

The Influence of E-Financial, Website Quality and E-Service Quality on Customer Transaction Satisfaction with Online Transactions as Intervening Variables at Banco Nacional De Comercio De Timor-Leste

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Abstract

This research aims to examine the development of online transactions among customers of Banco Nacional de Comercio de Timor-Leste (BNCTL). Despite the growing trend of online banking globally, many BNCTL customers still do not engage in online transactions daily. This reluctance is primarily due to a lack of information about mobile and internet banking. As a result, the economic value in Timor-Leste is not increasing as it could, and the country struggles to compete with others that have integrated online transactions into everyday activities. The research uses an explanatory method to provide a systematic, factual, and accurate description of the facts, characteristics, and relationships between the variables studied. The data analysis employs the Structural Equation Model-SEM Lisrel procedure. The study population consists of 25,352 customers from the BNCTL Dili-Timor-Leste Branch, and the unit of analysis is the customers of BNCTL Bank. The research results show that E-Financial, website quality and E-Service Quality have a significant positive influence on online transactions. This shows that the better E-Financial, website quality and E-Service Quality, online transactions will show a significant increase. Then E-Financial does not affect customer transaction satisfaction, this is because there are still many BNCTL customers who have not carried out transactions online so it has no effect on customer transaction satisfaction. However, website quality, E-Service Quality and online transactions have a significant positive influence on customer transaction satisfaction. This shows that the better the quality of the website, E-Service Quality and online transactions, the customer transaction satisfaction will show an increase.

Keywords: *E-Financial, Website Quality, E-Service Quality, Online Transactions, Customer Transaction Satisfaction.*

INTRODUCTION

The development of the world of technology is increasing rapidly and has influenced the development of both economic and social activities in society, including financial transaction activities, both directly and indirectly. Technology, Information and Communication Development (IP-TIK) or ICT Development Index (ICTDI) in Timor-Leste is still relatively low, Timor-Leste is the country with the second lowest ranking in ASEAN.

The bank is a company that operates in the service sector, where the public as customers already know how the bank service system is in general. Inefficient transaction

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patterns make some customers feel uncomfortable because for them time is very valuable and many of them want a service that is simple but practical. The bank finally used the advantages of technological advances by creating an application called internet banking, in Timor-Leste payments still use cash (Khanal et al., 2023). Commercial banks in Timor-Leste are at an early stage of this progress. Some commercial banks are proposing the gradual introduction of new or extra electronic payment capabilities, such as EFTPOS and internet/telephone-based systems. According to (Bettu, 2022) in Timor-Leste there are no regulations from the central bank regarding online banking, then in Timor-Leste, there is no supervisory body such as the OJK and blue print. With developments over time, banking in Timor-Leste should have started to develop online banking, in line with (BCTL, 2022) which states that there is a large amount of untapped potential in Timor-Leste to be served by a telephone-based banking and payment system. This technology provides a platform from which banking and payment services can be accessed, as mobile phones can now be used as mobile "wallets", and more and more of the population has access to mobile phones. Additionally, mobile phones can now be used as mobile "wallets" To facilitate the clearing and settlement of interbank payments, BCTL has initiated a project to build a real-time gross settlement (RTGS) and automated clearing house system.

Based on (BNCTL, 2021) modernization is BNCTL's main strategic focus. The Government of Timor-Leste is pushing to increase internet access in Timor-Leste and BNCTL has developed online platforms, products and services to ensure financial inclusion and appropriate banking benefits through the pending development of online infrastructure in Timor-Leste. Recognizing the low level of online literacy in Timor-Leste and the relatively poor connectivity in remote areas currently, BNCTL is making its latest investment in ATMs despite recognizing the global trend of decreasing numbers of ATMs that support electronic payments. In 2022, BNCTL will invest in an additional 100 electronic fund transfer point of sale (EFT POS) machines and add 27 ATMs including mobile ATMs and "CRM" ATM cash recycling machines that facilitate deposits; banks will have at least two ATMs in each municipality.

Online transactions are one of the applications of advances in information technology whose use has been very intense recently. According to (DR MOMOH, 2022), many people in Timor-Leste do not yet use online transactions (mobile banking and internet banking), which is driven by several obstacles, such as the absence of further information regarding the use of mobile banking and internet banking, and the quality of the website. internet banking and mobile banking often experience disruptions (network disruptions and applications under maintenance or under maintenance), another factor is public distrust of online transactions, related to data security and data confidentiality.

The advantage of providing internet banking services for banks is that internet banking can be a cheaper solution in terms of infrastructure development compared to opening an ATM outlet. Meanwhile at Bank BNCTL Timor-Leste in the results of a survey conducted by (BNCTL SIRA, 2022) several recommendations must be made at BNCTL, namely adding more ATM machines (ie, in public spaces, universities, sub-districts and related agencies) ; improve the service system to customers (a friendly facial expression that does not discriminate between law enforcement (i.e., police and military) and general customers, using advanced technology, using an appropriate queuing system, fast service for salary issues, appropriate service for people old); increase internet speed, increase ATM machine operating speed and avoid lengthy processes; and the need for regular maintenance of ATM machines, due to regular damage problems (swallowed cards, no money and power outages). While the global trend has reduced the installation of ATMs,

Timor-Leste has increased the installation of ATM machines. This is in stark contrast to technological advances throughout the country.

Many bank customers in our country still use internet banking just to check their savings balances, therefore banks in Timor-Leste are expected to be able to innovate to attract customer interest and increase the bank's value in the eyes of the public. E-payment transactions can be further enhanced in business activities, allowing customers to fully benefit from the advantages of internet banking. According to Chen (1999), perceived benefits and information about online banking on websites are key factors influencing the acceptance of online banking. This indicates that e-banking service delivery is the most cost-effective, profitable, and comprehensive channel for banking products, ultimately leading to customer satisfaction.

Customer satisfaction encompasses the general desires and perceptions of customers based on their experience with a product or service (Normawati et al., 2021). Banu et al. (2019) explain that online banking, designed by both private and public sector banks, aims to achieve two main goals. The first goal is to enhance customer convenience by meeting needs such as viewing account details online, checking account information, making online bill payments, transferring money, applying for accounts, processing e-clearance, and making loan payments. Xie (2022a) suggests that overall satisfaction is a crucial aspect of perceived service quality, as it reflects the cumulative impact of an organization's performance on users, thereby influencing user loyalty. Satisfaction is defined as an assessment of the user's mental state, formed by combining feelings about unmet expectations with previous user experiences. Service quality and customer satisfaction are thus strongly interconnected.

The novelty of this research lies in addressing the phenomenon of the infrequent use of online transactions by bank customers in Timor-Leste, a significant issue explored in this study. In this modern era, in various countries online transactions have become commonplace/ normal, whereas in Timor-Leste customers prefer to make transactions via ATM or direct transactions via tellers. then secondly, the observations in this research are different from other research, the observations in this research are on customers who have not used mobile banking for transactions, where I will provide direct education to respondents regarding the ease of online transactions. The third method used is SEM-Lisrel, where there has been no previous research examining the direct relationship between e-financial, website quality and e-service quality on online transactions and their impact on customer satisfaction. This research aims to propose and test a conceptual model to solve the research gap regarding the influence of E-Financial, website quality and E-Service Quality on customer satisfaction through the intervening variable of online transactions for Banco Nacional De Comercio De Timor-Leste customers.

LITERATURE REVIEW

E-financial is a financial service provided to businesses and households via fixed and mobile Internet networks. E-finance can refer to anything involving electronic business, financial and banking relationships. This opens up new opportunities for the global integration of small companies by increasing their efficiency, flexibility and exposure to global, local and global financial players, contributing to the financial services sector by reducing transaction costs and expanding and improving financial services (M. Z. Ali & Ali, 2021a; Alimo, 2020a).

Website quality is very important for attracting, acquiring and retaining clients. A low-quality website can result in lost clients, higher expenses, and decreased revenue. User perception of website quality is based on website features that suit user needs. Several websites are classified based on security, enjoyment, information quality, usability, and service quality (Hasanov & Khalid, 2015; Nascimento et al., 2018).

E-Service quality can be described as a comprehensive evaluation of users and evaluation of the quality of cyber business virtual facilities. When setting online publication policies, it is very important for online merchants to evaluate the importance of E-Service quality factors. Service quality is determined by the extent to which it meets user requirements and desires and the ability of delivery to balance expectations (Ejdys & Gulc, 2020a; IVANOVA & NOH, 2022a; Kaur et al., 2021a).

In banking, customer satisfaction is used as a significant strategy to create services that attract new consumers and maintain existing client relationships. Customer satisfaction is an assessment of a product or service in relation to customer desires and expectations. Across all product and service categories, consumer loyalty intentions are strongly influenced by overall satisfaction (Eriksson et al., 2020).

Online transactions have a greater level of uncertainty than retail store transactions due to the virtual nature of the setting and the absence of a physical assessment before the transaction. The creation of an online trust model is critical to fostering customer trust in online transactions in a high-trust environment such as the Internet. These models will help shift the focus of offline consumers and internet surfers to online shopping (Bhati et al., 2022a; Lin et al., 2020).

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According to Taasim and Yusoff (2015), the implementation of e-finance is part of a bank's strategy to open new channels, facilitating user interaction with online banking for financial planning. Sardjono and Retnowardhani (2022) compared internet banking users and non-users, finding that both groups were dissatisfied with the security level of online transactions, indicating a need for improvement due to insufficient publicity about internet transaction security.

UNCTAD (2020) notes that e-finance has led to the rise of new intermediary categories, such as financial portals, transaction aggregators, and financial application service providers. This evolution enhances the information and technology content of financial services, further blurring the lines between finance and technology, information and transactions, and financial institutions and technology providers. Gul et al. (n.d.) state that e-finance platforms link internet payment systems, processing customer payments more efficiently and promoting consumer interest and activity.

Gul et al. (2022a) highlight that the global penetration of the internet has significantly increased the number of customers and companies conducting business transactions online. Gbongli et al. (2020) explain that e-transaction systems offer banks and their customers many advantages, such as better accessibility, more convenience, and lower costs compared to traditional channels. Vietnam's banking system has notably shifted towards online banking services over the past few years, underscoring the need for bank managers to understand how website quality influences customer satisfaction to retain and better serve customers.

Ali et al. (2021) emphasize that website navigation affects the user experience and attitude towards online transactions; a well-designed navigation system provides easy access to unlimited and updated information. This positively impacts online customers' purchase intentions, as e-customers are more likely to return to a website if it offers adequate navigation tools. Gul et al. (2022b) further explain that websites store and manage various personal information about customers to enhance service delivery.

According to (Barbu et al., 2021) service quality can refer to the security of online transactions and general trust which has been considered one of the most important factors of electronic service satisfaction. According to (Du & Mao, 2018) business owners who do not have access to logistics infrastructure may have difficulty competing with those who do because online product transactions still require transportation. In contrast, no such facility is required for transactions involving services. According to Xie (2022b), service quality is a significant predictor of behavioral intentions, such as recommending, repurchasing, switching, and complaining. There is a notable relationship between service quality and repurchase behavior. King et al. (2016) and Nascimento et al. (2018) state that service quality is crucial for fostering buyer identification with a website. High-quality service not only meets buyers' needs for online transactions but also allows sellers to provide an excellent experience on their website, leading to increased protection and care for the site.

H₁, H₂, H₃ : E-Financial, Website Quality and E-Service Quality Have a Positive Influence on Online Transactions at Banco Nacional de Comercio de Timor-Leste.

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Mbukanma et al. (2020) argue that operational constraints related to customer location, the need to maintain customer satisfaction, and the capabilities of the bank's core software are key factors motivating the decision to adopt electronic banking services. These factors influence the user experience and subsequently the level of satisfaction. Ismael et al. (2021) found that convenience and site design are the most important drivers of e-satisfaction in e-shopping and e-finance contexts. M. Z. Ali and Ali (2021b) concluded that the e-satisfaction model and its drivers are highly relevant to consumer perspectives in both online shopping and online finance. Tah and Mahapatra (2023) emphasized that network speed is a crucial factor for internet banking user satisfaction.

Raza et al. (2020) noted that the availability of various banking portals may lead users to switch banks, highlighting the need for bank websites to improve functionality, user interface, and attractiveness. Chundi and Rathnasri (2022) remind us that with significant investments in internet infrastructure, customer satisfaction and retention are critical success factors in e-banking. However, low customer satisfaction is a major barrier to the growth of online banking services in China. Alimo (2020b) and Kaur et al. (2021b) describe that presentation qualities such as colour, visual appeal, layout, and navigation are crucial for user satisfaction and are expected by users.

Kaabachi et al. (2022) provide evidence for the asymmetric effect of user satisfaction with information websites: while most attributes do not significantly increase satisfaction when tasks are completed, poor web performance significantly decreases satisfaction. Ejdys and Gulc (2020b) categorize online services into transaction-specific satisfaction, which is a sentimental response to specific service characteristics, and cumulative or overall satisfaction, which results from repeated transactions. IVANOVA

and NOH (2022b) found that customers consistently satisfied with cyber banking services tend to be loyal and continue using these services, indicating that higher satisfaction with internet banking leads to stronger, long-term relationships and greater loyalty. AmmaraPhakdeeburi (2021) consider overall satisfaction a critical component of perceived service quality, reflecting the cumulative impact of an organization's performance and acting as a predictor of user loyalty. Osman (2014) stated that providing high-quality services enhances reputation, increases the user base, and attracts new potential users to cyber bank websites, with superior service quality boosting user satisfaction.

In the research of (Bhati et al., 2022b), Consumers' internal and external satisfaction with Internet banking has been measured, with results indicating a reinterpretation and reorganization of SERVQUAL aspects in Internet banking practices found during the investigation of the relationship between e-service consumption and e-customer satisfaction. Butt (2021) found through statistical analysis that there is a significant relationship between customer satisfaction in e-banking and factors such as reliability, responsiveness, assurance, empathy, and physical evidence. As a result, the null hypothesis was accepted, and the alternative hypothesis was rejected. In Bangladesh, several private commercial banks operate using e-banking systems. Banu et al. (2019) explained that online banking, developed by both private and public sector banks, aims to achieve two main goals. The first goal is to enhance customer convenience by addressing needs such as viewing account details online, checking account information, making online bill payments, transferring money, applying for accounts, and processing e-clearance for expenses like rent and loan payments. Ahmed et al. (2021) noted that internet banking is an innovative distribution channel that provides less waiting time and greater spatial convenience compared to traditional branch banking, along with a significantly lower cost structure. Internet banking not only reduces operational costs for banks but also leads to higher customer satisfaction and retention.

H₄, H₅, H₆, H₇ : E-Financial, Website Quality, E-Service Quality and Online Transactions Have a Positive Influence on Customer Transaction Satisfaction at Banco Nacional de Comercio de Timor-Leste.

METHOD

This study employs a quantitative research approach and uses an explanatory research method. The focus is on customers of the BNCTL Bank (Banco Nacional de Comercio de Timor-Leste) at the Dili-Timor-Leste Branch, totaling 25,352 customers in 2023. The unit of analysis is the BNCTL bank customers. Data collection is conducted through questionnaires and examination of the company's financial reports. The data analysis utilizes the LISREL-based Structural Equation Model (SEM) to address the research questions and test the hypotheses.

RESULT AND DISCUSSION

Research Result

SEM model testing is divided into two main parts: testing the validity of the measurement model and testing the structural validity of the model. In this research, Lisrel 8 software was used for SEM testing. The measurement model is a component of SEM modeling that includes a latent variable (construct) and several manifest variables (indicators) that reinforce the latent variable.

Table 1. Results of Validity and Reliability of Latent Variables

Latent Variables	Indicator	λ	λ^2	e	VE	CR
E-Financial	X11	0.73	0.53	0.37	0.655	0.938
	X12	0.69	0.48	0.3		
	X13	0.72	0.52	0.23		
	X14	0.74	0.55	0.24		
	X15	0.60	0.36	0.34		
	X16	0.67	0.45	0.39		
	X17	0.65	0.42	0.053		
	X18	0.69	0.48	0.065		
Website Quality	X21	0.9	0.81	0.09	0.608	0.948
	X22	0.87	0.76	0.086		
	X23	0.64	0.41	0.40		
	X24	0.68	0.46	0.42		
	X25	0.72	0.52	0.35		
	X26	0.63	0.40	0.32		
	X27	0.73	0.53	0.26		
	X28	0.63	0.40	0.36		
	X29	0.67	0.45	0.43		
	X210	0.58	0.34	0.4		
	X211	0.63	0.40	0.37		
	X212	0.62	0.38	0.29		
E-Service Quality	X31	0.79	0.62	0.31	0.680	0.926
	X32	0.86	0.74	0.23		
	X33	0.78	0.61	0.24		
	X34	0.68	0.46	0.27		
	X35	0.56	0.31	0.41		
	X36	0.71	0.50	0.07		
Customer Transaction Satisfaction	Y1	0.81	0.66	0.24	0.676	0.925
	Y2	0.88	0.77	0.2		
	Y3	0.85	0.72	0.23		
	Y4	0.82	0.67	0.29		
	Y5	0.71	0.50	0.34		
	Y6	0.55	0.30	0.44		
Online Transactions	Z1	0.72	0.52	0.37	0.576	0.871
	Z2	0.72	0.52	0.31		
	Z3	0.63	0.40	0.25		
	Z4	0.64	0.41	0.3		
	Z5	0.54	0.29	0.34		

Source: Results of research data processing (2023)

The results of the CFA analysis using LISREL, shown in the table above, indicate that the loading factor (λ) value for each manifest variable exceeds 0.5. This confirms that each manifest variable is valid in forming an endogenous construct. Additionally, the CR (construct reliability) value must be above 0.7 and the VE (variance extracted) must be

above 0.5. These criteria indicate that the endogenous construct has good construct validity and reliability.

The SEM analysis procedure is confirmatory rather than exploratory because it involves testing a model using SEM goodness-of-fit tests. These tests determine if the pattern of variance and covariance in the data is consistent with the structural path specifically designed by the researcher. The table below presents the GoF (Goodness-of-Fit) and Q-Square values for the construct:

Table 2. Model Alignment Test

<i>Goodness of index</i>	<i>Cut Off Value</i>	<i>Estimated Results</i>	<i>Model Evaluation</i>
Chi-Square /(df= 619)	< 677.99	2063.28	Not good
Probability	> 0.05	0.000	Not good
CMIN/DF	< 2.00	3.333	Not good
GFI	> 0.90	0.66	Not good
RMSEA	≤ 0.08	0.10	Not good
AGFI	> 0.90	0.61	Not good
CFI	> 0.90	0.97	Good
NFI	> 0.90	0.95	Good

Source: Results of research data processing (2023)

The Goodness of Fit test results indicate that out of the 8 indices, only 2 criteria passed. According to Solimun et al. (2017), if one or more parameters fit, the model is considered fit. Therefore, it can be concluded that the model's suitability, as predicted by observed values, meets the requirements. Thus, the measurement model of this research is still relatively fit. The following presents Lisrel's analysis results of the relationship between each indicator and variable as shown in the structural equation:

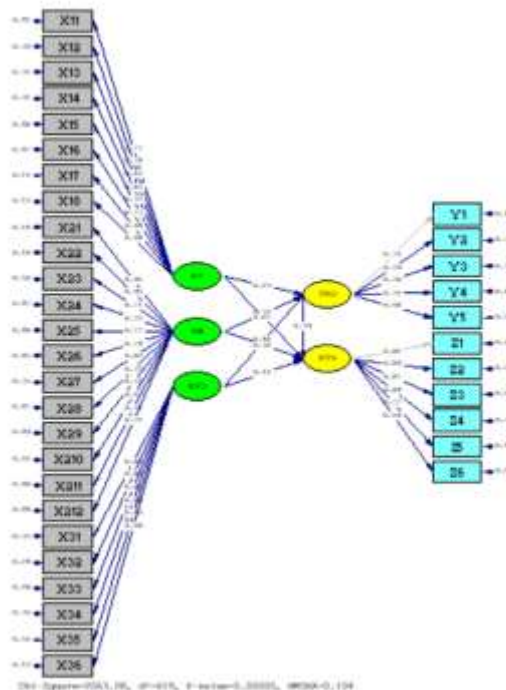


Figure 1. Research Model Testing

- **Sub Structure 1**

$$\text{TRO} = 0.23 \cdot \text{EF} + 0.28 \cdot \text{KW} + 0.46 \cdot \text{KPD}, \text{Errorvar.} = 0.28, R^2 = 0.72$$

(0.068)	(0.073)	(0.076)	(0.053)
3.32	3.84	6.00	5.27

The E-Financial regression coefficient value is 0.23 with a positive value. Shows that there is a unidirectional relationship between E-financial and Online Transactions, meaning that if E-financial increases by one unit, Online Transactions will increase by 0.23, and vice versa. The Website Quality regression coefficient value is 0.28 with a positive value. Shows that there is a unidirectional relationship between Website Quality and Online Transactions, meaning that if Website Quality increases by one unit, Online Transactions will increase by 0.28, and vice versa.

The E-service quality regression coefficient value is 0.46 with a positive value. Shows that there is a unidirectional relationship between E-service quality and Online Transactions, meaning that if E-service quality increases by one unit, Online Transactions will increase by 0.46, and vice versa. The influence of the dependent variable can be shown by the R-square value of 0.72. The Rsquare value of the Online Transaction variable is 0.72, which shows that Online Transactions can be explained by 72% by the E-Financial, Website Quality and E-service quality variables.

- **Sub Structure 2**

$$\text{KTN} = 0.39 \cdot \text{TRO} + 0.067 \cdot \text{EF} + 0.36 \cdot \text{KW} + 0.16 \cdot \text{KPD}, \text{Errorvar.} = 0.23, R^2 = 0.77$$

(0.098)	(0.061)	(0.069)	(0.075)	(0.037)
4.03	1.11	5.15	2.08	6.28

The Online Transaction regression coefficient value is 0.39 with a positive value. Shows that there is a unidirectional relationship between Online Transactions and Customer Transaction Satisfaction, meaning that if Online Transactions increase by one unit, Customer Transaction Satisfaction will increase by 0.39, and vice versa. The E-Financial regression coefficient value is 0.067 with a positive value. Shows that there is a unidirectional relationship between E-financial and Customer Transaction Satisfaction, meaning that if E-financial increases by one unit, Customer Transaction Satisfaction will increase by 0.067, and vice versa.

The Website Quality regression coefficient value is 0.36 with a positive value. Shows that there is a unidirectional relationship between Website Quality and Customer Transaction Satisfaction, meaning that if Website Quality increases by one unit, Customer Transaction Satisfaction will increase by 0.36, and vice versa. The regression coefficient value for E-service quality is 0.16 with a positive value. Shows that there is a unidirectional relationship between E-service quality and Customer Transaction Satisfaction, meaning that if E-service quality increases by one unit, Customer Transaction Satisfaction will increase by 0.16, and vice versa.

The influence of the dependent variable can be shown by the R-square value of 0.77. The Rsquare value of the Customer Transaction Satisfaction variable is 0.77, which shows that Customer Transaction Satisfaction can be explained by 77% by the variables E-Financial, Website Quality, E-service quality and Online Transactions.

Table 3. Hypothesis testing

Variable Relationships		Coefficient	t-count	t-table	Label	
E-Financial		Online Transactions	0.23	3.32	1.96	Significant
Website Quality	→	Online Transactions	0.28	3.84	1.96	Significant
E-service quality	→	Online Transactions	0.46	6.00	1.96	Signifikan
E-Financial	→	Customer Transaction Satisfaction	0.067	1.11	1.96	Not significant
Website Quality	→	Customer Transaction Satisfaction	0.36	5.15	1.96	Significant
E-service quality	→	Customer Transaction Satisfaction	0.16	2.08	1.96	Significant
Online Transaction	→	Customer Transaction Satisfaction	0.39	4.03	1.96	Significant

Source: Results of research data processing (2023)

Discussion

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The results of the path coefficient estimation test and statistical tests show that the path coefficient between E-financial and online transactions is 3.32 in a positive direction. Where E-Finance is a distribution channel, an alternative to more conventional ones, which use the internet, such as computers (personal and business), telephones (call centers and mobile banking), ATMs, and other similar devices. Then online transactions are one of the applications of advances in information technology whose use has been very intense lately. Although many people in Timor-Leste do not yet use online transactions (mobile banking and internet banking), several obstacles contribute to this. These include a lack of detailed information about using mobile and internet banking, as well as frequent disruptions to internet banking and mobile banking websites (network issues and maintenance). Despite these challenges, many Timor-Leste residents, particularly BNCTL customers, do use e-financial services for online transactions.

Taasim and Yusoff (2015) support previous research indicating that e-finance is a strategic alternative for banks to facilitate user interaction with online banking as a financial planning tool. In a study by de Man (2024), a comparison between internet banking users and non-users revealed dissatisfaction with the security of online transactions, necessitating improvements due to insufficient publicity about transaction security. According to UNCTAD (2020), e-finance has led to the rise of new intermediary categories like financial portals, transaction aggregators, and financial application service providers. This development enhances the information and technology content of financial services, blurring the boundaries between finance and technology, information and transactions, and financial institutions and technology providers.

The path coefficient estimation and statistical tests show a positive path coefficient of 3.84 between website quality and online transactions. Website quality reflects users' evaluation of a website's overall performance; higher quality indicates that the website meets user needs. As online transactions become more common, it is crucial to ensure that transactions occur simultaneously and correctly across different platforms without considering memory size.

Ahmed et al. (2017) support previous research showing that e-transaction systems offer banks and customers features like better accessibility, greater convenience, and lower costs compared to traditional channels. Vietnam's banking system has significantly shifted to other service delivery channels like websites in recent years, underscoring the need for bank managers to understand how website quality influences customer satisfaction to retain and better serve customers.

Khanal et al. (2023) highlight that website navigation affects users' transaction experiences and attitudes towards the website; a good navigation system provides easy access to unlimited and updated information. This positively impacts online customers' purchase intentions, as they are more likely to return to a website with adequate navigation tools. Normawati et al. (2021) and Xie (2022a) explain that websites store and manage personal information to better serve customers, making privacy and security major concerns during online transactions. Reliable and dependable online services are essential to build customer trust and confidence, as secure transaction functionality makes websites intuitive, simple, and user-friendly for completing transactions.

The results of the path coefficient estimation test and statistical tests show that the path coefficient between E-Service Quality and online transactions is 6.00 in a positive direction. Where E-Service quality is the extent to which a website simplifies effective transactions. (M. Z. Ali & Ali, 2021a) supports previous research which explains that improving service quality is being able to ask for and receive guarantees for various types of services. In addition to auctions and e-commerce transactions, e-commerce transactions and auctions must receive high-quality treatment, and email and other web browsing uses the remaining capacity of the agreement between ISPs. To be able to promise this, ISPs require to characterize the flow for each type of transaction. As we will see in the next chapter, operators need this information to implement quality service in a cost-efficient manner. According to (IVANOVA & NOH, 2022a), service quality can refer to the security of online transactions and general trust which has been considered one of the most important factors of electronic service satisfaction.

Kaur et al. (2021a) explain that when companies accurately store and update customer information, such as account balances or billing information, they provide reliable transaction services, enhancing their reliability in the eyes of customers. Internet banking typically includes services like account information, transfers, deposits, and bill payments. If internet banking also offers additional services like tax calculations and ordering new checkbooks, customers are likely to use these services more frequently, thereby increasing e-service quality (Lin et al., 2020; Sardjono & Retnowardhani, 2022). According to King et al. (2016), service quality is crucial for fostering buyer identification with a website. High-quality service not only meets buyers' needs for online transactions but also allows sellers to create a positive experience with their website and maintain it effectively. Moreover, good service quality reduces buyers' perception of risk by signaling the seller's capability and goodwill, making buyers more likely to identify with both the website and the seller.

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The results of the path coefficient estimation and statistical tests indicate that the path coefficient between E-Financial and customer transaction satisfaction is 1.11. However, many people in Timor-Leste, including BNCTL customers, have not yet adopted E-Financial for their transactions. This affects transaction satisfaction, as some BNCTL

customers are unable to assess their transaction satisfaction levels without using E-Financial. Many BNCTL customers continue to use traditional methods for transactions due to a lack of information about mobile and internet banking, frequent disruptions to internet and mobile banking websites (such as network issues and maintenance), and public distrust of online transactions concerning data security and confidentiality. According to (Gul et al., n.d.) stated that most customers prefer to queue at the bank or still use ATMs (Automated Teller Machines) to carry out transactions because customers assume that by using an ATM the level of security in carrying out transactions tends to be safer than by using internet banking facilities, This proves that quite a lot of customers are still not interested in using internet banking.

According to (M. Ali et al., 2021; Gbongli et al., 2020), internet banking provides benefits for both customers and banks. For customers, internet banking offers convenience and speed in carrying out banking transactions. The advantage of providing internet banking services for banks is that internet banking can be a cheaper solution in terms of infrastructure development compared to opening an ATM outlet. Meanwhile at Bank BNCTL Timor-Leste in the results of a survey conducted by BNCTL SIRA, (2022) there are several recommendations that must be improved at BNCTL, namely adding more ATM machines (ie, in public spaces, universities, sub-districts and related agencies) ; improve the service system to customers (a friendly facial expression that does not discriminate between law enforcement (i.e., police and military) and general customers, using advanced technology, using an appropriate queuing system, fast service for salary issues, appropriate service for people old); increase internet speed, increase ATM machine operating speed and avoid lengthy processes; and the need for regular maintenance of ATM machines, due to regular damage problems (swallowed cards, no money and power outages). While the global trend has reduced the installation of ATM machines, Timor-Leste has increased the installation of ATM machines. This is in stark contrast to technological advances throughout the country.

Mobility and increasingly high demands on life require us to carry out banking transactions quickly anywhere. After it was proven that transactions via ATMs are not immune to crime, bank customers are now looking at SMS banking and mobile banking (m-banking) as safer alternative services. This demand is also a necessity for banks in Timor-Leste to seize market share by creating product innovations, one of which is by encouraging the use of internet banking. Internet banking can facilitate various online transactions, including: 1) checking account balances and transaction history; 2) paying various bills; and 3) transferring funds between accounts. Banks are expected to continually develop these services to meet customer needs, aiming to expand their market share by being more customer-centric. Currently, many bank customers in Timor-Leste primarily use internet banking to check their account balances. Therefore, banks in Timor-Leste should innovate to attract customer interest and enhance their value in the public eye. E-payment transactions can be further developed in business activities to help customers fully appreciate the benefits of internet banking. According to Gul et al. (2022b), perceived benefits and information about online banking on websites are key factors influencing the acceptance of online banking, indicating that e-banking is the most cost-effective, profitable, and comprehensive delivery channel for banking products, thereby leading to customer satisfaction.

The results of the path coefficient estimation and statistical tests show a positive path coefficient of 5.15 between website quality and customer transaction satisfaction. Website quality is crucial in attracting, acquiring, and retaining customers. A high-quality website not only influences a customer's decision to purchase but also determines whether they will make an online purchase. Mbukanma et al. (2020) support previous research highlighting presentation qualities such as color, visual appeal, layout, and navigation, which are essential for user satisfaction. Users expect these characteristics to meet their expectations and consider them prerequisites for satisfaction. M. Z. Ali and Ali (2021b) provide evidence of the asymmetric effect of user satisfaction with information websites.

Most attributes exhibit a non-significant increase in user satisfaction when the user accomplishes the task successfully, as expected. Conversely, low web performance (task failure) leads to a significant decrease in user satisfaction. Both web designers and marketing managers must carefully consider the importance and nature of website characteristics. Web designers need to address dissatisfaction variables, as negative perceived performance can discourage or even deter website users. Once dissatisfaction is resolved, websites can build rapport with users through improved hybrid variables. Overall customer satisfaction with a website correlates with numerous positive customer behaviors and attitudes.

In the fiercely competitive electronics market, website designers are constantly seeking innovative strategies to gain a competitive advantage. Customer Information Satisfaction Studies have demonstrated the positive influence of information content on overall customer satisfaction (Savoy & Salvendy, 2016). According to Tah & Mahapatra (2023), when a customer visits a website, the website functions as an information system (IS), with the customer serving as the end user of the IS. In contrast to traditional banking, e-banking heavily relies on interactions between online IS and customers. End-user computing satisfaction during computer- and network-based impersonal interactions is a key determinant of e-banking website quality. Additionally, the variety and quality of banking services offered by websites are critical dimensions of customer satisfaction in the e-banking sector. Evaluating the quality of an e-banking website involves assessing several criteria, considering aspects related not only to product and customer service quality but also to IS quality.

The results of the path coefficient estimation and statistical tests reveal a positive path coefficient of 2.08 between E-Service quality and customer transaction satisfaction. This suggests that higher E-Service quality leads to increased customer transaction satisfaction. Service quality revolves around efforts to meet user needs and expectations, aligning service delivery with user expectations. In banking, customer satisfaction serves as a key strategic tool for providing services that attract new customers, retain existing ones, and foster loyalty in both in-person and online delivery channels. Osman (2014) corroborates previous research, indicating that customers consistently satisfied with cyber banking services tend to exhibit loyalty and reuse these services in the future. Thus, higher levels of customer satisfaction with Internet banking services foster secure, long-term relationships and ultimately, greater customer loyalty.

Alimo (2020b) views overall satisfaction as an essential component of perceived service quality, representing the collective impact of an organization's facilities' performance and acting as an indicator of user loyalty. Alternatively, satisfaction is defined as an evaluation of the user's mental state resulting from the combination of feelings about anticipated experiences and previous user experiences. Moreover, service

quality and customer satisfaction are closely linked, with satisfaction arising from comparing a product's actual performance with its expected performance. In the context of internet banking service quality, e-satisfaction reflects user satisfaction with past transactions or experiences with a specific bank (Ejdys & Gulc, 2020b).

According to Osman's research (2014), delivering high-quality services to users is crucial for building reputation, expanding the user base, and attracting new users to cyber bank websites, ultimately enhancing user satisfaction. The results of the path coefficient estimation and statistical tests indicate a positive path coefficient of 4.03 between online transactions and customer transaction satisfaction. This suggests that improved online transactions lead to increased customer transaction satisfaction. Online transactions aim to instill consumer trust in online environments such as the internet by developing an online trust model that redirects offline consumers and internet browsers to online buyers. Customer satisfaction is an attitude shaped by post-purchase experiences with a product or service (Ejdys & Gulc, 2020b).

Bhati et al. (2022b) suggest that cumulative satisfaction, based on a series of purchasing and consumption experiences, is more useful and reliable as a diagnostic and predictive tool than transaction-based perspectives. Given that companies exist to satisfy customers by meeting their needs, it is crucial for banks offering internet banking services to consistently measure customer satisfaction. Internet banking services may sometimes leave customers dissatisfied with certain service quality dimensions. Butt's research (2021) demonstrates a relationship between customer satisfaction in e-banking and factors like reliability, responsiveness, assurance, empathy, and physical evidence, supporting the null hypothesis and rejecting the alternative hypothesis. Numerous private commercial banks operate in Bangladesh, leveraging e-banking systems to enhance customer convenience by offering various services such as online bill payments, money transfers, and account management (Banu et al., 2019). Raza et al. (2020) acknowledge internet banking as an innovative distribution channel that provides greater convenience and lower costs than traditional branch banking, leading to increased customer satisfaction and retention.

CONCLUSION

The results of this research show that E-Financial, website quality and E-Service Quality are driving factors for online transactions in increasing customer transaction satisfaction at Banco Nacional De Comercio De Timor-Leste. Without this, establishing and increasing customer transaction satisfaction at Banco Nacional De Comercio De Timor-Leste will be less effective and this will have an impact on customers' ability to carry out online transactions. This research is expected to be able to contribute theoretically and practically through the process of finding and updating priority aspects in the development of online transactions which are supported by E-Financial development, website quality and E-Service Quality in such a way that strategic steps are obtained from the development of the five variables in encouraging increased transaction satisfaction for Banco Nacional De Comercio De Timor-Leste customers.

Implications

The results of the findings of this research provide empirical evidence, especially for Banco Nacional de Comercio de Timor-Leste customers, that there is an online transaction model that can be used as a reference in carrying out online transactions. Because there are still many people in Timor-Leste who have not used online transactions (mobile banking and internet banking), which is driven by several obstacles, such as the absence of further information regarding the use of mobile banking and internet banking, then the quality of internet banking and mobile banking websites which often experiencing disruptions (network disruptions and applications under maintenance or under maintenance), another factor is public distrust of online transactions, related to data security and data confidentiality. So this research provides literature to make it easier and more trustworthy to carry out online transactions. By using online transactions, customers don't need to worry about spending time queuing at the bank, which of course will require extra energy.

There is a mediating role in customer transaction satisfaction which cannot be ignored in increasing online transactions at Banco Nacional de Comercio de Timor-Leste. So far, customer transaction satisfaction has never been an important element in managing a business. Looking at the results of this research, it has become mandatory that customers must feel satisfied with the services provided by Banco Nacional de Comercio de Timor-Leste. If customers feel satisfied then Banco Nacional de Comercio de Timor-Leste customers will continue to use the services provided by Banco Nacional Comercio of Timor-Leste. It is hoped that the results and findings of this study can make a practical contribution to increasing online transactions at Banco Nacional de Comercio de Timor-Leste. So that in the future it can increase global competitiveness in online transactions.

Limitations

The limitation of this research is that this research is general research in Indonesia or in developing countries, but this research is the most recent research in Timor-Leste. Then the next limitation is that this research only focuses on customers at BNCTL bank and did not conduct research on customers of other banks.

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