



Analysis of E-Service Quality on Customer Satisfaction Impact on Banking Image

Hadiyan Nur Sofyan¹, Nunung Ayu Sofiati², Mohammad Mukti Ali³, Dadan Abdul Azis⁴, Gurawan Dayon⁵, Riyadi Nur Sumawidjaya⁶, Ade Salman Alfarisi⁷, Anggono Raras Trito Sakti⁸

¹Universitas Indonesia Membangun, Bandung, Indonesia, hadiyannursofyan@student.inaba.ac.id

²Universitas Indonesia Membangun, Bandung, Indonesia, nunungayu.sofiati@inaba.ac.id

³Universitas Indonesia Membangun, Bandung, Indonesia, mohammad.mukti@inaba.ac.id

⁴Universitas Indonesia Membangun, Bandung, Indonesia, dadan.abdul@inaba.ac.id

⁵Universitas Indonesia Membangun, Bandung, Indonesia, gurawan.dayona@inaba.ac.id

⁶Universitas Indonesia Membangun, Bandung, Indonesia, riyadi.nursumawidjaja@inaba.ac.id

⁷Universitas Indonesia Membangun, Bandung, Indonesia, ade.salman@inaba.ac.id

⁸Universitas Indonesia Membangun, Bandung, Indonesia, anggono72018@gmail.com

Corresponding Author: hadiyannursofyan@student.inaba.ac.id¹

Abstract: This study aims to analyze the influence of E-Service Quality on customer satisfaction and its impact on banking image. The research methods used are descriptive and verification methods. The descriptive method is used to describe the condition of E-Service Quality, customer satisfaction, and banking image at the time of the study, while the verification method is used to test the relationship and influence between the variables studied. E-Service Quality is measured through the dimensions of efficiency, responsiveness, compensation, and contact, while customer satisfaction is measured based on expectation and perception. The population in this study were 487 customers using electronic banking services. The sampling technique used simple random sampling, so that each member of the population has an equal opportunity to be selected as a respondent. The results show that banking E-Service Quality is in the good category, customers are satisfied with the services provided, and the banking image is assessed positively. Statistically, E-Service Quality has a significant effect on customer satisfaction with a direct effect of 67.7%. In addition, E-Service Quality also has a significant effect on banking image by 9.4%. Customer satisfaction has a significant effect on banking image with a contribution of 50.8%. Simultaneously, e-service quality has a strong impact on customer satisfaction, with an influence of 83.2%. This finding underscores the importance of improving e-service quality in building customer satisfaction and banking image.

Keyword: E-Service Quality, Customer Satisfaction, Banking Image, Quantitative.

INTRODUCTION

The analysis of the effect of e-service quality on customer satisfaction and its impact on banking image indicates that the quality of digital services has become a critical element in the delivery of modern banking services. The rapid pace of digital transformation has encouraged banks to provide electronic-based services as the primary channel for meeting customer needs. In this context, e-service quality is not merely associated with the availability of technology, but also encompasses ease of system use, operational reliability, transaction speed, data security, and the bank's ability to respond effectively to customer issues. The analysis reveals that higher perceived e-service quality leads to increased levels of customer satisfaction in the use of banking services.

Customer satisfaction in digital banking services is formed through a comprehensive evaluation of users' experiences with electronic systems. Customers tend to feel satisfied when digital services operate consistently, experience minimal technical disruptions, and offer convenience in conducting transactions. Furthermore, security aspects play a crucial role in influencing customers' sense of comfort and trust. When e-banking systems are able to ensure transaction security and data confidentiality, customers are more likely to evaluate the service positively. Therefore, e-service quality serves as a key determinant in creating customer satisfaction, as the quality of interaction between users and digital platforms shapes customers' perceptions of the bank's overall performance.

Moreover, customer satisfaction has been shown to contribute significantly to the formation of a banking image. Banking image is reflected in customers' collective perceptions regarding a bank's reputation, professionalism, and capability to deliver reliable and innovative services. Customers who are satisfied with electronic services tend to develop positive perceptions of the bank, viewing it as a modern institution that is adaptive to technological advancements and customer-oriented. This finding suggests that customer satisfaction acts as a mediating factor linking e-service quality to the overall banking image.

The analysis further indicates that banking image plays a strategic role in enhancing competitiveness within the increasingly competitive banking industry. Banks that successfully build a positive image through high-quality digital services are more likely to gain higher levels of customer trust. Customer satisfaction resulting from positive digital service experiences encourages loyalty, continued service usage, and customers' willingness to recommend the bank to others. Consequently, e-service quality not only affects short-term satisfaction but also exerts a long-term influence on the bank's reputation and market position.

Overall, the analysis demonstrates that e-service quality has a strong influence on customer satisfaction, which in turn positively affects the banking image. Improving the quality of digital services represents a strategic initiative for banks in responding to changing customer behaviors in the digital era. Continuous efforts to enhance system reliability, service security, and user convenience will assist banks in maintaining customer satisfaction and strengthening their institutional image. Thus, effective management of e-service quality can serve as an essential foundation for the sustainability and competitive advantage of banking institutions in the future.

The rapid development of information and communication technology has driven a major transformation in the banking industry, particularly in the provision of electronic-based services (e-services). Banks no longer rely solely on conventional services at branch offices but are also required to offer digital services such as mobile banking, internet banking, and various other electronic platforms to meet the needs of customers seeking convenience, speed, and security in transactions.

The primary goal of any business is to achieve sustainable profitability for stakeholders and the business itself. To achieve this goal, business organizations undertake various efforts, one of which is meeting customer needs and expectations, thereby building customer loyalty, which ultimately shapes the company's image. The same applies in the banking sector. (Haripah S.N, 2021).

Banking image is the customer's response to the overall offerings provided by a bank and is defined as the sum of the beliefs, ideas, and impressions customers hold of a banking organization (Kotler, 2002: 22). According to Iman (2007), a company's image cannot be engineered; it is formed by the public through communication efforts and transparency, as the company strives to build a positive image.

Building an image cannot be done haphazardly, but rather is a long-term process, as image is the entire perception of an object formed by consumers through processing information from various sources over time.

On the other hand, customer satisfaction is a key indicator in assessing the effectiveness of banking services. When customers are satisfied with the service provided, they tend to maintain their relationship with the bank and even recommend it to others. According to Tjiptono (2012), customer satisfaction is the state of mind consumers experience when they realize that their needs and desires are in line with their expectations and are being met satisfactorily.

According to Philip Kotler and Kevin Lane Keller (2007), customer satisfaction is a feeling of pleasure or disappointment that arises after comparing the performance (results) of a product they considered against their expected performance. The growth of banking customer funds has tended to decline in line with Bank Indonesia's desire to normalize liquidity levels to help control inflation.

Literature Review

According to George R. Terry (1977), management is "a distinct process consisting of planning, organizing, actuating, and controlling carried out to achieve predetermined goals using human and other resources."

James A.F. Stoner, in T. Hani Handoko (1982:8), states that management is the process of planning, organizing, directing, and supervising the efforts of organizational members and the use of other organizational resources to achieve predetermined organizational goals.

According to Ricky W. Griffin (2016), management is defined as the process of planning, organizing, coordinating, and controlling resources to achieve organizational goals effectively and efficiently. Mary Parker Follet (1997) states that management is the art of getting work done through others. This definition means that a manager is tasked with organizing and directing others to achieve organizational goals.

According to Hasibuan (2018:41), management is the science and art of managing the process of utilizing human and other resources effectively to achieve specific goals. Ghillyer (2016) defines management as the process of determining the best way for an organization to The use of resources to produce goods or services.

According to Kotler & Keller (2019), the definition of marketing is identifying and meeting human and social needs. One good and concise definition of marketing is meeting needs profitably. According to Kotler & Armstrong (2019), marketing rests on the following core concepts:

1. Needs, Wants, and Demands

A need is anything that humans require and must have in order to motivate them to strive. A want is the desire to satisfy a specific need. A demand is the desire for a specific product supported by the ability and willingness to pay and purchase.

2. Market Offerings – Products, Services, and Experiences

A market offering is any combination of products, services, information, or experiences offered to a market to satisfy their needs or desires.

3. Customer Value and Customer Satisfaction

Customer value is seen as a combination of quality, service, and price. It reflects the tangible and intangible benefits and costs to consumers. Customer satisfaction is a person's assessment of a product's perceived performance in relation to their expectations.

4. Exchange and Relationships

Exchange is the act of obtaining a desired object from someone by offering something in return. Marketing consists of actions taken to build and maintain relationships through transactions with target buyers, suppliers, and distributors involving products, services, ideas, or other objects.

5. Markets

A market is a collection of all actual and potential buyers who have the same need or desire for a particular product or service, who are willing and able to carry out exchanges to satisfy those needs and desires.

Marketing strategy is a key pillar in a company's efforts to achieve its business goals. In an increasingly competitive and rapidly changing business environment, developing an effective marketing strategy is key to success. A planned and targeted approach to marketing allows a company to differentiate itself from competitors, reach the right market, and better meet customer needs. According to Kotler & Armstrong (2019), marketing strategy is the marketing logic that a company can employ to help its business units achieve their goals.

According to Mandasari, Widodo, and Djaja (2019), marketing strategy is a strategy used by companies producing goods or services on an ongoing basis to win market competition. The development of a comprehensive business plan is based on marketing strategy. Similarly, Kotler and Philip (2020) state that determining marketing strategy is used to achieve marketing objectives. Marketing strategy consists of making decisions about the company's marketing costs, marketing mix, and marketing allocation. Meanwhile, according to Tjiptono and Fandy (2018), marketing strategy planning is carried out by developing competitive advantages and marketing programs used to serve the target market.

In marketing, there is a marketing strategy called the marketing mix which has an important role in influencing consumers to buy a product or service offered by the company. The elements of the marketing mix consist of all variables that the company can control to satisfy consumers. In the marketing mix, there is a set of marketing tools known as the 7Ps. The following are things that need to be considered for marketing from the seller's perspective according to Kotler and Armstrong (2019). In an era where the market is increasingly competitive and customers have many choices, marketing management is the key to differentiating brands, building relationships with customers, and achieving long-term success. Marketing management involves planning, implementing, and monitoring various marketing activities to achieve established business goals. According to Kotler and Keller (2017) is the art and science of choosing target markets and acquiring, retaining, and growing customers by creating, delivering, and communicating superior customer value.

According to Tjiptono (2018), marketing management is a technique that encompasses all business activities designed to develop, price, and distribute products, services, and ideas that meet the needs of the target market, thereby achieving the company's objectives. According to Sofjan Assauri (2017), marketing management is the elaboration, preparation, implementation, and application of a plan designed to create, organize, and maintain profit from exchanges with target markets to achieve the company's long-term mission.

According to the American Marketing Association (2016), marketing management is the determination of product marketing objectives for an organization (taking into account internal resources and market opportunities), planning and implementing activities to meet these objectives, and measuring progress toward achieving them.

Marketing management utilizes various tools from economics and competitive strategy to analyze the industry context relevant to a company's operations. This includes Porter's five forces. Porter, M.E. (2019), states that five forces determine the intensity of competition in an industry.

In competitor analysis, marketers create detailed profiles of each competitor in the market, focusing primarily on their relative competitive strengths and weaknesses using a SWOT analysis. According to Freddy (2018), a SWOT analysis is a logical analysis that maximizes strengths and opportunities while simultaneously minimizing weaknesses and threats. Marketing managers will examine each competitor's cost structure, sources of profit, resources and competencies, competitive position and product differentiation, level of vertical integration, history of response to industry developments, and other factors.

According to Robinson and Pearce (2018), a SWOT analysis is a crucial component of strategic management. This SWOT analysis encompasses a company's internal factors. It will then produce a company profile and help understand and identify the organization's strengths and weaknesses. These weaknesses and strengths are then compared with external threats and opportunities to form the basis for generating alternative strategies.

Another opinion according to Ferrel and Harline (2017), the function of SWOT Analysis is to obtain information from situation analysis and separate it into internal issues (strengths and weaknesses) and external issues (opportunities and threats). The SWOT analysis will explain whether the information indicates something that will help the company achieve its goals or provide an indication that there are obstacles that must be faced or minimized to meet the desired income.

According to Galavan (2014), a SWOT (Strength, Weakness, Opportunity, and Threat) analysis is an analysis to obtain useful or effective strategies that are implemented according to the current market and public conditions. Opportunities and threats are used to understand the external environment, then strengths and weaknesses are obtained through internal analysis of the company.

According to A. Abdurrachman (2014:6), a bank is a type of financial institution that provides various services, such as providing loans, circulating currency, monitoring currency, acting as a place to store valuables, and financing company businesses.

According to Kasmir (2017), a bank is simply defined as a financial institution whose business activities involve collecting funds from the public and channeling them back to the public, as well as providing other banking services.

According to Hasibuan (2019), a bank is a financial institution that creates money, collects funds, distributes credit, manages payment transactions, maintains monetary stability, and drives economic growth. In today's modern world, the role of banking in advancing a country's economy is significant. The banking sector is so important that some consider it the "lifeblood" of the economy.

According to G.M. Veryn (2014:5), a bank is an entity that aims to satisfy credit needs, either through its own means of payment, with money obtained from others, or by circulating currency exchange instruments in the form of demand deposits.

Various definitions from experts regarding e-service quality, according to Zeithaml et al. (2018), e-service quality is defined as the entire transaction that occurs between consumers and a website, where the website provides convenience and efficiency in shopping, purchasing, and delivering goods. products to consumers. In e-service, consumers

do not evaluate each sub-process during each online visit, but rather the entire process they go through to obtain overall service quality.

According to Monroe (in Vanessa, 2017), customer value is the ratio between perceived benefits and perceived sacrifices. Perceived benefits are a combination of physical attributes, service attributes, and supporting techniques in product utilization. Sacrifices are the total costs incurred by consumers, including purchase costs and additional costs (such as ordering, transportation, installation, order handling), as well as non-purchase costs (replacing damage, risk of failure, or poor service).

Another theory, according to Rangkuti (2014), in Nunung Ayu Sofiati (Efi) (2023), states that customer satisfaction is a reaction or response to a disparity between expected performance and actual perceived performance after use or usage. E-Servqual was developed to evaluate services provided on the internet. E-Service Quality is defined as the extent to which a site's ability to facilitate shopping, purchasing, and distribution activities effectively and efficiently (Chase, Jacobs, & Aquilano, 2018).

E-Service Quality is the ability of a service to deliver functional performance during shopping, purchasing, and delivery to customers via electronic media (Lasyakka, 2015). Interactions between sellers and buyers are now facilitated by electronic media, specifically designed websites for sales transactions. Furthermore, e-commerce services, such as transactions and marketing activities, can now be accessed through mobile phone applications.

Customer satisfaction is considered an important and significant factor in purchasing a product or receiving a service. Previous studies have provided several definitions of customer satisfaction. According to Oliver & Sharpe (1997), customer satisfaction is a customer's perceived satisfaction with a product or service. Customer satisfaction refers to the overall evaluation of a customer's overall purchasing and consumption experience with a company providing goods or services over time.

According to Philip Kotler and Kevin Lane Keller (2018), as quoted from the book "Marketing Management," consumer satisfaction is a feeling of pleasure or disappointment that arises after comparing perceived product performance (results) to expected performance.

According to Tjiptono (2017:45), customer satisfaction is a fundamental element in modern marketing thought and practice. Based on the above theory, it can be concluded that customer satisfaction is a customer's response or response, expressed in feelings or assessments of product use, where their expectations and needs are met.

Meanwhile, according to Handi Irawan (2015), customer satisfaction is a comprehensive assessment of service and is the result of comparing customer expectations and perceptions of actual service performance.

Several theories have been put forward regarding banking image. According to Kotler (2016), it is a customer's response to the overall offerings provided by a bank and is defined as the sum of the customer's beliefs, ideas, and impressions of a banking organization.

Katz (Soemirat and Ardianto, 2016) explains that image is how others perceive a company, a person, a committee, or an activity. Image is an impression gained through a person's knowledge and experience of something.

1. For a company, image is defined as the public's perception of its identity. Public perception of a company is based on what is known or assumed about it.
2. According to the Collins English Dictionary translation, cited in the book *Strategy Public Relations*, image is defined as a mental picture; an idea generated by the imagination or personality presented to the public by a person, organization, etc. Another definition is that image is a feeling, a public self-image of a company, organization, or institution; a deliberately created impression of an object, person, or organization (Ardianto, 2019). It can be concluded that image is a self-image, whether

personal, organizational, or corporate, deliberately created to convey personality or distinctive characteristics. Image is a company's most important asset.

3. It is often said that image is power, meaning that it has the ability beyond the company to enhance the strength of the company's products or services (Kotler and Armstrong, 2019). Zeithaml and Bitner (2018) define image as the impression of a product or brand of a company stored in the memory of an individual or group, generated through past experiences.

A good image is a powerful tool to attract consumers to choose a company's products or services, but also to improve consumer satisfaction with the company or organization (Sutojo, 2015).

METHOD

The research methods used in this study are descriptive and verification. Descriptive methods are used to examine the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in the present (Sugiono, 2009:21). The purpose of descriptive research is to create a systematic, factual, and accurate description, depiction, or picture of the facts, characteristics, and relationships between the phenomena being investigated. According to Sugiyono (2014:37), "Verification research is essentially intended to test the accuracy of collected data in the field." The verification method in this study involved collecting data from the field. The purpose was to examine the influence of E-Service Quality on Customer Satisfaction and its impact on Banking Image.

In this study, the descriptive method was used to obtain:

1. A further description and analysis of E-Service Quality implementation (Efficiency, Responsiveness, Compensation, Contact).
2. Overview and Analysis of Customer Satisfaction (Perception and Expectation)
3. Overview and Analysis of Banking Image (Reputation, Recognition, Affinity, and Brand Loyalty)

Verification methods were also used to analyze:

1. The Influence of E-Service Quality on Customer Satisfaction
2. The Influence of E-Service Quality on Banking Image
3. The Influence of Customer Satisfaction on Banking Image
4. The Influence of E-Service Quality on Customer Satisfaction and its Impact on Banking Image.

According to (Rakhmat, 2017), a population is all elements of a collection of research objects to be studied. A sample is a subset of the population that is expected to describe the characteristics of the population or the subset being studied. The population in this study was 487 customers using electronic services.

The sampling technique used in this study was simple random sampling, which is a sampling technique in such a way that all members of the population have an equal opportunity and freedom to be selected as a sample. Simple random selection involves the procedure of defining the population, identifying each member of the population, and selecting individuals (samples) based on "full chance." For this reason, it is usually selected using a table of random numbers or a computer program. (Dr. Sumanto M.A, 2014: 202). This technique was chosen by the author because, based on data, the customers who use electronic services are uniform.

The random sample selection process includes the procedure of defining the population, identifying each member of the population, and selecting individuals (samples) based on "full probability". For this reason, it is usually selected using a table of random numbers or a computer program. Sumanto, (2014: 202). The analysis that will be used in testing the causal relationship between variables in this study is the Structural Equation Modeling (SEM)

method with the Maximum Likelihood (ML) estimation technique. Based on Monte Carlo studies conducted by researchers on various SEM estimation methods, it was concluded that the sample size for ML estimation must be at least 5 x the free parameters, including the error Bentler & Chou, (1987). In this study, the minimum sample size taken is as follows:

Table 1 Determining Minimum Sample Size

Source of Variation	Amount	Sample
<i>Variabel Manifest</i>	10	50
<i>Error</i>	10	50
<i>Varians Eksogen</i>	1	5
<i>Regression Weight</i>	3	15
<i>Disturbance</i>	2	10
Minimum Sample Size		130

RESULT AND DISCUSSION

Result

Validity of E-Service Quality

The E-Service Quality variable in this study consists of four dimensions: efficiency, responsiveness, compensation, and contact, which are described in eight statement items. To test the validity of the research instrument, a preliminary survey was conducted by distributing questionnaires to 30 outpatient respondents. The data from the preliminary survey were then analyzed using SPSS version 26 software using the Spearman Rank correlation method.

The validity test results showed that all items in the E-Service Quality variable had correlation coefficients (r-values calculated) greater than the rs-values tabled at 0.364 at a significance level of 5% (n = 30), and significance values less than 0.05. The lowest correlation value was found in the fourth item in the responsiveness dimension, a statement regarding the speed of response of Bank administrators to customer inquiries via the website chat box, with a correlation coefficient of 0.412. Meanwhile, the highest correlation value was found in the first item in the efficiency dimension, a statement regarding obtaining information from Bank through the website, with a correlation coefficient of 0.673.

Based on these results, it can be concluded that all statement items in the E-Service Quality variable meet the validity criteria, so they are suitable for use as research instruments in the next data collection stage.

Customer Satisfaction Validity

The validity test for the Customer Satisfaction variable was conducted during the initial survey phase using the Spearman Rank correlation method. This variable consists of two dimensions: expectation and perception, operationalized into ten items. Questionnaires were distributed to 30 customer respondents, and the data obtained were then processed using SPSS version 26 software.

Based on the validity test results, all items in the Customer Satisfaction variable demonstrated a correlation coefficient (r-value calculated) greater than the rs-table value of 0.364 at a significance level of 5% (n = 30), and a significance value less than 0.05. The lowest correlation value was found in item 17 in the perception dimension, which stated that customers were satisfied with the website's ability to respond promptly to disruptions, with a correlation coefficient of 0.512. Meanwhile, the highest correlation value was found in item 9 within the expectation dimension, namely the statement regarding customer satisfaction when accessing the Bank website due to its adequate speed, with a correlation coefficient of 0.701.

Thus, it can be concluded that all statement items in the Customer Satisfaction variable have met the validity criteria, thus declaring the research instrument valid and suitable for use in the next stage of data collection.

Banking Image Validity

The validity of the Banking Image variable was tested during the initial survey phase using the Spearman Rank correlation method. This variable consists of four dimensions: reputation, recognition, affinity, and brand loyalty, operationalized into 20 items. Questionnaires were distributed to 30 customer respondents, and the data obtained were then processed using SPSS version 26 software.

Based on the validity test results, all items in the Banking Image variable demonstrated correlation coefficients (r-values calculated) greater than the rs-table value of 0.364 at a significance level of 5% (n = 30), and had a significance value less than 0.05. The lowest correlation coefficient was found in item 35 of the brand loyalty dimension, which stated the customer's willingness to promote the bank's website to others, with a correlation value of 0.371. Meanwhile, the highest correlation coefficient value was found in item 34 within the brand loyalty dimension, namely the statement regarding the customer's willingness to recommend the bank's website to family and friends, with a correlation value of 0.669.

Thus, it can be concluded that all statement items in the Banking Image variable have met the validity criteria, thus declaring the research instrument valid and suitable for use in the next stage of data collection.

Reliability of E-Service Quality, Customer Satisfaction, and Banking Image

The reliability test aims to measure the reliability of the questionnaire. Table 4.4 below shows the results of processing data collected from the Initial Survey using SPSS 26 software.

Table 2 Reliability Test Using The Cronbach's Alpha Method

No	Variable	Koef. Reliability (C α)	C α kritis	Information
1	<i>E-Service Quality</i>	0,722	0,700	Reliable
2	Customer Satisfaction	0,778	0,700	Reliable
3	Banking Image	0,871	0,700	Reliable

Source: Processed from Questionnaire Data in the Initial Survey, 2026

The results of reliability testing on the variables in the research questionnaire showed that the variable with the highest reliability was Banking Image at 0.871. This value indicates that the level of consistency of respondents' answers to the Banking Image variable was high (0.7 \square C α < 0.9) which was 87.1%. Meanwhile, the E-Service Quality variable had the smallest reliability of 0.722, indicating a consistency level of 72.2% with a high category (Tavokal & Dennis, 2011). The three variables had a reliability value greater than 0.700 so that E-Service Quality, Customer Satisfaction, and Banking Image were declared Reliable. Thus, all research variable items can be used in further analysis.

To identify the presence of multicollinearity and singularity, the determinant of the sample covariance matrix, which is zero, can be observed. The calculation results show that the determinant of the sample covariance matrix is 10,243.965, which is significantly greater than zero. This indicates the absence of multicollinearity and singularity, allowing the data to be used for drawing conclusions.

Next, the most important part of SEM analysis is testing the goodness of fit of the constructed model. This stage determines whether the model can be used to answer the research hypotheses and draw conclusions.

The hypotheses proposed for the Confirmatory Factor Analysis (CFA) model fit test are stated as follows:

H0: The CFA model is good

H1: The CFA model is not good

The following table shows the results of calculations using LISREL 8.80 software, displaying several fit indices commonly used to determine the goodness of fit of a CFA model.

Table 3 Final CFA Model Fit Test

Compatibility Index	Value	Cut off value	Conclusion
Chi-Square	23,573*	< 44,985	Accept H0, good model
P-value	0,828*	> 0,05	Accept H0, good model
Chi-Square/df	0,760*	< 2,00	Accept H0, good model
RMSEA	0,000*	< 0,08	Accept H0, good model
GFI	0,966*	> 0,90	Accept H0, good model
AGFI	0,939*	> 0,90	Accept H0, good model
NFI	0,978*	> 0,90	Accept H0, good model
TLI	1,011*	> 0,90	Accept H0, good model
CFI	1,000*	> 0,90	Accept H0, good model

Note: df = 31; Chi-Square(0.05,31) = 44.985

Source: Data Processing Results, 2026

* The goodness-of-fit index (GOF) meets the model's requirements and is categorized as good

The final modified CFA model analysis yielded a α_2 value of 23.573, with a P-value of 0.828. Compared to the required critical value of $\alpha_2 < \alpha_2\text{table} = 44.985$ (5% significance level and df = 31 degrees of freedom), or a true probability value (P-value) above 0.05, H0 is accepted. Therefore, the CFA model is considered good. Furthermore, the RMSEA of 0.000, which is less than 0.08 (Browne and Cudeck, 1993), indicates a good model. Similarly, the comparative fit index, TLI, and CFI, were greater than 0.95 (Ferdinand, 2002), indicating that the model is in the good category. The GFI, AGFI, and NFI fit indices were all greater than 0.90, indicating that the model falls into the good category (Appendix 10). Therefore, this CFA model can be said to be appropriate in forming the constructs to be used in SEM.

The evaluation results of the final modified CFA model indicate that the model analyzed using SEM has good goodness of fit criteria and does not show any outliers, multicollinearity, or singularity. Therefore, this model can be maintained as a good model for predicting the influence of E-Service Quality on Customer Satisfaction and its impact on Banking Image.

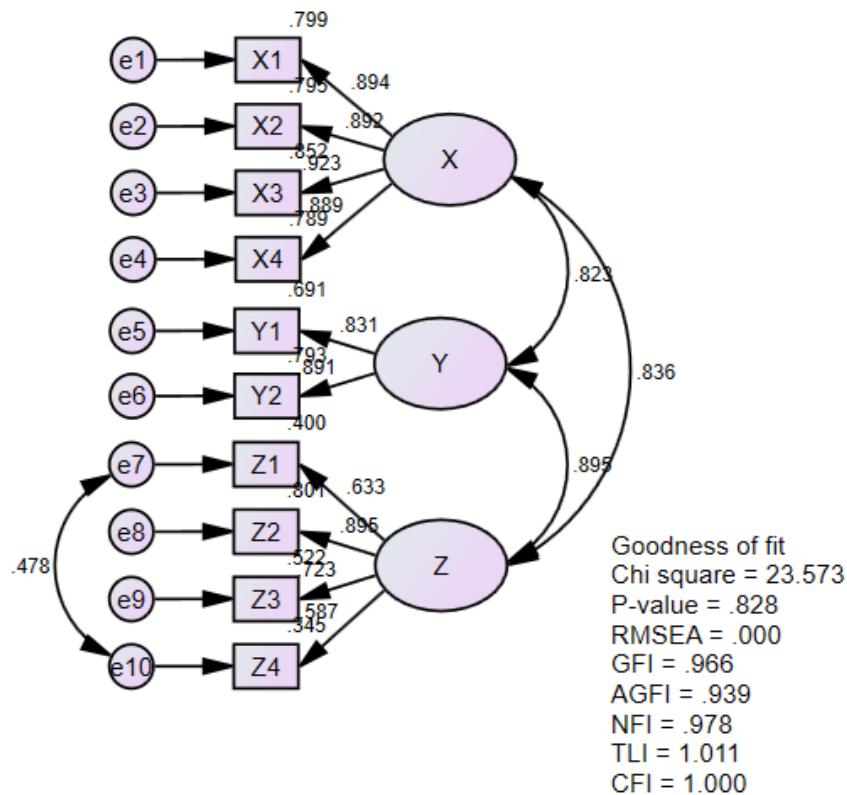


Figure 1
Final Modified CFA Model of E-Service Quality, Customer Satisfaction, and Banking Image

As seen in the figure, adding one error covariance, namely $e7 \leftrightarrow e10$, was able to reduce the Chi-square value from 53.755 (P-value = 0.009) to 23.573 (P-value = 0.828) which is smaller than the initial CFA model, the RMSEA value becomes 0.000 and the AGFI index becomes 0.939 which is greater than 0.90. So this modified CFA model has a model fit index that meets the requirements which states that the CFA model is fit. Testing the significance of the parameter estimates of each dimension in predicting latent variables as well as the covariance (correlation) between latent variables and error covariance is presented in the table below.

Table 4 Path Coefficients of The Final Modified CFA Model

			Standardized Estimate	Estimate	S.E.	C.R.	P
X1	<---	X	0.894	0.982	0.059	16,577	
X2	<---	X	0.892	0.959	0.058	16,441	***
X3	<---	X	0.923	1,000			***
X4	<---	X	0.889	0.919	0.056	16,284	***
Y1	<---	Y	0.831	0.855	0.073	11,739	***
Y2	<---	Y	0.891	1,000			
Z1	<---	Z	0.633	0.574	0.073	7,899	***
Z2	<---	Z	0.895	1,000			***
Z3	<---	Z	0.723	0.646	0.068	9,499	
Z4	<---	Z	0.587	0.521	0.072	7,247	***

Note: *** = 0.000

Source: Data Processing Results, 2026

Table 5 Covariance of The Final Modified CFA Model

			Standarized Estimate	Estimate	S.E.	C.R.	P
X	<-->	Y	0,765	3.641	.563	6.470	***
Y	<-->	Z	0,814	9.273	1.397	6.638	***
X	<-->	Z	0,918	3.995	.610	6.552	***
e7	<-->	e10	0,205	2.703	.600	4.506	***

Note: *** = 0.000

Source: Data Processing Results, 2026

The results of the path coefficient analysis of the final modified confirmatory factor analysis (CFA) model indicate a significant effect, as shown in the table above. The CR (Critical Ratio) values are all above the required critical value, which is $|C.R.| \geq 1.96$. Therefore, it can be concluded that the dimensions used to predict the relevant latent factors are appropriate. Likewise, the relationships between latent variables and the additional error covariance are all significant at the 5% significance level (95% confidence level).

In structured modeling, the validity coefficients for each dimension and the reliability coefficients for the constructs (latent variables) can be calculated. The goal is to determine whether the dimensions used to predict these latent variables are valid and the degree of consistency of these latent variables. The following are the characteristics of the final CFA model, consisting of standardized factor loadings, t-test, reliability, and extracted variance.

Discussion

E-Service Quality

Based on the results of the proportion test using the Z-test, it was concluded that E-Service Quality has been implemented well. With the contribution of respondents' answers to the E-Service Quality variable at 78.4%, it falls into the high achievement category (60%-80%). The indicators that cause this E-Service Quality level to be in good condition are efficiency, responsiveness, compensation, and contact, which are included in the good category.

Customer Satisfaction

Based on the results of the proportion test using the Z-test, it was concluded that customer satisfaction has been achieved well. With the respondents' answers contributing 78.8% to the customer satisfaction variable, this falls into the very high category (>80%-100%). The indicators that led to this level of customer satisfaction being achieved are the website, which meets expectations, and the Bank website, which always has the transaction needs for various products available (perception).

Banking Image

Based on the results of the proportion test using the Z-test, it was concluded that the Banking Image has been implemented well. With the contribution of respondents' answers to the Banking Image variable amounting to 77.9%, it is included in the high achievement category (>60%-80%). The indicators that contribute to this level of Banking Image in each aspect are mainly the indicators that Bank can be trusted to protect data (Reputation dimension), the Bank website can maintain customer trust (Recognition dimension), customers will conduct more transactions on the bank's website in the future (Affinity dimension), and customers will recommend the bank's website to family and friends (Brand Loyalty dimension).

The Influence of E-Service Quality on Customer Satisfaction

There is a significant influence of E-Service Quality, consisting of the dimensions of efficiency, responsiveness, compensation, and contact, on Customer Satisfaction, as indicated by the calculated credential (CR) statistic of 10.437, which is absolutely smaller than the critical z-value of 1.96. The standardized slope coefficient is positive at 0.823, indicating that, if other variables are held constant, each one-unit increase in E-Service Quality will result in a 0.823 increase in Customer Satisfaction. The magnitude of the influence of E-Service Quality on Customer Satisfaction is 67.7%, with the remaining 32.3% being influenced by factors outside the research variables.

The Effect of E-Service Quality on Banking Image

For a two-tailed test, at a 95% confidence level, the critical value of the standard z-normal distribution is 1.96. Comparing the calculated t-value with the critical value in the table, $c.r. = 2.299 > 1.96$, thus rejecting the null hypothesis. This means that E-Service Quality, consisting of the dimensions of efficiency, responsiveness, compensation, and contact, has a significant effect on Banking Image, with a direct effect of 9.4%.

The Effect of Customer Satisfaction on Banking Image

The results indicate a significant effect of Customer Satisfaction on Banking Image, as demonstrated by the calculated $c.r.$ value of 4.269, which is absolutely greater than the critical z-value of 1.96. The standardized slope coefficient is positive at 0.643, indicating that, holding other variables constant, each one-unit increase in Customer Satisfaction will result in a 0.643 increase in Banking Image. The direct effect of Customer Satisfaction on Banking Image is 50.8%.

The Effect of E-Service Quality on Customer Satisfaction and Its Impact on Banking Image

There is a significant effect of E-Service Quality, consisting of the dimensions of efficiency, responsiveness, compensation, and contact, on Customer Satisfaction and its impact on Banking Image, as indicated by the calculated F-statistic of 208.631, which is greater than the critical F-statistic of 2.677. The coefficient of determination is 0.832, or 83.2%. Therefore, the effect of E-Service Quality on Banking Image through the intervening variable Customer Satisfaction is 83.2%, while the remaining 16.8% is influenced by factors outside the research variables.

CONCLUSION

The influence of e-service quality on customer satisfaction and its impact on banking image can be concluded as follows:

1. E-service quality, which includes efficiency, responsiveness, compensation, and contact, is good.
2. Customers are satisfied with the services provided by banks.
3. The image of banks is good.
4. E-service quality, which includes efficiency, responsiveness, compensation, and contact, has a significant influence on customer satisfaction, with a direct effect of 67.7%.
5. E-service quality, which includes efficiency, responsiveness, compensation, and contact, has a significant influence on banking image, with a direct effect of 9.4%.
6. Customer satisfaction, which includes expectations and perceptions, has a significant influence on banking image, with a direct effect of 50.8%.

7. There is a significant influence of E-Service Quality which includes Efficiency, Responsiveness, Compensation and Contact on Customer Satisfaction with a simultaneous influence of 83.2%.

REFERENCES

- Armstrong, G., & Kotler, P. (2017). Principles of Marketing. 17th red. New York.
- Hasibuan, Malayu SP. (2018). *Manajemen Sumber Daya Manusia*. Edisi Revisi. Jakarta: PT. Bumi Aksara.
- Hasibuan, Malayu. (2017). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara.
- Kasmir, 2014. *Analisis Laporan Keuangan*, cetakan ke-7. Jakarta: PT. Raja Grafindo Persada.
- Kasmir. (2019). *Analisis Laporan Keuangan (Revisi)*. Depok: PT RAJAGRAFINDO PERSADA.
- Kasmir. 2017. Customer Service Excellent: Teori dan Praktik. PT Raja Grafindo Persada: Jakarta.
- Kotler, dan Keller. (2016). Marketing Management. In England: Pearson. 15th ed. Pearson Education.
- Kotler, P dan Armstrong. 2018. *Prinsip-prinsip Marketing Edisi Ke Tujuh*. Penerbit Salemba Empat. Jakarta.
- Kotler, P. (2019). *Manajemen Pemasaran*. Edisi Milenium. Jakarta: Prenhalindo.
- Kotler, P. and Kevin Lane Keller. 2018. *Perilaku Konsumen (sikap dan pemasaran)*. Terjemahan: Firmansyah, M. A. Pasuruan: CV. Penerbit Qiara Media.
- Kotler, Philip and Kevin Lane Keller. (2019). *Marketing Management*. 4th Edition.
- Kotler, Philip and Lane Keller. 2017. *Marketing Manajement*, 15th Edition New Jersey: Pearson Prentice Hall, In.
- Kotler, Philip dan Gary Armstrong. (2019). *Prinsip-prinsip Pemasaran*. Edisi13.
- Kotler, Philip dan Keller, Kevin Lane. 2018. *Manajemen Pemasaran*. Edisi 12. Jilid 2. Jakarta: PT Indeks
- Kotler, Philip dan Kevin Lane Keller. (2019). *Manajemen Pemasaran Edisi ke Tigabelas Jilid 1*. Erlangga, Jakarta.
- Kotler, Philip dan Kevin Lane Keller. (2019). *Manajemen Pemasaran Edisi ke Tigabelas Jilid 1*. Erlangga, Jakarta.
- Kotler, Philip., dan Gary Armstrong., (2019), *Principles of Marketing*, 14th Ed, Prentice Hall, Jakarta.
- Kotler, Philip., dan Gary Armstrong., (2019), *Principles of Marketing*, 14th Ed, Prentice Hall, Jakarta.
- Kotler, Philip; Keller, K. L. (2020). *Manajemen pemasaran : Jil. 1 / Philip Kotler, Kevin Lane Keller ; Alih Bahasa Bob Sabran*. Jurnal Manajemen Dan Entrepreneurship, 6(3).
- Kumar, V. & Reinartz, W., 2016, 'Creating enduring customer value'. *American Marketing Association Journal of Marketing*: AMA/MSI. ISSN: 0022-2429 (80 (6), 36–68. <https://doi.org/10.1509/jm.15.0414>.
- Malayu S.P Hasibuan. 2019. *Manajemen Sumber Daya Manusia*. Bandung: PT Bumi Aksara.
- Mary Parker Follet dalam bukunya said (2017:4) manajemen sebagai “the art off getting done through people”.
- Nunung Ayu Sofiati (Efi), Yoyo Sudaryo, Dayan Hakim Natigor, Rama Chandra Jaya (2023), Increased Customer Satisfaction Using *Digital Marketing* Implementation In The Banking Industry Image. *Jurnal Ilmu Sosial dan Humaniora*. Vol 25, No 1 Jerry C. Olson. 1999. Consumer Behavior, Perilaku konsumen dan Strategi Pemasaran.Jilid kedua, Edisi Keempat. Terjemahan Damos Sihombing dan Peter Remy Yossi Pasla. Jakarta: Erlangga.

- Rangkuti, Freddy. 2014. *Analisis SWOT: Teknik Membedah Kasus Bisnis*. Jakarta. PT Gramedia Pustaka Utama
- Rangkuti, Freddy. 2018. Analisis SWOT: Teknik Membedah Kasus Bisnis Cara Perhitungan Bobot, Rating, dan OCAI. Jakarta: PT. Gramedia Pustaka Utama.
- Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta, CV.
- Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. Bandung: ALFABETA.
- Sugiyono. 2018. Metode Penelitian Kuantitatif, Kualitatig, dan R&D, penerbit Alfabeta, Bandung
- Sumandi, Iman Mulyana Dwi. (2017). Citra Perusahaan (Seri Manajemen Pemasaran). Ebook. diakses pada hari Sabtu, tanggal 14 Oktober 2017.
- Tjiptono, F. 2018, Pemasaran Jasa, Prinsip, Penerapan, dan Penelitian. Yogyakarta: Andi.
- Tjiptono, Fandy (2017), *Strategi Pemasaran*, Edisi 4, Yogyakarta: Andi.
- Tjiptono, Fandy (2017), *Strategi Pemasaran*, Edisi 4, Yogyakarta: Andi.
- Tjiptono, Fandy. 2019. "Pemasaran Jasa Edisi Terbaru." Yogyakarta: Penerbit Andi.
- Tjiptono, Fandy. 2019. "Pemasaran Jasa Edisi Terbaru." Yogyakarta: Penerbit Andi.
- Tjiptono. 2019. *Strategi Pemasaran Prinsip & Penerapan*. Edisi 1. Yogyakarta. Andy.
- Vanessa, I. (2017, Oktober). Pengaruh Citra Merek (*Brand Image*) dan Harga Terhadap Keputusan Pembelian Konsumen (Survei pada Mahasiswa Program Studi Administrasi Bisnis Fakultas Ilmu Administrasi Universitas Brawijaya Malang Tahun Angkatan 2013/2014 dan 2014/2015. Jurnal Administrasi Bisnis (JAB), 51(1), 44-48