Expansion of Service Quality to Create Digital Bank E-Customer Loyalty

Nur Asri Febriyanti *
Department of Management, BINUS Online Learning, Bina
Nusantara University

Natya Kartika Kirana
Department of Management, BINUS Online Learning, Bina Nusantara University

Nurul Chotimah
Department of Management, BINUS Online Learning, Bina Nusantara University

Yuniarty Yuniarty
Department of Management, BINUS Online Learning, Bina Nusantara University

ABSTRACT

The phenomenon of internet development shows an increase in internet use in Indonesia and the development of Financial Technology (Fintech) where the banking system changes to a digital system. This study aimed to determine the effect of E-Service Quality, comprising six factors (Site organization, Responsiveness, Reliability, User friendliness, Personal need, and Efficiency) on E-Customer Satisfaction and its simultaneous impact on E-Customer Loyalty. The research method employed an associative quantitative approach utilizing a questionnaire as the primary data collection instrument. A total of 298 respondents from the DKI Jakarta region participated in the survey. The collected questionnaire data was analyzed using the Structural Equation Modeling (SEM) method and tested empirically using Partial Least Square (PLS). The results of the study show that site organization, user-friendliness, and personal need have a positive effect on e-customer satisfaction while reliability, responsiveness, and efficiency have no effect on e-customer satisfaction. Meanwhile, e-customer satisfaction has a positive effect on e-customer loyalty. This research offers positive input for Digital Bank companies, enabling them to enhance their effectiveness, efficiency, and alignment with service quality to create customer e-loyalty.

1. INTRODUCTION

In Indonesia, the Internet is growing very quickly and is now used for a wide range of purposes by individuals and businesses alike. Statistics Indonesia (BPS) conducted a population census in Indonesia in 2020, resulting in a total population of 277.7 million people in 2020 and 172.5 million internet users in 2021. In 2021, Indonesia's internet penetration rate reached 62.1% of the total population. The substantial increase in the percentage of the population accessing the internet from approximately 32.34 percent in 2017 to 62.10 percent in 2021 demonstrates that the percentage of internet users in

Indonesia is rising. It is possible to assert that people have been able to readily accept developments in technology, allowing them to reach almost all levels of society.

The banking sector in Indonesia is currently in the era of Industry 4.0, which means that the system can no longer rely on conditions in which the business concept with conventional systems is no longer fully viable. Now, the banking business concept must prioritize system and technology integration to remain competitive with the Financial Technology (FinTech) banking system and other banks. As a result, the Indonesian banking industry has transitioned into the era of an office-less digital banking system, requiring a shift to digital formats. This transformation has introduced a new business model known as digital banks, allowing the Indonesian banking system to leverage virtual services.

In today's fiercely competitive marketplace, every business is increasingly aware of the critical importance of customer loyalty for sustained success. Loyal customers are invaluable assets who provide positive feedback to the company. E-Servqual (E-Service Quality) is a term used to describe the shift from in-person to online services because of the development of internet-based technology. It is believed that innovations utilizing information and communication technology can enhance service speed and efficiency. Positive experiences resulting from a business's use of high-quality e-services have a direct emotional impact on customers, leading to their satisfaction (Ronald and Amelia, 2017; Amelia et al., 2022). A study conducted by Kement et al. (2021) demonstrates that customer satisfaction must be the primary focus of efforts to increase environmentally friendly behavior. A customer's positive experience determines whether they will develop trust in the product or service, ultimately fostering increased customer loyalty (Çavusoglu et al., 2020; Rofiah et al., 2023).

In addition, customers frequently write reviews about Internet Banking's features and services in the review column. This could also provide useful input for the Digital Bank in order to continuously enhance its features and services, ensuring that costumers continue to use the Internet banking application to make transactions. To provide excellent service to digital bank customers, digital services are essential. When implementing effective digital services, efficiency can become a company strategy. As Amin (2016) mentioned, when users can complete their transactions quickly, they tend to be more satisfied and loyal. According to Kaya et al. (2019), maintaining user loyalty and meeting the needs of customers requires efficiency. However, additional research is required to determine whether digital bank services can easily and effectively cater to customer preferences. This includes factors such as the organization of the site, its responsiveness, user-friendliness, fulfillment of personal needs, efficiency, and the satisfaction of electronic customers. These factors influence customers when choosing between financing, loans, and savings options. 20% of respondents still do not feel secure in making transactions at digital banks. This may be due to the lack of strict security guarantees, which in turn limits customer trust. Additionally, 23.33% of respondents said that the appearance of digital banks was not visually attractive. This could be attributed to the unfamiliar and less user-friendly UI/UX design of digital bank applications. It can be said that improvements are needed in the navigation and overall appearance of digital bank applications to maximize their usage.

This study was conducted with the hope of providing digital banks with an overview of the condition of e-Servqual (Electronic Service Quality) digital banks in Indonesia, especially Jakarta, and becoming a reference for the digital banks' marketing strategy.

2. LITERATURE REVIEW

Electronic Banking

The optimal integration of all bank activities using cutting-edge IT is known as electronic banking. It enables customers to receive all necessary services. Internet banking was created to make it easier for banks to provide preferred, quicker, and less expensive services and products. Customers can conduct online banking transactions at any time and from any location. They can now access their accounts, pay their bills, manage their money, and use a variety of services through a new method called e-banking. Indeed, the ultimate objective of setting up an electronic banking system is to eliminate, if possible, all references to bank branch locations for performing banking services (Sathiyavany & Shivany, 2018). The technology behind electronic banking systems significantly influences the enhancement of a company's information system, aimed at providing comfort, convenience, and satisfaction to consumers or customers, and allowing modern information system technology companies to enhance their operational efficiency (Rigawan, G., & Afriyeni, 2019).

Marketing Management

Marketing Objectives are established by a company or organization, and the marketing process is analyzed to achieve marketing goals through marketing management. One of the main functions a company undertakes to ensure the smooth operation, growth, and profitability of its business is marketing management. The marketing process doesn't end when products are sold; it starts long before they are made. According to Nofiani et al. (2021), a company's marketing efforts must also satisfy customers for the business to continue or for customers to have a positive impression of the company. Company marketing represents a comprehensive system of business activities designed to plan, price, promote, and distribute goods and services that satisfy the needs based on existing and external buyers (Rusdi, 2019).

E-Business

Digital technology has a significant impact on how business structure and operate their operations, creating value for customers. E-commerce and e-business are experiencing rapid growth in Indonesia, which is considered a potential market (Setyowati et al., 2021). The widespread popularity of the Internet has brought various Internet-based business models including well-established ones like e-commerce, and has also given rise to IoT-based e-business platforms that are expected to exert a significant impact in the future. Information flows, capital, and logistics are recognized in the industrial chain (Ruan et al., 2020).

E-Service Quality

E-Service Quality refers to the discrepancy between the customer's perception of a company's service and what it provides. In addition, a person's behavior before and after making a purchase can be influenced by the quality of an e-service. Numerous studies use e-service quality to define customer experience in interactive virtual settings and to determine the degree of business success. Since it forms the basis for how customers perceive online banking and, subsequently, how they interact with and respond to online

services, electronic service quality is considered an interactive information facility and plays a crucial role across cultures (Muniarty et al., 2022). Thus, it is important for the banking sector to understand the factors influencing the adoption of IB by customers through a focus on improving the quality of banking services as they are the main source of competitive advantage (Sathiyavany & Shivany, 2018).

Site Organization (SRG)

When it comes to attracting, retaining, and increasing customer interest in a website, website design plays a crucial role. When designing a website, the goal is to make it look good. Additional studies on internet service quality emphasize the importance of website design, with all authors concurring that websites should be designed to enhance customers' perceptions of the website and its service. Additionally, an appealing website design will increase accessibility and contribute significantly to its attractiveness. One effective way to assess the design of a website is to solicit customer ratings (Sathiyavany & Shivany, 2018). In the context of the Internet, the quality of electronic services is described as the overall assessment and evaluation of customers on the quality of services provided over the Internet (Lee & Lee, 2020). Thus, the first research hypothesis is:

H1. Site organization affects e-customer satisfaction of digital bank customers.

Responsiveness (RSP)

Responsiveness in the context of Electronic Banking pertains to a bank's willingness to assist customers promptly and its ability to provide quick responses. It encompasses how quickly employees can help customers and provide prompt service, such as how quickly they can handle transactions or how quickly they respond to requests. The primary variable that can be used to evaluate the quality of bank services is responsiveness. It refers to how promptly cyberbanking operators address the needs of service users. A quick response can help increase user satisfaction and loyalty, while responsiveness can maintain user interest. When users' demands and complaints are met promptly, they are more likely to maintain trust. Responsiveness as a significant factor in determining the quality of digital banking in terms of its effect on user satisfaction and loyalty (Raza et al., 2020). One of the essential factors that encourages most customers to subscribe to e-Banking products or packages is responsiveness, defined as the willingness or readiness to assist customers and provide fast service (Sathiyavany & Shivany, 2018). Thus, the second research hypothesis is:

H2. Responsiveness affects the e-customer satisfaction of digital bank customers.

Reliability (RLB)

Reliability refers to the ability of Electronic Tailing to consistently deliver the promised service in a timely, accurate, and adequate manner. It entails the capacity to successfully complete agreed-upon tasks without interruptions. Reliability is also thought by some researchers to be an important factor in how well digital banking works. Raza et al. (2020) said that the most crucial aspect of mobile banking is dependability. Even though web-based banking is considered to be the least expensive option, bank customers believe that the digital bank that is being used is valuable. E-Banking offers two key benefits to customers in terms of purchase intentions and service quality: the ability to conduct banking transactions over the Internet at any time and from any location, and banks can

employ a more efficient, faster, and cost-effective approach to marketing and delivering their services and products online (Lee & Lee, 2020).

H3. Reliability affects the e-customer satisfaction of digital bank customers.

User Friendliness (UFR)

Ease of use or usability is the effort required by customers to access available information. User friendliness is a situation where someone uses a tool, software, website, or operating system easily. Features have a major impact on user fulfillment and loyalty. The skill of providing superior quality services to users is helpful in building a reputation, increasing the user base, and attracting new potential users to the cyber bank website (Raza et al., 2020b). Additionally, the empathy system facilitated through customization, is a vital dimension in assessing the quality of Internet banking services (Nustini & Fadhillah, 2020). Therefore, empathy in service, manifested in its customization, is positively related to customer satisfaction (Lee & Lee, 2020). The fourth hypothesis is:

H4. User friendliness affects e-customer satisfaction of digital bank customers.

Personal Need (PNE)

Cyberspace user preferences such as age, gender, and lifestyle, make it easier for the bank to analyze the user's personal needs. This analysis enables the bank to propose offers and accurately meet user demands (Raza et al., 2020). Customers perceive several dimensions of e-service quality including delivery quality, outcome quality, and environmental quality. E-service quality is influenced by the quality of information support networks, privacy, security, and customer service (Lee & Lee, 2020). Thus, the fifth research hypothesis is:

H5. Personal need affects e-customer satisfaction of digital bank customers.

Efficiency (EFE)

Efficiency refers to the ability to achieve the most output using the least amount of input. In addition, efficiency plays a crucial role in ensuring user contentment and loyalty. Users tend to be satisfied and loyal to cyberbanking services when their highest demands are met effectively (Khatoon et al., 2020). Efficiency is also an important factor in maintaining user loyalty and ensuring user fulfillment. When their maximum demands are met with efficiency, users tend to become happy and loyal to cyber bank services (Raza et al., 2020). Thus, the sixth research hypothesis is:

H6. Efficiency affects the e-customer satisfaction of digital bank customers.

E-Customer Satisfaction (ECF)

E-customer satisfaction encompasses all experiences felt by customers. It includes both comfort and satisfaction, which result from the company's ability to meet customer expectations and fulfill their wants and needs related to services with digital services (Muniarty et al., 2022). Satisfied customers tend to become loyal and continue using a digital bank for their financial transactions. Customer satisfaction is related to high-tech electronic banking, business performance, and customer intentions. When customers are

satisfied, business performance improves so that the business can grow. And satisfaction has a close relationship with the quality of service (Raza et al., 2020). Thus, the seventh research hypothesis is:

H7. E-customer satisfaction affects e-customer loyalty to digital bank customers.

E-Customer Loyalty (ELO)

Consumer loyalty refers to the determination of consumers to visit websites, which can be interpreted as their interest in the company and their potential for repeat purchases. Consumer loyalty is concerned with keeping consumers loyal by answering customer questions and concerns through online banking. Customer loyalty is driven by strong relationships and mutual trust between customers and businesses. Digital banking allows customers to be more flexible as they can access products and services 24/7 without difficulty. Digital banking provides convenience, fewer service fees, easier-to-manage bank account details, and a variety that appeals to busy people, ultimately saving them time (Raza et al., 2020).
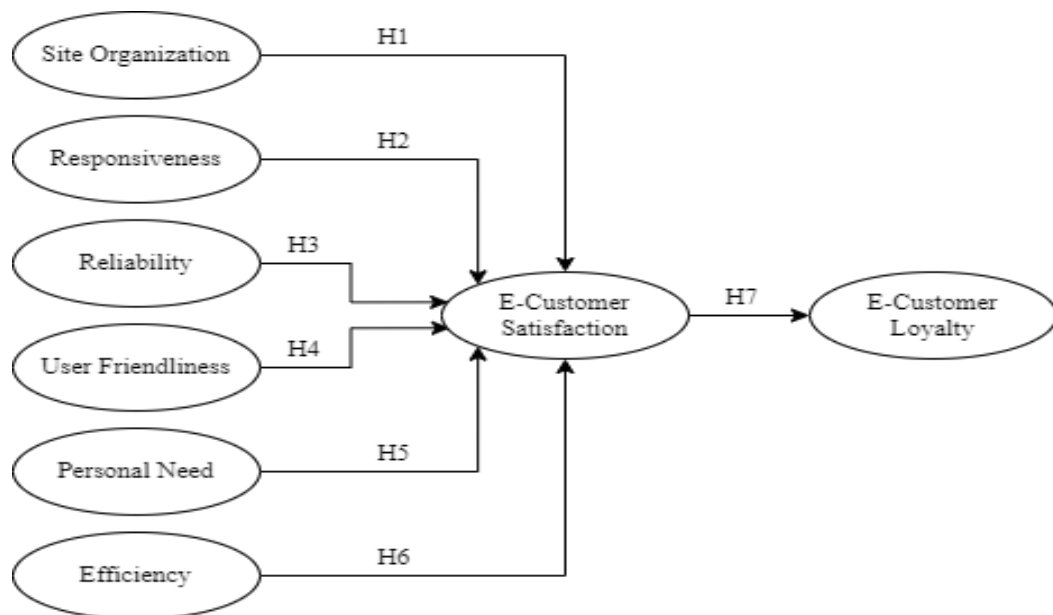

Figure 1 Conceptual Framework

3. METHODS

To determine the number of samples in this study, the researchers used the non-probability sampling technique with purposive sampling. The minimum target sample size was set to 96 samples, calculated using the Lemeshow formula. Data collection was carried out from November 2022 to January 2023, resulting in a total of 317 respondents. After applying the respondent criteria required for this study, 298 respondents were deemed eligible for the final analysis.

This study employed an indirect survey technique using a questionnaire with closed questions and responses, where respondents choose from a limited number of predefined answers and a set of clearly described alternatives. The authors chose a cross-sectional

study for this study, which is a research method involving the collection of data at a single point in time to address research questions. Digital bank customers who have made at least one transaction through the bank's application serve as the unit of analysis in this study.

The Structural Equation Modeling (SEM) analysis technique was utilized in this study. It is a multivariate quantitative method used to test various hypotheses about variables that affect other variables used in this study and to describe the relationship between observed variables (Hair et al., 2019).

Because the conceptual model that is being proposed in this study was considered to be complicated, the authors decided to use partial least squares (PLS) as it is the best method for models of this nature. For SEM analysis data processing, the SmartPLS 3.3.5 software was chosen. To ensure that the constructed structural model is suitable for subsequent analysis, model evaluation testing was performed prior to SEM analysis.

4. RESULTS AND DISCUSSION

Women and men living in Jakarta who have become digital bank customers and have conducted transactions using the digital bank application serve as the population for this study. From November 2022 to January 2023, data were collected, and 298 of whom passed the final screening and processed to the next step.

Table 1. Respondent Characteristics

Characteristics	Frequency	Percentage (%)
Gender		
Male	134	45%
Female	164	55%
Age		
17 - 20 years old	1	0.34%
21 - 24 years old	85	28.52%
25 - 28 years old	91	30.54%
29 - 32 years old	82	27.52%
>32 years old	39	13.09%
Last Education		
High School Graduate	66	22.15%
Diploma	74	24.83%
Bachelor	137	45.97%
Magister	16	5.37%
Doctor	4	1.34%
Others	1	0.34%
Occupation		
Students	29	9.73%
Government Employee	53	17.79%
Private-Sector Employee	138	46.31%
Enterpriser	78	26.1%
Domiciled DKI Jakarta		
Respondent domiciled in DKI Jakarta	298	100%
Respondent does not domicile in DKI Jakarta	0	0

A convergent validity test was used to determine whether respondents can comprehend indicator instruments related to each latent variable in the same way. According to Hair et al. (2019), a good, standardized loading factor of each measurement latent variable quantified from the manifest variable should be more than 0.7 is considered very good,

whereas, a level of 0.5 and above is acceptable. It is known from the testing of the loading value that all indicators have loading values ≥ 0.5 and P-values ≤ 0.05.

Table 2. Mean Indicator and Loading Factor

Variable	Indicator	Loading Factor	Mean	T Statistics	P Values
E-Customer Satisfaction	ECF1	0,711	0,711	14,367	0,000
	ECF2	0,828	0,828	31,124	0,000
	ECF3	0,728	0,723	14,811	0,000
Efficiency	EFE1	0,702	0,691	10,365	0,000
	EFE2	0,721	0,709	10,767	0,000
	EFE3	0,834	0,839	27,114	0,000
E-Customer Loyalty	ELO1	0,630	0,618	7,770	0,000
	ELO2	0,841	0,837	27,336	0,000
	ELO3	0,798	0,802	20,095	0,000
Personal Needs	PNE1	0,726	0,726	18,985	0,000
	PNE2	0,793	0,788	18,935	0,000
	PNE3	0,791	0,790	28,343	0,000
Reliability	RLB1	0,822	0,822	29,267	0,000
	RLB2	0,750	0,746	16,597	0,000
	RLB3	0,626	0,613	8,247	0,000
	RLB4	0,775	0,775	22,727	0,000
Responsiveness	RSP1	0,819	0,815	22,727	0,000
	RSP2	0,863	0,860	37,774	0,000
	RSP3	0,751	0,746	15,881	0,000
Site Organization	SRG1	0,854	0,853	28,419	0,000
	SRG2	0,843	0,843	27,687	0,000
User Friendliness	UFR1	0,793	0,788	20,955	0,000
	UFR2	0,819	0,814	21,260	0,000
	UFR3	0,806	0,809	31,847	0,000
	UFR4	0,785	0,780	22,897	0,000
	UFR5	0,793	0,790	23,547	0,000

The instrument or questionnaire that has been designed has good discriminant validity based on the Fornell-Larcker approach because the AVE square root value for each latent variable is greater than the correlation value between the latent variable and other latent variables.

Table 3. Discriminant Validity

	ECF	EFE	ELO	PNE	RLB	RSP	SRG	UFR
ECF	0,757							
EFE	0,502	0,754						
ELO	0,429	0,728	0,762					
PNE	0,663	0,532	0,408	0,771				
RLB	0,485	0,540	0,498	0,554	0,747			
RSP	0,516	0,481	0,464	0,505	0,336	0,812		
SRG	0,516	0,694	0,551	0,537	0,586	0,317	0,848	
UFR	0,480	0,246	0,233	0,439	0,229	0,595	0,146	0,799

After conducting the validity test, the reliability test was carried out. The results of the reliability test in Table IV show that the values of Cronbach's alpha are ≥ 0.50. Then, it could be seen that the composite reliability (CR) value is > 0.70 and the AVE value is ≥ 0.50, indicating that all dimensions are reliable. An AVE value of 0.5 or more means that the construct can explain 50% or more of the item variance, so the designed instrument is reliable (Garson, 2016).

Hinton et al. (2014) defined Cronbach's alpha value with a range of 0.5-0.7 is called moderate alpha, which means that it is still acceptable. Additionally, Nguyen et al. (2020), said that research with items or indicators that would slightly tend to have a low Cronbach's alpha value, and for psychological research with a Cronbach's alpha 0.5 value was acceptable or reliable. This research is included in the category of psychology because it examines how individual or group perceptions of a variable. Therefore, Cronbach's alpha in this study can be accepted or still reliable.

Table 4. Reliability Test Results

	Cronbach's Alpha	**Composite Reliability**	**AVE**
ECF	0,626	0,801	0,574
EFE	0,644	0,798	0,569
ELO	0,635	0,804	0,580
PNE	0,660	0,814	0,594
RLB	0,750	0,833	0,558
RSP	0,740	0,853	0,660
SRG	0,611	0,837	0,720
UFR	0,861	0,898	0,639

The contribution that each latent variable makes to the observed variable is shown by the effect sizes value. Table 5. F Square Testing depicts the size of the F Square effect. F Square values between 0.02 and 0.14 are regarded as small, between 0.15 and 0.34 as medium, and above 0.35 as large. According to Joe F. Hair et al., values less than 0.02 may be ignored or deemed to have no effect.

Table 5. F Square Testing

	F Square	**Result**
ECF → ELO	0,226	Medium Effect
EFE → ELO	0,001	No Effect
PNE → ELO	0,136	Small Effect
RLB → ELO	0,006	No Effect
RSP → ELO	0,014	No Effect
SRG → ELO	0,035	Small Effect
UFR → ELO	0,055	Small Effect

The coefficient of determination (R^2) is a way to assess how much the dependent variable construct can be explained by the independent variable construct. Table 6 shows that the coefficient of determination (R^2) value is between 0 and 1. An R^2 value of 0.25 - 0.49 is considered weak, 0.50 - 0.74 is moderate, and an R^2 value of more than 0.75 is considered strong (Hair et al., 2019).

Table 6. R Square Test

	R Square	**R Square Adjusted**
ECF	0,543	0,534
ELO	0,184	0,181

Predictive relevance can also be searched using formulas with values above 0 (zero). If the value of Q Square > 0, then it has a good observation value, while if Q Square < 0 then the observation value is not good.

Predictive relevance value is obtained using the formula:

Q2 = 1 – (1 – R1) (1 – R2)
Q2 = 1 – (1 – 0.534) (1 – 0.181)
Q2 = 1 – (0.466) (0.819)
Q2 = 1 – 0.382
Q2 = 0.618

The results of the Q-Square calculation in this study amounted to 0.618 or 61.80%. Therefore, it can be concluded that the model in this study has relevant predictions, where the model used can explain the information in the research data by 61.80%. Furthermore, since the Q-Square shows greater than 0 (zero), it indicates that the model has a value of predictive relevance, As a result, it can be inferred that it can be concluded that this study has good observational value because the value of Q-Square > 0 (zero) (Chin, 1998).

The magnitude of Q-Square is equivalent to the coefficient of total determination in path analysis to see the significance and strength of influence and to test the hypothesis where the path coefficients between constructs are shown in Table 7 below:

Table 7. Testing Path Coefficient and P-Values

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
ECF → ELO	0,429	0,429	0,065	6,620	0,000
EFE → ECF	0,035	0,035	0,063	0,560	0,576
PNE → ECF	0,353	0,355	0,078	4,520	0,000
RLB → ECF	0,072	0,072	0,069	1,037	0,300
RSP → ECF	0,114	0,122	0,085	1,337	0,182
SRG → ECF	0,194	0,192	0,091	2,137	0,033
UFR → ECF	0,204	0,203	0,046	4,476	0,000

The ECF-to-ELO path coefficient is 0.429. The results of the calculation are based on standardized variables. In line with the path coefficient's value of 0.429, an increase of one standard deviation in ECF variation will result in an increase of 0.429 standard deviations in ELO variation in linear analysis. ECF -> ELO has a P-value of 0.000, which is lower than Sig. 0.05, indicating that ECF and ELO have a significant impact on one another.

The EFE-to-ECF path coefficient is 0.035. The results of the calculation are based on standardized variables. Since the path coefficient is 0.035, a change of one standard deviation in EFE will result in a change of 0.035 standard deviations in ECF in linear analysis. EFE -> ECF has a P-value of 0.576, which is higher than Sig. 0.05, indicating that EFE and ECF do not differ significantly.

The PNE-to-ECF path coefficient is 0.353. The results of the calculation are based on standardized variables. Given the path coefficient value of 0.353, an increase of one standard deviation in PNE variation will result in an increase of 0.353 standard deviations in ECF variation in a linear analysis. PNE -> ECF has a P-value of 0.000, which is lower than the Sig. 0.05, indicating that PNE and ECF both have a significant impact.

The RLB-to-ECF path coefficient is 0.072. The results of the calculation are based on standardized variables. In terms of linear analysis, the path coefficient value of 0.072 indicates that an increase of one standard deviation in RLB will result in an increase of 0.072 standard deviation in ECF. RLB -> ECF has a P-value of 0.300, which is higher than Sig. 0.05, indicating that RLB and ECF do not differ significantly.

The RSP -> ECF has a path coefficient of 0.114. The results of the calculation are based on standardized variables. In terms of linear analysis, the path coefficient value of 0.114 indicates that an increase of one standard deviation in RSP will result in an increase of 0.114 standard deviations in ECF. RSP -> ECF has a P-value of 0.182, which is higher than Sig. 0.05, RSP and ECF have no significant impact on one another.

The SRG-to-ECF path coefficient is 0.194. The results of the calculation are based on standardized variables. In line with the path coefficient's value of 0.194, an increase of one standard deviation in SRG variation will result in an increase of 0.194 standard deviations in ECF in linear analysis. SRG -> ECF has a P-value of 0.033, which is higher than Sig. 0.05, indicating that SRG and ECF have a significant impact.

The UFR->ECF path coefficient is 0.204. The results of the calculation are based on standardized variables. In terms of linear analysis, the path coefficient value of -0.016 indicates that an increase of one standard deviation in UFR will result in an increase of 0.204 standard deviations in TR. UFR -> ECF has a P-value of 0.000, which is lower than Sig. 0.05, indicating that UFR and ECF have a significant impact.

According to the results of this research, it was found that there was no correlation between electronic customer satisfaction and responsiveness, efficiency, or reliability among digital bank customers. Personal need, followed by user friendliness, is the most important determinant of electronic bank customer satisfaction in this study. In contrast, among the significant factors affecting digital bank customers' satisfaction, site organization has the smallest impact. These findings suggest that digital banks' ability to build good personal needs into their digital applications will not only increase the likelihood of customers carrying out some financial transactions with the company but may also enhance their intention to continue carrying out transaction activities on digital applications (Raza et al., 2020).

Previous research indicates that electronic customer satisfaction positively influences digital bank customers' electronic customer (Cahaya & Siswanti, 2020; Khatoon et al., 2020; Lee & Lee, 2020; Muniarty et al., 2022; Sathiyavany & Shivany, 2018; Raza et al., 2020; Fahmi & Hilal, 2019). According to previous research Raza et al. (2020), these findings suggest that customer loyalty to digital applications can be influenced by the digital bank's ability to satisfy customers.

This study also found that digital bank customers' electronic customer loyalty is inversely correlated with their electronic customer satisfaction, with the electronic customer satisfaction factor having a greater impact on digital bank customers' electronic customer loyalty. This result demonstrates that customers will continue to use digital bank applications if they are completely satisfied with them.

These implication leads researchers to conclude that satisfaction and loyalty in the usage of digital banks are influenced not only by specific attributes within the application but also by aspects related to customers' personal needs. Both specific digital bank applications and personal need aspects, especially in this study, can influence the behavior of digital bank customers. Then, this research aims to contribute to the development of digital banks in Indonesia by examining factors related to customer satisfaction and aspects of customer personal needs that have an important role in customer loyalty.

The results showed that the personal need factor had a positive effect on customer satisfaction with digital banks, with the highest value found on the PNE2 indicator (I feel customer needs are met when using Digital Bank Services). A good needs system for bank digital services increases customer satisfaction with bank digital services, thus having an impact on increasing customer loyalty to bank digital services. Therefore, it can be an input for the digital bank to prioritize and continue to improve the system of customer needs to increase customer satisfaction and loyalty. This is in line with previous research (Khatoon et al., 2020; Lee & Lee, 2020; Sathiyavany & Shivany, 2018; Raza et al., 2020) that states that personal need has a positive and significant effect on e-customer satisfaction.

The results showed that the user friendliness factor had a positive effect. The highest value was found on the UFR2 indicator (Service navigation from the Digital Bank Website is easy to use). Consumers certainly want full service for transactions made at digital banks. With the user-friendly navigation provided by digital bank services, customer satisfaction with digital bank services can increase, consequently boosting customer loyalty to digital bank services. Therefore, it can be an input for digital banks to prioritize and continue to improve the navigation system to increase customer satisfaction and loyalty. This is in line with previous research (Raza et al., 2020; Sathiyavany & Shivany, 2018) that states that user friendliness has a positive and significant effect on e-customer satisfaction.

The results showed that site organization factors positively affect customer electronic customer satisfaction with digital banks, with the highest value observed on the SRG2 indicator (The user interface of the Digital Bank Service is well organized). The ease of use of digital bank services can increase customer satisfaction. Therefore, it can be an input for digital banks to continue to improve the ease of application to increase customer satisfaction with digital bank services. This is in line with the results of Raza et al. (2020); Lee & Lee (2020) and Sathiyavany & Shivany (2018) which state that site organization has a positive and significant effect on e-customer satisfaction.

The results showed that the reliability factor did not have a positive effect on electronic customer satisfaction of customers with digital banks. The highest value was found in the RLB indicator 3 (Digital Bank Performance that I use/until the completion of the transaction). The poor performance of the application makes consumers have not felt a pleasant experience when making transactions at digital banks, leading to a lack of satisfaction among customers and potentially impacting customer loyalty to digital bank services. This can be an input for digital banks to continue to improve technical applications to increase customer satisfaction with digital bank services. This is not in line with research conducted by Lee & Lee (2020); Khatoon et al., (2020); Sathiyavany & Shivany (2018) which states that reliability has a positive and significant effect on e-customer satisfaction.

The results showed that the Responsiveness factor did not have a positive effect on the electronic customer satisfaction of customers towards digital banks. The highest value was found in the RSP indicator3 (The digital bank I use provides information precisely). Digital banks have not been able to provide clear and accurate information, causing confusion for customers due to differences in information obtained. This has no impact on customer satisfaction with the bank's digital services and can affect customer loyalty to digital bank services. Digital banks need to improve in making clear and accurate information systems to increase customer satisfaction with digital banks. This is not in line with research

conducted by Raza et al. (2020); Lee & Lee (2020) and Sathiyavany & Shivany (2018) that state that responsiveness has a positive and significant effect on e-customer satisfaction.

The results showed that the Efficiency factor did not have a positive effect on the electronic customer satisfaction of customers with digital banks. The highest value was found in the EFE indicator1 (I easily find what I need on the digital bank website/application). Customers have not received comfort such as getting time efficiency when making transactions at capable digital banks. This causes efficiency to have no impact on customer satisfaction in digital bank services so it does not have an impact on increasing customer loyalty to digital bank services. Therefore, it can be an input for digital banks to be able to improve service applications to increase customer satisfaction with digital banks. This is not in line with research conducted by Khatoon et al., (2020); Sathiyavany & Shivany (2018) that efficiency has a positive and significant effect on e-customer satisfaction.

The results of this study allowed researchers to draw two main practical implications. First, the bank's digital services which include site organization, user friendliness, and personal need have a good impact on the electronic customer satisfaction felt by customers with the bank's digital services. It is then able to increase electronic customer loyalty, according to the findings of previous literature studies (Cahaya & Siswanti, 2020; Khatoon et al., 2020; Lee & Lee, 2020; Muniarty et al., 2022; Sathiyavany & Shivany, 2018; Raza et al., 2020; Fahmi & Hilal, 2019). Second, electronic customer satisfaction felt by customers towards the bank's digital services significantly directly affects electronic customer loyalty according to the findings of previous literature studies (Cahaya & Siswanti, 2020; Khatoon et al., 2020; Lee & Lee, 2020; Muniarty et al., 2022; Sathiyavany & Shivany, 2018; Raza et al., 2020; Fahmi & Hilal, 2019).

5. CONCLUSION

Researchers empirically confirmed, based on a sample of 298 respondents from Jakarta, that aspects of reliability, responsiveness, and efficiency cannot affect consumer trust, but aspects of site organization, user friendliness, personal need, and electronic customer satisfaction can significantly affect consumer trust and satisfaction. It has also been demonstrated that when the e-customer satisfaction factor has a greater impact, it directly influences e-customer loyalty to digital bank services.

According to our findings, digital banks that effectively meet personal needs, provide user-friendly experiences for customers, and have well-organized digital bank systems can positively influence consumer attitudes toward customer satisfaction and increase customer loyalty to digital bank services. However, it was discovered that customer satisfaction is unaffected by digital bank service reliability. Therefore, it can be deduced that the level of user satisfaction experienced by digital bank customers when conducting online transactions via digital bank applications is more important than the level of usability.

The study, creation, and enhancement of all aspects of user interaction with organizational items to meet the needs of their users is known as user experience. The objective is to use test results to get users more involved in products and, in the end, make important and useful products just as easy to get and use. One of the most important aspects of digital services is the responsiveness of digital banks to customer requirements. Humans have become accustomed to high levels of comfort due to technological advancements,

particularly in communication media. Therefore, when they encounter unfavorable circumstances, they are quick to exhibit typically negative reactions.

Future researchers are expected to be able to obtain even more extensive data from various regions in Indonesia so that they can make comparisons between one region and another.

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