Gap Analysis E-Procurement Satisfaction Service Quality Index Through Internal and External Survey Using E-Service Quality Model

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ABSTRACT
The smooth running of bank business activities is closely related to the process of procuring goods / services. Good and quality service will improve the image of the goods / services procurement department in carrying out its duties and responsibilities. Therefore, it is need the Measurement of the level of service satisfaction to determine the quality of service that has been provided. The purpose of this research is to determine the distribution of user satisfaction based on five dimensions of service quality, namely tangibles, reliability, responsiveness, assurance, empathy with two indicators, namely reality and expectations, as well as knowing the things that hinder the procurement process. The data were collected by using two types of questionnaires with a population of internal and external parties. The sampling method used was carried out by simple random sampling. Overall, all respondents expressed satisfaction with the services provided, but there were several things that need to be improved. The results of the research on the external side showed that there was a huge gap in the aspect of completeness of the electronic pre-tender process of 6.50%. In the other hand, the internal side found that the biggest gap was the aspect of tender planning, namely 9.67%. The dimension that needs to be a priority as a step to improve service quality so as to reduce the gap that occurs was the assurance dimension from the external side and the internal responsiveness.

Keywords: *E-Procurement, Service Quality Index, Internal & External Survey, E-Service Quality Model.*

1. INTRODUCTION

In the process of procuring goods and services in banking institutions, a good system is needed to minimize the corruption, collusion and nepotism. In order to increase efficiency, transparency and effectiveness, the procurement of goods and services in banking institutions is carried out by using e-procurement. Not only should the implementation of e- be transparent, but also it should be carried out in all aspects of public service management.

These aspects include policy, planning, implementation, supervision or control, and performance result reports. E-procurement in banking institutions is carried out by using the Electronic Procurement System application where the implementation of e-procurement has been regulated by Presidential Decree No. 54 of 2010 concerning Procurement of Goods and Services [1].

The operational technical provisions for the procurement of goods or services electronically also refer to the regulations that have been prepared by the government [2], [3], [4]. Electronic transaction information on the implementation of the procurement of goods or services by banking institutions electronically is regulated by law [5].

Procurement of goods or services for banking institutions electronically can be done by e-tendering or e-purchasing. E-tendering is a procedure for selecting goods or services providers that is carried out openly and can be followed by all goods or service providers. It is registered in the electronic procurement system by submitting one bid within a predetermined time while E-purchasing is a procedure for purchasing goods or services through an electronic catalog system.

The scientific work refers to previous studies that used the service quality model as a method of measurement and assessment. The study was conducted using four dimensions, namely tangible, reliability, responsiveness and empathy [6]. Other research on health

services using Servqual was used to determine whether health services were running properly or that adjustments must be made to the health demographic profile of health service users, where the quality of health services consisted of two basic dimensions, namely technical quality and clinical quality [7].

Subsequent research is about e-service, which is the most effective system in providing public services because it combines three dimensions of service, such as services, electronics, and society. The concept of e-service is defined as a service that describes information technology mediators, websites, and other mobile devices [8], [9].

The previous research has used customer satisfaction as the dependent while dimensions tangible, reliability, responsiveness, assurance, and empathy are considered independent variables. The results of the analysis using descriptive statistics, Pearson correlation, and multiple regression showed that the four variables, such as tangible, reliability, responsiveness and empathy, had a significant positive relationship with customer satisfaction. However, the assurance factor did not have a significant relationship with customer satisfaction. It implies that the companies should focus on tangible, reliability, responsiveness and empathy because they are the main indicators of customer service satisfaction.

This research measured the level of service satisfaction in order to determine the quality of services that have been provided based on five dimensions of service quality, such as tangible, reliability, responsiveness, assurance, and empathy. The purpose of this study aims to determine the distribution of user satisfaction with two variables, namely reality and expectations. The technique of data collection used came from two kinds of internal and external questionnaires which were taken randomly. Thirty external respondents consisted of auction participants, government and private companies while the internal respondents were twenty respondents, namely Commitment Making Officials, Procurement Officials, Procurement Administration Staff and E-Procurement System Admin.

2. METHODS

The data were collected by using internal and external surveys. Internal and external assessments involved two variables, namely unwanted and perceived expectations for goods or services procurement. Each variable used a Likert scale approach. In the measurement, there were five dimensions of satisfaction that consisted of tangible, reliability, responsiveness, assurance, and empathy.

The population of respondents for the external survey was thirty people who were randomly drawn, while the internal survey consisted of twenty commitment makers, procurement officers, administrative staff and system administrators.

Furthermore, the validity and reliability tests were carried out on the incoming answers to determine the validity and consistency of the questionnaire using the SPSS application at the data processing stage. The validity test was conducted by using the Pearson display. Invalid data would not be included in the reliability test. From the valid data, the reliability test was done with the Cronbach's alpha coefficient. The next stage was data analysis on the level of current and expected service satisfaction to determine the gap between responsiveness and expectations. The process stages are shown in picture 1

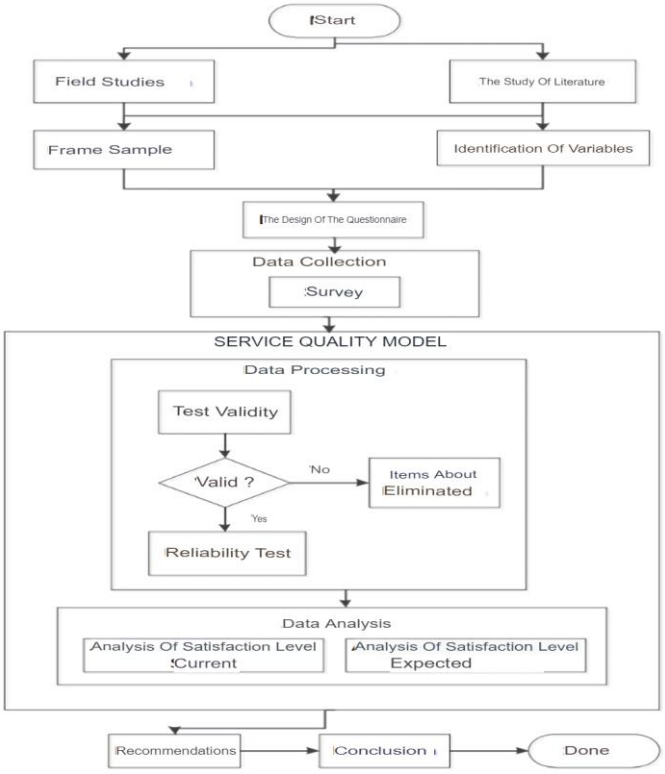

Figure 1 The diagram of research process

3. RESULTS AND DISCUSSION

3.1 *The findings suggest that the owner's entrepreneurial*

3.1.1 *The Result of Validity Test*

Validity testing was carried out to know the accuracy questionnaire questions to perform its measuring function, so that it was known that the question items were able to achieve the desired measurement objectives correctly or not.

In the external assessment with thirty respondents, the value of n was twenty-eight (30-2) and with a significance of 5%, then the value of r table was in 0.360. The results of the validity test of the external assessment of the reality and expectation variables were shown in

Table 1. From Table 1 it was known that there was one item of the reality variable that was invalid because the correlation value was in 0.198. It means that it was smaller than the r table value, 0.360, which was the user friendly electronic preview process. It was caused that the range of values in the questionnaire was too varied. There was only one item that was invalid. In addition, the question was omitted and no re-liability test was carried out. As for the expected variable, all item questions were declared valid because the correlation value was greater than the r table value of 0.360.

Table 1. Validity Test Results External Assessment with Pearson Correlation

No	Aspect	Reality Corelation	r table (sig 5%) N=30	Hope Corelation of the pretender electronicic
1	Theability of the employee	0,775	0,360	0,824
2	The skills of the employee	0,621	0,360	0,992
3	The facility of the service	0,863	0,360	0,962
4	The employee appeareance	0,709	0,360	0,890
5	Socialization	0,626	0,360	0,828
6	The easiness of pretender electronic	0,702	0,360	0,841
7	The friendliness user of the pretender electronic	**0,198	0,360	0,810
8	Monitoring pratender elektronik	0,357	0,360	0,699
9	The complettness of pretender electronic	0,352	0,360	0,626
10	Punctuality	0,756	0,360	0,831
11	Sincerity	0,669	0,360	0,862
12	Appropiate service	0,846	0,360	0,932
13	Tender speed	0,873	0,360	0,905
14	Free in losing document	0,838	0,360	0,932
15	System n notification	0,812	0,360	0,903
16	The stage of process	0,842	0,360	0,973
17	Management time in service	0,861	0,360	0,818
18	Willingness to help	0,789	0,360	0,944
19	Respond speed	0,810	0,360	0,952
20	The easiness in getting information	0,723	0,360	0,888
21	Work as job desc	0,921	0,360	0,981
22	Professionalism	0,889	0,360	0,972
23	Punctuality	0,921	0,360	0,982
24	Technical knowledge	0,793	0,360	0,863
25	Polite behavior	0,817	0,360	0,834
26	The care	0,811	0,360	0,930
27	Resonding to complain	0,865	0,360	0,914
28	The priority of the interest	0,484	0,360	0,505
29	Consultattion service	0,634	0,360	0,915
30	Personal Care	0,807	0,360	0,915

Note :

**Invalid

In internal assessments with as many as twenty respondents, the value of n was eighteen, so that the value of r table was 0.378. The results of the validity test of the internal assessment of the reality and expectation variables were shown in Table 2. Table 2 showed that the correlation in the reality variable of all item items was valid because the correlation value was greater than the r-table value of 0.378, so the reliability test was carried out on it. For the expected variable, there were two items that were invalid because the correlation value was 0.077 and 0.326, which were smaller than the r-table value of 0.378. The first invalid item was the tender implementation and the second was the system upgrade. It can be said that the system changed or upgraded because of the tender process to be delayed and it did not match the planned implementation schedule. Therefore, there were only two invalid questions. The question was omitted and there was no need for a reliability test on it.

Table 2. The Results of The Validity Test of Internal Assessments with Pearson Correlation

No	Aspect	Reality Corelation	r table (sig 5%) N=30	Hope Corelation
1	The appearance of the employee	0,870	0,378	0,899
2	The integrity of the employee	0,813	0,378	0,960
3	The facility of the service	0,651	0,378	0,935
4	Structural organization	0,740	0,378	0,932
5	Responsibility and authority	0,855	0,378	0,905
6	Socialization	0,801	0,378	0,905
7	Accompaniment	0,754	0,378	0,862
8	Tender plan	0,726	0,378	0,982
9	Tender conducting	0,444	0,378	**0,077
10	Tender speed	0,831	0,378	0,905
11	System upgrade	0,675	0,378	**0,326
12	Workload	0,608	0,378	0,818
13	System notification	0,850	0,378	0,847
14	The sending of the document	0,862	0,378	0,829
15	The stages of the process	0,963	0,378	0,935
16	Koordinasi dengan pihak terkait	0,868	0,378	0,930
17	Management time in service	0,879	0,378	0,973
18	Risk controling	0,695	0,378	0,921
19	The document in problem solving	0,760	0,378	0,879
20	Problem monitoring	0,892	0,378	0,838

21	The number of the employee	0,639	0,378	0,719
22	Work based on job desc	0,882	0,378	0,936
23	Professionalism	0,801	0,378	0,910
24	Work hard	0,789	0,378	0,900
25	Technical knowledge	0,736	0,378	0,838
26	Team work	0,815	0,378	0,936
27	Responding to complain	0,649	0,378	0,858
28	The priority of the interest	0,664	0,378	0,616
29	Consulation service	0,833	0,378	0,809
30	Personal care	0,774	0,378	0,870

Note:

**In valid

3.1.2 *The result of reliability test*

After previously carrying out the validity test, the reliability test was carried out on the valid items so that the questionnaire used could be trusted as a tool for data collection.

In External Assessment, the results of the reliability test of the reality variable (E1) and the variable of expectations (E2), stated that all item questions were reliability as shown in Table 3. From Table 3, it can be seen that the number of respondents (N) analyzed in SPSS were twenty people. Because the respondent's answers were filled in all, none of them were blank. Then the valid number was 100%. Cronbach's Alpha value was 0.973 for the reality variable and 0.987 for the hope variable. While N of Items (number of questions) were valid for the reality variable, there were 29 items and for the expectation variable. Besides, there are thirty questions. In addition, the Cronbach's Alpha value was 0.973 and 0.987> 0.60, as the basis for the decision making in the reliability test above, it can be concluded that all questions were reliable or consistent.

Table 3. External Assessment Reliability Test Results with Cronbach's Alpha Coefficient

Reliability Test			
Cronbach's Alpha Coeficient	Reality Variable	R Table (5% Significancy) N=30	Hope Variable
Percentage Validity in Case Processing Summary	100%	-	100%

In the Internal Assessment, the results of the reliability test of the reality variable (I1) and the variable of expectations (I2) stated that all item items were reliable as shown in Table 4.

From Table 4, it can be said that the number of respondents (N) analyzed was twenty people with answers none of the respondents were empty, so the number of valid was 100%. Thirty questions were valid for the reality variable and 28 items were valid for the expectation variable, with Cronbach's Alpha values of 0.957 and 0.988. As the basis for decision making in the reliability test, namely, the Cronbach's Alpha value of the reality and expectation variables is 0.957 and 0.988> 0.60 and is greater than the r-table value of 0.387, it can be concluded that all of these questions were reliable.

Table 4. Internal Assessment Reliability Test Results With Cronbach's Alpha Coefficient

Reliability Test			
Cronbach's Alpha Coeficient	Reality Variable	R Table (5% Significancy) N=30	Hope Variable
Percentage Validity in Case Processing Summary	100%	-	100%
Cronbach's Alpha	0,957	0,387	0,988
N of Items	30	-	28

3.2 *The Calculation of Index Satisfaction*

The calculation of the index satisfaction for each aspect was conducted to determine the aspects whichrequired an increase in service quality. The first step was to find a Likert score for each question by counting the number of respondents who answered according to a scale of 1 to 5, then calculating the score for each question according to the Likert scale by multiplying the total number of respondents who chose the Likert score.

Next, we knew the total score for each question. Then, the index was calculated. The service quality go the average score index value for each dimension. In the calculation of the External Index, the results of the calculation of the external index were shown in Table 7 which explained that in the reality variable (E1), the tangible dimension of the completeness of the electronic pretender process had the lowest value, namely 70.76% while the highest was the aspect of employee appearance with 83, 33%. In the reliability dimension, the system notification aspect had the lowest score, 77.33%, and the highest was the tender speed aspect of 84%. In the Responsiveness dimension, the aspect of response speed got the lacking score. It was just in 77.33%, and the aspect with the highest score was the ease of obtaining information and willingness to help, getting a score of 84%. The fourth dimension, assurance, for punctuality was 78.67%, while the highest was 82% for professionals. The last dimension, namely empathy, has the highest score of 84.67% in the caring aspect and the lowest 78.67% in the aspect of prioritizing the interests of the user. Of the five dimensions, the tangible dimension has the lowest index, namely 77.92%.

In the expectation variable (E2), for the tangible dimension, the highest expectation was facilitated by electronic pre-tender. Besides, the value was 89.33%. In

the dimension of reliability, the highest score was obtained in the real aspect of serving, amounting to 90.67%. Also, the Responsiveness dimension, the speed of response and the youngness of getting information was the highest expectation, namely 90%. In the fourth dimension, namely assurance, the aspect of employee technical knowledge was the highest expectation, with a score of 92%. The last dimension became the empathy, with the highest score in the aspect of care, namely 91.33%. Of the five dimensions, the assurance dimension was the highest hope, amounting to 90.17%.

Table 5. The Calculation of Internal Index

No	Dimensi	Aspect	Reality		Hope	
			Indeks	*SQ*	*Indeks*	*SQ*
1.	Tangible	The ability of the employees	80,67	77,92	88,67	87,25
2.		The skills of the employees	80,67		88,67	
3.		The facility of the service	76,00		86,00	
4.		The employee appeareance	83,33		88,67	
5.		Socialitation	76,00		86,00	
6.		The easiness with pre-rendered electronic	80,00		89,33	
8.		The monitoring of pratender electronic	76,00		86,00	
9.		Completeness the pre-rendering process electronic	70,67		84,67	
10.	Reliability	Keeping promises	78,67	81,05	88,00	89,24
11.		Sincerity	83,33		90,67	
12.		The appropiate service	80,00		89,33	
13.		Tender speed	84,00		89,33	
14.		Free from losing document	83,33		89,33	
15.		The notification of the system	77,33		88,00	
16.		The stage of the process	80,67		90,00	
17.	Responsivenes ss	Service timing	79,33	81,17	88,00	89,33
18.		Willingness to help	84,00		89,33	
19.		Respon speed	77,33		90,00	
20.		The easiness to get information	84,00		90,00	
21.	Assurance	The service based on job description	81,33	80,67	90,67	90,17
22.		Professionalism	82,00		90,00	
23.		Punctuality	78,67		88,00	
24.		Technical knowledge personnel	80,67		92,00	
25.	Empathy	Polite behavior	83,33	82,00	89,33	89,89
26.		The care	84,67		91,33	
27.		Responding complaint	83,33		90,67	
28.		The priority interests	78,67		89,33	
29.		The service of consultation	82,00		90,00	
30.		Personal Empathy	80,00		88,67	

In the Calculation of the Internal Index (I), the results of the calculation of the internal index were shown in Table 8. In the reality variable (I1), on the tangible dimension, the tender planning aspect received the lowest score, namely 65%, while the highest was the aspect of mentoring, amounting to 86%. Moreover, in reliability dimension, the system notification aspect has the lowest score, namely 71%, and the tender speed has the highest value, namely 81%. The value that was lacking in the responsiveness dimension was the document aspect of recording the problem, with a value of 65%. Next, the highest aspect was the time of service delivery, with a value of 79%. In the assurance dimension, the employees' technical knowledge received the lowest score, namely 66%. In other hand, the maximum work aspect and cooperation with colleagues received the highest score, namely 77%. The last dimension, emphaty, received the highest score in the aspect of consulting services, namely 79%, and the lowest, at 64%, was on the aspect of prioritizing the interests of users. Of the five dimensions, the responsiveness dimension has the lowest index value, namely 70%.

For the expectation variable (I2), employee integrity was the highest expectation on the tangible dimension, with a value reaching 90%. Meanwhile, dimension of reliability, the highest score was in the aspect of coordination with related parties, with a score of 87%. The highest expectation on the responsiveness dimension was service delivery time, with a value of 87%. For the assurance dimension, working optimally was the highest hope, with a score of 88%. Meanwhile, on the empathy dimension, the highest score was obtained by the aspect of consulting services, with a value of 84%. Finally, the tangible dimension is the highest expectation, with a value of 86.88%.

Table 6. The Calculation of Internal Index

No	Dimension	Aspect	Reality		Hope	
			Indeks	SQ	Indeks	SQ
1.	Tangible	The personal branding of the employee	81	75,38	87	86,88
2.		The intergrity of the employmee	77		90	
3.		The facility of the service	76		89	
4.		Structural organization	73		86	
5.		Responsibilty and Authority	75		85	
6.		Socialization	70		85	
7.		Accompaniment	86		88	
8.		Tender plan	65		85	
10.	Reliability	Tender speed	81	77,50	85	84,83
12.		Workload	77		86	
13.		The notification of the system	71		81	
14.		Delivery document	79		84	
15.		The stages	78		86	
16.		Coordination With related parties	79		87	
17.	Responsiveness	Management time in service	79	70,00	87	82,80
18.		Control risk	69		84	
19.		The document in recording problem	65		83	
20.		Monitoring problem	67		85	
21.		Number of employees	70		75	
22.	Assurance	Work as job description	74	73,40	86	85,20
23.		Professionalism	73		83	
24.		Work hard	77		88	
25.		Technical knowledge personnel	66		82	

26.		Team work	77		87	
27.	Empathy	Responding complaint	71	71,00	78	78,00
28.		The priority interests	64		71	
29.		The service of the consultation	79		84	
30.		Personal Emphaty	70		79	

4. CONCLUSIONS

From the results of the external assessment, the level of satisfaction of procurement services based on reality, the highest value came from the empathy dimension of the caring aspect, while the lowest value was the tangible dimension of the completeness aspect of the electronic pre-tender process. Meanwhile, services that are most expected to be in the dimension of assurance, the employees of the procurement of goods or services are expected to have good technical knowledge so that they can quickly solve technical problems. If we look at each dimension, it turns out that assurance has the largest gap. Therefore, all aspects of the assurance dimension are the priority for improvement so that the gap can be minimized, while the smallest gap occurs in the empathy dimension. By doing so, the services provided are almost close to user expectations.

Implications: Entrepreneurial activity that falls into the "fairly decent" category would have an effect on the long-term viability of the company if not changed. Personality, relationship skills, marketing skills, organizational skills, and financial management skills must all be strengthened. If the competitiveness of companies in the high enough group does not increase, it will have a negative effect on their long-term profitability. Product and marketing innovation, as well as product and marketing innovation, must be strengthened. Entrepreneurial activity that is still very good would have an effect on the competitiveness of the business. As a result, if a company owner wishes to make a lot of money. According to research, entrepreneurs have a high level of competition, so they must boost or strengthen their entrepreneurial actions.

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