



# Analysis of SAKTI User Satisfaction Using the Importance Performance Analysis (IPA) Method

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## Abstract

The Ministry of Finance has officially launched the Institutional Level Financial Application System (SAKTI) for all work units of Ministry/Institutional in 2022. Seeing the diverse characteristics of work units throughout Indonesia, there will potentially be many problems that users will face. During the piloting stage from 2015, various problems were found that made end users unsatisfied. This study aimed to find out: (1) the level of satisfaction of SAKTI users after it was officially implemented in all work units of Ministry/Institutional; (2) the attributes that need to be improved and maintained in SAKTI based on 5 End User Computing Satisfaction (EUCS) variables, namely Content, Accuracy, Format, Ease of Use, and Timeliness. This study used primary data through a survey of 107 respondents as a sample from 78 work units of KPPN Makassar II. The data were analyzed using importance performance analysis (IPA). The results of this study showed that: (1) based on the t test, analysis of the level of conformity and analysis of the performance-expectation gap based on the 5 EUCS variables, SAKTI's quality was good in meeting user expectations with user satisfaction level of 96%. Gap analysis shows that all EUCS variables are negative ( $<0$ ), which means that the quality of SAKTI's performance has not met user expectations; (2) based on the Cartesian diagram mapping, there are 12 top priority attributes that must be implemented according to the expectations of SAKTI users and their performance must be improved and maintained.

## 1. Introduction

In the context of implementing good government (Good Government Governance) and improving effective and efficient public services, the Indonesian government has established an e-Government policy through Presidential Instruction Number 3 of 2003 concerning National Policy and Strategy for E-Government Development. Innovation using information technology is an opportunity to improve performance and achieve better, more effective and efficient goals. Overall, this requires a breakthrough in the concept of governance through the development of e-government as the latest model that focuses on revitalizing government management. Various applications are created to automate processes so that the resulting output can be accessed more easily.

As the leading organizing institution implementing bureaucratic reform, the Ministry of Finance continually strives to improve the quality of public financial

management with its vision of becoming a world-class Ministry of Finance that will be the main driver of Indonesia's inclusive economic growth in the 21st century. To achieve this vision, the Ministry of Finance is strengthening its information technology infrastructure by making efforts to digitize state financial management on an ongoing basis by paying attention to existing technological developments.

International best practice shows that Government financial management is always supported by a strong information technology (IT) operational framework commonly referred to as IFMIS (Integrated Financial Management Information System). The Ministry of Finance has started developing IFMIS by developing the State Treasury and Budget System (SPAN) in 2014. (Sudarto, 2019)

The need to further develop integrated and more user-friendly information systems has encouraged efforts to integrate



applications used by different Ministries/Institutions (K/L) Work Units (Satker) for simplification and efficiency. The concept of better, cheaper, faster and more responsible must also be applied in managing state finances. With the full implementation of the SPAN application at the beginning of 2015, which is a modernization of the implementation of state financial management functions in the Ministry of Finance as State General Treasurer, the Ministry of Finance also developed an Agency Level Financial Application System (SAKTI) which is integrated with SPAN and is a form of modernization of budget management in K /L as Budget User. This integrated application will play an important role in replacing other applications previously used by Satker for planning, implementation and accountability for financial reports.

SAKTI is a combination of several applications used by financial management officials who carry out treasury functions in Working Units, such as Budget User Authority (KPA), Commitment Making Officer (PPK), Payment Order Signing Official (PPSPM) as well as Expenditure Treasurer and Revenue Treasurer, according to with their respective main tasks and functions. SAKTI began to be implemented in stages in 2015 (internal piloting of the Ministry of Finance) until in 2022 it was officially launched by the Minister of Finance Sri Mulyani Indrawati on January 27 2022 via press release number SP-01/DJPb/2022 and is ready to be used by all Satker K/ L (Ministry of Finance, 3 March 2023).

The implementation of information systems in government has not always run smoothly and according to expectations. Many information systems fail to be implemented for various reasons. Meiyanti, et al (2018) argue that the challenges of implementing e-government can cause failure, with 35% total failure, 50% partial failure, and only 15% success. A study by Sauer and Cuthbertson in Pambudi (2018) also found that only around 16% of public sector information and technology projects in the UK were considered

successful, while the remaining 84% failed to varying degrees. Sauer and Cuthbertson stated in their conclusion that the reason for the failure was in the elements of insufficient simplicity, certainty and stability of the system. The cause of failure is also due to weak organizational management support and expertise in system development. Based on research conducted by Heeks in Wahid (2011) regarding the implementation of e-Government in developing countries, it was found that the failure rate for e-Government implementation reached 85%. According to Heeks, there is a gap between reality and the proposed e-Government design, where the highest level of gap lies in technological factors. User factors also have an important role in system implementation, because the user's readiness to accept the system has a major influence on the success of the development and/or implementation of the system.

SAKTI, as a national scale information system, is also at risk of failure during its implementation. The Directorate General of Treasury (DJPb) of the Ministry of Finance as the developer responsible for the development of SAKTI must prioritize it in strategic initiatives. In the 2022 fiscal year, SAKTI will officially be implemented for all Central Government Working Units in Ministries/Agencies. Seeing the diverse characteristics of working units throughout Indonesia, from very complete infrastructure facilities to very minimal infrastructure facilities, there is the potential for many problems that users will face. DeLone and McLean (1992) said that one of the metrics that determines the success or failure of the implementation of an information system is the satisfaction of end users. According to Ives, et al (1983), user satisfaction is described as the level to which users believe that the information system available to them meets their information needs. User satisfaction is widely considered to be the most important indicator of information system performance (Setiadi et al., 2023).

During the SAKTI piloting stage, Nasrudin and Widagdo (2020) found several



problems with the SAKTI application according to users, namely that it was too complicated, the internet signal was unstable, unable to display the report as a whole, lack of technical training, lack of communication between admin and operator. Apart from that, another thing that users complained about at the piloting stage according to Amriani and Iskandar (2019) was the quality of information and the quality of SAKTI services. Information in reports that are correct and accurate, complete, timely according to needs, easy to understand, up-to-date and in good format have not been proven to be able to increase user satisfaction. SAKTI is running successfully. SAKTI assistance services from officers from the SITP Directorate, HAI-DJPb, and KPPN/Kanwil DJPb also still have many obstacles for SAKTI users. The satisfaction level of SAKTI users according to Nugroho, HP (2020) is 71.97% where all satisfaction measurement variables still have a negative gap, namely the perception of reality experienced by users while using SAKTI is lower than the user's expectations.

From previous studies measuring user satisfaction of the SAKTI application during the piloting stage, there has been no research measuring SAKTI user satisfaction at the roll out stage of implementing the use of all SAKTI modules in all K/L Working Units outside the Ministry of Finance. So it is not scientifically known what level of user satisfaction the SAKTI application will have after it is officially implemented in all K/L Working Units. This research takes a different approach from previous research in measuring and evaluating the success of the information system used by SAKTI end users, namely End User Computing Satisfaction (EUCS). The model designed by Doll and Torkzadeh (1988) is used to measure user satisfaction with an application or information system which consists of 5 variables, namely content, accuracy, format, ease of use. ), and timeliness. After that, an assessment will be carried out involving end users to find out whether the quality of the SAKTI application meets user expectations or not. The next step is to use the Important

Performance Analysis (IPA) analysis method, which is a technique for comparing user expectations with the performance of the SAKTI application in measuring user satisfaction. The use of the IPA method aims to identify attributes that are still performing poorly and need to be improved immediately and attributes that must be maintained because they have met user expectations and satisfaction. This research aims to determine the level of satisfaction of SAKTI users after it was officially implemented in all K/L Working Units and provide a comprehensive analysis of the quality of the SAKTI application, which are the main priorities for improvement so that it can assist the Directorate General of Treasury, Ministry of Finance, in determining strategies to improve the quality of SAKTI performance. and fulfill complaints from dissatisfied users .

## **2. Literature Review**

### **2.1. User Satisfaction**

User satisfaction can be interpreted as a feeling of pleasure or disappointment felt by someone as a result of a comparison between the perceived performance of a product or service and their expectations. This shows that satisfaction is a feeling of pleasure or disappointment that arises when users get or do not get what they want from a product or service (Kotler, 2009).

### **2.2 Disconfirmation Theory**

According to Oliver, a person's satisfaction is formed through a comparison between the expectations they had before using a product or service and their actual experience after using the product or service. In this context, expectations refer to a person's perception of the quality or value of a product or service before using it. Meanwhile, the actual experience after using a product or service is the actual performance obtained by the product or service. If actual performance is better than expectations, then someone will feel satisfied. Conversely, if actual performance is worse than expectations, then someone will feel dissatisfied. Meanwhile, if actual performance is the same as expectations, then



someone will feel neutral or not have strong feelings towards the product or service (Oliver, 1977).

### 2.3 SAKTI

The Institution Level Financial Application System (SAKTI) is a system that integrates all financial applications at the Working Unit level which was created in accordance with the mandate of Law Number 17 of 2003 concerning State Finance and is part of the development of the Integrated Financial Management Information System (IFMIS) in Indonesia which can be Accessed at <https://sakti.kemenkeu.go.id/>.

The process of creating SAKTI was carried out through several regulatory stages, including:

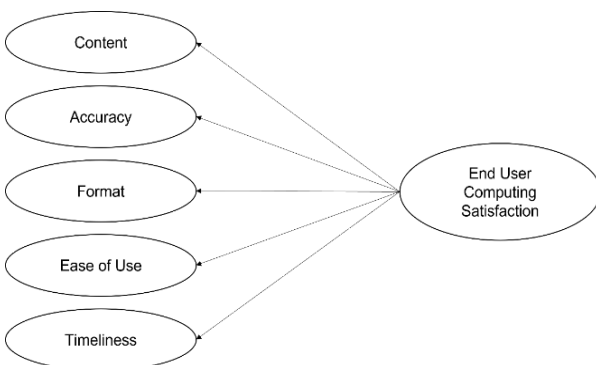
1. On June 9 2003, the Government through Presidential Instruction of the Republic of Indonesia Number 3 of 2003 implemented a transformation process towards e-Government;
2. At that time, a package of legislation was issued in the field of state finance, such as Law Number 17 of 2003 concerning State Finances, Law Number 1 of 2004 concerning State Treasury, and Law Number 15 of 2004 concerning Management and Accountability Audits. Responsible for State Finances in order to improve the professionalism and quality of state financial management, as well as transparency and public accountability;
3. Minister of Finance Regulation Number 276/PMK.05/2008 concerning the State Treasury and Budget System Reform Program stipulates that the SPAN reform program will be implemented through three main components, namely: business process reform, IT system reform and governance changes;
4. Minister of Finance Regulation Number 154/PMK.05/2013 was issued as an implementation of the Piloting of the State Treasury and Budget System (SPAN);
5. Minister of Finance Regulation Number 154/PMK.05/2014 concerning Implementation of the State Treasury and Budget System (SPAN);
6. Minister of Finance Regulation Number 223/PMK.05/2015 concerning Implementation of Piloting of Institutional Level Financial Application Systems (SAKTI);
7. Minister of Finance Regulation Number 131/PMK.05/2016 concerning Amendments to Minister of Finance Regulation Number 223/PMK.05/2015;
8. Minister of Finance Regulation Number 185/PMK.05/2017 concerning Second Amendment to Minister of Finance Regulation Number 223/PMK.05/2015
9. Minister of Finance Instruction No. 955/IMK.05/2017 Dated 20 December 2017 concerning Support for the Implementation of SAKTI Piloting within the Ministry of Finance;
10. Minister of Finance Regulation Number 159/PMK.05/2018 on 14 December 2018 concerning the implementation of SAKTI Piloting revokes PMK 223/PMK.05/2015 which has been amended several times with PMK 131/PMK.05/2016 and PMK 185/PMK.05 /2017;
11. On 27 December 2019, Minister of Finance Regulation Number 203/PMK.05/2019 was issued concerning amendments to Minister of Finance Regulation Number 159/PMK.05/2018;
12. Decree of the Minister of Finance Number 957/KMK.05/2019 dated 31 December 2019 concerning Implementation of Phase IV SAKTI Piloting;
13. Minister of Finance Regulation Number 171/PMK.05/2021 concerning Implementation of the SAKTI System and repealing Minister of Finance Regulation Number 203/PMK.05/2019;
14. Letter from the Directorate General of Treasury Number S51/PB/2021 concerning Notification of the Roll Out Implementation of the Institutional Level Financial Application System (SAKTI).

## 2.4 End User Computing Satisfaction (EUCS)

End-User Computing Satisfaction (EUCS) is a model used to measure the success of using information systems. This model was developed by Doll and Torkzadeh (1988), where the results of their research concluded that there are 5 factors that can influence user satisfaction with information systems, namely content, accuracy, format, ease of use, and punctuality (Timeliness). EUCS is an overall evaluation method of end users of information systems based on their experience in using the system.

1. Content is a variable that measures how information is presented to end users.
2. Accuracy is a variable that measures the accuracy of information.
3. Format is a variable that measures the layout or interface of the information system used to present content.
4. Ease of Use is a variable that measures how easy it is for users to use an information system.
5. Timeliness is a variable that measures the availability of information that is updated at one time.

Figure 1 End User Computing Satisfaction (EUCS) Model



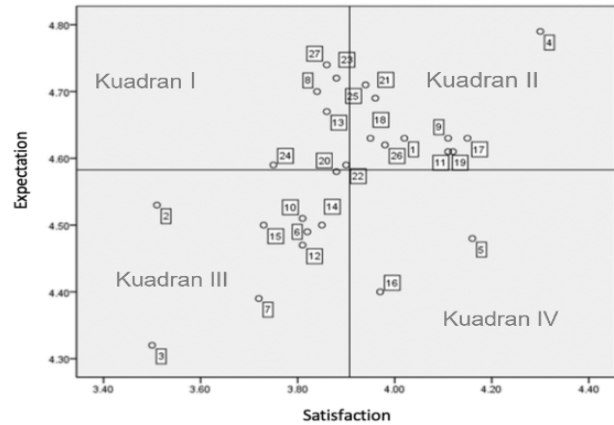
Source: Pibriana & Fitriyani (2022)

## 2.5 Importance Performance Analysis (IPA)

The Importance Performance Analysis (IPA) method is an analytical technique used to evaluate and measure the performance of an organization or company in meeting consumer expectations and needs. This method was first introduced by Martilla and James (1977) in their article "Importance Performance

Analysis" published in the Journal of Marketing. The IPA method uses two variables, namely the level of hope/importance and the level of performance/satisfaction of an organization or company (Tjiptono & Chandra, 2017).

Figure 2 Example of a Cartesian Matrix IPA diagram



Source: Hamzah et al. (2019)

Respondents were asked to assess the level of hope/importance and level of company performance, then the average value of the level of hope/importance and level of performance was analyzed on the IPA matrix, where the X axis represents performance perception/satisfaction while the Y axis represents hope/importance. The results of the analysis on the IPA matrix will produce four quadrants which show the extent to which the organization or company's performance meets consumer expectations and needs. The four quadrants are:

### a. Top Priority (Concentrate Here):

This quadrant shows that the factors assessed have a high level of hope/importance for users but the application performance is still considered unsatisfactory. Therefore, developers need to focus resources on improving performance that falls into this quadrant.

### b. Maintain Achievements (Keep Up the Good Work)

In this quadrant there are factors that are considered important by users and application performance is also considered very satisfactory. Therefore, developers need to



strengthen this performance to maintain user satisfaction and maintain their position in the market.

### **c. Low Priority ( Low Priority )**

The factors contained in this quadrant are considered less important by users and their performance is not very satisfactory. This means that the factors in this quadrant have a low level of expectation/importance from users and their performance is also considered poor. It is necessary to reconsider to improve the factors included in this quadrant by considering their influence on the benefits perceived by users.

### **d. Excessive ( Possibly Overkill )**

This quadrant shows that the factors assessed have a low level of importance but the application performance is very satisfactory, so they are considered excessive by users. This shows that factors influencing user satisfaction are over-evaluated in implementation. This happens because users consider these factors to be less important or less expected, but the implementation is done very well .

## **3. Research Methods**

This research is descriptive with a quantitative approach aimed at providing a description of the data obtained from the responses of respondents to the implementation of SAKTI at the entire roll-out stage of K/L Satker. The study was conducted across K/L Working Units as User Authorization for Budgets which partner with KPPN Makassar II, acting as the State General Treasurer's Attorney. KPPN Makassar II is located at Jl. Urip Sumoharjo Km.4, State Finance Building (GKN) 1st Floor, Makassar City. Meanwhile, the KPPN Makassar II partner Satkers are located in the Makassar City area, Gowa Regency, Maros Regency, and Pangkajene and Islands Regency (Pangkep), South Sulawesi Province.

The population in this research consists of SAKTI users in 222 K/L Satker who have effectively implemented SAKTI across all modules in the 2022 budget year and are

partners of KPPN Makassar II. The population is difficult to determine precisely due to differences in Satker characteristics such as human resources availability, workload, main duties, budget ceilings, and leadership policies regarding user accounts that may coincide with SAKTI users in each Satker. However, assuming that each Satker has 8 SAKTI users, namely 1 administrator user, 1 budget module user, 1 person also as a commitments and payments module user, 2 treasury module users, 1 person also as a supplies and assets module user, 1 person also as a GLP and receivables module user, 1 person also as a PPK and validator user, and 1 person also as a PPSPM and approver user, then the population in this study is 1,980 people.

The sample was taken using purposive sampling technique, selecting respondents who meet the sample criteria from SAKTI users with user authority levels as follows: 1. Budget operator, 2. Commitment operator, 3. Payment operator, 4. Expenditure treasurer operator, 5. Revenue treasurer operator, 6. GLP operator, 7. Asset operator, 8. Asset validator, 9. Asset approver, 10. Inventory operator, 11. Inventory approver, 12. Receivables operator. Users with admin module authority were not included as samples because of low module usage intensity. The method of determining the minimum sample used the sloving method with a minimum sample of 95 respondents.

The method of data collection used observation and questionnaire methods. This questionnaire is a research instrument targeted at SAKTI users in KPPN Makassar II partner Satker to determine their perceptions of the SAKTI application based on the EUCS model consisting of 5 variables: content (Content), accuracy (Accuracy), format (Format), ease of use (Ease of Use), and timeliness (Timeliness). Measurements were made using a Likert scale. The assessment score based on the Likert scale started from number 1 to 5 and can be seen as follows:



Performance Interest

1 = Strongly Disagree (SD) 1 = Not Important (NI)

2 = Disagree (D) 2 = Less Important (LI)

3 = Neutral (N) 3 = Important (I)

4 = Agree (A) 4 = Very Important (VI)

5 = Strongly Agree (SA) 5 = Extremely Important (EI)

Source: Processed data, 2023

The questionnaire was distributed directly via email facilitated by KPPN Makassar II and also through the Google Forms application by sharing the questionnaire link through the KPPN Makassar II partner Satker Whatsapp Group, then data was collected through this media because it was easier to recapitulate questionnaire data automatically. The research questionnaire was developed based on literature studies on previous research that have been conducted by Pambudi (2018), Saputra & Kurniadi (2019), Istianah & Yustanti (2022), Hadi (2022), and Pibriana & Fitriyani (2022).

Difference Test (t test), namely to find out whether there is a significant difference between expectations and perceptions of the performance of the SAKTI application. The difference test using the paired sample t-test method aims to compare the average differences in the same sample group between user interest and user perception of the performance of the SAKTI application. To carry out the analysis here, the average value of each item per EUCS dimension was entered into the SPSS application, which then carried out an average comparison.

Gap Analysis, namely calculating the difference between the average user perception score and the average user expectation score for each EUCS variable. This difference is then interpreted as a gap that shows the difference between expectations (importance) and performance (performance). Important Performance Analysis Method (IPA), namely respondents are asked to give values to important aspects (expectations/interests) and performance aspects (performance).

To analyze the data, SPSS 26 was used which has scattering diagram analysis facilities. The result is a Cartesian diagram which is divided into four parts with two perpendicular lines that intersect directly at point X and point Y. In this diagram, X is the average score for the level of performance and Y is the average score for the level of interest. The IPA analysis aims to place the attributes of performance satisfaction and interest of SAKTI application users in quadrants I, II, II, or IV on the Cartesian diagram.

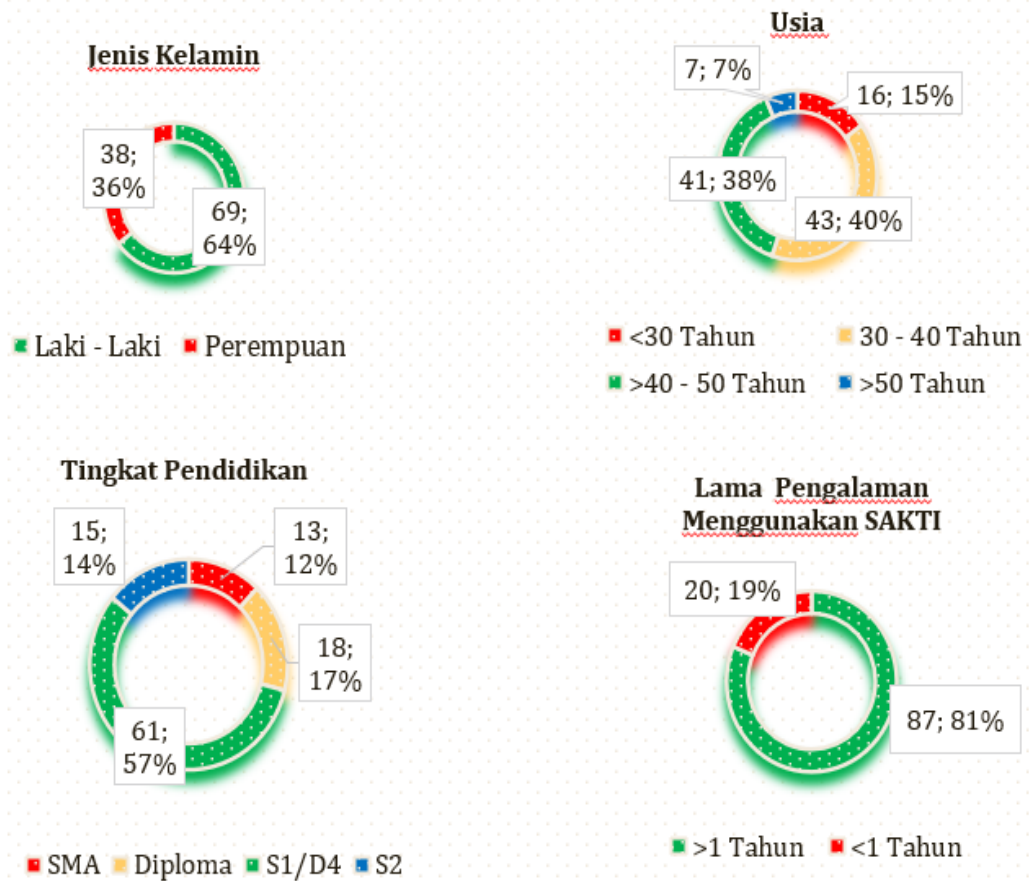
## 4. Results and Discussion

### 4.1 Research result

The initial step in the procedure for spreading the questionnaire is to submit the application agreement to the Secretariat General of the Directorate General of Treasury, Ministry of Finance. After this, the Source Section Power Management will notify KPPN Makassar II to assist in the deployment and completion of the questionnaire. Next, coordination is done with the Head Subdivision General at KPPN Makassar II.

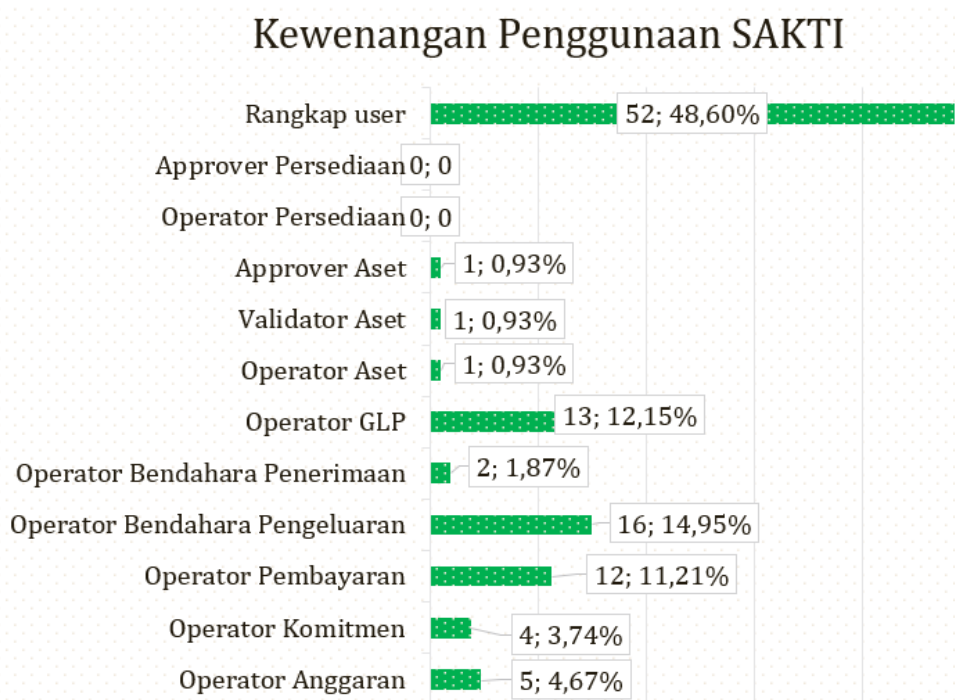
The questionnaire study utilizes the Google Forms application. The deployment and completion process of the questionnaire are conducted online via the questionnaire link ([bit.ly/SurveyKepuasanPenggunaSAKTI](https://bit.ly/SurveyKepuasanPenggunaSAKTI)) sent to the email addresses of Satker partners working with KPPN Makassar II and also through the WhatsApp group of Padaidi KPPN Makassar II. The number of respondents who have filled in the questionnaire is 107, exceeding the minimum sample requirement of 95 respondents. In total, these 107 respondents come from 78 Working Units partnering with KPPN Makassar II. Characteristics of the respondents based on gender, age, education level, length of experience using SAKTI, and SAKTI authority can be observed as follows:

Figure 4 Characteristics Respondent Based on Type Gender , Age , Education Level, and Length of Experience Using SAKTI



Source : Processed data , 2023

Figure 5 Characteristics Respondent Based on Authority Use of SAKTI



Source : Processed data , 2023





Amount respondents based on authority using SAKTI can be known that in some Satker partner KPPN Makassar II work is available double authority use. Because adapt condition characteristics Satker and become the most dominant with percentage 48.60% of total respondents.

#### a. Validity and Reliability Test Results

Validity testing is conducted to evaluate the validity of the questionnaire. The validity

test measures the accuracy and precision of the tool in measuring the intended function. If the test value ( $r_{count}$ ) is greater than the critical value ( $r_{table}$ ) at a significance level of 0.1, then the item statement in the questionnaire is considered valid. However, if the test value ( $r_{count}$ ) is less than the critical value ( $r_{table}$ ), then the item statement in the questionnaire for the variable is considered invalid.

Table 3. Validity Test Results

Variable	Importance	Performance	r table	information
Contents 1	0.777	0.832	0.1599	Valid
Content 2	0.840	0.832	0.1599	Valid
Content 3	0.875	0.835	0.1599	Valid
Content 4	0.916	0.841	0.1599	Valid
Accuracy 1	0.726	0.718	0.1599	Valid
Accuracy 2	0.837	0.833	0.1599	Valid
Accuracy 3	0.908	0.878	0.1599	Valid
Format 1	0.888	0.857	0.1599	Valid
Format 2	0.891	0.815	0.1599	Valid
Format 3	0.843	0.805	0.1599	Valid
Format 4	0.814	0.787	0.1599	Valid
Ease Of Use 1	0.919	0.875	0.1599	Valid
Ease Of Use 2	0.791	0.765	0.1599	Valid
Ease Of Use 3	0.901	0.793	0.1599	Valid
Ease Of Use 4	0.881	0.788	0.1599	Valid
Ease Of Use 5	0.931	0.859	0.1599	Valid
Ease Of Use 6	0.743	0.677	0.1599	Valid
Timeliness 1	0.875	0.765	0.1599	Valid
Timeliness 2	0.908	0.833	0.1599	Valid
Timeliness 3	0.913	0.793	0.1599	Valid

Source: Processed data, 2023

Based on the results of the validity testing presented in Table 3 above, it can be concluded that all statements in the questionnaire are deemed valid. This conclusion is drawn because the calculated  $r_{value}$  for all statement items exceeds the  $r_{table}$  value.

Reliability of a questionnaire refers to the consistency of respondents' answers to questions over time. To test reliability, the statistical technique known as Cronbach's Alpha coefficient is utilized. A questionnaire is considered reliable if the Cronbach's Alpha



coefficient value exceeds 0.6 or 60% (Sugiyono, 2018).

Table 4. Reliability Test Results

Cronbach's Alpha (Importance)	Cronbach's Alpha (Performance)	Standard Reliability	Information
0.983	0.975	0.60	Reliable

Source: Processed data, 2023

### b. Normality Test Results

To test normality in this study, the Kolmogorov-Smirnov (KS) method was used with a significance level of 0.05.

Table 5. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		107
Normal Parameters <sup>a, b</sup>	Mean	18543.9485
	Std. Deviation	1231.60509
Most Extreme Differences	Absolute	,146
	Positive	,146
	Negative	-.107
Statistical Tests		1,246
Asymp. Sig. (2-tailed)		,078
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Processed data, 2023

Based on Table 5 above, it can be seen that the Asymp. Sig. (2-tailed) is 0.078, which is greater than  $\alpha = 0.05$  ( $0.078 > 0.05$ ). Therefore, it can be concluded that the data has a normal distribution.

### c. Analysis of Important and Performance Levels of Conformity

The analysis of suitability level is used to evaluate how well the quality of the SAKTI application aligns with the users' evaluation.

This measurement involves comparing the performance of the SAKTI application as experienced by the users with their desired expectations (importance). The outcome is the achievement of the suitability level of SAKTI performance quality, which is measured as a percentage of suitability. Below is the calculation of the suitability level for each EUCS variable:

Table 6. Calculation of Performance (P) and Importance (I) Conformity Levels

Var	Indicator	Mean Performance		Mean Importance		Conformity Rate %	
		Per Attribute	Var	Per Attribute	Var	Per Attribute	Var
Content	Information Quality	4.74	4.73	4.51	4.55	95.27	96.34
	Completeness	4.71		4.51		95.83	
	Reliability	4.76		4.63		97.25	



	Outputs	4.70		4.56		97.02	
Accuracy	Conscientious	4.56	4.69	4.38	4.54	96.11	96.74
	Accurate	4.74		4.60		97.04	
	Appropriate	4.78		4.64		97.06	
Format	Currency	4.70	4.68	4.55	4.54	96.82	97.01
	Appearance	4.68		4.49		95.81	
	Colour	4.68		4.57		97.60	
	Fonts	4.67		4.57		97.80	
Ease of Use	User Friendly	4.73	4.65	4.52	4.43	95.65	95.10
	Service System 1	4.58		4.26		93.06	
	Service System 2	4.68		4.49		95.81	
	Service System 3	4.73		4.50		95.26	
	efficiency	4.70		4.54		96.62	
	Easy to Understand	4.50		4.23		94.18	
Time lines	Response Time	4.62	4.67	4.37	4.49	94.74	96.12
	Information Availability	4.69		4.54		96.81	
	Up to date	4.69		4.54		96.81	

Source : Processed data , 2023

In the content variable, the average suitability level is 96.34% overall. Among all attributes, the one with the lowest suitability level is found in the Information Quality indicator, specifically "the information in the SAKTI application is appropriate with user needs", with a suitability level of 95.27%.

For the accuracy variable, the overall average suitability level is 96.74%. The attribute with the lowest suitability level is observed in the Conscientious indicator, particularly "sparse occurrence of errors in the information generated by the SAKTI Application", with a suitability level of 96.11%.

Regarding the format variable, the overall average suitability level is 97.01%. The attribute with the lowest suitability level is identified in the Appearance indicator, specifically "layout design of the SAKTI

application is easily understood and used", with a suitability level of 95.81%.

In terms of ease of use variable, the overall average suitability level is 95.10%. The attribute with the lowest suitability level is found in the Service System 1 indicator, namely "rapid response from the Ministry of Finance HAI to user questions or problems regarding the SAKTI application", with a suitability level of 93.06%.

In the timeliness variable, the overall average suitability level is 96.12%. The attribute with the lowest suitability level is within the Response Time indicator, specifically "response time for the SAKTI application to input data and download reports quickly", with a suitability level of 94.74%.

Table 7. Overall Average Level of Importance and Performance Conformity

Variable	Mean Performance	Mean Importance	t	Sig (2-tailed)
Content	4.73	4.55	7,715	0.005
Accuracy	4.69	4.54	12,250	0.007
Format	4.68	4.54	6,599	0.007
Ease of Use	4.65	4.43	10,008	0,000
Timeliness	4.67	4.49	5,800	0.028

Source : Processed data , 2023

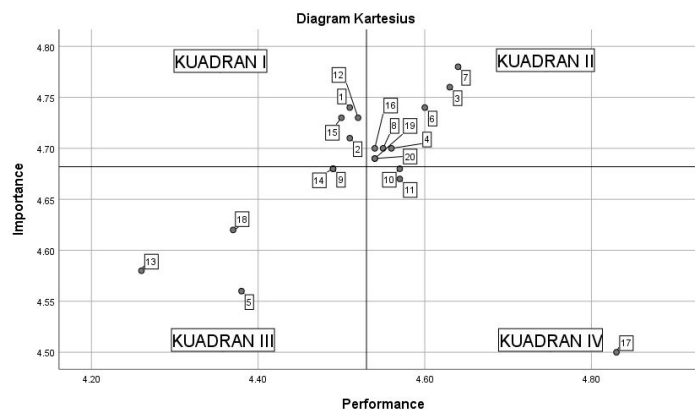
Based on Table 8 above, it can be concluded that the results of the statistical calculations using the paired sample t-test indicate a significant difference in the average ratings of respondents (users) between performance scores and importance scores, with a significance level below 5% or 0.05. Additionally, the statistical calculation results with the t-test also reveal the existence of a gap between the expected performance of the application and the perceived performance by the user. This indicates that users have high expectations for the quality of SAKTI, as the results show that their expectations are higher

than the actual performance level. The results of the paired sample t-test are consistent with the calculation of the performance-importance gap, which demonstrates that all five EUCS variables of SAKTI still have a negative gap value.

**d. Importance Performance Analysis**

Importance Performance Analysis done with count average value for every attribute statement from importance and performance variables . Data is processed using SPSS 26 and producing IPA Cartesian diagram illustration for all over SAKTI users .

Figure 6. Natural science Cartesian diagram



Source : Processed data , 2023

Based on the Cartesian diagrams presented in Figure 6 above, there are four (4) attributes in quadrant I, eight (8) attributes in quadrant II, five (5) attributes in quadrant III, and three (3) attributes in quadrant IV. Quadrant I is the main priority for improvement, as users perceive the attributes in this quadrant as very important with high

expectations. However, they feel that the performance of these attributes when using SAKTI has not yet reached its maximum potential. The attributes included in Quadrant I are as follows:



Quadrant I includes the following attributes:

1. The information in the SAKTI application is appropriate with user needs" (Content Variable)
2. The information contained in the SAKTI application is complete" (Content Variable)
3. SAKTI application is easy and convenient to use (user-friendly)" (Ease of Use Variable)
4. Training/workshops/FGD held beneficial in the implementation of SAKTI" (Ease of Use Variable).

Quadrant II represents attributes that must be maintained by the Directorate General of Treasury, Ministry of Finance, as the developer of SAKTI, based on the evaluation of users as respondents. Attributes in this quadrant are considered important by users, and the performance of SAKTI is also perceived as good according to users. Therefore, SAKTI developers must maintain the performance of these attributes to continue increasing the quality to meet the satisfactory expectations of users. The analysis results show that there are eight (8) attributes in Quadrant II, namely:

Quadrant II comprises the following attributes:

1. The information contained in the SAKTI application is available and reliable (valid)" (Content Variable)
2. Information in financial reports generated by the SAKTI application is easy to trace transaction data" (Content Variable)
3. Every module in the SAKTI application presents accurate information in accordance with the user's access rights" (Accuracy Variable)
4. Information output produced by the SAKTI application is appropriate with the input data" (Accuracy Variable)
5. Every module in the SAKTI application presents accurate information in accordance with the user's access rights" (Format Variable)
6. The process of entering data in the SAKTI application is very easy" (Ease of Use Variable)
7. SAKTI application provides required information for preparing financial reports and audit needs" (Timeliness Variable)

8. SAKTI application is always updated to adjust to developments and changes in work needs" (Timeliness Variable)

Quadrant III represents attributes with low priority, where users' expectations for the performance of the SAKTI application in this quadrant are low, and their experience using SAKTI is also considered not satisfactory. Therefore, the developer of SAKTI does not need to focus on improving attributes in this quadrant. The analysis results indicate that there are five (5) attributes in Quadrant III, namely:

1. Error system (error) above the information generated by the SAKTI Application is sparse occurred ( Accuracy Variable )
2. Layout design SAKTI application is easy understand and use ( Format Variables )
3. O- Ministry of Finance fast give response to question or problem user SAKTI application ( Ease of Use Variable )
4. KPPN is responsive in handle problem related SAKTI application ( Ease of Use Variable )
5. Response time of the SAKTI application in input data and download reports fast ( Variable Timeliness)

Quadrant IV comprises attributes that are deemed redundant, as the performance of the application according to users is already good and may even exceed user expectations. Users do not have high expectations for these attributes, so there is no need to excessively focus on attributes in this quadrant. The analysis results reveal three (3) attributes in Quadrant IV, namely:

1. The colors used on the display of the SAKTI application make it easy to look for information" (Format Variables)
2. The size of letters (fonts) used on the display of the SAKTI application is easy to read" (Format Variable)
3. The SAKTI application is easy to learn alone without help from others" (Ease of Use Variable)

## 4.2 Research Discussion

Based on data from the results of this research, overall user satisfaction with SAKTI,



seen from the 5 EUCS variables (Content, Accuracy, Format, Ease of Use, and Timeliness) shows that SAKTI's performance is good according to users and they feel satisfied using SAKTI. This can be seen from the average number of SAKTI user satisfaction for all EUCS variables reaching 96%. However, there are still several attribute items that require improvement and must still be prioritized for improvement, especially 4 attributes in quadrant I which are priority improvements and eight 8 attributes in quadrant II whose performance needs to be maintained.

Based on the results of statistical tests using different paired sample t-tests, it shows that there is a positive and significant difference in the average assessment of respondents (users) between performance scores and expectation scores (importance). The level of user satisfaction has an important role in the quality of SAKTI's performance. Satisfaction with the quality of SAKTI's performance is very influential in measuring the success of its implementation. Therefore, evaluation and improvement are always needed to ensure user satisfaction is maintained and increased.

Based on data from IPA analysis, a Cartesian diagram is used to describe the position of attributes that map the level of importance for users. The research results show that there are 12 attributes in quadrant I (4 attributes) and quadrant II (8 attributes). These attributes are the main priority that must be implemented in accordance with the expectations of SAKTI users, because these factors are considered very important and their performance must be improved and maintained and always evaluated.

#### **a. Quadrant I**

In this quadrant, there are 2 indicators that need to be the main priority for improvement, namely information quality and user friendly indicators. All attributes of this indicator are considered important by users, but its performance is considered unsatisfactory to users. Therefore, the Directorate General of Treasury of the Ministry of Finance must focus and prioritize improving

the performance of attributes in this quadrant, in accordance with the wishes and expectations of users. The following are the attributes included in this quadrant:

#### **1) The information contained in the SAKTI application is in accordance with user needs**

Information that suits their needs is very important for users. However, in reality there are still some users who are not satisfied with the information in SAKTI because what users need is still not available in SAKTI. One of the user needs that can be met is that the KIB print menu in the asset module does not exist, even though in some conditions it is really needed to complete the administrative requirements for asset management.

#### **2) The information contained in the SAKTI application is complete**

Complete information on the SAKTI application is very important for users, but in reality users still feel dissatisfied because the information is still incomplete. For example, in the GLP module, when the user wants to trace transactions per account in the ledger report, the ledger can only be opened per account, you cannot see all the accounts directly.

#### **3) The SAKTI application is easy and comfortable to use (user-friendly)**

According to users, the SAKTI application should be easy and comfortable to use. This is a high expectation for users, but in reality users are still not satisfied enough. A good application is an application that makes users comfortable using it so that work becomes easier to carry out rather than making it more difficult for users. Among users, there are still those who complain about reports so that they can have more choices and be processed more quickly, so that if there are errors they can be corrected immediately by the user. Apart from that, users also find it difficult when they want to see the results of data input because there is no page view feature, everything has to be downloaded via the report menu.



#### **4) The training/training/workshop/FGD held is useful in implementing SAKTI**

Training on the use of SAKTI is very important for users and respondents expect regular training to be held. KPPN as the authority of BUN who is responsible for assisting the implementation of SAKTI needs to make a routine schedule throughout the year for refreshments on how to use SAKTI.

#### **b. Quadrant II**

In this quadrant, there are 8 attributes whose performance needs to be maintained, namely the indicators of reliability, output, accurate, appropriate, efficiency, information availability, and up to date. Quadrant II shows the existence of attributes that are considered important by users and whose performance is considered satisfactory. Therefore, SAKTI developers must maintain the performance of these attributes in order to continue to improve their quality and meet user expectations. The following are the attributes included in this quadrant:

#### **1) The information in the SAKTI application is reliable (valid)**

This attribute is considered important by users and has been recognized by users that SAKTI can be relied on in Satker's business processes for managing budgets and reporting. What is needed is an effort to always maintain the quality of these attributes.

#### **2) The information in the financial reports produced by the SAKTI application is easy to trace transaction data**

The information produced in financial reports is in accordance with government financial reporting standards and users feel satisfied when searching transaction data because SAKTI has provided various supporting reports for preparing financial reports such as a to do list report menu, hanging transaction reports and applications are also provided. SAKTI monitoring called MonSAKTI.

#### **3) Each module in the SAKTI application presents accurate information according to user access rights**

Information that is clear, complete and of good quality will be very valuable, valuable and make it easier for users to carry out their tasks. Each module has been provided according to the user's access rights.

#### **4) The information output produced by the SAKTI application is in accordance with the input data**

The information produced in accordance with the input data is very important for users and in fact SAKTI is able to provide accurate information. Compatible information between input and output plays a very important role in user decision making.

#### **5) Each module in the SAKTI application presents accurate information according to user access rights**

The information contained in SAKTI is in accordance with the access rights of each user. Information is provided according to the needs of each user. SAKTI has provided various modules starting from the budget preparation module, budget implementation module and budget reporting and accountability module.

#### **6) The data input process in the SAKTI application is very easy**

A data input process that is easy for users is very important. Inputting data should not make it difficult for users so as not to waste a lot of time completing tasks.

#### **7) The SAKTI application has provided the information needed to prepare financial reports and for audit needs**

In preparing financial reports and for audit purposes, information must be provided completely and as needed. SAKTI users feel satisfied because all the information needed for financial reporting and auditing is available.

#### **8) The SAKTI application is always updated (up to date) to adapt to developments and changes in work needs**

The SAKTI application is always maintained according to developments and user needs. However, it should be noted that



when system maintenance is carried out, it should be carried out outside working hours so as not to disturb the work activities of users in each Working Unit, for example when they want to submit an SPM to KPPN.

## 5. Closing

### 5.1 Conclusion

The satisfaction level of SAKTI users, seen from the 5 EUCS variables, is 96%. This shows that SAKTI's performance is good and users are satisfied using SAKTI. However, from the results of the gap analysis and different tests, all variables have negative gaps ( $<0$ ), which means that the quality of SAKTI's performance is still below the expectations of SAKTI users.

From the results of the IPA analysis, a mapping of the level of importance for SAKTI users was carried out on a Cartesian diagram which shows that there are 12 attributes in quadrant I and quadrant II from the indicators of information quality, user friendly, reliability, output, accurate, appropriate, efficiency, information availability, and up to date. These attributes are a top priority that must be implemented in accordance with the expectations of SAKTI users, because they are considered very important and their performance must be improved and maintained and always evaluated.

### 5.2 Suggestion

The Directorate General of Treasury of the Ministry of Finance needs to make efforts to improve the five EUCS variables so that they can meet user expectations. Evaluations must be carried out regularly to ensure that SAKTI remains of high quality and meets the needs and expectations of its users. Improving the quality of SAKTI can be focused on characteristics that users consider to be lacking, especially on indicators of information quality and user friendliness. Further development of these aspects will increase user satisfaction with SAKTI.

Apart from that, the Directorate General of Treasury of the Ministry of Finance needs to ensure that training and increasing employee

competency as the SAKTI IT support team is carried out so that they can provide better and faster service to user problems. In order to obtain a more in-depth picture of the information system being studied, further research can add other indicators to observe the research variables. This will provide a more comprehensive insight into the quality of SAKTI and its impact on users.

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