

TRANSFER AND PAYMENT APPLICATIONS SERVICE QUALITY: THE MODIFIED E-SERVQUAL AND IMPORTANCE-PERFORMANCE ANALYSIS

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ABSTRACT

Innovation and technological progress have significantly impacted various sectors, notably Indonesia's financial and banking industry. This sector has seen remarkable growth, particularly with the rise of digitalization. A prominent development in this context is financial technology, or fintech, which has emerged to address needs and issues not sufficiently met by traditional banking services in Indonesia. Among fintech innovations, Transfer and Payment technologies have become increasingly popular. Despite these technologies' benefits, they are frequently criticized for various usage-related issues. This study uses the Modified E-Servqual and Importance Performance Analysis (IPA) methods to evaluate the service quality of Transfer and Payment applications in Indonesia. It aims to assess user perceptions and expectations, identify areas for improvement, and determine which service dimensions require enhancement. The research involved 400 respondents who used Transfer and Payment applications. To ensure reliability, the Kuder-Richardson (KR-21) formula is applied to the measurement tool, while descriptive analysis and IPA are utilized to evaluate and map service quality. Findings reveal that user perceptions of the Transfer and Payment applications are rated as 'good,' with an average score of 4.01 out of 5.00 (80%). User expectations are slightly lower, at 3.93 out of 5.00 (79%), but still categorized as 'good.' However, several attributes fall short of user expectations, particularly in Reliability, Personal Needs, User Friendliness, and Responsiveness.

I. INTRODUCTION

As time passes, there is innovation and technological progress in all sectors, but the financial and banking sector is experiencing significant growth and development, especially in Indonesia. Current technological changes have resulted in a shift in financial products towards digitalization. One of the new products known to the public is financial technology or fintech. The emergence of fintech started from needs and problems that could not be met by the banking industry in Indonesia. Therefore, fintech is here to provide convenience for all levels of society throughout the country.

The fintech industry is a new form of financial service that is increasingly popular among the public, especially millennials. Fintech combines the words 'Finance' and 'Technology.' Fintech utilizes information technology to facilitate financial transactions, such as payments, loans, and investments. According to information provided by the Indonesian Fintech Association, 165 domestic companies have been established in Indonesia [1]. As of June 2022, fintech development in Indonesia includes 102 fintechs, consisting of 95 conventional fintechs and seven sharia fintechs, with total assets reaching IDR 4,7 trillion [2]. Some of them fall into the category of fintech applications in the payment sector, such as digital wallets, which are currently in demand among the public. The bank transfer fee is IDR—6,500.00 (six thousand five hundred rupiah) per transaction. However, with technological advances in digital wallet fintech applications such as OVO, Gopay, and Shopeepay, there is an administration fee of IDR. 2,500.00 (two thousand five hundred rupiah) was charged to transfer the balance from the account to the bank [3]. This is due to additional administrative processes the fintech service provider carries out. Therefore, users should consider these extra fees before transferring via fintech applications. Fintech applications that provide services in the field of fund transfers include Flip: Transfer and Payment, Wise, and Western Union, which can be accessed using Android or iOS smartphones. The Flip: Transfer and Payment application focuses on services for

transferring money and making payments. Wise and Western Union focus on digital money transfer services that allow users to send money internationally. Based on data from the App Store, the Transfer and Payment application users face several problems, including the live chat feature, which is less of a solution in dealing with problems. The refund application process is complicated for users; there is a lack of notification about application disruptions and incorrect notifications regarding transaction status. Apart from that, when there is a problem with the application system, many user transfers are delayed in the application account. Users also experience difficulties making transfers using virtual accounts because they incur fees like banking services. If you choose a manual transfer, it requires around 10 minutes to 2 hours. The obstacles users face in the Transfer and Payment application can cause very high risks for users. This can affect users' perceptions and expectations of the application and reduce the user's intention to continue using the application.

This is based on previous research, in research [12] measuring customer satisfaction with the quality of electronic services provided by Shopee using the E-Service Quality method and Cartesian diagrams. The results show that Shopee has met customer expectations in several dimensions, but there is room for improvement. This indicates that the E-Service Quality method can effectively identify satisfactory service areas and those that require improvement, which aligns with the author's research objectives. A study [14], which evaluates user satisfaction with the MyTel-U application using E-Service Quality and IPA, shows that users are generally unsatisfied with the services provided. This emphasizes the importance of identifying service areas that require improvement, which is the same goal as the author's research using a similar method, Importance Performance Analysis, to assess the quality of Transfer and Payment application services [14]. There are similarities in using the Importance Performance Analysis method in research [9] to evaluate the quality of digital services and their impact on user satisfaction. Study [4][9][13] The method is related to the research that the author conducted, namely using Modified E-Service Quality to assess the quality of digital services and their effect on user satisfaction. Study [6] measuring user satisfaction based on online reviews to support product improvement strategies. This research has similarities with the focus of the author's research, namely related to digital service user satisfaction, but differs in the methods used [6]. In research [7][8][10], Researchers use a method identical to the one the author uses, namely E-Service Quality in assessing the quality of digital services and user satisfaction. In research [11], The researcher discusses the evaluation of user satisfaction with the MyIndiHome mobile application service based on a combination of the ServQual method and the WebQual method, where the method used differs from the author's. Still, this research has an identical focus to what the author did, namely analyzing the quality of mobile application services.

Based on the existing problems, it is necessary to examine the factors that influence user perceptions and expectations when using the Transfer and Payment application using the Importance Performance Analysis method. It is also essential to analyze the service dimensions of application quality using the Modified E-Service Quality method to evaluate the quality of services provided by the Transfer and Payment application. The Modified E-Service Quality method focuses on four main dimensions: User Friendliness, Efficiency, Personal need, and Site Organization [4]. This research aims to identify practical solutions to address existing issues and enhance user perceptions and expectations of the Transfer and Payment application. Additionally, it contributes to fintech literature by offering a structured approach to understanding and improving service quality based on user perceptions and expectations while providing deep insights into how various dimensions of service quality influence user satisfaction.

II. RESEARCH METHODOLOGY

This research uses quantitative research methods, which means this research uses a systematic approach to collect and analyze numerical data on user perceptions and expectations [4]. The quantitative approach was chosen for its ability to quantify user perceptions and satisfaction objectively. Then, based on the objectives, this research is descriptive; that is, it aims to describe the characteristics of the population or phenomenon being studied. In other words, the writer will gather information about the current state of a subject or situation without trying to determine cause-and-effect relationships between variables. In addition, the data in this study was collected in one period (Cross Section), which allows processing, analysis, and conclusion free from author intervention. In the first step of research, case study observations and problem identification are carried out to explain the problem and provide a measurable explanation while understanding the appropriate method for dealing with the situation. Apart from that, to describe the background and determine the problem formulation, the research directly looked at users' experiences of the Transfer and Payment application. Therefore, this stage will help the following process, namely determining goals and establishing hypotheses based on the case study results. This research will use the E-Servqual

method for each core question prepared at the questionnaire formation stage. This will allow quantitative scores to be measured for each dimension. After that, the data obtained through questionnaire respondents will be tested for validity to ensure the validity of the data, and a reliability test will be carried out to determine whether an attribute is consistent and can be used from time to time. After the data has been collected and tested, this research will carry out data analysis to achieve the planned objectives and conclude and provide suggestions through attribute mapping on a Cartesian diagram using the Importance Performance Analysis (IPA) method, which was selected as the primary instrument due to its efficacy in identifying pivotal areas necessitating enhancement based on the significance and performance of particular service attributes.

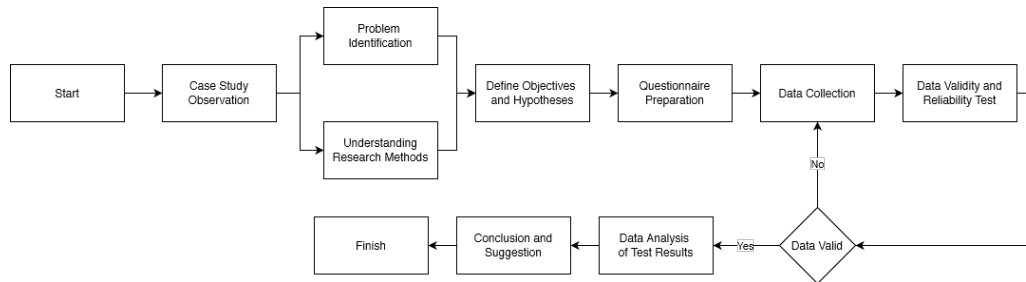


Figure 1. Research Methodology

A. Data

In this research, two types of data were used: primary and secondary data. Primary data is obtained from respondents who meet the criteria by filling out a questionnaire that will be distributed widely. Meanwhile, secondary data is obtained from sources that do not directly submit data to data collectors. If the source directly passes the data to the data collector, then the source can be designated as a primary source.

B. Method of collecting data

In this research, the data collection process uses two stages, namely through literature study, which aims to study areas related to research as supporting references. It is also helpful to know how developed the field and related methods are, which will significantly help the research process. Then, through a questionnaire that has been prepared using the dimensions approach in E-Servqual via Google Forms. The questionnaire will be distributed directly via social media and to individuals meeting the participation requirements.

C. Scale

This research uses an ordinal scale as a measuring instrument and a Likert scale as an instrument scale to determine the length and shortness of the intervals used to measure data. The Likert scale is an assessment method used to measure the opinions, attitudes, and perceptions of a person or group of people about societal phenomena [17]. This study used an odd 5-point Likert scale, which includes a neutral option for respondents who choose not to answer when the word choice in the research design is considered excessive. The scoring system will use positive questions, where a score of 1 indicates strong disagreement and a score of 5 indicates strong agreement.

D. Operational Variables

TABLE I.
OPERATIONAL VARIABLES

Dimensions	Definition	Attribute		
		No	Indicator	Source
Personal Needs	The website offers services and is designed to meet user needs, preferences, and requirements.	1	Personalization	[18]
		2	Comprehensive	[18][19]
Site Organization	Proper alignment between functional and aesthetic features. This is the first thing users see.	3	Information Quality	[18]
		4	Website Design	[18][19]
User-Friendliness	The ease of use of the Transfer and Payment application makes users comfortable and allows them to adapt to the transaction system quickly.	5	Convenience	[18]
		6	Accessible	[18]
efficiency	The service's ability to process user needs accurately and effectively, simply and easily, still results in high productivity.	7	Practical	[18][19]
		8	Productive	[18][19]
Responsiveness	Responsiveness usually refers to how quickly and appropriately an application responds to various obstacles and problems during the transaction process.	9	Support	[19]
		10	Agile	[19]
Reliability	Reliability is closely related to the trustworthiness and consistency of an application. Data confidentiality and the protection of information and transactions are also considered safe.	11	Fulfillment	[18][19]
		12	System Availability	[19]
Privacy	Data privacy regulates how personal and confidential data is collected, managed, and processed.	13	Confident	[19]
		14	Policy	[18]
Security		15	Trust	[18]

E. Population and Sample

The population criteria in this study include being an Indonesian citizen, at least 18 years old, and having used the Transfer and Payment application at least once. The sampling was calculated using the Bernoulli formula, which resulted in a sample size of 384.16, which was then rounded to 400. Therefore, the researcher will use a sample of 400 respondents to represent the population.

F. Data analysis techniques

The data analysis technique in this research goes through several stages. The first step is to analyze the gap between customer perceptions and expectations and then analyze the customer satisfaction index (CSI). The CSI provides an overview of the overall level of user satisfaction. It serves as a critical indicator for prioritizing service improvements; where this stage begins with calculating the Mean Satisfaction Factor (MSS), which is the average value of user satisfaction, and the Mean Importance Score (MIS) and the Weight Factor (WF), which is the percentage of MIS value per indicator to the total MIS of all indicators. Finally, the analysis uses the Importance Performance Analysis (IPA) method to assess the relationship between user perceptions and priorities for improving service quality [9]. In Importance Performance Analysis (IPA), the calculated score for each attribute will be converted into four quadrants for all attributes that influence service quality. This is represented by the horizontal axis (X), which contains the performance score, while the vertical axis (Y), which includes the level of importance of a service. The entire analysis is calculated using the following formula.

1) Gap Analysis

$$Q = P - E \quad (1)$$

Where Q is the result of the service quality index by calculating perceptions of service minus expectations of service

2) Customer Satisfaction Index (CSI)

$$MSS\ i = \frac{\sum Xi}{n} \quad MIS\ i = \frac{\sum Yi}{n} \quad (2)$$

After calculating MIS and MSS, the research will calculate the Weight Factor (WF), the percentage of MIS value per indicator to the total MIS of all indicators, using the following formula.

$$WF\ i = \frac{MIS\ i}{\sum MIS} \times 100\% \quad (3)$$

Next, the research will calculate the Weight Score (WS), which is the product of the Weight Factor (WF) and the Mean Satisfaction Factor (MSS).

$$WS\ i = WFi \times MSSi \quad (4)$$

After that, CSI will be calculated by adding up all indicators' Weight Scores (WS) and dividing the result by the maximum scale used.

$$CSI\ i = \frac{\sum WSi}{HS} \times 100\% \quad (5)$$

3) Importance Performance Analysis (IPA)

$$Tki = \frac{Xi}{Yi} \quad (6)$$

$$\bar{x} = \frac{\sum Xi}{n} \quad \text{dan} \quad \bar{y} = \frac{\sum Yi}{n} \quad (7)$$

By mapping the data into a Cartesian Importance Performance Analysis (IPA) diagram, it will be easy to identify product or service attributes that most need improvement, essential advantages that must be maintained, and even determine attributes that do not have a significant influence. This can help save resources and costs without sacrificing overall service quality.

III. RESULTS AND DISCUSSION

A. Gap Analysis

In this research, gap analysis was carried out by comparing actual and ideal conditions. The goal is to determine whether the service quality meets expectations. Through gap analysis, standards are established to evaluate current conditions, determine solutions, and make changes. In this context, perceived values reflect actual conditions, while expected values describe ideal conditions. A positive result indicates a satisfactory level of satisfaction or $Q \geq 0$.

TABLE II.
GAP ANALYSIS

Attribute Item	Score		\bar{x}_p	\bar{x}_e	Gap (Q)
	Perceived Value (p)	Expected Value (e)			
PE-01	1640	1662	3,98	4,03	-0,05
PE-02	1689	1644	4,10	3,99	0,11
CH-03	1656	1592	4,02	3,86	0,16
CH-04	1621	1620	3,93	3,93	0,00
IQ-05	1666	1645	4,04	3,99	0,05
IQ-06	1691	1608	4,10	3,90	0,20
WD-07	1650	1602	4,00	3,89	0,12
WD-08	1635	1615	3,97	3,92	0,05
CN-09	1664	1619	4,04	3,93	0,11
CN-10	1736	1629	4,21	3,95	0,26
AC-11	1607	1625	3,90	3,94	-0,04
AC-12	1642	1642	3,99	3,99	0,00
PC-13	1647	1605	4,00	3,90	0,10
PC-14	1701	1618	4,13	3,93	0,20
PD-15	1648	1556	4,00	3,78	0,22
PD-16	1682	1646	4,08	4,00	0,09
SP-17	1670	1651	4,05	4,01	0,05
SP-18	1603	1603	3,89	3,89	0,00
AG-19	1648	1638	4,00	3,98	0,02
AG-20	1546	1588	3,75	3,85	-0,10
FF-21	1620	1667	3,93	4,05	-0,11
FF-22	1646	1592	4,00	3,86	0,13
SA-23	1663	1629	4,04	3,95	0,08
SA-24	1565	1576	3,80	3,83	-0,03
CF-25	1662	1628	4,03	3,95	0,08
CF-26	1638	1554	3,98	3,77	0,20
PL-27	1707	1620	4,14	3,93	0,21
PL-28	1646	1589	4,00	3,86	0,14
TR-29	1707	1657	4,14	4,02	0,12
TR-30	1668	1624	4,05	3,94	0,11
PR-31	1670	1618	4,05	3,93	0,13
PR-32	1690	1650	4,10	4,00	0,10
Average			4,01	3,93	0,08

Based on Table 2 above, the gap analysis results show that there are still negative numbers, which means $Q < 0$. Therefore, it can be concluded that user perceptions of transfer and payment applications in Indonesia still do not meet user expectations. As determined by the data processing results to evaluate perceptions and expectations regarding the attributes of The Modified E-Service Quality, the following are conclusions and statements that have been compared with previous research. Based on the results of descriptive analysis, the Reliability dimension ranks first in terms of dimensions with the highest expectations among respondents, especially in the Fulfillment attribute ($\bar{x}_e=4,05$, Gap=-0,11). Although user perceptions of this attribute are still below expectations, this aligns with research by Liem et al. [10], which states that the Reliability dimension, especially the Fulfillment attribute, significantly influences user satisfaction. In digital product service quality, the Reliability dimension refers to the service capacity to provide consistent and reliable performance as promised. Second is the Personal Needs dimension, which also has high expectations, especially in the Personalization attribute ($\bar{x}_e=4,03$, Gap=-0,05). Although the perception of this attribute still does not meet user expectations, this is in accordance with the research

results by Reza et al. [4], which show that the Personal Needs dimension significantly influences user satisfaction. With the availability of various features that can be fully personalized and customized based on user needs, they are likely to be satisfied using these digital services. Apart from that, the Security dimension also has high expectations based on the data results, especially in the Trust attribute ($\bar{x}_e=4,14$, Gap=0,12), where perceptions of this attribute have succeeded in meeting user expectations regarding service. This aligns with research by Maharani et al. [9] and Prismawan et al. [3], which states that the Security dimension significantly influences user satisfaction. Security plays a vital role in fintech services to prevent the risk of cybercrime against personal and financial data used in cyberspace. This aims to protect user information from irresponsible actions and ensure guaranteed data security.

The Responsiveness dimension also shows high expectations based on data, especially in the Support attribute ($\bar{x}_e=4,01$, Gap=0,05), where the perceived value of this attribute also succeeded in meeting user expectations regarding service. Research by Pranitasari et al. supports this. [12] which states that a service must be able to provide accurate information to customers when a problem arises and have a mechanism for giving guarantees against these problems. This is crucial because when users experience issues, they need detailed information and fast solutions to resolve them. After that, there is the Efficiency dimension, which also shows high expectations based on the data, especially the Productive attribute ($\bar{x}_e=4,00$, Gap=0,09), where the perception of this attribute has met the user's expectation value for the service. Research by Raza et al. [4] stated that the Efficiency dimension in digital banking services has a significant role in maintaining user loyalty and ensuring user satisfaction. Users feel more loyal and satisfied when their transactions are always completed efficiently. Next are the dimensions of Site Organization, User Friendliness, and Privacy, each of which has high expectations. However, these three dimensions are not as significant as previously mentioned. This indicates that these dimensions are also crucial in increasing user satisfaction. Overall, the perception value does not fully match or succeed in meeting user expectations for services based on data processing results.

B. Importance Performance Analysis (IPA)

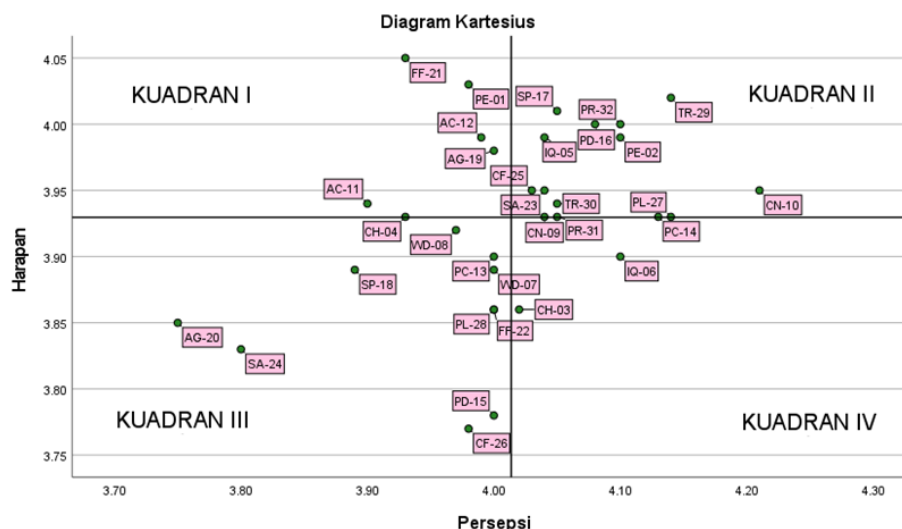


Figure 2. Importance Performance Analysis Diagram

Quadrant I (High Importance, Low Performance) shows significant weaknesses that need to be corrected immediately. These attributes include several important aspects, such as FF-21 (Fulfillment), which indicates that transactions processed by the Transfer and Payment application often fail, leading to user frustration and diminishing trust in the application's reliability; PE-01 (Personalization), which suggests that users have difficulty communicating and obtaining information that suits their needs, resulting in a less engaging user experience and a potential increase in churn rate; AC-12 (Accessible) indicates users difficulty in finding what they are looking for even though many services are available, which can reduce the efficiency and satisfaction of using the application; AG-19 (Agile), which indicates that the application does not process user transactions quickly, causing delays that frustrate users, particularly in time-sensitive situations; AC-11 (Accessible), which means a long delay between user interaction and application processing, leading to perceptions of the application being unresponsive; and CH-04 (Comprehensive), which indicates that not all features in the application work well and some features have problems, which can decrease overall user satisfaction and deter continued application use.

Quadrant II (High Importance, High Performance) shows the attributes of the service's strength. The attributes in this quadrant are considered necessary, and users are satisfied with the service they receive. Some of the attributes in this quadrant are: TR-29 (Trust), which shows the positive reputation of the Transfer and Payment application service provider; SP-17 (Support), which indicates the application provides timely solutions to user problems; PR-32 (Protection), which indicates the user has not become a victim of phishing or social engineering; PD-16 (Productive), which shows the application allows users to clearly monitor their transaction reports and history; PE-02 (Personalization), which indicates the application customizes payment options according to user needs; IQ-05 (Information Quality), which shows that the information displayed is very detailed and useful; SA-23 (System Availability), which indicates the system is always available; CN-10 (Convenience), which shows ease in understanding transaction steps; CF-25 (Confident), which indicates the application uses multi-factor authentication; TR-30 (Trust), which indicates the user trusts the service provider will not misuse personal data; PL-27 (Policy), which indicates the application provides transparent information about the privacy agreement; PC-14 (Practical), which indicates transactions are carried out without much effort; PR-31 (Protection), which indicates user confidence in information protection; and CN-09 (Convenience), which indicates the user will continue to use the app in the future.

Quadrant III (Low Importance, Low Performance) shows attributes with low performance and low importance, so they do not significantly affect service quality. Some of the attributes in this quadrant include: WD-08 (Website Design), which indicates the appearance of the main page does not give a positive impression of the service provider's image; PC-13 (Practical), which shows users are rarely confused by new features; WD-07 (Website Design), which shows the appearance of the main page does not give a positive impression; SP-18 (Support), which indicates the availability of adequate support information; PL-28 (Policy), which indicates the policy does not contain elements of coercion; FF-22 (Fulfillment), which indicates the application does not consistently deliver on promises; AG-20 (Agile), which indicates the application does not offer fast response; SA-24 (System Availability), which indicates users are not likely to use the app more often than other payment tools; PD-15 (Productive), which indicates the application does not increase productivity; and CF-26 (Confident), which indicates the application does not require users to change passwords periodically.

Quadrant IV (Low Importance, High Performance) states that users are satisfied with the performance of the attributes in this quadrant, even though these attributes do not have a significant impact. Attributes in this quadrant include CH-03 (Comprehensive), which indicates that the application does not need to add new features because most user needs are already met, and IQ-06 (Information Quality), which shows that the information presented is easy to understand and remember.

The results of Cartesian diagram mapping based on the Importance of Performance Analysis principles previously explained show that the attributes in quadrant I indicate the main weaknesses of a Transfer and Payment application service in Indonesia and are among the main priorities that need to be improved immediately, including FF-21 (Fulfillment), PE-01 (Personalization), AC-12 (Accessible), AG-19 (Agile), AC-11 (Accessible), CH-04 (Comprehensive). Each attribute represents the dimensions of Reliability, Personal Needs, User Friendliness, and Responsiveness. In quadrant I, there is an attribute with the lowest expected value, namely the CH-04 attribute, because the expected value of this attribute is the same as the average value of the overall attribute's expected level. Next in quadrant II is the strength of a service. The attributes contained in this quadrant are considered important, and users are satisfied with the services they receive. These attributes include TR-29 (Trust), SP-17 (Support), PR-32 (Protection), PD-16 (Productive), PE-02 (Personalization), IQ-05 (Information Quality), SA-23 (System Availability), CN-10 (Convenience), CF-25 (Confident), TR-30 (Trust), PL-27 (Policy), PC-14 (Practical), PR-31 (Protection), and CN-09 (Convenience). CN-09, PR-31, PC-14, and PL-27 are attributes in quadrant II that have the minimum expected value because the expected value of each attribute is the same as the average value of the overall attribute's expected level. Each attribute is part of the dimensions of Security, Responsiveness, Efficiency, Personal Needs, Site Organization, Reliability, User Friendliness, and Privacy.

E-service quality dimensions in Transfer and Payment applications are interrelated and affect user experience. Specifically, Reliability is closely related to Security because a secure system increases reliability. Personal Needs are strongly related to the usability of Site Organization. An organized and easy-to-navigate application can tailor features to users' preferences without compromising usability, which impacts Efficiency by speeding transactions. Responsiveness enhances usability and reliability through quick responses to user issues. At the same time, privacy directly impacts security by protecting users' data and their confidence in the application's security. The harmonious integration of these dimensions is essential to creating a complete and satisfying experience.

The dimensions of service quality that have been described previously are critical compared to other

dimensions. When compared with previous research, in 2020, Khatoon et al. [20] investigated the impact of e-banking service quality on customer satisfaction and purchase intention in the Qatari banking sector. This research stated that e-banking service quality dimensions such as Efficiency, Reliability, Security and Privacy, and Responsiveness positively correlate with customer satisfaction and purchase intentions. The results of Khatoon's research align with the results of the previous Importance Performance Analysis diagram mapping, so even though this research was carried out four years ago, the significance values of these service quality dimensions remain consistent and have not changed due to developments over time. Besides that, research by Raza et al. [4] also validated the statement's results from the mapping shown in the researcher's diagram, which explains that service quality dimensions such as User Friendliness and Personal Needs are considered very important in determining the quality of internet banking services. Digital banking services that successfully fulfill these two aspects tend to have higher user satisfaction and loyalty levels.

C. Implications

In the end, this research specifically examines the dimensions of service quality that directly influence user satisfaction when utilizing the Transfer and Payment application in Indonesia. This research examines variables related to E-Service Quality principles to identify which components should be prioritized to be maintained, improved, or ignored. Assess whether factors should be maintained, enhanced, or ignored based on identified issues and perceived problems. This research used eight dimensions of E-Service Quality: Personal Needs, Site Organization, User Friendliness, Efficiency, Responsiveness, Reliability, Privacy, and Security. The perceived values of the dimensional variables used do not all meet user expectations, and there are still values below user expectations. However, the research results highlight five variable dimensions considered crucial in maintaining user satisfaction: Reliability, Personal Needs, Security, Responsiveness, and Efficiency.

Transfer and Payment app users increasingly expect a personalized and reliable experience. The reliability of digital payment applications includes operational efficiency, trust, and consistency factors in every transaction. Customized requirements such as enforcement of service promises and continuous system availability are key areas to consider. Users' trust in the application will be maintained and increased when they experience continuous successful transactions and the application is always available. Therefore, companies providing Transfer and Payment services must regularly evaluate and improve this Reliability dimension to maintain user loyalty and win competition in an increasingly competitive market.

Besides, users often demand more than just a service that works. They want an experience that is personalized and tailored to individual needs. The Personal Need dimension in the Transfer and Payment application is very important. The application can customize payment options based on user habits and preferences through the Personalization feature. For example, the app can suggest faster payment methods or provide special promotions according to the user's time and location. Apart from that, the Comprehensive aspect is also very important. A complete app provides all the features users need, so they don't have to switch to another app. In other words, an ideal Transfer and Payment application not only meets basic transaction needs but can also understand and meet each user's personal needs.

Concerning transfer and payment application user transactions, data security is a strong foundation for building user trust in application transactions. Solid security can also prevent large financial losses from the user and service provider. Therefore, it is important to increase the Security dimension in Transfer and Payment applications, including the use of strong data encryption, intrusion detection systems, and multi-factor authentication. In addition, service providers must routinely conduct security risk assessments to identify potential threats and system weaknesses.

Apart from data security, speed and accuracy in responding to users' problems are no less important; this is related to the Responsiveness dimension, which explains the importance of the quality of service support provided. Service providers can consider several things to optimize this dimension, including system response time optimization, regular application performance monitoring, and comprehensive self-help features using Artificial Intelligence (AI).

Furthermore, a dimension that is also variable and has high user expectations is efficiency. To achieve optimal efficiency, service providers can focus on several things, including optimizing application loading times, reducing the steps required to complete transactions, and providing features relevant to user needs. In this way, users can save time and energy and concentrate more on more productive activities.

When compared with previous research, in 2023, Maharani et al. [9] researched digital banking service quality. They found a negative gap between users' perceptions and expectations, indicating the need for significant

improvements in attributes such as Reliability and User Friendliness. In contrast, this research focuses on Transfer and Payment applications in the fintech industry and found a positive gap between users' perceptions and expectations. However, some attributes still need to be improved. In summary, the findings of this research indicate that fintech applications have a better fit between users' perceptions and expectations than the digital banking services in previous research, thus indicating that the fintech sector is more responsive to the needs of today's users.

IV. CONCLUSION AND FUTURE WORKS

As a financial service that has become an inseparable part of modern society, the fintech industry has a strategic role in the sustainability of financial transactions in Indonesia. Therefore, the quality of fintech application services also needs to be improved to provide a more optimal user experience. As the title suggests, this research analyzes the service quality of fintech applications, namely Transfer and Payment applications in Indonesia, using eight dimensions of service quality assessment (E-Servqual). 412 respondents using the Transfer and Payment application have completed this questionnaire. The majority of respondents are aged 18-24 years. The research results show that users' perception of the Transfer and Payment application is categorized as 'good' with a score valuation of 4.01 out of 5.00, or 80%. Meanwhile, the expected value of users of the Transfer and Payment application is 3.93 out of 5.00, or 79%, and is in the 'good' category. As a result, the gap between perception and expectation is at a positive number of 0.08. However, several attributes still do not meet user expectations for service. This research adopts the Importance Performance Analysis (IPA) method to identify which attributes need to be improved and which are considered important by users. Based on the Cartesian diagram mapping, attributes such as Reliability, Personal Needs, User Friendliness, and Responsiveness need more attention. For future research, limiting the survey population to one specific geographic area is recommended to obtain more in-depth and detailed results. In addition, a more diverse research sample should be sought to ensure findings can be generalized across different user groups.

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REFERENCES

- [1] F. Hendro Basuki and H. Husein, "Financial Technology Swot Analysis In The Banking World In The City Of Ambon (Survey of Banks in Ambon City)," *MANIS: Journal of Management and Business*, vol. Vol 1 No 2 (2018):, Jan. 2018, [Online]. Available: <https://ojs3.unpatti.ac.id/index.php/manis/>
- [2] L. Nugroho, "Financial Technology Development (Fintech in Indonesia)," 2022.
- [3] B. A. Prismawan, F. Informatika, and M. Al Makky, "The Influence Of Perceptions Of Security, Perceptions Of Privacy, And Perceptions Of Trust On Interest In Using The Flip.Id Application Using Extended Technology Acceptance Model (Case Study Of Flip Users In Bandung City)," Bandung, 2023.
- [4] S. A. Raza, A. Umer, M. A. Qureshi, and A. S. Dahri, "Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model," *TQM Journal*, vol. 32, no. 6, pp. 1443–1466, Nov. 2020, doi: 10.1108/TQM-02-2020-0019.
- [5] J. A. Martilla and J. C. James, "Importance Performance Analysis," *J Mark*, vol. 41, no. 1, pp. 77–79, 1977.
- [6] A. Wang, Q. Zhang, S. Zhao, X. Lu, and Z. Peng, "A review-driven customer preference measurement model for product improvement: sentiment-based importance–performance analysis," *Information Systems and e-Business Management*, vol. 18, no. 1, pp. 61–88, March. 2020, doi: 10.1007/s10257-020-00463-7.
- [7] I. Sasono et al., "The Impact of E-Service Quality and Satisfaction on Customer Loyalty: Empirical Evidence from Internet Banking Users in Indonesia," *Journal of Asian Finance, Economics and Business*, vol. 8, no. 4, pp. 465–473, 2021, doi: 10.13106/jafeb.2021.vol8.no4.0465.
- [8] N. Hayani and S. Alsukri, "Dimensions of E-Servqual and Their Impact on E-Satisfaction of Mobile Banking Services," *Scientific Journal of Islamic Economics*, vol. 7, no. 2, June. 2021, doi: 10.29040/jiei.v7i2.2275.
- [9] I. G. A. I. S. Maharani and R. G. Utomo, "Digital Banking Service Quality: The Modified E-Servqual Model & Importance-Performance Analysis (IPA)," in 2023 International Conference on Data Science and Its Applications, ICoDSA 2023, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 145–150. doi: 10.1109/ICoDSA58501.2023.10277373.
- [10] A. T. Liem, I. Reghuella Chrisanti, A. Sandag, D. Divakara, and P. Purwadaria, "Analysis of Customer Satisfaction with Mobile Banking Services PT. Bank XYZ Airmadidi Area Using E-Servqual Customer Satisfaction" *Cogito Smart Journal* |, vol. 6, no. 2, 2020.
- [11] E. Saputri and D. Syamsuar, "Evaluation Of User Satisfaction Of Myindihome Mobile Application Services Based On A Combination Of Servqual Methods And Weqrat Methods," *Teknokrat Journal*, vol. 14, no. 1, p. 27, 2020, Accessed: Nov. 16, 2023. [Online]. Available: <https://ejurnal.teknokrat.ac.id/index.php/teknokrat/article/view/525/366>
- [12] D. Pranitasari and A. N. Sidqi, "Shopee Electronic Customer Satisfaction Analysis using E-Service Quality and Cartesian Methods," *Journal of Accounting and Management*, vol. 18, no. 02, pp. 12–31, Oct. 2021, doi: 10.36406/jam.v18i02.438.

- [13] D. Aprilliani, R. G. Utomo, and M. Al Makky, "Analysis of Online Train Ticket Reservation Service using Modified E-Service Quality," in 2023 International Conference on Data Science and Its Applications, ICoDSA 2023, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 163–168. doi: 10.1109/ICoDSA58501.2023.10276701.
- [14] M. F. Rafi, H. H. Nuha, and M. Al Makky, "Analysis of User Satisfaction Levels in the My Tel-U Application Using the e-SERVQUAL and Importance Performance Analysis (IPA) Methods," in International Conference on ICT Convergence, IEEE Computer Society, 2023, pp. 377–382. doi: 10.1109/ICoICT58202.2023.10262499.
- [15] M. Ansori, "Development and Impact of Financial Technology (FinTech) on the Sharia Financial Industry in Central Java," Wahana Islamika: Journal of Islamic Studies, pp. 32–45, 2019.
- [16] M. G. Hafiyanda and O. O. Sharif, "The Influence of E-Service Quality Dimensions on E-Customer Satisfaction and the Impact on E-Customer Loyalty for the Livin'by Mandiri Mobile Banking Application. The Effect Of E-Service Quality Dimensions On E-Customer Satisfaction And Their Impact On E-Customer Loyalty On Livin'by Mandiri Mobile Banking Application," 2023.
- [17] Z. Fadilla, M. Ketut Ngurah Ardiawan, M. Eka Sari Karimuddin Abdullah, M. Jannah Ummul Aiman, and S. Hasda, Quantitative Research Methodology. [Online]. Available: <http://penerbitzaini.com>
- [18] P. Rita, T. Oliveira, and A. Farisa, "The impact of e-service quality and customer satisfaction on customer behavior in online shopping," Heliyon, vol. 5, no. 10, Oct. 2019, doi: 10.1016/j.heliyon.2019.e02690.
- [19] B. B. Holloway and S. E. Beatty, "Satisfiers and dissatisfiers in the online environment: A critical incident assessment," J Serv Res, vol. 10, no. 4, pp. 347–364, May 2008, doi: 10.1177/1094670508314266.
- [20] S. Khatoun, X. Zhengliang, and H. Hussain, "The Mediating Effect of Customer Satisfaction on the Relationship Between Electronic Banking Service Quality and Customer Purchase Intention: Evidence From the Qatar Banking Sector," Sage Open, vol. 10, no. 2, Apr. 2020, doi: 10.1177/2158244020935887.