
Service Quality Attributes and Customers Usage of E-banking Payment Transactions in Developing Countries: A Study of Tanzania

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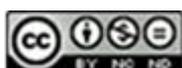
Abstract

This paper aimed to examine the effects of service quality measures of information system success on customers' usage of e-banking payment transactions in Tanzania. It was hypothesised that Service quality measures of information systems positively influence the usage of e-banking payment transactions. This hypothesis was tested by the partial least square structural equation modelling technique (PLS-SEM) through the use of SmartPLS3. The study is informed by the information system success theory and the Unified Theory of Acceptance and Use of Technology (UTAUT). The study adopted a cross-sectional survey approach, where 400 respondents were involved. The results show that responsiveness, privacy, assurance, empathy, and customer support have a significant positive influence on customers' usage of e-banking payment transactions. The findings imply that customers who are highly concerned with the availability of high-quality services in e-banking have the potential to enhance the usage of e-banking payment transactions. Thus, managers in the banking industry are urged to uplift the level of service quality as a strategy to elevate customers' usage of e-banking payment transactions. Future research is recommended to look into the influence of service quality measures on information system success and usage of e-payment in other sectors like the public transportation system, and schools.

Keywords: Service quality measure, e-banking payments, e-banking transaction, Tanzania
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Introduction

The advancement of information and communication technologies (ICTs) has played a pivotal role in the economic development and growth of different countries around the world (Adedoyin, *et al.*, 2020). Correspondingly, ICTs are increasingly used as competitive tools in the banking industry through e-banking initiatives like e-payments (Nazaritehrani & Mashali, 2020). E-banking simply refers to remote banking services provided by authorized banks, or their representatives through devices operated either under the bank's direct control or management or under the outsourcing agreement (Khan & Hamayun, 2019). E-banking therefore entails the use of modern technologies that allow customers to electronically access banking services such as cash withdrawal, funds transfer, bill payment, or access to



commercial information and advice (Magaji, 2020). In this study, e-banking is taken to encompass all services and information that are offered or exchanged between banks and customers through the use of the Internet, and peripheral electronic devices. E-banking therefore encompasses services such as Internet banking services, POS, mobile banking, and ATM services.

E-banking services were introduced to the banking industry deliberately to make the industry more competitive and meet the needs of the stakeholders including customers. A need to improve customer satisfaction and loyalty is therefore among the core pillars for the introduction of e-banking services. Raza *et al.*, (2020) underscore the assessing the significance of e-service quality aspect to have e-service's outstanding efficiency. This is essential in determining the success of services provision and defining customer's experiences in the provision of services (Raza *et al.*, 2020). In this study, the service quality measure of information systems (IS) success in electronic banking usage refers to the overall support delivered by the service provider in a way that reveals responsiveness assurance, privacy, empathy, and customer support (Delone & McLean, 2003; Thai, 2014).

The goal of financial inclusion is increasingly achieved via cashless transactions through electronic payments, which also help to reduce fraud and currency-related criminal activity (Kauffman *et al.*, 2021). Some developed countries such as Australia, Finland, South Korea, the United Kingdom, etc., whose citizens have been greatly involved in e-banking, have advanced into moneyless transactions through enabled gadgets and electronic cards (Kauffman *et al.*, 2021). However, most African countries including Tanzania are still lagging in utilizing e-payment transactions (Switbert & Baleche, 2022; Sambaombe, 2022). Even though there are some of the initiatives established by banks include offering some incentives like reduction of transaction costs in amounts withdrawn from ATMs or imposing extra cost in some amounts withdrawn through the human teller, still with little success (Khan & Hamayun, 2019).

Some scholars have associated the low usage of e-payment services with like a lack of trust on the part of the providers (Ahmad, *et al.*, 2019), and a lack of awareness. (Arora and Sandhu, 2018), a lack of IT skills and personality traits to low usage of online financial trading (Sharif & Naghavi, 2021). Other factors associated with low usage of e-payment services among bank users include a lack of perceived usefulness and perceived ease of use as reasons for low usage (Adepoju & Adenji, 2020). Daka and Pharm, (2019) associate lack of performance and effort expectance as factors for low usage of e-banking while DLone and McLean (2003) link it with a lack of service quality among of quality measures of IS success.

Coupled with these factors, there is little scholarly emphasis on the importance of service quality in the usage of technology, especially in the area of responsiveness in the name of customer support (Sandhu & Arora, 2022). Since (e-banking payment) technologies are new to most developing countries including Tanzania, reliable virtual and traditional customer support in tandem is key to providing guidance and solutions to challenged users to elevate their level of usage of e-banking payment transactions. For instance, Sathiyavany and Shivany, (2018) contend that understanding the e-service quality dimensions and making efforts to improve the quality of the services are necessary for providing high-quality services, which in turn ensures customer happiness and fosters loyalty in the banking business.

In the face of the rapid expansion of electronic monetary systems throughout the world, Tanzania's financial sector cannot remain an exception in lagging by not expanding the usage of the systems. Consequently, banks and customers have missed the full enjoyment of technological advancement in the banking sector which has been greatly taken into careful

consideration elsewhere in the rest of the world and Africa in particular (Lugano, 2016). Therefore, this calls for special attention in the area of e-banking transaction usage. Despite the existing extent literature on e-banking factors and usage (Sandhu & Arora, 2022; Daka & Pharm, 2019), evidence from the literature suggests that most of the previous studies focused on the supply side of technological issues and neglected key variables that are specific to the quality measures approach, which centres on the demand side of the system's end users. Additionally, the majority of e-banking research has primarily been conducted in developing countries in the aspect of adoption and has been mainly guided by the Technological Acceptance Model (TAM). Therefore, to fill this gap and achieve the characteristics unique to the individual country, this study looks at the impact of quality measures on e-banking usage in Tanzania. It is against the backdrop that the current study examines the effect of service quality measures of information system success on customers' usage of e-banking payment transactions in Tanzania. The study is informed by the information system success theory and the Unified Theory of Acceptance and Use of Technology (UTAUT). The study was guided by hypothesis *H₁: Service quality measures of information systems positively influence the usage of e-banking payment transactions.*

Literature Review

A reasonable number of scholars reveal that service quality measures like responsiveness, assurance, privacy, empathy, customer support, and reliability are vital in emerging issues in the wide spectrum of e-technology adoption (Kar, 2021; Rathee & Yadav, 2019). Other authors focused on service quality and satisfaction and highlighted reliability and ease of use as the most important service quality dimensions (Hammoud, Bizri & El Baba, 2018). There have been various dimensions of electronic service quality (E-SQ) found in the literature. Most of these are common to most research but are interpreted differently (Ataburo, Muntaka, & Quansah, 2017). This is because e-services have distinctive qualities based on the method of delivery, the nature of the service, and the type of product (Abdullah et al., 2021; Bhatt, 2020; Vencataya *et al.*, 2019; Kaya *et al.*, 2019). However, many studies linked the impact of service quality on satisfaction and adoption in different e-technologies while studies on service quality and usage of e-banking payments are lacking. The current study focuses on the effect of service quality on e-banking payment usage.

Ahmed *et al.*, (2019), and Asiyanbi and Ishola (2018) contend that availing customer service quality negatively impacts satisfaction which negatively reciprocates to the level of customer usage. Khatoun *et al.*, (2020) consider service quality dimensions like efficiency, reliability, security, privacy, responsiveness, and communication to have an impact on customers' purchase intention. Delone and McLean (2003) advocate that the quality of a given technological service for example M-Banking should provide acceptable levels of usability, availability, reliability, adaptability, and response time. Shim and Jo, (2020) have also realized the contribution of service quality to the enhancement of IS success which constitutes the usage of a particular system. Ahmad *et al.*, (2019) on their study indicate that e-service quality positively affects behavioural intentions to use technology. It is further argued that service quality measure positively affects customers' perceived usefulness which is the potential for boosting the usage of a given service (Ahmad, Bhatti & Hwang, 2020).

In their investigation of how employee service quality and artificial intelligence (AI) affect customer satisfaction and loyalty, Ali et al. (2021) discovered that only a few service quality variables caused distinctive variations in the outcomes of interest. Regressing AI and employee service quality together, however, makes AI unimportant and negative. Correspondingly, Service quality and customer retention are increasingly developing into key

success factors in e-banking (Parawansa, 2018; Alshamsi *et al.*, 2020). For instance, Kaya *et al.* (2019), and Fauzi and Suryani (2019) consider e-Service quality as a primary competitive weapon in marketing websites. Ahmad, Bhatti, and Hwang, (2020) contend that e-banking payments provide convenience, and security when executing payment transactions hence motivating customers to commit more transactions. It also provides security against robbery and counterfeit money, since there is lesser carrying of hard cash (Naskar, 2019). All these benefits have a reciprocating effect on the customer's usage of e-banking payments.

In keeping with the foregoing, service quality helps to pave the road for sustained e-banking payment usage and greatly promotes economic growth (Sandhu & Arora, 2022). High levels of service quality are now widely acknowledged as one of the key elements in any firm based on e-transactions that contribute to its success (Owuamanam, 2021). Better quality electronic services, according to Purwanto's (2022) study, will boost customer satisfaction and foster positive relationships. According to this study, e-service quality positively and significantly affects e-satisfaction through perceived value, which in turn affects how e-technology is used (Aditi, Hafizah & Hermansyur, 2021). However, Owuamanam (2021) concludes his study that customers still lack confidence as a result of the poor e-service quality of mobile banking. According to Chigori *et al.*, (2020), the general public is ill-informed about these services. To effectively leverage the market sectors, banks must inform both current and prospective clients about these goods and services. However, Wuamanam (2021) proposed a better model for the electronic service quality of mobile banking.

Previous studies have identified several challenges associated with the usage of e-banking payment services (Chaimaa, Najib & Rachid, 2021; Mashenene & Lambileki, 2021). Some of the identified challenges include a lack of understanding of customers' quality aspects as the main challenge of e-banking payment usage (Chaimaa, Najib & Rachid, 2021) and a lack of e-banking readiness which is attributed (Mashenene & Lambileki, 2021) a lack of clear understanding of motivation factors for e-banking payment usage among customers.

Theoretical Perspectives

This part of the literature review looks at theoretical literature related to the current study. The study is underpinned by the Unified Theory of Acceptance and Use of Technology (UTAUT) and DeLone and McLean's model of information system success. The review therefore provides a summary of the key constructs included in the theory and model as empirical basis and justification for including the theory and model to inform the study.

DeLone and McLean's Model of Information System Success

DeLone and McLean's model of information system success stipulates that the amount of information system use increases as system, information, and service quality levels increase (DLone & McLean, 2003). According to this model, the success of an information system is determined by how much the person evaluating it thinks the stakeholder whose interests the evaluation is being made is better off (Seddon, 1997). The information system success model establishes that customers mostly make more use of successful information systems characterized by quality factors including customer service quality in terms of responsiveness in the area of customer support. The information system success model primarily supports service quality measures of information system success on the elevation of customers' usage of e-banking payment transactions.

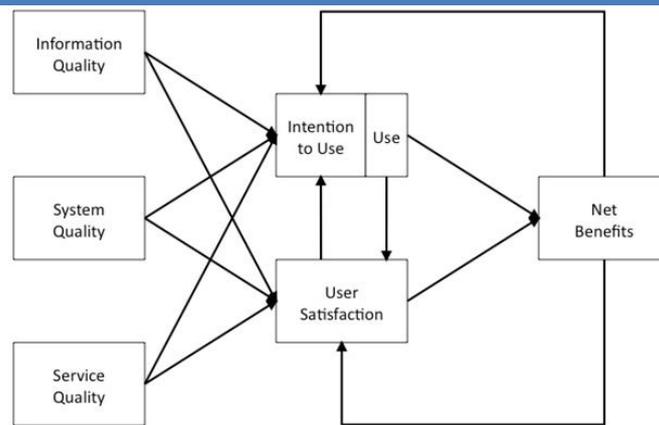


Figure 1: D &M model of information system success
 Source: DLone & McLean, (2003)

DeLone and McLean’s (2003) model provides the theoretical foundation that informs this study. Particularly, the model was used to inform the analysis and discussion of the service quality, information quality attributes of customers' usage of e-banking payment transactions, and customers’ satisfaction. Variables identified in the D&M models of IS and UTAUT form the basis for understanding the current study since most of the study items were construed from the elements of these theories.

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT is one of the prominent theories in information system research that has been widely used in several studies. The theory was created by Venkatesh, et al., (2003) after they looked at different theories and models of how people adopt new technology and combined their findings into a single, cohesive theory. The theories and models that laid the foundation for the development of UTAUT includes the theory of reasoned action (TRA), technological acceptance model (TAM), motivational model, diffusion theory, and social cognitive Theory. According to UTAUT, a person's behavioural intention to utilize technology is determined by expectations for performance, effort, social influence, and facilitating conditions. (Alkhalifah, 2021; Arfi *et al.*, 2021).

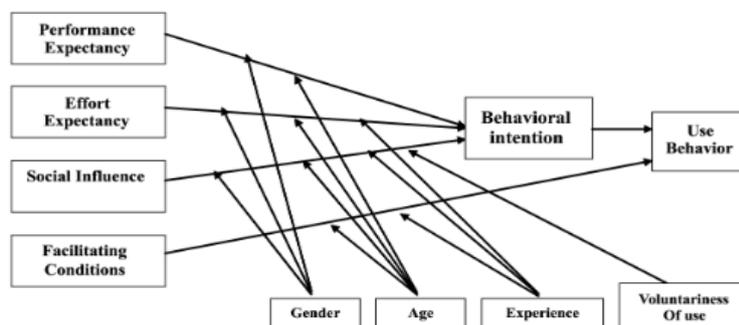


Figure 2: Unified Theory of Acceptance and Use of Technology (UTAUT)
 Source: Venkatesh, *et al.*, (2003)

The study is also supported by UTAUT theory which reflects on individual belief to engage in e-banking payment. UTAUT theorizes that an individual's behavioural intention to use technology is influenced by effort expectancy and facilitating conditions among the individual belief factors (Arfi *et al.*, 2021). Facilitating conditions contribute to the broader concept of service quality while effort expectancy contributes to the ease of use. Several current studies used the UTAUT as the theoretical framework. These include Abbad, (2021) on the students' usage of e-learning systems in developing countries, Al-Saedi *et al.*, (2020) extended UTAUT model for M-payment adoption. Other study includes Bawack and Kamdjoug (2018) on ICT adoption across different settings.

Methodology

The positivist paradigm supports the current study because the paradigm is in line with the quantitative study that is based on a scientific approach to discovering the truth (Kagoya & Mbamba, 2021; Bix, 2021). Additionally, positivist scholars maintain an impartial, objective, and detached perspective while researching information system service quality measures, and customers' usage of e-banking payments in Tanzania. The current research was conducted in five districts of the Dar es Salaam region. The regions are Kinondoni, Ubungu, Ilala, Temeke, and Kigamboni. The justification for the selection of the Dar es Salaam region is the fact that it has a higher concentration of banks where each bank has a headquarters in this region with more branches compared to the other regions (hence a high number of respondents). Also, Dar es Salaam is Tanzania's business centre with the highest population made up of a broad spectrum of cultural diversity hence providing reasonable representativeness. Big five banks in Tanzania, NMB, CRDB, NBC, EXIM, and Standard Chartered banks were included in the study. The big five banks are the ones with a larger number of customers compared to other banks hence contributing to a high response rate. Again, the big five banks are suitable representatives of all banks in Tanzania based on their presence in each Tanzania region along with the several important responsibilities they carry out regarding e-banking payment.

The population involved all bank customers in Tanzania. The total number of bank customers in Tanzania is 27.2 million (BOT, 2020). To get the necessary sample for this study, a one-step cluster sampling technique was employed. Specifically, clusters of five banks have been systematically randomly picked from a list of the large commercial banks as per the Ernst & Young (2022) and BoT (2021) reports, at the interval of two. Hence, the selected sample eventually comprises Azania, CRDB, Exim, NMB, and Stanbic commercial banks operating in Tanzania. Cluster sampling is also highly helpful when the population is dispersed extensively and it is not feasible to sample and choose a representative sample of all the components. According to Amir *et al.* (2020), Cluster sampling is most appropriate when the population is uniform but dispersed over a large area.

Using the guidelines from Yamane (1967) and his well-known formula, a sample of 400 bank customers was obtained from the big five banks located in the Dar es Salaam region. Taro Yomane's (1970) formula, $n = N/(1+N(e)^2)$, where "n" stands for the sample size and "N" is the population of the study and the calculation's margin of error, *e*. To determine the maximum sample size, the sample size was computed with a 5% margin of error and a 95% confidence interval. A total of 80 respondents were drawn from each district in the order of 16 customers from each of the big five banks. The reason for doing this is the fact that banks are homogeneous in their respective categories. Cluster sampling provides operational convenience to the researchers (Fraboni *et al.*, 2021).

The study used a primary source of data because of its specificity and up-to-date nature focusing on customer users (Karale, 2020). Primary data have been collected through questionnaires dispensed to the sampled bank customers in all the Dar es Salaam districts. A

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structured questionnaire was used for data collection where a total of 400 questionnaires were administered to the customers of the banks in Tanzania. Structure questionnaires collect data that is easier to quantify because the same questions have been asked to all respondents (Mahdi *et al.*, 2019).

Through a survey, quantitative data of 400 customers were acquired from the big five banks in Tanzania and was analysed using PLS-SEM assisted by SmartPLS3. PLS-SEM was chosen because of its capability to scrutinize unobserved variables, deal with indirect effects, and handle complex models. Moreover, it can handle causal modelling with variables having many indicators and moderators, and it can accommodate both small and big samples (Hair, Hollingsworth, Randolph & Chong, 2017). Likewise, the model provides flexibility in terms of relaxation to the assumptions (Sarstedt *et al.*, 2022). SmartPLS3 ensures the highest level of prediction accuracy while making no assumptions about the distribution of the variables.,

One other thing, SmartPLS3 is advised for use with Likert scale data and can handle sample sizes ranging from small to large of roughly 30 to 600, respectively. It is also resistant to multicollinearity issues (Chaouali & Souiden, 2019; Mwelu *et al.*, 2021). Similarly, Ritcher, Cepeda, Roldan, and Ringle (2016) declare that PLS-SEM estimated specific constructs and descended or acquired main underlying variable tallies that can be used in the following analyses. Additionally, PLS-SEM addresses the many drawbacks of covariance-based SEM, particularly in the challenging research model construction of this kind (Petter & Hadavi, 2021; Zhang *et al.*, 2021).

On informed consent, the permission of all participants in the research was sought before conducting the study. That is, introductory letters have been sent to the management of the selected Branches and their approval was received before the commencement of the research. Again, individual respondents were approached and debriefed on the purposes of the study before commencement. While distributing the questionnaire, the researcher verbally informed all respondents who consented to answer the questionnaire that their participation was voluntary and as such they could opt-out at any stage of the research process.

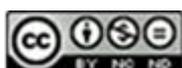
Study Results

Demographic Characteristics

Demographic characteristics presented suggested that men made up the majority of responses (206) making a percentage of 51.5% and 194 were female with 48.5%. The gender difference is considerably small indicating the observance of gender balance. For the age characteristics, those below 30 years were 71 (17.5%), the majority of the respondents were in the age group of 30 -39 years 170 (42.5%), followed by those between 40-49 years 99 (24.75%). The majority of the banking customers are middle-aged. Table

Table 1 Demographic Characteristics

Sn	Respondents Profile	Frequency	Percent	Cumulative Percent	
1	Gender	Male	206	51.5	51.5
		Female	194	48.5	100
2	Occupation	Civil Servant	118	29.5	29.5
		Private Sector	86	21.5	51
		Self Employed	105	26.25	77.25
		Student	68	17	94.25
		sole proprietor	23	5.75	100
3	Age	“21 – 29”	71	17.75	17.75
		“30 – 39”	170	42.5	60.25
		“40 – 49”	99	24.75	85
		“50 – 59”	43	10.75	95.75



4	Education	“60 and above”	17	4.25	100
		Primary School	5	1.25	1.25
		Secondary School	81	20.25	21.5
		Advanced Secondary	32	8	29.5
		Diploma	92	23	52.5
		First Degree	165	41.25	93.75
		Postgraduate	25	6.25	100

Source: Field data 2022

This could suggest that they are probably technologically savvy, hence potential e-banking service users. The results further indicated that 118 (29.5%) were civil servants followed by private sector employees 86 (21.5%). In education level, the first degree was the majority 165 (41.25%), followed by diploma 92 (23%), followed by secondary level 81 (20.25%). Advanced level 32 (8%) and postgraduate having the least 25 (6.25%). Most respondents have a reasonable level of education to understand and execute banking transactions hence making them eligible for this study.

E-Banking Payment Usage and Service Quality of Information System Success

H₁: Service quality measures of information systems positively influence the usage of e-banking payment transactions.

The results of the current study indicated that service quality in customer support is paramount for e-banking payment usage by customers in the Tanzanian context. At this juncture, new and inexperienced users are helped to initiate transactions, solve their challenges, and clear their doubts about e-payment transactions. Table 2 shows the indicators' outer loadings findings taken from the output data of Smart-PLS3. The absolute contribution of an indicator to the definition of its latent variable is represented by outer loadings Factor loading ranges from -1.0 to +1.0 with a higher absolute value indicating a higher correlation of the item with the underlying factors. Scrutinization of factor loadings to their respective constructs was done for the realization of the final measurement model ready for quality analysis. Factor loading refers to the extent to which each of the items in the correlation matrix correlates with a given principal component (Hair et al., 2019).

Table 2: Outer Loadings for E-Banking Payment Usage and Service Quality of Information System Success

Indicators	CU	SED
CU1	0.691	
CU2	0.806	
CU3	0.710	
CU4	0.792	
CU5	0.766	
SED1		0.78
SED2		0.758
SED3		0.653
SED4		0.840
SED5		0.831

Source: SmartPLS3 extracts of field data (2022)

Factors of the manifest variable outer loading of 0.70 or above are deemed highly satisfactory, whereas those with a manifest variable outer loading of 0.40 or lower are deemed unsatisfactory and should be dropped. Nevertheless, values between 0.5 and 0.7 can Service Quality Attributes and Customers Usage of E-banking Payment Transactions in Developing Countries: A Study of Tanzania

be kept since their inclusion improves the value of the average variance extracted (AVE). It should be kept in mind that these retained values serve to depict item variability. Finally, none of the items in the study had a factor loading less than the recommended value of 0.50.

Discriminant validity was assessed through the Fornell-Larker criterion as indicated in Table 3. A discriminant validity test was done to measure how different the constructs were from one another (Henseler, 2018). The aim of this process is the validation of the individual constructs as unique from other constructs.

Table 3: Fornell-Larcker Criterion

	CU	SED
CU	0.754	
SED	0.696	0.775

Source: Data field computation by SmarPLS3

According to Fornell and Larcker's (1981) criterion, discriminant validity is established when the square root of AVE for a construct is greater than its correlation with all other constructs underneath. In this study square root of AVE for a construct was found to be greater than its correlation with another construct (Table 3). Hence, this provides strong support for the establishment of discriminant validity.

Cross Loadings

Cross loadings help assess if an item belonging to a particular construct loads strongly onto its parent construct instead of other constructs in the study. By cross loading: loadings to indicators should not fall significantly below 0. The factors are expected to load much better to their respective construct rather than other constructs through correlations to signify the discriminant validity. The difference between the loadings with other constructs should be higher than 0.10 otherwise there are problems in discriminant issues. The factors that do not observe this rule should be deleted.

Table 4: Cross Loadings

	CU	SED
CU1	0.691	0.44
CU2	0.806	0.569
CU3	0.71	0.529
CU4	0.792	0.544
CU5	0.766	0.532
SED1	0.536	0.19
SED2	0.545	0.154
SED3	0.469	0.147
SED4	0.585	0.112
SED5	0.557	0.157

Source: Field data 2022

The results from Table 4 show that factor loadings of all items are stronger on the underlying construct to which they belong instead of other constructs in the study. Hence, based on the evaluation of the cross-loadings, discriminant validity is attained.

Collinearity Check by Variance Inflation Factor (VIF)

Before moving on to the structural model assessment under PLS-SEM, it is required to check for collinearity concerns. The variance inflation factor (VIF) value should be less than 3 or extremely close to it while evaluating the collinearity issues. The results, (Table 5) show that collinearity was not a problem in this study model because all VIF values were below the necessary threshold of 3.

Table 5: Collinearity (Variance Inflation Factor)

	VIF
CU1	1.593
CU2	1.99
CU3	1.522
CU4	1.834
CU5	1.601
SED1	2.412
SED2	2.365
SED3	1.562
SED4	2.364
SED5	2.307

Source: Field data, 2022

Customers' use of e-banking payment transactions was the endogenous variable, and this study's findings from field data analysed by PLS-SEM, as mentioned in the model created, clearly reveal that it was measured by five indicators by their priority of importance: (CU1 = I frequently use e-banking for most of my payment transactions, CU2 = I normally use varieties of e-banking payment transactions, CU3 = I use e-banking payments for all sorts of amounts, CU4 = I have long experience with e-banking payments, CU5 = I have long duration since I started using e-banking payment transactions). It is important to note that the PLS-SEM utilized in this study deals with issues of multicollinearity and as well as issues of normalcy; as a result, the research does not need to worry about it, as the latter is based on the fact that PLS-SEM deals with non-normal data. Collinearity test shows that the allowable VIF values are lower than 4 or 5.

Assessment Measurement Model Bootstrapping Test

The findings in Table 6 demonstrate the significance of the latent construct. (SED & CU), thereby suggesting that there is a significant positive relationship (SED -> CU) between information system service quality and customers' usage of e-banking payment transactions (**P value = 0.000**), therefore in agreement with H3: service quality measure of Information System success positively influence customers' usage of e-banking payment transactions.

Table 6: Direct Relationships for Bootstrapping Test of Service Quality for IS Success and Customers' Usage of E-Banking Payment

Hypothesis	Relationships	Mean	Standard Error	T Statistics	P Value	f square	Decision
H1	SED -> CU	0.403	0.048	8.647	0.000	0.252	***

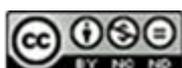
Notes: *** implies significance at $p < 0.001$. Source: Field data 2022 obtained using SmartPLS3.0

Discussion of the Results

The study examined the effect of service quality attributes on customers' usage of e-banking payment transactions. Structural equation modelling (SEM) using SmartPLS3 was conducted for data analysis. The findings reveal that there is a significant positive direct effect of the service quality measure of IS Success on customers' usage of e-banking payment transactions in Tanzania. The reported results in this study are also connected to those of earlier investigations. As an example, Simbolon and Yanti (2021) reported a significant positive direct relationship in the association of e-service quality and customer engagement in higher education. On their part, Khatoun *et al.*, (2020) highlighted the emergency of technology and its rapid globalization as the factors that increased customers' demand for quality e-banking services this implies that increasing e-banking service quality will increase customers' level of usage payment transactions.

Ali's (2017) study findings indicate e-banking orientation as the one influencing customers' service quality instead of vice versa. In Chiang and Trimi's (2020) study, it was revealed that empathy, tangibility, and responsiveness dimensions of service were not the customer's priority on the robot's service quality. The variation in findings may be due to regional variations in political, economic, and technological factors. The results of the current study imply that, in the Tanzanian context, and particularly in the banking sector, customers' usage of e-banking payment transactions will be enhanced if banks make a deliberate effort to improve information system service quality, especially in the area of customer support. This will result in benefits like increased frequency of use, increased types of use, increased hours of use (experience), increased amount of use, and eventually embarking into enhanced cashless transactions (Nustini & Fadhillah, 2020). This is supported by the information system success theory, being the primary theory on the other hand since e-banking payment usage deals with technological issues, UTAUT had to also support the information system success theory, which is in agreement with the findings of (Lee, Tsai, & Ruangkanjanases, 2020).

The current study asserts that service quality dimensions, system quality attributes, and information quality attributes are key determinants of e-banking payment usage, coupled with customer awareness. On the contrary, some scholars like Carranza *et al.* (2021), Rawwash *et al.*, (2020), and Nustini and Fadhillah (2020) contended that although one of the main requirements for e-banking payment usage among others is service quality, technology acceptance but also trust, perceived usefulness, perceived ease of use, social influence and consumptive behaviour should be integrated comprehensively. The current study stresses that service quality in customer support is paramount for e-banking payment usage by customers in the Tanzanian context. At this juncture, new and inexperienced users are helped to initiate transactions, solve their challenges and clear their doubts about e-payment transactions. This is somewhat corroborated by earlier studies; for example, Sathiyavany and Shivany (2018) noted that technology changes are drastic while the customer's perspective has not received adequate attention, necessitating the incorporation of service quality factors in terms of customer support like quick responsiveness, assurance, privacy, empathy, and support.



Conclusion

This study examined the influence of service quality measures of the Information System on customers' usage of e-banking payments in the Tanzanian context. Findings from the SmartPLS measurement model assessment predicted that information system service quality directly and positively affects customers' usage of e-banking payments in Tanzania. From the theoretical perspective, these statistically significant positive findings support the application of information system success theory and UTAUT in examining the relationship between information system service quality and customers' usage of e-banking payments in the Tanzanian context. Future research on the same subject matter should attempt to use comparative studies. Use qualitative research approaches to grasp a deep understanding of other factors out of this study's scope and use longitudinal studies as opposed to cross-sectional ones used in this study. Also, further studies should consider the moderating effect of demographic characteristics like age and educational level.

Study Implications

This study informs the e-banking policymakers, particularly in Tanzania and other developing nations with similar characteristics in general that, using technology alone without serious consideration for service quality of IS Success cannot lead to customers' increased usage of e-banking payment transactions (Nustini & Fadhillah, 2020). This suggests that information system service quality is the driving exogenous variable supported, crucial for e-banking payment usage which practitioners should put more emphasis on. Moreover, the study's findings strongly advise managers in charge of e-banking payment usage to implement UTAUT theory's facilitating conditions for supporting users as stakeholders, to actively engage in e-banking payment transactions. This will inspire users to commit more e-payment transactions from the available alternatives. These are all consistent with the information system success theory and UTAUT theory supporting this study.

Recommendations

This study informs the banking sector in Tanzania and other developing nations with similar characteristics that, using e-technology alone without active customer support cannot lead to meaningful e-banking payment usage. Hence, there is a need to integrate technology with the augmentation of customer service quality for information system success. This study recommends bank managers capitalize on service quality through the designation of a reliable customer support mechanism rather than linking it to normal banking customer care personnel who are mostly fixed in the bank buildings during working hours. A flexible and more convenient mechanism of customer support is a recommended initiative by e-bank operators to boost the level of usage of e-banking payment transactions.

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