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## Increasing the Quality of Bank Service Systems at the Customer Service Office (CSO) for Sustainability Customer Trust

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### ABSTRACT

In the last six months, one of Bank Central Asia (BCA) in Central Jakarta received various kinds of complaints from customers every month. The complaint relates to the Customer Service Officer (CSO). This is a concern for this research because competition in the service industry is increasing, especially in banking. This research aims to analyze improving the quality of service to customers and providing appropriate solutions for the continued trust of BCA customers. This research method uses the Quality Function Deployment (QFD) method combined with customer complaint data through questionnaires and comparison data with competitor banks through benchmarking. This research found six causes of declining CSO service quality based on Voice of Customer (VOC). This research produced seven corrective actions with correlation matrix and technical actions. The measurement results from the aspect of degree of importance, aspect of level of difficulty, and aspect of estimated costs have been maximized in providing services to customers at the BCA Gajah Mada Branch Unit Office (BUO), Central Jakarta.

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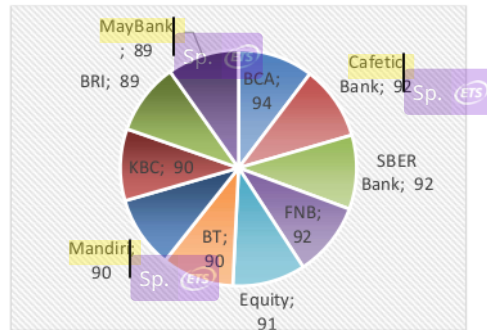


### 1. INTRODUCTION

The service sector, including banking, is facing significant transformation in the current era of digitalization (Park & Choi, 2019). The outlook for the banking sector in this era includes various changes and opportunities that will influence how banks operate and interact with customers (Karimi-Ghartemani et al., 2018). So the ease of use of technology today makes all business people in the banking sector use the convenience of technology to meet

needs and provide service satisfaction to customers (Kurnia et al., 2023).

PT Bank Central Asia (BCA) is a private company operating in the banking sector. BCA is a public company and many banking services are offered by BCA, even the services offered by BCA are considered complete compared to several other banks (Purba et al., 2018). The evidence that BCA is the most popular bank brand in the world can be seen in Figure 1.



**Figure 1.** Most Popular Bank brands in the world

Source: BCA data processing (2023)

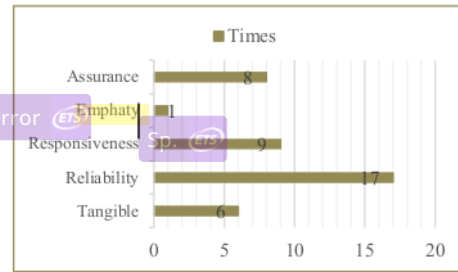
Based on Figure 1, BCA has the largest score with the most popular bank brand in the world with 94.0 points. This proves that customer satisfaction in the world still focuses on BCA for its existence in banking services. However, the quality of service to customers needs to be improved in line with the number of bank competitors throughout the world, also with technological advances in banking and customers who are selective in choosing which bank they trust (Adiandari et al., 2020).

Currently, the services offered by BCA are credit, internet banking, mobile banking, insurance, sharia, trade finance, cash management, credit cards, etc (Purba et al., 2018). BCA has the best and most layered security system and has collaborated with the Financial Services Authority (FSA) and the Deposit Insurance Corporation (DIC) so that customers don't need to worry when making transactions at BCA. Apart from that, BCA provides many features and services that its customers can enjoy.

With the complete service facilities offered by BCA, it is now necessary to balance this with strong service fundamentals so that customers always continue to receive comfort and satisfaction when making transactions at BCA. For this reason, BCA always continues to strive to improve the quality of service to its customers to ensure the satisfaction and comfort of all BCA customers (Efendi & Taufik, 2021).

One of the efforts made by BCA to improve the quality of its services at this time is by creating a suggestion box. This suggestion box is intended to listen to all complaints felt by

customers regarding the services provided by the Customer Service Office (CSO) at the Gajah Mada Branch Unit Office (BUO), Central Jakarta (Kassela et al., 2017). The results of the analysis that have been obtained to date still contain customer complaints regarding the quality of the Bank's services, especially the CSO section, which can be seen in Figure 2.



**Figure 2.** BCA Gajah Mada CSO assessment

Source: BCA data processing (2023)

Based on Figure 2, the results of the initial assessment of BCA's service quality still had problems with reliability parameters 17 times over six months. Therefore, to sustain customer trust, this research needs to make improvements in improving the quality of banking services (Gonzalez, 2019).

Previous research related to services mostly used the Quality Function Deployment (QFD) method. QFD can be applied and affect the total quality of service management in the organization (Alfalah, 2017), the implementation of QFD can be implemented in healthy fast food restaurants (Chen et al., 2018). Apart from that, the application of QFD can also be carried out in the transportation industry for service quality in truck operations (Surya & Yunus, 2020). Furthermore, the quality of local economic train service across the West is at a medium level, indicating that the quality expected by customers has not been met. In this research, 21 indicators can describe the dimensions of service quality, with an indicator related to the alertness of officers in directing the assistance ladder from the platform to the train door which has the highest level of dissatisfaction. The main improvement proposal based on the results of the QFD analysis is increasing supervision of the implementation of Standard Operational Procedures (SOP) by officers (Ningtyas et al.,

2021).

The new approach of this research uses the QFD method combined with customer complaint data through questionnaires and comparison data with competitor banks through benchmarking. This research aims to analyze improving the quality of service to customers and providing appropriate solutions for the continued trust of BCA customers. It is hoped that the contribution of this research can improve the quality of service, especially for CSOs, so that the continued trust of BCA customers increases throughout the world.

## 2. LITERATURE REVIEW

### 2.1. Service Quality (Servqual)

Servqual is used to find out how big the gap is in a company and what factors cause this gap so that a solution can be found (Priyono & Yulita, 2017). Servqual is a concise scale selection but can have a fairly high level and correctness that can be used by company management to better understand how consumers respond and consumer expectations for the services provided (Wagner et al., 2017). The Servqual concept is used to calculate the gap between consensus perceptions of services and expected or expected values (Anassalam & Cahya, 2023; Sinha et al., 2013).

### 2.2. Quality Function Deployment (QFD)

Quality Function Deployment (QFD) is a systematic approach to identifying customer needs or requirements, and then accurately translating those requirements into engineering design, product manufacturing, and planning, export (Adiandari et al., 2020). In principle, QFD helps to listen to the voices or desires of consumers and is useful for brainstorming sessions for development teams to determine the best way to satisfy consumer desires (Hasibuan et al., 2019)

QFD is a quality tool that translates the voice of the customer into new products that truly meet the manufacturer's needs (Panneerselvam, 2021). Based on several definitions, the author concludes that QFD is a method that can help product or service providers translate the customer's voice so that providers can create a product that suits the customer's needs and desires (Yeganegi, 2020). The scheme used in the QFD method can be seen in Figure 3.

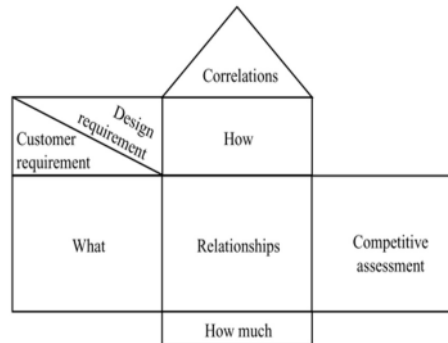


Figure 3. QFD placement scheme

Source: (Dias Irawati Sukma et al., 2022)

## 3. RESEARCH METHOD

The type of research used is descriptive research. This research analyzes customer satisfaction with the services provided by CSOs at BCA by conducting an analysis based on VOC which is then translated into improvements following customer needs and desires to improve the quality of their services (Cropley, 2020).

The data sources used in this research were obtained from primary data which is data obtained directly from the research object through questionnaires, interviews, and direct observation with customers and parties trusted to manage all aspects of the activities involved. Meanwhile, secondary data was obtained not from direct company information but from other sources consisting of information from various books and scientific journals related to the research carried out (Kurmia, 2021).

This research was conducted at a special BCA at the BUO Gajah Mada, Central Jakarta. The limitation of this research was that it was only carried out for 6 months from Jan 23–Jun 2023. The section studied was specifically the CSO section and no other sections were included. The data collection technique that the author used in this research was to carry out direct analysis to the company which then collected the data needed for the problems being faced.

This research method uses the QFD method combined with customer complaint data through questionnaires and comparison data with competitor banks through benchmarking. The research steps can be seen in Figure 4.

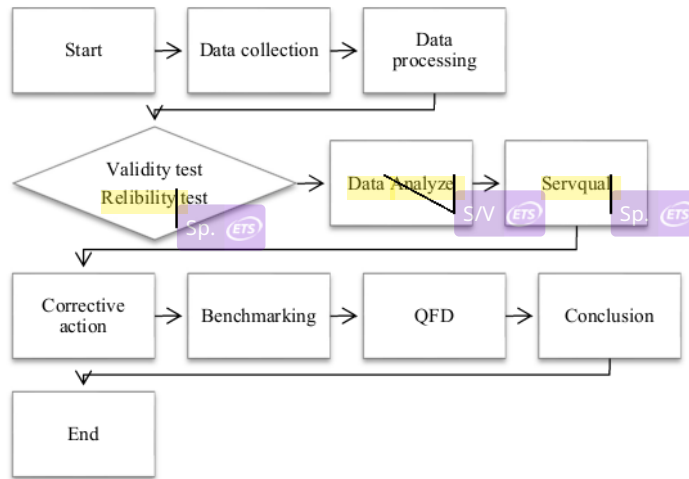


Figure 4. Research stages

Based on Figure 4, this research step begins with collecting data in the form of a questionnaire from respondents. The questionnaire that will be distributed to BCA customers is in the form of a survey consisting of five dimensions which are parameters of customer satisfaction with several attributes which are aspects of each dimension of customer satisfaction. The respondents involved were customers who filled in questionnaire data using non-probability sampling, the accidental sampling type. To get the number of respondents, use a formula (Sjarifudin et al., 2023):

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

Remarks: n = number of samples, N = number of populations, and e = error rate.

After completing the questionnaire, the questionnaire data that had been collected will then be tested so that the author can know that the data obtained is suitable to be used as a benchmark for innovating to improve the quality of service to customers. The data validity test was carried out to find out whether the attributes in the questionnaire carried out were valid or not. Reliability testing is used to determine the regularity or consistency of measuring instruments which usually use questionnaires (Alinejad & Anvari, 2019).

$$Validity\ test = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N \sum X^2 - (\sum X)^2)(N \sum Y^2 - (\sum Y)^2)}} \quad (2)$$

$$Reliability\ test = \frac{n}{n-1} \left( 1 - \frac{\sum_{i=1}^n s_i^2}{s^2} \right) \quad (3)$$

The next step is to measure the level of service quality based on satisfaction level questionnaire data based on customer perceptions and questionnaire data on the level of expectations expected by customers.

$$Service\ quality\ ratio = \frac{perceived\ value}{expected\ value} \quad (4)$$

The next step is to improve the attributes that are problems with customer satisfaction. Then conducting a benchmark shows the level of competition between BCA and other competitors Bank Mandiri, BRI, and BNI which are located in BUO, Gajah Mada, Central Jakarta. Next, calculating the relationship between the attribute matrix and the characteristics of the degree of importance, degree of difficulty relationship, and estimated costs can be seen in the formula:

$$Importance = \frac{Jumlah\ nilai\ Atribut}{Total\ derajat\ kepentingan} \times 100\% \quad (5)$$

$$Difficulty = \frac{Jumlah\ nilai\ Atribut}{Total\ derajat\ kesulitan} \times 100\% \quad (6)$$

$$Estimated\ cost = \frac{Jumlah\ biaya\ Atribut}{Total\ perkiraan\ biaya} \times 100\% \quad (7)$$

Then make comparisons with competitors using a scale table as part of the attributes for building a House of Quality (HOQ) to QFD using Microsoft Visio. The final step is to conclude this research.

**4. RESULT AND DISCUSSION**

**4.1. Data Collection**

This research was conducted to analyze to improve the quality of services provided by CSOs at BCA. The data collection stage that will be carried out in this research is to create a service satisfaction survey for customers who make transactions at BCA (Karimi-Ghartemani et al., 2018). The purpose of conducting customer questionnaires at BCA is to

determine the customer's Voice of Customer (VOC).

The questionnaire that will be distributed to BCA customers is in the form of a survey consisting of 5 dimensions which are parameters of customer satisfaction with several attributes which are aspects of each dimension of customer satisfaction (Ganjar Sidik Gandara et al., 2019). Questionnaire attribute data is shown in Table 1.

**Table 1. Questionnaire attribute data**

No	Dimension	Attributes
1	Tangible	Comfortable Backing Hall
2		Availability of Queuing Machines
3		Availability of Snacks, Soft Drinks, Mineral Water, etc
4		Facilities available in the Backing Hall
5	Responsiveness	CSO responsiveness in providing services
6		CSO speed in serving customers
7		CSO's ability to handle customer complaints
8	Reliability	Service methods used for customers
9		Availability of adequate counters to provide service to customers
10		CSO's ability to provide services
11		An offline system that makes it easy to submit customer complaints
12	Assurance	Guarantee of the security of customer privacy that is being provided by the CSO
13		Guaranteed service from CSO that can resolve customer complaints
14		Guarantee of satisfaction and comfort from the services provided by CSO to customers
15	Empathy	CSO's friendliness when providing services
16		3S (Greeting, Greetings, Smile) from CSO to customers
17		CSO's patience in serving customer complaints

Based on Table 1, there are 17 attributes divided into several dimensions which will be aspects of the customer satisfaction survey at BCA UBO Gajah Mada.

The questionnaire stages carried out by the author started with classifying respondents based on the customer's age (Hadi et al., 2017). Next, the author asks several questions from the questionnaire attributes shown in Table 1. After that, he measures the level of satisfaction with the service aspects which will be used as criteria for improving the quality of service from CSOs.

**4.1.2. Population and Sample Calculations**

Based on the data collected, the total number of customers at BCA BUO Gajah Mada is 3034 customers. To find out the amount of questionnaire data collection needed to represent the total population owned by BCA BUO Gajah Mada calculated the sample size using the Slovin formula using an error rate of 5% using formula (1).

$$n = \frac{3034}{1 + (3034 \times 0.05^2)} = 353$$

Based on the results of sample calculations using the Slovin formula (Erawati & Wahyono, 2019), So the amount of questionnaire data needed to represent the entire population is 353 customers.

**Table 2. Respondent data**

Age (years)	Amount (%)
0-15	0
16-25	16.7
26-40	45.6
>40	37.7
Total	100.0

**4.2. Processing Data**

This research was conducted to carry out innovations to continue to ensure satisfaction with the services provided by CSOs to customers (Hasibuan et al., 2019).

**4.1.3. Questionnaire Result Data**

After completing the questionnaire, the questionnaire data that has been collected will then be tested so that the author can know that the data obtained is suitable to be used as a benchmark for innovating to improve the quality of service to customers.

**4.2.1. Validity Result Data**

The data validity test was carried out to find out whether the attributes in the questionnaire carried out were valid or not. The data validity test was carried out using formula (2) with an example of the comfort attribute of the backing hall:

$$Validity\ test = \frac{1947594 - (1397)(1384)}{\sqrt{(1999745 - 1951609)(1932214 - 1916494)}} = \frac{13623}{\sqrt{756686863}} = \frac{8714}{27507} = 0.495$$

Next, the calculation of all attributes is carried out with the help of the mini-tab software shown in Table 3.

**Table 3.** Data from data validity test results

No	Attributes of Customer Wants and Needs	R Count	R Table	Remarks
1	Comfortable Backing Hall	0.495	0.312	Valid
2	Availability of Queuing Machines	0.700	0.312	Valid
3	Availability of Snacks, Soft Drinks, Mineral Water, etc	0.427	0.312	Valid
4	Facilities available in the Backing Hall	0.437	0.312	Valid
5	responsiveness in providing services	0.613	0.312	Valid
6	CSO speed in serving customers	0.579	0.312	Valid
7	CSO's ability to handle customer complaints	0.610	0.312	Valid
8	Service methods used for customers	0.508	0.312	Valid
9	Availability of adequate counters to provide service to customers	0.398	0.312	Valid
10	CSO's ability to provide services	0.312	0.312	Valid
11	An offline system that makes it easy to submit customer	0.356	0.312	Valid

No	Attributes of Customer Wants and Needs	R Count	R Table	Remarks
12	complaints Guarantee of the security of customer privacy that is being provided by the CSO	0.313	0.312	Valid
13	Guaranteed service from CSO that can resolve customer complaints	0.525	0.312	Valid
14	Guarantee of satisfaction and comfort from the services provided by CSO to customers	0.600	0.312	Valid
15	CSO's friendliness when providing services	0.593	0.312	Valid
16	3S (Greeting, Greetings, Smile) from CSO to customers	0.511	0.312	Valid
17	CSO's patience in serving customer complaints	0.523	0.312	Valid

Based on Table 3, the R calculations for the 17 existing attributes are compared with the distribution of R values in the 5% table, namely 0.312. Based on the results of data validity test calculations for the 17 attributes used, it can be concluded that the data from the questionnaire results for the 17 attributes that are parameters for customer satisfaction are declared valid and suitable for use.

**4.2.2. Reliability Result Data**

Data reliability testing is carried out to find out whether the attributes in the questionnaire are reliable or not. Reliability testing is used to determine the regularity or consistency of measuring instruments which usually use questionnaires. The method often used in research to measure range scales is Cronbach Alpha. The reliability test is a continuation of the Validity Test where the items entered into the test are only valid items. Manual calculation of data reliability tests from questionnaire results using formula (3) with examples of customer satisfaction indicators.

$$Reliability\ test = \frac{17}{17 - 1} \left( 1 - \frac{8,3}{36,45} \right) = 0,82$$

Based on the results of manual calculations, Cronbach's Alpha value was 0.82. Furthermore, the data reliability test in this study was carried out using the mini-tab software as shown in Table 4.

**Table 4.** Data reliability test results

No	Indicator	Attribute	Respondent	Cronbach's Alpha	Remark
1	Customer satisfaction	17	353	0.8222	Reliable

Based on Table 4, the data can be said to be reliable if Cronbach's alpha is above 0.6. The Cronbach's alpha value obtained was 0.8222, so it can be concluded that the 17 attributes are reliable. Furthermore, the results of data processing with the help of Minitab software also show the results of Cronbach's alpha values for each attribute which are shown in Table 5.

**Table 5.** Cronbach's alpha value for each attribute

No	Atribut	Keinginan dan kebutuhan Pelanggan	Cronbach's Alpha	Standard	Keterangan
1	Kenyamanan Backing Hall	0.8136	0.6	Reliable	
2	Ketersediaan Mesin Antrian	0.7988	0.6	Reliable	
3	Ketersediaan Snack, Soft Drink, Air Mineral Di Fasilitas yang tersedia di Backing Hall	0.7993	0.6	Reliable	
4	Ketangapan CSO dalam memberikan pelayanan	0.8171	0.6	Reliable	
5	Kecepatan CSO dalam melayani nasabah	0.8060	0.6	Reliable	
6	Daya tanggap CSO dalam menangani keluhan nasabah	0.8087	0.6	Reliable	
7	Metode pelayanan yang digunakan terhadap nasabah	0.8069	0.6	Reliable	
8	Ketersediaan counter yang sudah memadai untuk	0.8125	0.6	Reliable	
9		0.8259	0.6	Reliable	

No	Atribut	Keinginan dan kebutuhan Pelanggan	Cronbach's Alpha	Standard	Keterangan
10	memberikan pelayanan terhadap nasabah Kemampuan CSO dalam memberikan pelayanan Sistem offline yang memberikan Kemudahan dalam menyimpulkan keluhan Nasabah	0.8243	0.6	Reliable	
11	Jaminan terhadap keamanan privacy nasabah yang sedang diberikan pelayanan oleh CSO	0.8259	0.6	Reliable	
12	Jaminan pelayanan dari CSO yang dapat menyelesaikan keluhan nasabah	0.8292	0.6	Reliable	
13	Jaminan terhadap kepuasan dan kenyamanan dari pelayanan yang diberikan oleh CSO terhadap nasabah	0.8118	0.6	Reliable	
14	Keramahan CSO saat memberikan pelayanan SS (Sapa, Salam, Senyum) dari CSO kepada nasabah	0.8070	0.6	Reliable	
15	Mesabaran CSO dalam melayani keluhan nasabah	0.8077	0.6	Reliable	
16		0.8127	0.6	Reliable	
17		0.8118	0.6	Reliable	

Based on Table 5, the results of data reliability test calculations for the 17 attributes used, it can be concluded that the data from the questionnaire results for the 17 attributes that are parameters of customer satisfaction are declared reliable and suitable.

### 1.2 Data Analysis

This research was carried out so that we could make changes and improve quality

following customer wishes. The questionnaire was distributed to 353 respondents using non-probability sampling, the Accidental Sampling type. Namely identifying consumer desires into service satisfaction attributes to find out consumer desires for CSO service quality, so in collecting questionnaire data, 2 stages of data collection were carried out based on perceptions and expectations.

**4.3.1 Service Quality (Servqual)**

After conducting a questionnaire on customers, the next stage will be carried out to measure the level of service quality based on questionnaire data on the level of satisfaction based on customer perceptions and questionnaire data on the level of expectations

expected by customers (Jarrett et al., 2019). To measure the level of customer satisfaction, it is done using formula (4).

$$\text{Backing hall comfort} = \frac{3.96}{4.51} = 88\% \text{ or } \text{ETS}$$

Based on the results of service quality calculations from the backing hall comfort attribute, a value of 88% is obtained. If it is assumed that the attribute that needs to be improved by the team is an attribute with a service quality ratio <90%, then the backing hall comfort attribute is one of the attributes that need to be improved to become service satisfaction to customers. Calculation of service quality ratios from other attributes is shown in Table 6.

**Table 6. Rasid service quality**

No	Attributes	Perceived Value	Expectation Value	GAP	Service Quality Ratio
1	Comfortable Backing Hall	3.96	4.51	0.56	88%
2	Availability of Queuing Machines	4.04	4.39	0.35	92%
3	Availability of Snacks, Soft Drinks, Mineral Water, etc	4.10	4.06	-0.04	101%
4	Facilities available in the Backing Hall	4.20	4.47	0.27	94%
5	CSO responsiveness in providing services	3.92	4.49	0.58	87%
6	CSO speed in serving customers	3.94	4.25	0.31	93%
7	CSO's ability to handle customer complaints	3.94	4.53	0.59	87%
8	Service methods used for customers	4.01	4.19	0.18	96%
9	Availability of adequate counters to provide service to customers	3.07	4.45	1.38	69%
10	CSO's ability to provide services	3.34	4.36	1.02	77%
11	An offline system that makes it easy to submit customer complaints	3.25	4.31	1.06	75%
12	Guarantee of the security of customer privacy that is being provided by the CSO	4.29	4.36	0.07	98%
13	Guaranteed service from CSO that can resolve customer complaints	4.19	4.42	0.23	95%
14	Guarantee of satisfaction and comfort from the services provided by CSO to customers	4.03	4.27	0.24	94%
15	CSO's friendliness when providing services	4.12	4.30	0.18	96%
16	3S (Greeting, Greetings, Smile) from CSO to customers	4.21	4.27	0.06	99%
17	CSO's patience in serving customer complaints	4.06	4.25	0.19	96%

Based on Table 6, the six attributes that need to be improved will form a how's submatrix. The formation of this sub-matrix contains the efforts made to fulfill the wants and needs of customers (What's) (Alfatiyah, 2018). Based on the identification of quality attributes that need to be improved by

customers, service improvement actions at BCA BUO Gajah Mada are determined. The formation of this sub-matrix was carried out through discussions with the company (Jyoti & Kesharwani, 2021). Services whose quality attributes will be improved based on corrective actions produced by HOQ in the How's

column can be seen in Table 7.

**Table 7. Sub matrix how's**

No	Attributes	Corrective action (How's)
1	Comfortable Backing Hall	Increase the availability of backing hall seats Adding Information Media Related to Promos, Events, and applicable Insurance
2	CSO responsiveness in providing services	Addition of Tablets for CSO Mobile
3	CSO's ability to handle customer complaints	Providing service training to CSOs
4	Availability of adequate counters to provide service to customers	Addition of Digital CS Engine
5	CSO's ability to	Addition of CSO Mobile

No	Attributes	Corrective action (How's)
6	provide services An offline system that makes it easy to submit customer complaints	Create an Online Queue System

**4.3.2. Benchmarking**

The benchmark shows the level of competition between BCA and its competitors, namely Bank Mandiri, BRI, and BNI which are located in BUO Gajah Mada. The purpose of this benchmark is to measure the level of service quality that BCA BUO Gajah Mada has achieved compared to other banks located in the same location. (Kurnia et al., 2022). Benchmark results are shown in Table 8.

**Table 8. Benchmark result**

No	Attributes	BCA	Bank Mandiri	BRI	BNI
1	Comfortable Backing Hall	4.0	4.0	3.9	4.0
2	Availability of Queuing Machines	4.0	4.0	3.9	4.0
3	Availability of Snacks, Soft Drinks, Mineral Water, etc	4.1	3.5	3.3	3.3
4	Facilities available in the Backing Hall	4.2	4.1	4.0	4.0
5	CSO responsiveness in providing services	3.9	4.0	3.5	4.0
6	CSO speed in serving customers	3.9	3.9	3.8	3.9
7	CSO's ability to handle customer complaints	3.9	4.0	3.8	3.8
8	Service methods used for customers	4.0	3.9	3.8	3.9
9	Availability of adequate counters to provide service to customers	3.1	3.9	3.0	3.0
10	CSO's ability to provide services	3.3	3.5	3.2	3.2
11	An offline system that makes it easy to submit customer complaints	3.3	3.2	3.0	3.0
12	Guarantee of the security of customer privacy that is being provided by the CSO	4.3	4.2	4.0	4.0
13	Guaranteed service from CSO that can resolve customer complaints	4.2	4.0	4.0	4.0
14	Guarantee of satisfaction and comfort from the services provided by CSO to customers	4.0	4.0	3.9	4.0
15	CSO's friendliness when providing services	4.1	4.0	4.0	4.0
16	3S (Greeting, Greetings, Smile) from CSO to customers	4.2	4.1	4.0	4.0
17	CSO's patience in serving customer complaints	4.1	4.0	4.0	4.0

Based on Table 8, the next stage of the benchmark results is to make a comparison with competitors using a scale table as part of

the HOQ formation attribute. The comparison results with the scale table can be seen in Figure 5.

		1	2	3	4	5	
Tangible	Comfortable Backing Hall				ABCD		Consumer perception
	Availability of Queuing Machines				ABCD		1=Very not good
	Availability of Snacks, Soft Drinks, Mineral Water			BCD	A		2=Not good
	Facilities available in the Backing Hall				ABCD		3=Enough
Responsiveness	CSO responsiveness in providing services			C	ABD		4=Good
	CSO speed in serving customers				ABCD		5=very good
	CSO's ability to handle customer complaints				ABCD		Remarks
Realibility	Service methods used for customers				ABCD		A=BCA
	Availability of adequate counters to provide service to customers			ACD	B		B=Mandiri Bank
	CSO's ability to provide services			ACD	B		C=BRI
	An offline system that makes it easy to submit customer complaints				ABCD		D=BNI
Assurance	Guarantee of the security of customer privacy				ABCD		
	Guaranteed service from CSO that can resolve customer complaints				ABCD		
	Guarantee of satisfaction and comfort				ABCD		
Emphyaty	CSO's friendliness when providing services				ABCD		
	3S (greeting, greetings, smile) from CSO to customers				ABCD		
	CSO's patience in serving customer complaints				ABCD		

Gambar 5. Comparison of benchmarking results

4.4. Discussion of Research Results

Based on the results of service quality calculations based on the gap between service satisfaction received by customers and the level of service expected by customers, six attributes are still below 90%, so these six attributes need to be improved to guarantee the level of customer satisfaction in the next period. So the six attributes that need to be improved will be formed into a how's sub-matrix as corrective actions to be taken.

Furthermore, based on the results of benchmarking against competitors in the same location, although the service to customers from BCA BUO Gajah Mada has several attributes that are superior to those of the 3 competitors. However, there are still several attributes that have a level of customer satisfaction that is inferior to one of its competitors. Then, after carrying out the benchmark stage, the next stage is to create a relationship and technical correlation matrix to measure the level of importance, level of difficulty, and estimated costs (Nurlaela et al., 2023). Before making a QFD, you must first calculate the degree of importance using formula (5), the degree of difficulty using formula (6), and the estimated cost using formula (7). The simulation of using the formula above can be seen below.

- Simulation of the degree of importance of the attribute, namely increasing the availability of backing hall seats:

$$Importance = \frac{50}{321} \times 100\% = 16\% \text{ (Level of importance 16)}$$

- Simulation of the degree of difficulty in the attribute, namely increase the availability of backing hall seats:

$$Difficult = \frac{16}{68} \times 100\% = 26\% \text{ (Level difficult 2)}$$

- Simulation of the degree of cost estimation on the attribute, namely increase the availability of backing hall seats:

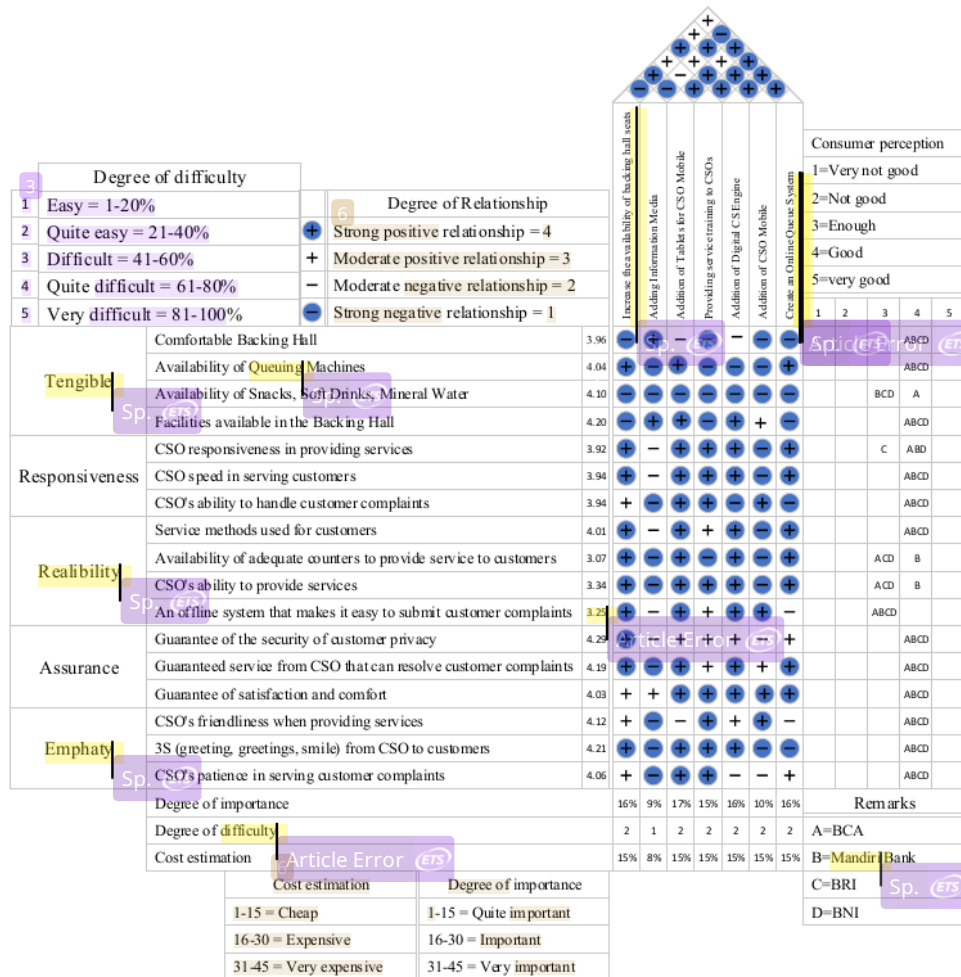
$$Cost = \frac{2}{13} \times 100\% = 15\% \text{ (Cheap cost)}$$

The results of the matrix relationship with technical correlation between attributes in this study are shown in Figure 6.

Based on Figure 6, the results of measuring the level of importance of several attributes are included in the important criteria, including the addition of mobile CSOs, the addition of digital CS machines, the addition of tablets for mobile CSOs, and the creation of an online queue system. The next one which is included in the quite important criteria is increasing the availability of backing hall seats. , and adding information media related to applicable promotions, events, and insurance. Meanwhile, from the results of measuring the level of difficulty, several attributes are included in the fairly easy criteria, including adding mobile CSOs, adding digital CS machines, adding tablets for mobile CSOs, increasing the availability of backing hall chairs, and creating an online queuing system. The next ones included in the very easy criteria are adding information media related to promos, events, and applicable

insurance. QFD can also improve service quality in the service design industry so that

customers feel security and comfort in transactions (Mohamed Sahari et al., 2017).



Gambar 6. QFD Correlation matrix with techniques

The final measurement stage is based on the estimated costs of improving the quality of service to customers. From the corrective actions taken, it can be concluded that the estimated costs required are quite cheap (Nurlaela et al., 2023). Based on the measurement results of the degree of importance, level of difficulty, and cost estimation aspects of corrective actions taken to improve the quality of service from attributes that are still not optimal in providing

services to customers at BCA BUO Gajah Mada, it can be concluded that it is feasible to carry out easily or very easy. Other research on improving the quality of customer service to accelerate service uses mobile banking applications used on customers' cell phones (Nurlaela et al., 2023; Safi' et al., 2019).

4.5. Comparison of Results between Attributes

In this section, the research results of all

attributes will be discussed, starting from the degree of importance, degree of difficulty, and estimated costs of implementing corrective

actions at BCA BUO Gajah Mada. The comparison results can be seen in Table 9.

**Table 9.** Perbandingan hasil antar atribut

No	Attributes	Corrective action	Degree of importance	Degree of difficult	Cost estimation
1	Comfortable Backing Hall	Increase the availability of backing hall seats	Important	Quite easy	Cheap
		Adding Information Media Related to Promos, Events, and applicable Insurance	Quite important	Easy	Cheap
2	CSO responsiveness in providing services	Addition of Tablets for CSO Mobile	Important	Quite easy	Cheap
3	CSO's ability to handle customer complaints	Providing service training to CSOs	Important	Quite easy	Cheap
4	Availability of adequate counters to provide service to customers	Addition of Digital CS Engine	Important	Quite easy	Cheap
5	CSO's ability to provide services	Addition of CSO Mobile	Quite important	Quite easy	Cheap
6	An offline system that makes it easy to submit customer complaints	Create an Online Queue System	Important	Quite easy	Cheap

Based on Table 9, the calculation results of all attributes for the degree of importance can be important to improve. Then for all attributes, judging from the degree of difficulty in improving them, it can be said that it is very easy to implement the improvements. Furthermore, for all attributes seen in terms of estimated costs, it can be concluded that the costs for corrective action are low (Bahia et al., 2023). So that all corrective actions can be carried out easily, and quickly and can be approved by management.

**5. CONCLUSION**

This research has concluded that the results of the analysis using the QFD method involve measuring the degree of importance, level of difficulty, and cost estimation aspects. Corrective actions that have been taken to improve the quality of service from attributes that are still not optimal in providing service to customers at BCA BUO Gajah Mada based on the VOC strategy that need to be taken to improve the quality of CSO service to customers are the addition of mobile CSOs, the addition of digital CS machines, the addition of tablets for mobile CSOs, increasing the availability of backing hall seats, creating an online queue system and adding information media related to promos, events, applicable insurance.

The measurement results from the aspect of degree of importance, aspect of level of difficulty, and aspect of estimated costs have been maximized in providing services to customers at the BCA Gajah Mada Branch Unit Office (BUO), Central Jakarta. Further research suggests that the sustainability of customer trust can be increased by increasing the number of BCA customers throughout the world by implementing a combination of QFD with Green Customer Service by eliminating paper waste with digitalization in the banking sector.

The implications of this research in theory can add insight to other researchers regarding research references related to the application of the QFD method in the banking services industry. Meanwhile, the practical implications of this research can be applied quickly in the banking services industry, because the CSO department can fix complaints related to service quality easily and cheaply. So that the success of continuous improvement actions can improve the quality of banking services and the sustainability of customer trust.

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**Article Error** You may need to use an article before this word. Consider using the article **the**.



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**P/V** You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.



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**Missing ", "** You may need to place a comma after this word.



**S/V** This subject and verb may not agree. Proofread the sentence to make sure the subject agrees with the verb.



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**Proofread** This part of the sentence contains a grammatical error or misspelled word that makes your meaning unclear.



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