfaction cannot be an intervening variable or a mediator between service quality and the net benefits obtained. The results of this research can be used as input and consideration in making decisions for future system improvement and development. DJPB is expected to be able to improve the quality of information and services in a comprehensive and sustainable manner so that user satisfaction and SAKTI benefits can be maximized. It is necessary to conduct reviews and improvements to several system features and facilities related to the quality of the information generated. It is important to continuously improve the quality of SAKTI considering that this application will be implemented in all central government work units in Indonesia, which are much larger in number than the work units that follow the piloting stage.

Given that the scope of research is relatively small and limited only to the BPPK environment, the research results cannot be used as a result of general evaluation. For further research, it is suggested to expand the object of research with a larger number of samples so that the evaluation is more measurable and comprehensive. In addition, the relatively low response rate for returning questionnaires from respondents can also affect the validity of the research results. The use of information technology media such as E-mail, Google Forms and the WhatsApp application has not been able to fully accommodate the research needs. For further research, it is recommended that data collection be accompanied by manual submission of the questionnaire and accompanied by filling it out.

References

Almutairi, H. (2001). *Evaluating information system success in public organizations: A theoretical model and empirical validation*. Disertasi Doktor, The Pennsylvania State University. Diakses dari: http://eresources.perpusnas.go.id.

Amriani, T. N., & Iskandar, A. (2019). Analisis Kesuksesan Implementasi Sistem Aplikasi Keuangan Tingkat Instansi (SAKTI) pada Satuan Kerja di Lingkungan Badan Pendidikan dan Pelatihan Keuangan (BPPK). *Kajian Ekonomi dan Keuangan*, *3*(1), 54-74.

Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. *Management Science*, 29(5), 530-545.

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information systems research*, 3(1), 60-95.

Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: a ten-year update. *Journal of management information systems*, 19(4), p. 9-30.

Ghozali, I. (2006). *Structural Equation Modelling Metode Alternatif Dengan Partial Least Square*, edisi 2. Semarang: BP-UNDIP.

Goodhue, D. L. & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19(2),213-236.

Hartono, J. (2011). *Metodologi Penelitian Bisnis: Salah Kaprah dan Pengalaman-pengalaman*. Yogyakarta: BPFE.

Iskandar, A., & Amriani, T. (2015). Pengujian Empiris Model Delone dan Mclean Pada Sistem Pengadaan Barang/Jasa Secara Elektronik (Studi Kementerian Keuangan). *Kajian Akademis BPPK Tahun 2015*.

Iskandar, A., Amriani, T.N., & Subekan, A. (2016). Evaluasi Atas Implementasi Aplikasi Sistem Akuntansi Instansi Basis Akrual (SAIBA) Dengan Pendekatan Delone & McLean Information System Success Model (Studi Kasus Mitra Kerja KPPN Gorontalo dan Marisa) (Evaluation on Implementation of Accrual Basic Application System (SAIBA) Using Delone & McLean Information System Success Model (Case Study of Stakeholders of KPPN Gorontalo and Marisa). *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, Volume 2, Nomor 2, Desember 2016. Available at SSRN: https://ssrn.com/abstract=2892920.

Ives,B., Olson, M., & Baroudi, S. (1983). The Measurement of User Information Satisfaction. *Communcations of the ACM*, October 1983.

Laudon, K. C., Laudon, J. P. (2000). *Management Information System in Six Edition : Organization and Technology in The Networked Enterprise*. International Edition. www. prenhall.com/laudon.

Livari, J. (2005). An empirical test of the DeLone-McLean model of information system success. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, 36(2), 8-27.

Mardiana, S., Tjakraatmadjaa, J.H., dan Aprianingsih, A. (2015). Validating the Conceptual Model for Predicting Intention to Use as Part of Information System Success Model: The Case of an Indonesian Government Agency. *Procedia Computer Science*, Volume 72, 2015, p.353-360.

Nasrudin, E. (2017). *Analisis Faktor-Faktor yang Memepengaruhi Sikap Penerimaan, Penggunaan dan Kepuasan Pengguna Sistem Aplikasi Akuntansi Keuangan Tingkat Instansi (SAKTI)*. Tesis : Program Studi Magister Akuntansi Universitas Sebelas Maret (UNS) Surabaya.

Noviyanti. (2016). Mengukur kesuksesan Sistem Akuntansi Instansi Basis Akrual (SAIBA) menggunakan model DeLone & Mclean. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 2(2), 151-173.

Pambudi, K. H. (2018). Analisis Dimensi Kesuksesan Implementasi Sistem Aplikasi Keuangan Tingkat Instansi (Sakti) Pada Satuan Kerja Wilayah Provinsi Jawa Timur Dengan Pendekatan Delone And McLean Information System Success Model. *Jurnal Ilmiah Mahasiswa FEB*, 6(2).

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perc. *Journal of retailing*, 64(1), 12.

Peter, S., Delone, W.H., & McLean, E.R. (2008). Measuring Information System success: models, dimensions, measures, and interrelationship. *European Journal of Information Systems*, vol. 17, no. 3, pp. 236-263.

Prihadi, U.Y. (2007). *Eksplorasi Data dan Analisis Regresi dengan SPSS*. Surakarta: Muhammadiyah University Pess.

Radityo, D. (2007). Pengujian Model DeLone and McLean Dalam Pengembangan Sistem Informasi Manajemen (Kajian Sebuah Kasus).

Rai, A., Lang, S. S. & Welker, R. B. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information Systems Research*, 13(1), 50–69.

Seddon P. B., & Kiew M. Y. (1996). A partial test and development of DeLone and McLean's model of IS success. *Australian Journal of Information Systems*, 4(1), 90–109.

Seddon, P., & Yip, S. K. (1992). An empirical evaluation of user information satisfaction (UIS) measures for use with general ledger accounting software. *Journal of Information Systems*, 6(1), 75-92.

Segars, A. H., & Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis. *MIS quarterly*, 517-525.

Sekaran, U. 2006. *Research Methods for Business*. 4th Ed. Jakarta: Salemba Empat.

Somad, Rismi. (2013). Pengaruh Budaya Organisasi dan Komitmen Organisasional Terhadap Kualitas Pelayanan Pegawai Hotel Berbintang Empat di Kota Bandung (Survei Terhadap Pegawai Customer Services). *Jurnal Bisnis dan Manajemen*, Vol. 9 No. 3, Mei 2013, (320-422).

Wixom, B.H. & Todd, P.A. (2005). A theoretical integration of user satisfaction and technology. *Information Systems Research*, 16(1):85-102