

Analysis of PT. Bank Syariah Indonesia Surabaya on Customer Service and Mobile Banking Applications Using the Customer Satisfaction Index, Importance Performance Analysis, and User Experience Questionnaire

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Abstract: *The development of the banking world in Indonesia is very rapid, dynamic, and modern, both in terms of the variety of banking products as well as the quality of services and technology owned. This is also done by PT Bank Syariah Indonesia to be able to maintain customer satisfaction because customer satisfaction is an important aspect to maintain the company's image. This study aims to determine the level of customer satisfaction with PT Bank Syariah Indonesia and the user experience of the BSI-Mobile application. The method used in this study to determine the level and dimensions of satisfaction are the Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA), while to determine the user experience of the BSI-Mobile application is the User Experience Questionnaire (UEQ). The result of the satisfaction level based on the CSI method is 88.205%, which means that the customers of Bank Syariah Indonesia Dharmawangsa Surabaya City Office are very satisfied. Furthermore, the IPA analysis was carried out on the dimensions of reliability, responsiveness, assurance, empathy, and direct evidence which contained 25 variables in 123 respondents. The results of the IPA analysis show that in Quadrants I, II, III, and IV there are 11, 7, 4, and 3 variables, respectively. The variables that are of particular concern to improve the quality of services are in Quadrant II, namely reliable employees, services by those promoted by the bank, customer call center services that can help customers' banking problems quickly, providing easy-to-understand information, availability of adequate parking areas, Availability of ATMs that are complete, modern, and always operating 24 hours, The number of counter tellers is balanced with the number of customers. While the UEQ analysis concluded that the BSI-Mobile application of 6 rating scales consisting of attractiveness, clarity, efficiency, accuracy, and stimulation, BSI-Mobile has a rating above 0.8 which means it has a positive application rating for users*

Keywords: PT Bank Syariah Indonesia, BSI-Mobile, Customer Satisfaction, Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), User Experience Questionnaire (UEQ)

1. INTRODUCTION

Indonesia is one of the developing countries that is currently active. The development of the banking world in Indonesia is very rapid, dynamic, and modern, both in terms of the variety of banking products as well as the quality of services and technology it has. Banking is increasingly dominating the economic and business development of a country [1] Therefore, currently, the banking industry is increasingly aggressive in creating systems that integrate information technology, one of which is Mobile Banking services.

Mobile banking is a banking service that serves to facilitate customers in conducting banking transactions without the need to come to the bank or ATM except for cash withdrawals [2] The advantage of mobile banking is that customers can make transactions anywhere and anytime without being limited by time. Services on mobile banking include financial transactions, non-financial transactions, fund transfers, balance checks, and bill payments made via cellular phones. No exception by Islamic banks in Indonesia.

Indonesia as one of the countries with the largest Muslim majority population in the world has the potential to be at the forefront of the financial industry. This is an important factor

in the development of the halal industry in Indonesia. This includes Islamic banks. Islamic banks play an important role as facilitators in all economic activities in the halal industry ecosystem [3]. Sharia Bank is a bank that carries out its business activities based on sharia principles developed based on Islamic law. The effort to establish this system is based on the prohibition in Islam to carrying out usury and the prohibition on investment for businesses that are categorized as haram, where this cannot be guaranteed by the conventional banking system [4] In the operation of Islamic banks in Indonesia, PT Bank Syariah Indonesia is

Bank Syariah Indonesia is a bank resulting from the merger of three state-owned Islamic banks, namely PT Bank Syariah Mandiri, PT Bank BNI Syariah, and PT Bank BRI Syariah which officially operated in February 1, 2021. This merger unites the advantages of the three Islamic banks so that they can provide services that are more complete, has a wider reach, and has a better capital capacity. PT Bank Syariah Indonesia Tbk. (BRIS) became the best bank in the Islamic banking sector in the 2021 Bisnis Indonesia Award. The profit of Bank Syariah Indonesia reached Rp 2.19 trillion. With this financial performance, Bank Syariah Indonesia in terms of assets is included in the list of the top 10 largest banks in Indonesia. Bank Syariah Indonesia is supported by more than 1,241 branch offices, 2,447 ATM networks, and more than 20,000 employees spread throughout Indonesia (BSI, 2021).

In this study, we will discuss and measure the level of customer satisfaction. User Experience users of mobile banking services Bank Syariah Indonesia Surabaya City. There are advantages to the CSI method, namely efficiency in measuring satisfaction universally, while the IPA method, among others, can display product/service attributes that need to be improved or reduced in the form of quadrants. The UEQ method can perform calculations that become the liaison between the user and the application. The approach of the Customer Satisfaction Index method, Importance Performance Analysis, and the UEQ method used in this study are expected to provide a thorough analysis of customer satisfaction levels, identify service attributes that are priority improvements and attributes that are less than optimal, provide suggestions for improving service quality and user results of the BSI application. -Mobile on the side of Bank Syariah Indonesia Surabaya City.

2. RESEARCH METHOD

a. Method and Data Source

The method used in this research is the Customer Satisfaction Index, Importance Performance Analysis, and the UEQ method. The Source of data is primary data obtained by surveying customers of PT. Indonesian Islamic Bank Surabaya City. The survey was conducted by distributing a google form (g-form) questionnaire and interviews at Bank Syariah Indonesia Dharmawangsa Office Surabaya from February 2022 to March 2022.

b. Research Variable

The variables used in this research are customers satisfaction variables of PT. Bank Syariah Indonesia at Surabaya

Table 1. Satisfaction Variables

Attributes	Dimension
A1 Employees are reliable in dealing with banking problems	Reliability
A2 Timeliness of the service as promised	
A3 Employees rarely make mistakes in service to customers	
A4 Service to customers to completion	
A5 Services by what is promoted by the bank	
B1 Availability of suggestion boxes for customers	Responsiveness
B2 Availability of telephone and e-mail lines to serve customer complaints online	
B3 Responsive employees in handling customer complaints	
B4 The clarity in providing banking service information	

B5 Bank security officers assist customers in the administrative process	Assurance
C1 Customer security when making transactions	
C2 Confidentiality of customer savings is guaranteed	
C3 Friendly and courteous staff in serving customers	
C4 Employees create good relationships with customers	
D1 Customer Call Center services can help customers' banking problems quickly	Empathy
D2 Providing the best solutions to the problems	
D3 Service according to the order of arrival without discriminating against customers	
D4 Providing easy-to-understand information	
D5 Employees create a comfortable atmosphere by giving smiles and greetings	
E1 Service Room Clean, comfortable, and quiet	
E2 Availability of adequate parking area	
E3 Availability of ATM machines that are complete, modern, and always operating 24 hours	
E4 The appearance of tellers, staff, and bank employees is clean, neat and wearing appropriate work clothes	
E5 Brochure contains complete and interesting information	
E6 The number of counter tellers is balanced with the number of customers	

c. Step of the Research

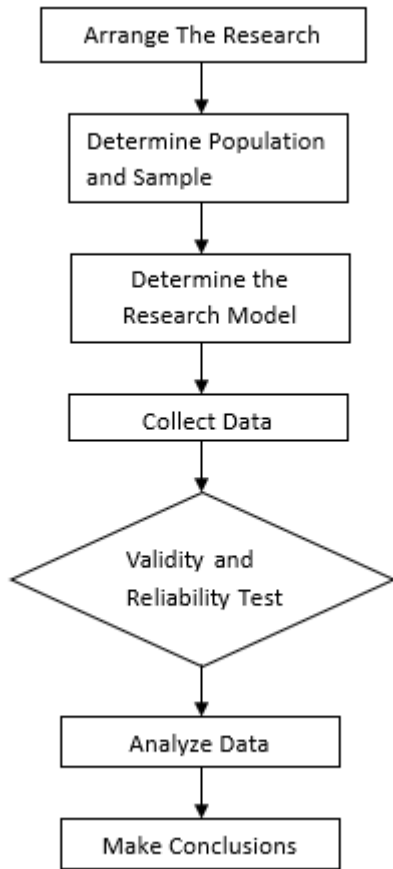


Figure 1. Step of the Research

3. RESULT AND DISCUSSION

a Validity Test

Validity test was done to acquire the validity of statement attributes of the questionnaire. It can be valid if the data can represent the research variable data that will be measured [5]. The hypothesis used in the validity test can be seen as follows
 Hipotesis yang digunakan dalam uji validitas adalah :

$H_0 : \rho = 0$ (Invalid question items)

$H_1 : \rho \neq 0$ (Valid question item)

The results of the validity test in table 2

Table 2. Validity Test

Attributes	P-Value	Conclusion
Reliability	A1	0,000 Valid
	A2	0,000 Valid
	A3	0,000 Valid
	A4	0,000 Valid
	A5	0,000 Valid
Responsiveness	B1	0,000 Valid

	B2	0,000	Valid
	B3	0,000	Valid
	B4	0,000	Valid
	B5	0,000	Valid
	Assurance	C1	0,000
C2		0,000	Valid
C3		0,000	Valid
C4		0,000	Valid
Empathy	D1	0,000	Valid
	D2	0,000	Valid
	D3	0,000	Valid
	D4	0,000	Valid
	D5	0,000	Valid
Tangible	E1	0,004	Valid
	E2	0,000	Valid
	E3	0,000	Valid
	E4	0,000	Valid
	E5	0,000	Valid
	E6	0,000	Valid

Based on the table above, all of the question variables have a p-value smaller than $\alpha = 0.05$, which means REJECT H_0 . So it can be concluded that all the questions for the five-dimensional variables on the questionnaire are valid. They can measure what is desired and can reveal data from the variables appropriately.

b Reliability Test

The reliability test is used to determine the consistency of the measuring instrument, and whether the measuring device used is reliable and remains consistent if the measurement is repeated [6]. High and low reliability is indicated by a number called the reliability coefficient. The SPSS program provides facilities for measuring reliability with the Cronbach Alpha (α) statistical test.

The results of the reliability test on all component variables are presented in the following table:

Table 3. Reliability Test

Variables	Crobach's Alpha	Conclusion
Reliability (X_1)	0,704	High Reliability
Responsiveness (X_2)	0,727	High Reliability
Assurance (X_3)	0,661	High Reliability
Empathy (X_4)	0,819	Very High Reliability
Tangible (X_5)	0,733	High Reliability

Based on the table above, it can be concluded that the dimensions of reliability, responsiveness, assurance, and empathy dimensions have high reliability with Cronbach's Alpha values obtained between 0.6 to 0.8. While the physical appearance dimension has very high reliability, Cronbach's Alpha value is more than 0.8. This means that someone's answer to a question is consistent and stable over time

c Customer Satisfaction Index

The customer satisfaction index or Customer Satisfaction Index (CSI) is a measurement of the overall level of customer satisfaction by comparing the performance of services or products with customer needs in obtaining services [7].

1. Mean Importance Score (MIS)

$$MIS_j = \frac{\sum_{i=1}^n Y_{ij}}{n}; j = 1, 2, \dots; i = 1, 2, \dots, 123$$

$$MIS_1 = \frac{\sum_{i=1}^{125} Y_{1i}}{125}; j = 1, 2, \dots; i = 1, 2, \dots, 123$$

$$= \frac{3.5 + \dots + 4}{123} = 3.8374$$

2. Weight Factors (WF)

$$WF_j = \frac{MIS_j}{\sum_{r=1}^p MIS_r} \times 100\%; p = 1, 2, \dots, 25$$

$$WF_1 = \frac{MIS_1}{\sum_{i=1}^{25} MIS_i} \times 100\%$$

$$= \frac{3.8374}{3.8374 + \dots + 3.822} \times 100\%$$

$$= 94.43 \times 100\% = 4,06373$$

3. Mean Satisfaction Score (MSS)

$$MSS_j = \frac{1}{n} \sum_{i=1}^n X_{ij}; j = 1, 2, \dots, p$$

$$MSS_1 = \frac{\sum_{i=1}^{123} X_{1i}}{123}$$

$$= \frac{3 + \dots + 3.4}{123} = 3.4528$$

4. Weight Score (WS)

$$WS_j = WF_j \times MSS_j$$

$$WS_1 = 4.06373 \times 3.4528$$

$$= 14.031445$$

Table 4. Customer Satisfaction Index (CSI)

Attribute s	Mean Importance Score (MIS _j)	Weight Factors (WF _j)	Mean Satisfaction Score (MSS _j)	Weight Score (WS _j)
A1	3.837	4.064	3.453	14.031
A2	3.653	3.868	3.431	13.272
A3	3.753	3.974	3.432	13.638
A4	3.767	3.990	3.712	14.811
A5	3.831	4.057	3.479	14.113
B1	3.548	3.757	3.215	12.081
B2	3.672	3.888	3.538	13.757

Attribute s	Mean Importance Score (MIS _j)	Weight Factors (WF _j)	Mean Satisfaction Score (MSS _j)	Weight Score (WS _j)
B3	3.700	3.918	3.580	14.029
⋮	⋮	⋮	⋮	⋮
E4	3.815	4.040	3.799	15.347
E5	3.590	3.802	3.398	12.921
E6	3.822	4.047	3.289	13.310
Total			352.819	

$$CSI = \frac{352.819}{4} = 88.205\%$$

Based on the results of the CSI value obtained a value 84.508%. This value is in the "81-100" interval, which means that BPJS Health Center Siwalankerto Surabaya patients are very satisfied with the services at the Siwalankerto Surabaya Health Center

d Importance Performance Analysis

Importance-Performance Analysis (IPA) was first introduced by Martilla and James in 1977 in their article entitled "Importance Performance Analysis" in the Journal of Marketing [8]. Importance Performance Analysis (IPA) is used to compare consumer ratings between importance and performance.

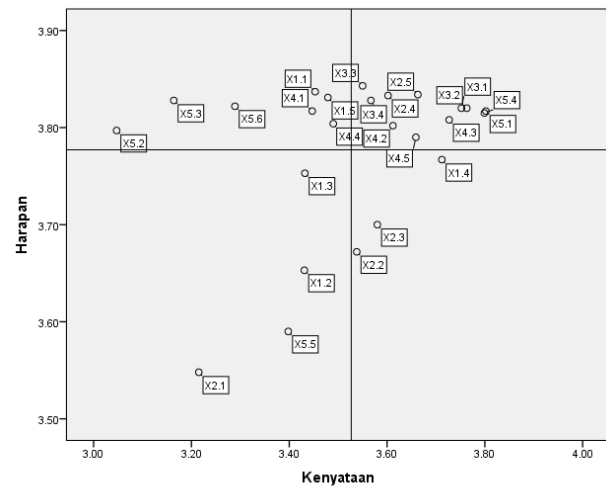


Figure 2 Importance Performance Analysis (IPA) on Five Dimensions

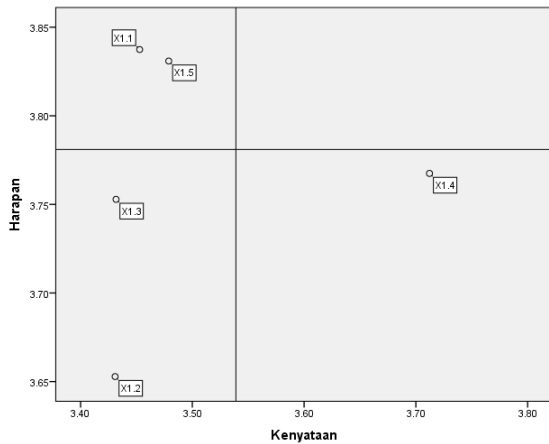


Figure 3 Importance Performance Analysis (IPA) on Reliability Dimensions

Based on Figure 3, the variables included in quadrant II are reliable employees in dealing with banking problems faced by customers A1 and services as promoted by the bank A3 are high priority services and need improvement. In quadrant III, low priority and service elements are not paid attention to by customers, namely punctuality in service to customers A2 and employees rarely make mistakes in service to customers A3. In quadrant IV which is a service that is less important but the service is satisfactory, it is a service to customers to completion A4.

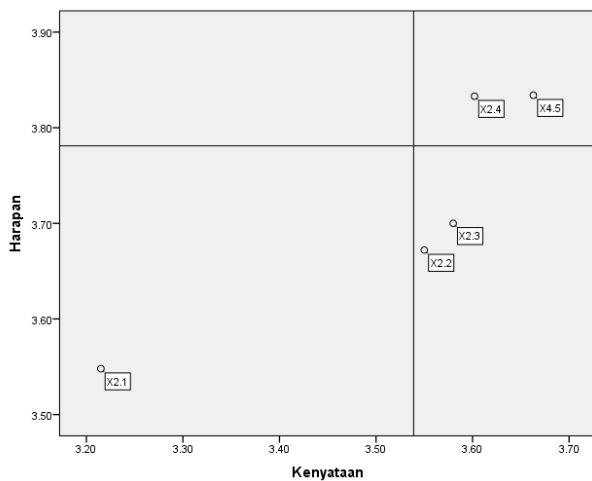
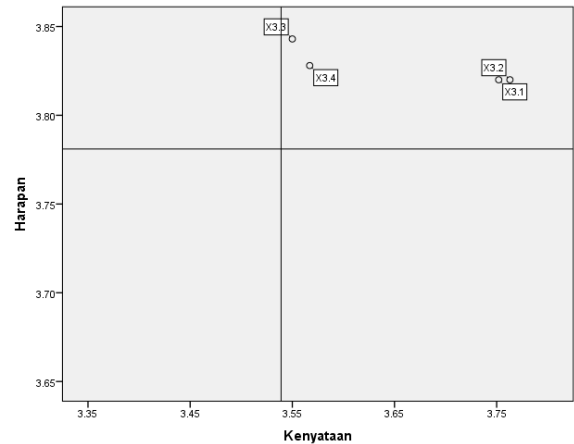


Figure 4 Importance Performance Analysis (IPA) on Responsiveness Dimensions

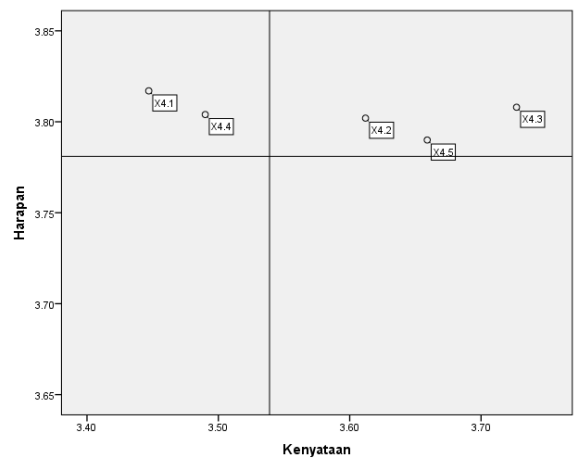
Based on Figure 4, the variables included in quadrant I, namely clarity in providing banking service information B4 and bank security officers assisting customers in the administrative process B5 are superior services that need to be maintained. In quadrant III, the low priority and the service element that customers pay less attention to is the availability of suggestion boxes for customers B1. In quadrant IV which

is a service that is less important but the service is satisfactory is the availability of telephone lines and e-mails to serve customer complaints online B2 and employees are responsive in handling customer complaints B3.

Figure 5 Importance Performance Analysis (IPA) on Assurance Dimensions



Based on Figure 5, the variables included in quadrant I are superior services that need to be maintained, namely customer security when making transactions C1, guaranteed customer savings confidentiality C2, friendly and courteous staff in serving customers C3, Employees create good



relationships with customers C4

Figure 6 Importance Performance Analysis (IPA) on Empathy Dimensions

Based on Figure 6, the variables included in quadrant I which are superior services that need to be maintained are Providing the best solution to customer problems D2, Service according to the order of arrival without discriminating against customers D3, and Employees creating an atmosphere comfortable by giving a smile and greeting D5. Variables that

are included in quadrant II that are high priority and need improvement are Customer Call Center Services that can help customers' banking problems quickly D1 and provide easy-to-understand information D4

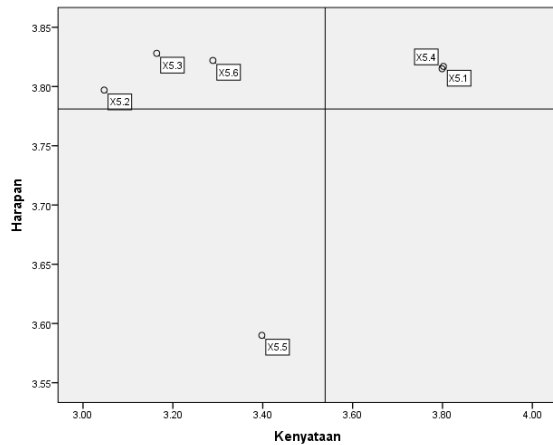


Figure 7 Importance Performance Analysis (IPA) on Tangible Dimensions

Based on Figure 7, the variables included in quadrant I, namely the Clean, comfortable, and quiet Service Room E1 and the appearance of tellers, staff, and bank employees are clean, tidy, and use appropriate work clothes (X5.4) which is a superior service. so it needs to be maintained. The variables included in quadrant II are Availability of adequate parking area E2, Availability of ATMs that are complete, modern, and always operating 24 hours E3, and the Number of counter tellers in balance with the number of customers E6 is a high priority service and needs improvement. In quadrant III, low priority and service elements are not paid attention to by customers, namely Brochures containing complete and interesting information E5.

e UEQ

Table 5. User Experience Questionnaire (UEQ)

UEQ Scales (Mean and Variance)		
Attractiveness	1.986	0.38
Perspicuity	2.047	0.42
Efficiency	2.116	0.45
Dependability	2.057	0.37
Stimulation	2.085	0.35
Novelty	1.667	0.62

On the attractiveness scale, the average value is 1,986. Furthermore, on the Perspicuity scale, the average score is 2,047. The efficiency scale (Efficiency) gets an average value of 2116. Then, on the scale of accuracy (Dependability) get an average value of 2,057. The stimulation scale (Stimulation) gets an average value of 2,085 and finally, the novelty scale (Novelty) gets an average value of 1,667

The analysis on the Benchmark sheet is the final result of UEQ depicted in a benchmark chart that shows the quality of the product into five categories, namely: excellent, good, above average, below average, and bad. The results are contained in Appendix 10 and can be explained as follows.

Table 6. Set Data Benchmark

Based on Table 6, it can be concluded that the BSI-

Scale	Mean	Comparison to benchmark	Interpretation
Attractiveness	1.99	Excellent	In the range of the 10% best results
Perspicuity	2.05	Excellent	In the range of the 10% best results
Efficiency	2.12	Excellent	In the range of the 10% best results
Dependability	2.06	Excellent	In the range of the 10% best results
Stimulation	2.09	Excellent	In the range of the 10% best results
Novelty	1.67	Excellent	In the range of the 10% best results

Mobile application has no shortcomings in each group because it is in the very good category. For a discussion of recommendations for improvement, researchers only provide recommendations for improvement in the novelty aspect related to the display so that it is more creative or not monotonous, showing the average value of all question items according to the group. The results of the average value of attractiveness, clarity, efficiency, accuracy, stimulation, and novelty got a very good impression

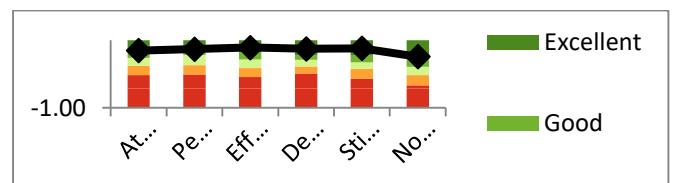


Figure 8 Benchmark

In Figure 8 it can be concluded that showing the average value of all question items according to the group, namely the average value of attractiveness, clarity, efficiency, accuracy, stimulation, and novelty got a very good impression. The BSI-Mobile application tends to have a positive impression on each scale (the value tends to exceed number 2) so it can be concluded that the user is satisfied with the system that is already running.

3. CONCLUSION

a. Conclusion

Based on research on Indonesian Sharia Bank Customers, Dharmawangsa Office, Surabaya City February 14, 2022, to March 15, 2022, it is concluded as follows

1. The level of satisfaction of the customers of Bank Syariah Indonesia Dharmawangsa Office Surabaya City based on the calculation results of the CSI value of 88.205% means that the Customers of Bank Syariah Indonesia Dharmawangsa Office Surabaya City are very satisfied.
2. Based on the Importance Performance Analysis (IPA) it can be concluded that the priority strategies that must be carried out by the Siwalankerto Health Center are:
 - a. Maintain performance on attributes B4, B5, C1, C2, D2, D3, D5, E1, and E4
 - b. Improve performance on attributes A1, A5, C3, C4, D1, E2, E3, and E6
3. Based on the UEQ analysis, it can be concluded that the BSI-Mobile application of 6 rating scales consisting of attractiveness, clarity, efficiency, accuracy, and stimulation, BSI-Mobile has a rating above 0.8 which means the graph is located in green so it has a good application rating. positive for the user.

b. Suggestion

Based on the results of the discussion and the conclusions obtained, some suggestions can be put forward as follows :

1. Based on the results of the analysis and conclusions that have been obtained, suggestions that can be given to the Indonesian Sharia Bank of Surabaya City in the future are that it should be able to maintain its service performance in quadrant I because it already has a very good customer satisfaction value and is expected to improve services that require improvement.
2. For further research, it is hoped that new researchers can conduct more specific research, paying attention to language structure, and clarity of questions so that respondents' answers are more stable

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