The Impact of Banking Quality Dimensions on Customer Loyalty: Customer Satisfaction as a Mediator

"An applied study on the clients of the Republic Bank

in the Libyan city of Al-Khoms"

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Abstract

The study aimed to verify the impact of quality dimensions on customer loyalty and the role of customer satisfaction as a mediator in the causal relationship. To achieve this goal, a random sample of 300 customers of Jumhuriya Bank in the Al-Khums municipality, Libya, was targeted. A questionnaire was distributed to them, with a total of 200 questionnaires valid for analysis. The ServQual model was used to measure the quality of banking services. Structural equation modeling using the AMOS technique was employed to test the study's hypotheses. The study reached a number of significant results, confirming that the Assurance dimension directly affects Jumhuriya Bank customer loyalty. However, the analysis did not provide empirical evidence that the remaining quality dimensions directly affect customer loyalty. The study also presented important findings .In addition, the results revealed that customer satisfaction partially influences the relationship between the Assurance and Reliability dimensions on the one hand and customer loyalty on the other. The study reached a set of directions for future research that will be presented in its own section.

KeyWords: Banking Quality Dimensions, Customer Loyalty, Customer Satisfaction

أثر أبعاد جودة الخدمات المصرفية على ولاء العملاء: رضا العملاء كوسيط

"دراسة تطبيقية على عملاء مصرف الجمهورية بمدينة الخمس الليبية"

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الملخص:

هدفت الدراسة إلى التحقق من تأثير أبعاد الجودة على ولاء العملاء، ودور رضا العملاء كوسيط في العلاقة السببية. ولتحقيق هذا الهدف، استُهدفت عينة عشوائية من 300 عميل من عملاء مصرف الجمهورية في بلدية الخمس، ليبيا. ووُزّع عليهم استبيان، بإجمالي 200 استبيان صالحة للتحليل. واستُخدم نموذج ServQual لقياس جودة الخدمات المصرفية، كما وُظّفت نمذجة المعادلات الهيكلية باستخدام تقنية AMOS لاختبار فرضيات الدراسة. توصلت الدراسة إلى عدد من النتائج المهمة، مؤكدةً أن بُعد الضمان يؤثر بشكل مباشر على ولاء عملاء مصرف الجمهورية. إلا أن التحليل لم يُقدّم دليلاً عملياً على أن أبعاد الجودة المتبقية تؤثر بشكل مباشر على ولاء العملاء. كما قدمت الدراسة نتائج مهمة. بالإضافة إلى ذلك، كشفت النتائج أن رضا العملاء يؤثر جزئياً على العلاقة بين بُعدي الضمان والموثوقية من جهة، وولاء العملاء من جهة أخرى. وتوصلت الدراسة إلى مجموعة من التوجهات للبحوث المستقبلية، والتي سيتم عرضها في قسم خاص بها.

الكلمات المفتاحية: أبعاد جودة الخدمات المصرفية، ولاء العملاء، رضا العملاء.

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1. Introduction:

The banking industry's success hinges on cultivating customer loyalty. Understanding the factors driving this loyalty is crucial for banks aiming to thrive in a competitive market. Numerous studies have explored the relationship between service quality dimensions and customer loyalty, frequently highlighting customer satisfaction as a key mediating variable. This analysis synthesizes findings from various research papers to illuminate the complex interplay between banking service quality, customer satisfaction, and ultimately, customer loyalty. The primary objective of this research is to assess the direct impact of service quality dimensions on customer loyalty, and the indirect impact through customer satisfaction. Therefore, the current research seeks to answer the following main question: Do banking service quality dimensions affect customer loyalty directly, or indirectly through customer satisfaction? Accordingly, the analysis will systematically evaluate the evidence, compare findings across studies, and identify research gap.

Research into the relationship between banking service quality, customer satisfaction and loyalty is of great importance in the banking sector, as it provides insights into the key drivers of customer satisfaction and loyalty, which are critical to the long-term survival and success of banks (Alhemoud, 2010; Saueressig, Larentis, & Giacomello, 2021). High service quality is a key driver of customer satisfaction, which leads to enhanced customer loyalty (Sleimi, Musleh, & Qubbaj, 2020).

The model of the relationship between service quality, customer satisfaction, and loyalty is complex, with non-linear interactions and the need to treat customer loyalty management as a process involving multiple interacting factors (Minh & Huu, 2016). Despite the coverage of studies on this topic in a way that outlines the relationship, there are still research gaps that need to be addressed (Bilika, Safari, & Mansori, 2016; Ooi, 2013). For example, Palamidovska-Sterjadovska, Levkov, and Ciunova-Shuleska (2021) pointed out the need for a more comprehensive understanding of customer loyalty, including loyalty to the bank and loyalty to individual employees, while Mayer urged exploring the relationship between service quality,

customer satisfaction, and loyalty in different cultural and geographical contexts, such as the Arab banking sector (Ooi, 2013; Sleimi et al., 2020).

In this regard, Anika, Islam, and Ahmed (2023), and Palamidovska-Sterjadovska et al (2021) proposed a number of recommendations to fill these gaps, including enhancing responsiveness, investing in customer service training, streamlining processes, leveraging technology, providing personalized services, working on customer feedback, and fostering a customer-centric culture. In addition to treating customer loyalty management as a process that includes many interacting factors, and considering the two-level perspective of loyalty to the bank and loyalty to individual employees.

2. Literaeturereview:

The relationship between service quality, customer satisfaction and loyalty is governed by Service Quality-Customer Satisfaction-Customer Loyalty Model. This model refers to a theoretical construct that links service quality, customer satisfaction, and customer loyalty in a sequential relationship. This model assumes that service quality positively affects customer satisfaction (Li, Liu, & Zhang, 2008; Ramzani, 2022), and that customer satisfaction positively affects customer loyalty (Arora & Banerji, 2024; Joshi, 2023). Moreover, customer loyalty is more strongly related to customer satisfaction than to service quality (Bhadra, 2015). On the other hand, customer satisfaction can mediate the causal relationship between service quality and customer loyalty (Banahene, 2018; Li et al., 2008).

2.1 The effect of Service Quality Dimensions on Customer Satisfaction

Several studies have identified specific service quality dimensions as significant predictors of customer satisfaction in the banking sector. These dimensions often align with the SERVQUAL model (Ganguli, 2011; Karim, 2020; Ramzani, 2022), which emphasizes aspects such as reliability, responsiveness, assurance, empathy, and tangibility. However, the relative importance of these dimensions can vary depending on the specific context, such as the type of banking service (e.g., digital banking) (Arora, 2024; Gautam, 2023; Lakchan, 2023), retail banking (Kaura, 2015; Redda & Deventer, 2023), or Islamic banking (Anjelisa, Fatmawati, &

Nuryakin, 2023; Afifah & Kurniawati, 2021) and the geographical location (Bisimwa, 2019; Joshi, 2023; Joshi, 2023).

For instance, in the context of digital banking in Indian public sector banks, Arora and Banerji (2024) found that all dimensions of service quality (using the RATER model) significantly influenced customer experience, which in turn predicted customer satisfaction. Similarly, a study in Nepal Joshi (2023) demonstrated a significant positive relationship between service quality (including tangibility, responsiveness, and assurance) and customer satisfaction. In contrast, research in the Ghanaian banking sector (Karim, 2020) revealed that only reliability, ambiance, and social factors significantly impacted customer satisfaction, while assurance and responsiveness showed no significant relationship. This highlights the need for context-specific analysis when examining the relationship between service quality dimensions and customer satisfaction. The study by (Joshi, 2023) in Nepal employed a convenience sampling method, which could potentially introduce bias, while the research in Ghana (Karim, 2020) used partial least squares structural equation modeling, offering a robust approach to data analysis. Future studies could investigate the influence of cultural factors on the relative importance of service quality dimensions.

Furthermore, the role of technology in service delivery is increasingly important. Studies on technology-based self-service banking (Sindwani & Goel, 2016) and e-banking (Khatoon & Hussain, 2020; Lotko, 2022; Tran, & Nguyen, 2023) have shown that factors like convenience, reliability, security, responsiveness, and personalization significantly influence customer satisfaction. In the case of technology-based self-service banking, convenience and personalization emerged as particularly significant predictors of satisfaction (Sindwani & Goel, 2016). The study by (Sindwani & Goel, 2016) utilized exploratory and confirmatory factor analyses to identify and confirm the service quality dimensions, adding rigor to their findings. However, Lotko's (2022) study surprisingly omitted system availability as a significant factor, suggesting that this may represent a baseline requirement rather than a driver of customer satisfaction. The impact of specific technological features on satisfaction needs further exploration.

Beyond the SERVQUAL model, other factors also influence customer satisfaction. Corporate social responsibility (CSR) initiatives (Gezahegn, Durie, & Kibret, 2024; Hawamdeh et al., 2022; Senthikumar, Ananth, & Arulraj, 2011) and customer relationship management (CRM) strategies (Anjelisa et al., 2023; Iriqat & Daqar, 2018a; Iriqat & Daqar, 2018b) have been linked to increased customer satisfaction. Al Hawamdeh et al. (Hawamdeh, 2022) found that CSR significantly affected customer loyalty in Jordanian commercial banks, with customer satisfaction mediating this relationship. Similarly, Anjelisa et al. (2023) demonstrated that Sharia-compliant service quality and CRM positively influenced customer satisfaction and loyalty in Indonesian Islamic banks, with satisfaction playing a mediating role. However, Iriqat and Daqar's (2018a) and Iriqat and Daqar's (2018a) works, in the Palestinian banking sector found that customer satisfaction did not mediate the relationship between CRM and long-term customer loyalty, highlighting the need for further research into the contextual factors influencing these relationships. The methodological differences between these studies (e.g., different statistical techniques and sample sizes) warrant careful consideration when comparing their findings.

2.2 Customer Satisfaction and Customer Loyalty

Anjelisa et al. (2023); Arora and Banerji (2024); Banahene (2018); and Joshi (2023) stated that customer satisfaction is a strong predictor of customer loyalty, and therefore satisfied customers are more likely to retain their loyalty to their bank. In this regard, Banahene (2018) confirmed that customer satisfaction in the Ghanaian banking sector has a positive and direct impact on customer loyalty, and an indirect impact through trust as a partial mediator of this causal relationship. This was confirmed by a study conducted by Shah et al. (2024) in Pakistan, which found that customer satisfaction mediates the relationship between service quality and loyalty. These studies therefore urge the need to improve customer satisfaction to enhance loyalty.

2.3 Customer Satisfaction as a Mediator

In addition, previous studies have reported that customer satisfaction varies in its strength as a mediator in relationships. For example, Sasono et al. (2021) showed that e-satisfaction fully mediates the causal relationship between e-service quality and e-loyalty. In contrast, studies (Banahene, 2018; Joshi, 2023; Shah et al., 2024) revealed partial mediation of customer

satisfaction. This discrepancy could be explained by differences in methodology or other contextual factors.

For example, the study by (Sasono et al., 2021) found full mediation of e-satisfaction between e-service quality and e-loyalty, while other studies showed partial mediation, suggesting that direct effects of service quality on loyalty also exist.

The role of other mediating variables also requires further consideration. While customer satisfaction is frequently identified as a key mediator, other factors such as trust (Albarq, 2023; Banahene, 2018; Bisimwa, Nuwagaba, & Musigire 2019; Redda & Deventer, 2023) and switching costs (Sefnedi, 2019) have also been shown to influence the relationship between service quality and customer loyalty.

Moreover, Banahene's (2018) study highlighted the partial mediating role of trust, while Bisimwa et al (2019) found that customer satisfaction fully mediated the relationship between perceived service quality and customer loyalty, and partially mediated the relationship between trust and customer loyalty. Sefnedi (2019) emphasized the importance of both customer satisfaction and switching costs as determinants of customer loyalty, and as mediators in the relationship between service quality and customer loyalty. These findings suggest a complex interplay of factors influencing customer loyalty, and further research should explore the relative importance of these mediators in different contexts.

3. Study model and hypotheses:

The study model was constructed according to the service quality-customer satisfaction-customer loyalty model, which governs the relationship between these elements. In this regard, a chronological sequence was determined for the study's constructs, with quality dimensions employed as predictor variables that directly affect consumer loyalty as a criterion variable or are influenced by consumer satisfaction as an intermediate construct. Figure 1 illustrates the proposed model for the study.
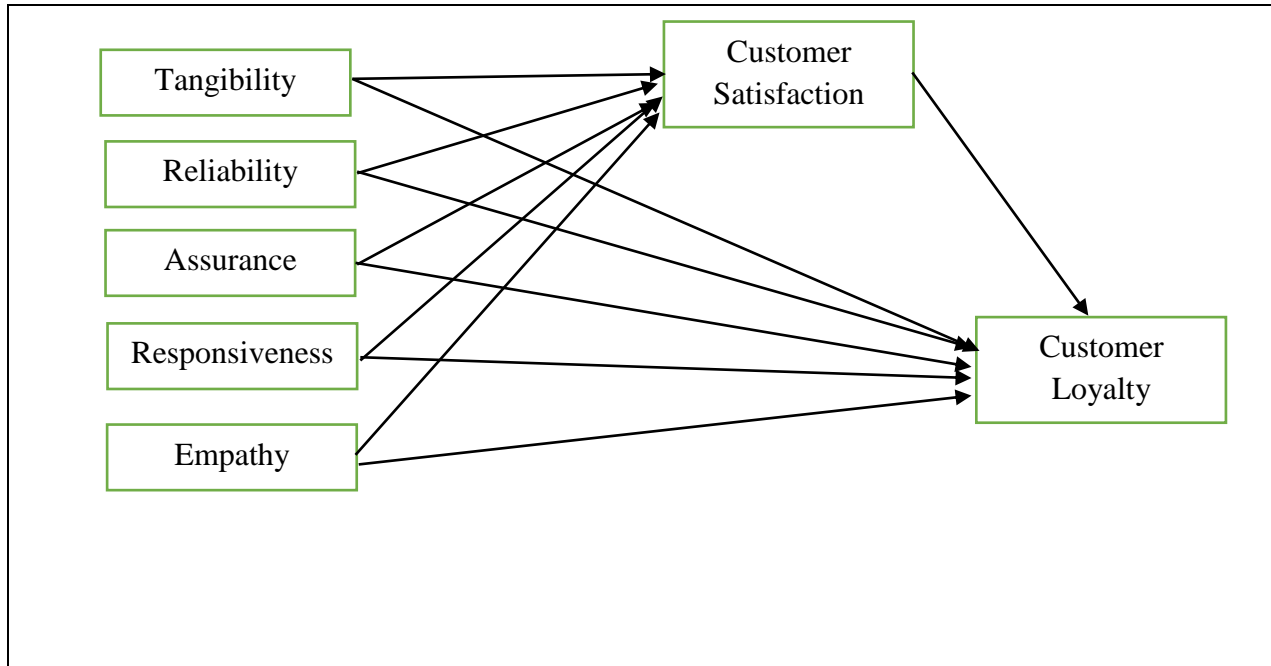
Figure 1: Framework of the study

Based on the proposed model, six hypotheses were established, as follows:

1. Tangibility does not positively affect consumer loyalty.

2. Reliability does not positively affect consumer loyalty.

3. Assurance does not positively affect consumer loyalty.

4. Responsiveness does not positively affect consumer loyalty.

5. Empathy does not positively affect consumer loyalty.

6. Job satisfaction does not mediate the causal relationship between the five quality dimensions and consumer loyalty.

4. Methodology:

The SERVPERF model has been widely used to measure service quality in the banking sector, which includes dimensions such as tangibility, reliability, responsiveness, assurance, and empathy (Rupali Gupta & Kumar, 2020; Shaikh & Siddiqui, 2019). This study was conducted on the customers of Jumhuriya Bank in Al-Khums, Libya. A questionnaire was used to collect data from 300 customers. The SERVPERF scale was used to measure service quality in the banking sector. The scale consists of 22 items distributed over five dimensions to measure service quality,

namely tangibility (4 items), reliability (5 items), assurance (4 items), responsiveness (5 items), and empathy (4 items).

Customer loyalty and customer satisfaction scales were borrowed from previous studies, and some modifications were made to suit the current study. Customer loyalty was measured by five items (Skačkauskienė, Vilkaitė-Vaitonė, & Vojtovic, 2015). While customer satisfaction was measured by seven items (Chikazhe, Makanyeza, & Chigunhah, 2021; Hammoud, Bizri, & El Baba, 2018).

5. Results

5.1 Data screening

First, the data were screened and filtered and the missing values ere processed using the serial average method in SPSS-version 26. As for the extreme values, they were detected using "Boxplot" and Figure 2 shows the extreme values in the study data. There are (18) extreme values distributed in the reliability variable (3 cases), the assurance variable (5 cases), the responsiveness (6 cases), and the empathy variable (4 cases), all of which are extreme values below the minimum. Given the importance of the existence of these cases, these cases will not be deleted unless they have an impact on the quality of the data or on the results of the analysis.
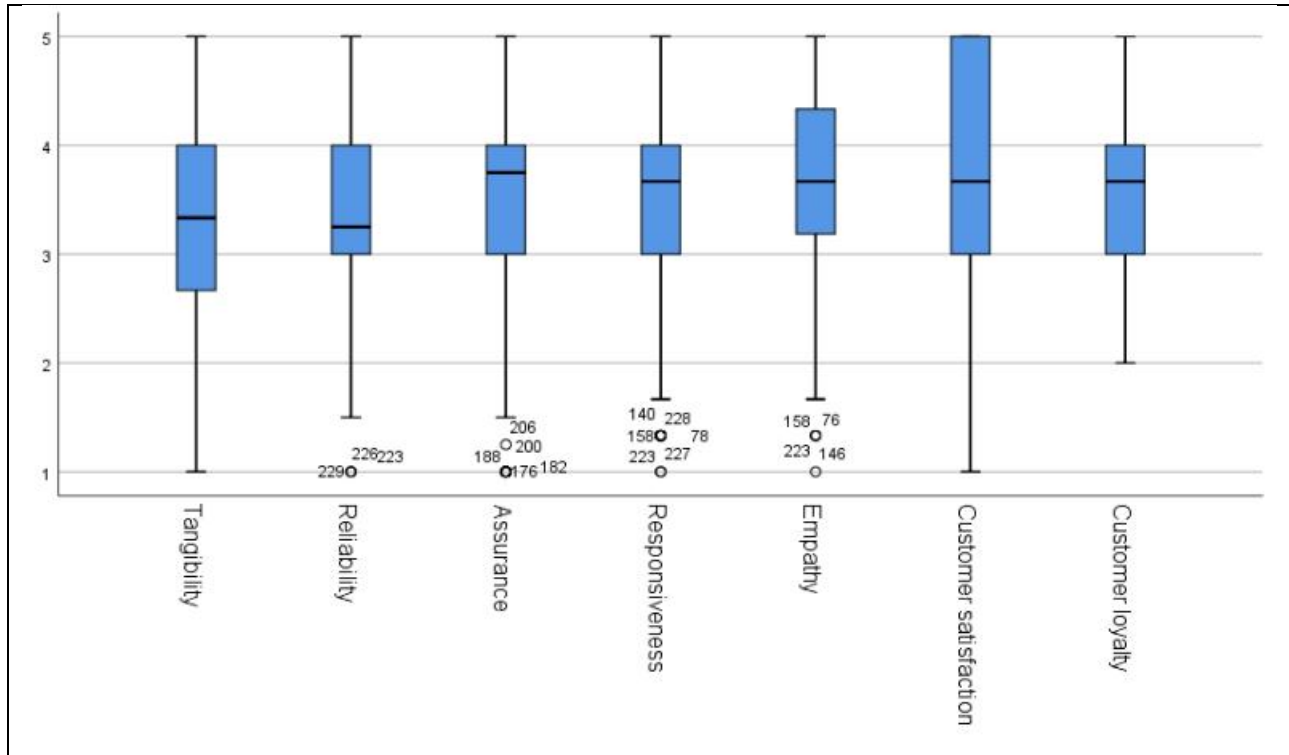
Figure (1): Outlier Values

5.2 Confirmatory Factor Analysis

Confirmatory factor analysis was employed to test the structure of the factors and the items that follow them according to the theory. The graphs can be followed as in the work of Alajili (2019) or the results of the structural modeling, which will be used in this study, can be judged.

In order to maintain the recommended levels of fit indices, three strategies were used: the deletion strategy, the merging strategy of subconstructs into a single subconstruct, and the correlation strategy of measurement errors. For the first strategy, five (5) items were deleted from the quality scale, two items from the consumer loyalty scale, and four (4) items from the consumer satisfaction scale. For the merging strategy, the responsiveness and empathy subcontracts were merged into a single subcontract.

The results in Table (1) show that the formative construct of quality included four subconstructs: tangibility, which includes three items; reliability and reassurance, which includes four items each; and responsiveness and empathy, which includes six items.

Table (1): Factor Score Weights

	y3	y2	y1	m1	m2	m3	x16	x17	x18	x22	x21	x20	x10	x13	x12	x11	x6	x9	x8	x7	x4	x2	x1
C.L	.30	.12	.19	.02	.03	.02	.03	.01	.01	.01	.00	.00	.02	.02	.03	.02	.00	.00	.00	.00	.01	.01	.00
C.S	.04	.02	.02	.21	.31	.31	.00	.01	.02	.01	.00	.00	.01	.01	.01	.01	.02	.01	.00	.02	.00	.00	.00
R&E	.01	.00	.00	.00	.01	.00	.10	.20	.14	.16	.08	.10	.00	.00	.01	.00	.01	.01	.00	.01	.01	.00	.00
As	.05	.02	.03	.01	.01	.00	.00	.01	.01	.01	.00	.00	.14	.17	.29	.16	.00	.00	.00	.00	.01	.01	.01
Re	.01	.00	.00	.01	.01	.00	.01	.01	.01	.01	.01	.01	.00	.00	.00	.00	.24	.13	.20	.27	.01	.01	.00
Ta	.01	.00	.00	.00	.00	.01	.00	.02	.01	.01	.00	.00	.00	.00	.01	.00	.01	.00	.00	.01	.28	.25	.20

C.L= Customer Loyalty, C.S= Customer Satisfaction, R&E= Responsiveness & Empathy, As= Assurance, Re= Reliability, Ta= Tangibility

5.3 Assumptions

5.3.1 Normal distribution

The normal distribution of univariate data was tested using skewness and kurtosis coefficients, and the distribution of the normal distribution of multivariate data was tested using the Mahalobius test. The results showed that the condition of normal distribution of univariate data was met, as the skewness values were between the absolute values (±1), and the kurtosis coefficients were between (±3) (Awang, 2015). Moreover, the results of the regression analysis revealed that the upper limit of the Mahalanobis test (24.23) is greater than the critical chi-square value (12.59), and therefore the multivariate condition is not met (Zaid, Alajili, Musah, & Ramamoorthy, 2022).

5.3.2 Linearity and Homoscedasticity Assumptions

The assumptions of linearity and homogeneity of variance of the residuals were tested. Figure 2 illustrates the assumption of linearity by examining the scatterplot residuals and predictors using SPSS26. The findings indicate a linear association between the independent of constructs (Tangibility, Reliability, Assurance, and Responsiveness & Empathy), mediator construct (Customer Satisfaction) and the dependent construct (Customer Loyalty). Therefore, there was no evidence to question the assumption of linearity, as shown in the figure.
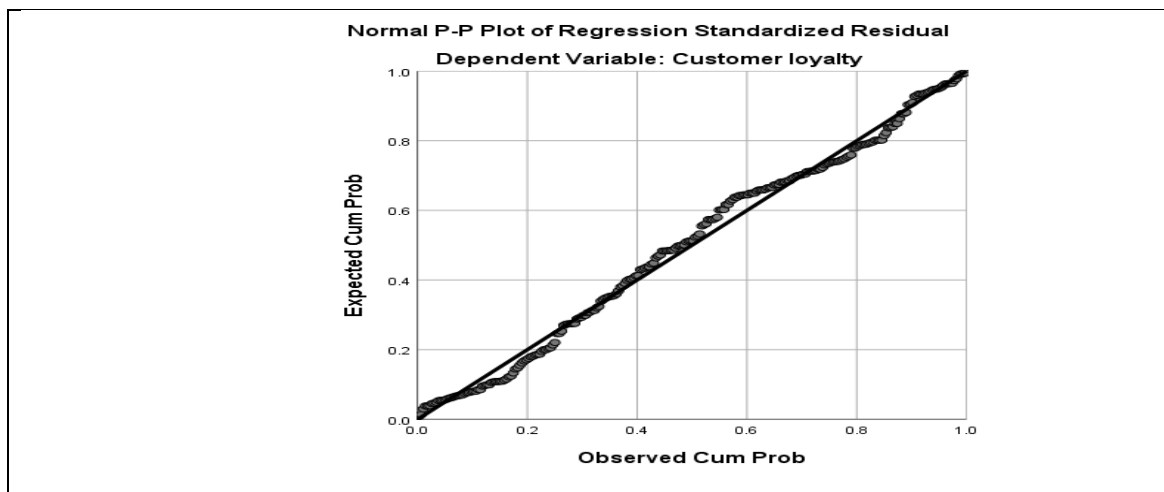
Figure (2): Linearity Assumption

Furthermore, the results of the homogeneity of variance test of the residuals were analyzed using scatterplots of the standardized residuals. The results indicated homogeneity of variance across the independent constructs and the dependent construct variance as shown in Figure 3.
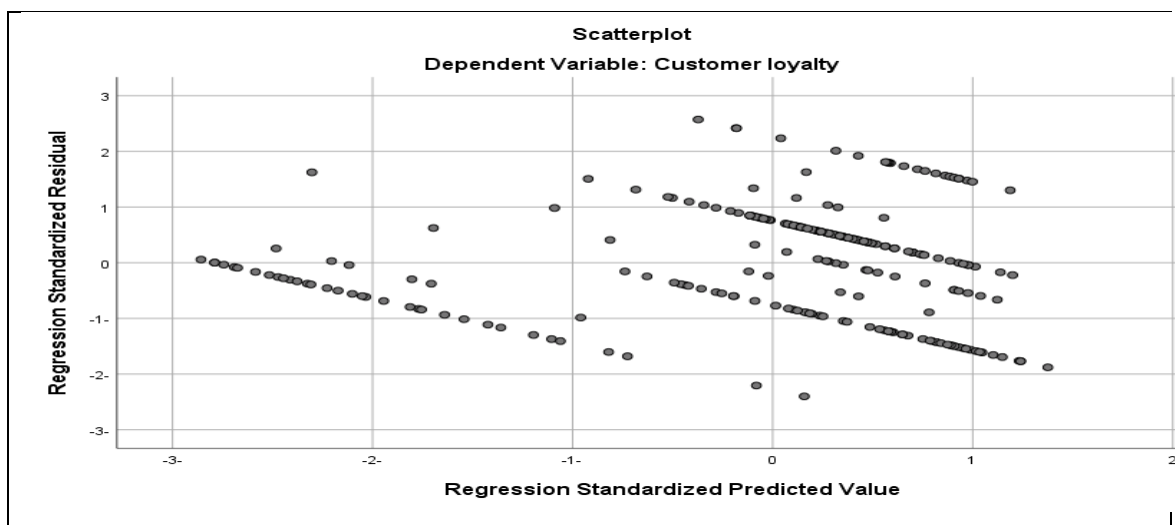

Figure 3: Homoscedasticity Assumption

5.3.3 Multicollinearity Assumption

The multicollinearity test was used to verify the non-high correlation between the independent variables, with recommended values not exceeding 5.00, and tolerance levels exceeding 0.20 (Hair et al., 2010). Table 2 shows the results of the variance inflation factor (VIF). It reveals that all VIF values are less than 5.00, indicating the absence of multicollinearity among all the extraneous variables.

Table 3: Variance Inflation Factor (VIF)

Independents Variables	Collinearity Statistics	
	Tolerance > .20	VIF < 5
Tangibility	.930	1.076
Reliability	.726	1.378
Assurance	.804	1.243
Responsiveness & empathy	.706	1.416
Customer satisfaction	.706	1.416

5.4 Measurement Model

To evaluate the model fit and whether items belong to the constructs according to the quality and consumer loyalty model. More, to test the convergent validity and discriminant validity, the standard model of the latent constructs was conducted together. Table 2 shows the extracted factors and the items to which they belong. Regarding the dimensions of service quality, the results of the measurement model reduced the five quality dimensions to four dimensions, where the empathy dimension was combined with the responsiveness dimension.

5.6 Validity of the Latent Constructs

To validate the study's measures, assess the model's fit, and determine whether the items fit the construct according to the quality and consumer loyalty model, a measurement model was employed to verify convergent and discriminant validity. Initially, the construct's fitness indices were met since CFI, TLI, and IFI fit indices exceeded excellent levels (0.95), while the GFI and AGFI registered values that exceeded the recommended minimum (0.90). Conversely, the RMSEA value was 0.02, and the p-value for the model was 0.000. Accordingly, all fit indices met acceptable levels (Hair et al., 2010), as shown in Figure 4.
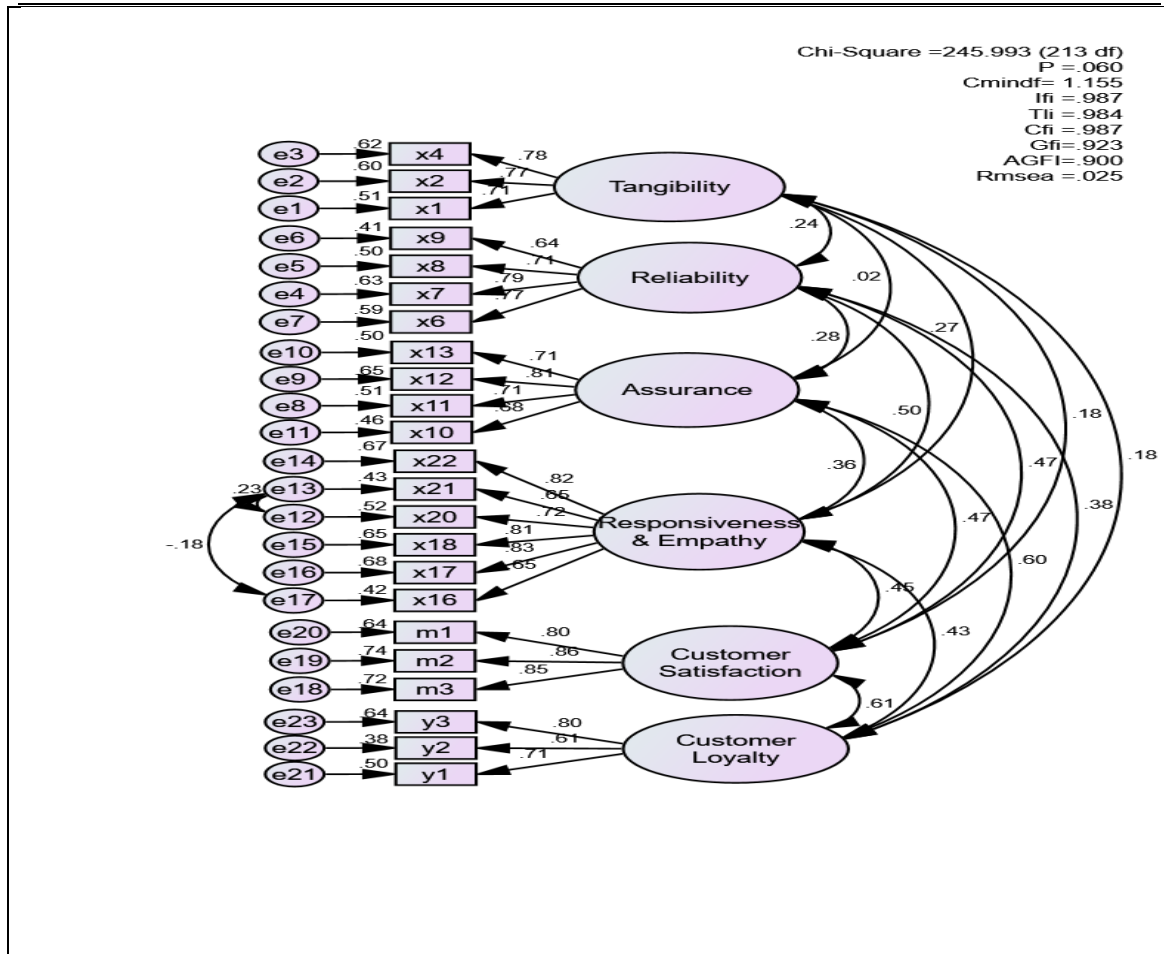
Figure 4: Measurement Model

Regarding convergent validity, according to Awang (2015), Alajili1 and Alshrksi (2022), and Zaid et al (2022), convergent validity is achieved when the composite reliability exceeds (CR = 0.60) and is greater than the average variance extracted (AVE), which should be at least 0.50 and more. Table 4 displays the factor loadings, composite reliability (CR), and average variance extracted (AVE). The table provides evidence of convergent validity, as the AVE values for all constructs exceed 0.50.

Table 4: Evidence of Convergent Validity for Latent Constructs

Construct	Item	Factor Loading	CR	Standard error	AVE
Tangibility	*x1*	.71	.83	.51	.57
	x2	.77		.60	
	x4	.78		.62	
Reliability	*x6*	.77	.82	.59	.53
	x7	.79		.63	
	x8	.71		.50	
	x9	.64		.41	
Assurance	*x10*	.68	.82	.46	.53
	x11	.71		.51	
	x12	.81		.65	
	x13	.71		.50	
Responsiveness & Empathy	*x16*	.65	.88	.42	.56
	x17	.83		.68	
	x18	.81		.65	
	x20	.72		.52	
	x21	.65		.43	
	x22	.82		.67	
Customer Satisfaction	*m1*	.80	.87	.64	.70
	m2	.86		.74	
	m3	.85		.72	
Customer Loyalty	*y1*	.71	.75	.50	.51
	y2	.61		.38	
	y3	.80		.64	

To achieve discriminant validity, the researchers indicated that two conditions should be met. First, the Forerunner and Larcker criterion must be greater than the common variance (CV). Second, the composite reliability (CR) must be greater than the average variance extracted (AVE) (Awang, 2015). Table 5 summarizes discriminant

validity, and all conditions appear to be met, as the diagonal values (in bold) reflect that the square root of the average variance extracted for the constructs is greater than the correlations between the constructs.

Table 5: Discriminant Validity

Construct	1	2	3	4	5	6
Tangibility (1)	**.75**					
Reliability (2)	.24	**.73**				
Assurance (3)	.02	.28	**.73**			
Responsiveness & Empathy (4)	.27	.50	.36	**.75**		
Customer Satisfaction (5)	.18	.47	.47	.45	**.84**	
Customer Loyalty (6)	.18	.38	.60	.43	.61	**.71**

5.7 Bootstrapping Test

According to the works of Akhmaaj & Sharif (2024), and the recommendations of Cheung & Lau (2008), 1,000 resampling samples were used. The bootstrapping results indicated that the model fit better in 789 samples and it fit worse in 211 bootstrap samples. Further, testing the null hypothesis that the model is correct was accepted because Bollen-Stine bootstrap (p = .212) more than .05 (Han, 2021).

In bootstrapping test, the mediation occurs when indirect influence is significant, and partial or full mediation occurs when significant or insignificant of direct effects (Awang, 2015:123). Figure 5 represents outcomes of bootstrapping test and it is clear that the fitness indices indicated the suitability of the model.
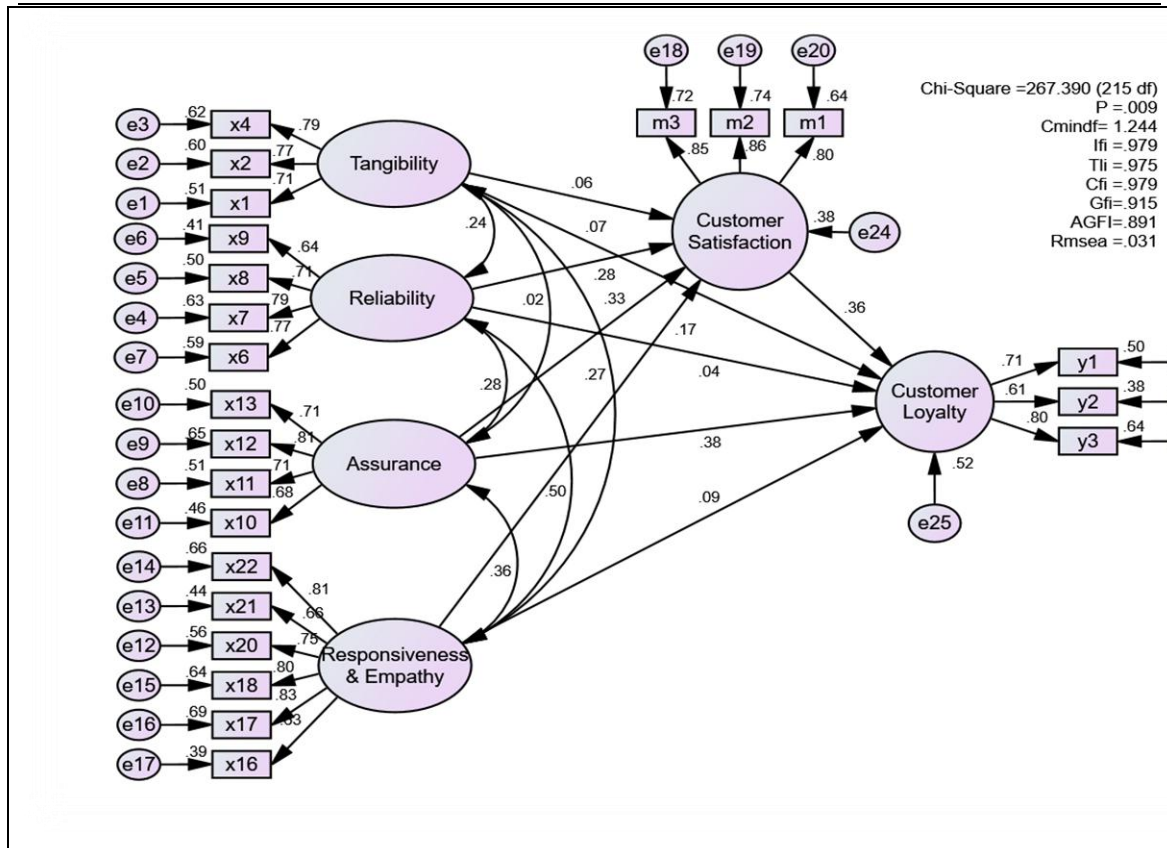
Figure 5: Structural Model- Bootstrapping Test

5.7.1 Direct Effect

The results of the analysis revealed that the effect size of tangibility, and responsiveness and empathy on customer satisfaction was weak, reaching (.06) and (.17), respectively, and that the relationship was not statistically significant (p > .05). In contrast, the experimental evidence supported the effect of reliability and assurance on customer satisfaction, as the effect sizes reached (.28) and (.33), respectively.

Similarly, the analysis results did not provide evidence of an effect of tangibility, reliability, and responsiveness and empathy on customer loyalty at Jumhuriya Bank, as they recorded weak effect sizes. Conversely, significant effects of assurance and customer satisfaction on customer loyalty were found, with effect sizes of (.38) and (.36) respectively.

Table 6: Standardized Direct Effects

Hypo.	Exog.	Path	Endo.	Estimate	Lower	Upper	P	Result
1	Ta	--➤	C.S	.058	-.066	.186	.441	Unsupported
2	Re	--➤	C.S	.281	.129	.447	.003	Supported
3	As	--➤	C.S	.331	.218	.447	.002	Supported
4	R&E	--➤	C.S	.169	.005	.312	.081	Unsupported
5	Ta	--➤	C.L	.073	-.043	.181	.313	Unsupported
6	Re	--➤	C.L	.036	-.089	.180	.591	Unsupported
7	As	--➤	C.L	.384	.268	.489	.001	Supported
8	R&E	--➤	C.L	.093	-.046	.205	.272	Unsupported
9	C.S	--➤	C.L	.360	.210	.505	.001	Supported

5.7.2 Mediation Analysis

As for indirect effect "Job satisfaction does not mediate the causal relationship between the five quality dimensions and consumer loyalty", the bootstrap test findings provided in table 6. The results revealed that customer satisfaction mediates the relationship in only two dimensions of service quality. The analysis results showed that customer satisfaction mediated the causal relationship between reliability and customer loyalty ($p \leq .05$). Since the direct effect is still significant, satisfaction partially mediates the relationship.

Likewise, customer satisfaction mediates the causal relationship between assurance and customer loyalty. Since the direct effect is still significant, satisfaction partially mediates the causal relationship.

In contrast, the experimental evidence did not provide any evidence that customer satisfaction mediates the causal relationship between tangibility and customer loyalty ($p > .05$), nor the relationship between responsiveness and empathy and customer loyalty.

Table 6: Standardized Indirect Effects

Hypo.	Direct effect		Indirect effect Via custumer' satisfaction		Confidence interval (95%)		Result
	Bootstrapping results	Bootstrapping p- value	Bootstrapping results	Bootstrapping p- value	Lower	Upper	
Ta - - ➔ C.L	.058	.441	.021	.439	-.029	.084	Unsupported
Re - - ➔ C.L	.281	.003	.101	.002	.032	.183	Supported
As - - ➔ C.L	.331	.002	.119	.001	.048	.202	Supported
R&E - - ➔ C.L	.169	.081	.061	.081	-.004	.136	Supported

6. Research Gaps and Future Directions

Despite the substantial body of research on this topic, several research gaps remain. Further research is needed to:

Investigate the relative importance of different service quality dimensions across diverse banking contexts. While the SERVQUAL model provides a framework, the relative importance of its dimensions varies depending on factors such as the type of banking service, geographical location, and customer demographics. More research is needed to identify context-specific drivers of customer satisfaction and loyalty.

Explore the interplay of multiple mediating variables. While customer satisfaction is a key mediator, other factors such as trust, switching costs, and perceived value also play significant roles. Future research should investigate the combined effects of these mediators and their relative importance in different contexts.

Examine the moderating effects of a wider range of contextual factors. Studies have begun to explore the moderating effects of gender and financial technology, but more research is needed to investigate the influence of other factors such as age, income level, cultural background, and competitive landscape.

Develop more robust and comprehensive models. Existing models often focus on linear relationships, but the reality is likely more complex and involves non-linear interactions

and feedback loops. Developing more sophisticated models that capture these complexities is crucial for a deeper understanding of customer loyalty dynamics.

Conduct longitudinal studies. Most studies are cross-sectional, providing a snapshot in time. Longitudinal studies are needed to track changes in customer satisfaction and loyalty over time and to identify the long-term impacts of service quality improvements. Utilize diverse methodological approaches. While quantitative methods are widely used, qualitative methods such as in-depth interviews and focus groups can provide valuable insights into the underlying reasons behind customer satisfaction and loyalty. Combining quantitative and qualitative approaches can offer a more comprehensive understanding of the phenomenon.

7. Conclusion

The reviewed studies consistently demonstrate a strong link between banking service quality, customer satisfaction, and customer loyalty. Customer satisfaction frequently acts as a mediator in this relationship, highlighting its crucial role in building and maintaining customer loyalty. However, the relative importance of different service quality dimensions and the strength of the mediating effect of customer satisfaction vary across studies, underscoring the need for context-specific analysis. Future research should address the identified research gaps to provide a more complete understanding of the complex dynamics influencing customer loyalty in the banking sector. By understanding these dynamics, banks can develop more effective strategies for improving service quality, enhancing customer satisfaction, and fostering long-term customer loyalty. This knowledge is essential for sustained growth and success in a competitive banking environment.

8. References

Akhmaaj, A. A.M. & Sharif, M.O. (2024). The effects of planned behavior model constructs and technology acceptance model constructs on online purchasing behavior: An empirical study on internet users in the Libya city of Tripoli. Technology in Society, Elsevier, 79(C), 102687-102687.

Alajili, S. M. (2019). The Effects of Transformational Behaviours and Interpersonal Skills of Leadership on Organisational Citizenship Behaviour: Trust in the Leader as A Mediator in Libyan Commercial Banks. Malysis: Unpublished PhD thesis. UNIVERSITI SAINS ISLAM MALAYSIA.

Alajili, S.M & Alshrksi, A.H. (2022). The Effect of Job Satisfaction as a Mediator in the Relationship between Person-Environment Fit and Job Performance: Evidence from the Food Industries in Libya. Scholars Journal of Economics, Business and Management, 9(6), 144-152. DOI: 10.36347/sjebm.2022.v09i06.003.

Awang, Z. (2015). SEM Made Simple: A Gintle Approach to Learning Structure Equation Modeling, Bandar Baru Bangi, Selangor: MPWS Rich Publication Sdn.

Bhadra, A. (2015). "Relative strength of factors influencing customer loyalty in the automobile service industry: a study". *SMART Journal of Business Management Studies*, 11(2), n.p.

Han, Y. (2021). Re: Bootstrapping Using BOLLEN-STYNE in AMOS produces p-value below 0.05, is it an issue? https://www.researchgate.net/post/Bootstrapping-Using-BOLLEN-STYNE-in-AMOS-produces-p-value-below-005-is-it-an-issue/60866669e294191ab736cdac/citation/download.

Ramzani, S., Gharleghi, B., Watson, A., Smith, H., Horam, P., Cunha-Cruz, V. V., & Basnet, A. (2022). Impact of service quality on customer satisfaction and loyalty towards flexible management in the german banking sector. Journal of Humanities and Social Sciences Research. https://doi.org/10.37534/bp.jhssr.2022.v4.n2.id1164.p36.

Ganguli, S. & Roy, S. (2011). Generic technology-based service quality dimensions in banking: impact on customer satisfaction and loyalty. None. https://doi.org/10.1108/02652321111107648

Karim, R. (2020). Influence of service quality on customer satisfaction and customer loyalty in the private banking sector of bangladesh: a pls approach. Journal of Marketing and Information Systems. https://doi.org/10.31580/jmis.v1i3.1049

Arora, P. & Banerji, R. (2024). The impact of digital banking service quality on customer loyalty: an interplay between customer experience and customer satisfaction. Asian Economic and Financial Review. https://doi.org/10.55493/5002.v14i9.5199.

Bilika, F., Safari, M., & Mansori, S. (2016). "Review of Empirical Studies of Service Quality, Customer Satisfaction, and Loyalty. Journal of Marketing Management and Consumer Behavior, 1 (2), 1-11.

Gautam, D. & Sah, G. K. (2023). Online banking service practices and its impact on e-customer satisfaction and e-customer loyalty in developing country of south asia-nepal. SAGE Open. https://doi.org/10.1177/21582440231185580.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis: A Global Perspective*. New Jersey: Pearson Educational Inc.

Lakchan, U. & Samaraweera, G. (2023). The impact of digital service quality dimensions on customer satisfaction and customer loyalty of digital banking in Srilanka. None. https://doi.org/10.4038/jmtr.v8i2.10.

Li, M., Liu, Y., & Zhang, W. Model and Empirical Study on Service Quality Affecting Customer Loyalty of Sportswear Brands. 4th International Conference on Wireless Communications, Networking and Mobile Computing. (October 2008).

Kaura, V., Prasad, C. D., & Sharma, S. (2015). Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction. None. https://doi.org/10.1108/IJBM-04-2014-0048

Redda, E. & Deventer, M. V. (2023). Retail banking service quality and customer loyalty: the role of trust and commitment as mediators. International Review of Management and Marketing. https://doi.org/10.32479/irmm.14658.

Anika, A., Islam, M., & Ahmed, F. (2023). "The Impact of Customer Service Quality on Customer Satisfaction: A study on Bangladeshi Banks". https://doi.org/10.21203/rs.3.rs-3795570/v1.

Anjelisa, A., Fatmawati, I., & Nuryakin, N. (2023). Measuring the effect of islamic service quality, customer relationship management, customer satisfaction, and loyalty in Indonesian Islamic banking. None. https://doi.org/10.35931/aq.v17i5.2615

Afifah, A. & Kurniawati, N. (2021). Influence of service quality dimensions of islamic banks on customer satisfaction and their impact on customer loyalty. Journal of Islamic Economic Laws. https://doi.org/10.23917/JISEL.V4I2.15089

Bisimwa, A., Nuwagaba, D., & Musigire, S. (2019). Perceived service quality, trust, customer satisfaction and customer loyalty in the banking sector of bukavu (east of dr congo). Journal of Business and Management Sciences. https://doi.org/10.12691/JBMS-7-3-1

Joshi, C. (2023). Measuring the relationship between service quality, customer satisfaction and customer loyalty in the banking sector of nepal. Contemporary Research an Interdisciplinary Academic Journal. https://doi.org/10.3126/craiaj.v6i2.60248.

Shaikh, R. & Siddiqui, D. A. (2018). "Bank Service Quality on Customer Satisfaction, Loyalty: A Study Based on Islamic Banks in Pakistan". International Journal of Management and Commerce Innovations, 6(2), 830-839.

Sindwani, R. & Goel, M. (2016). The relationship between service quality dimensions, customer satisfaction and loyalty in technology based self service banking. None. https://doi.org/10.4018/IJESMA.2016040104.

Sleimi, M., Musleh, M., & Qubbaj, I. (2020). "E-Banking services quality and customer loyalty: The moderating effect of customer service satisfaction: Empirical evidence from the UAE banking sector. Management Science Letters, 10, 3663–3674.

Khatoon, S., Xu, Z., & Hussain, H. (2020). "The mediating effect of customer satisfaction on the relationship between electronic banking service quality and customer purchase intention: evidence from the qatar banking sector". SAGE Open. https://doi.org/10.1177/2158244020935887

Lotko, A. (2022). The influence of the quality of internet banking services on customer loyalty. EUROPEAN RESEARCH STUDIES JOURNAL. https://doi.org/10.35808/ersj/2959

Tran, H. Y., Nguyen, B. N., & Nguyen, H. G. (2023). Impact of e-banking service quality on e-loyalty through interplay of e-satisfaction, an empirical evidence from commercial banks in vietnam. International Journal of Scientific Research and Management. https://doi.org/10.18535/ijsrm/v11i03.em5

Hawamdeh, A. K. A., Padlee, S. F., Alfukaha, F., Al-Gasawneh, J., & Megdadi, Y. (2022). The impact of corporate social responsibility on the customers loyalty in the

jordanian banking sector: the meditating role of customer satisfaction. Journal of Southwest Jiaotong University. https://doi.org/10.35741/issn.0258-2724.57.2.4

Chikazhe, L., Makanyeza, C., & Chigunhah, B. (2021). "Understanding mediators and moderators of the effect of customer satisfaction on loyalty". Cogent Business & Management, 8(1), 1-19.

Hammoud, J., Bizri, R., & El Baba, I. (2018). "The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence from the Lebanese Banking Sector". SAGE Open, 1-12.

Palamidovska-Sterjadovska, N., Levkov, N., & Ciunova-Shuleska, A. (2021). "Linking Banking Service Quality to Customer Loyalty: Two Levels Perspective". Eurasian Business and Economics Perspectives Proceedings of the 33rd Eurasia Business and Economics Society Conference. Springer Nature

Saueressig, M.V., Larentis, F., & Giacomello, C.P. (2021). "Perceived quality and loyalty in service operations: a study in banking segment's corporate person division". Gestão & Produção, 28(1), e4934. https://doi.org/10.1590/1806-9649.2020v28e4934.

Skačkauskienė, I., Vilkaitė-Vaitonė, N., & Vojtovic, S. (2015). "Model for measuring customer loyalty towards a service provider". Journal of Business Economics and Management, 16(6),1185-1200.

Alhemoud, A.M. (2010). "Banking in Kuwait: A customer satisfaction case study". Competitiveness Review: An International Business Journal Incorporating Journal of Global Competitiveness, 20(4), 333-342.

Rupali Gupta, R. & Kumar, B. (2020). "A comprehensive model for understanding banking service quality: BANK SERVQUAL," International Journal of Business Forecasting and Marketing Intelligence, 6(3), 204-220.

Senthikumar, N., Ananth, A., & Arulraj, A. (2011). Impact of corporate social responsibility on customer satisfaction in banking service. None. https://doi.org/None

Gezahegn, M. A., Durie, A. D., & Kibret, A. T. (2024). Examining the relationship between corporate social responsibility, customer satisfaction and customer loyalty

in ethiopian banking sector. The International Journal of Organizational Analysis. https://doi.org/10.1108/ijoa-04-2024-4435

Iriqat, R. & Daqar, M. A. (2018a). The mediating role of customers" satisfaction on the effect of crm on long-term customers loyalty in the banking sector in the palestinian territory. Asian Social Science. https://doi.org/10.5539/ASS.V14N8P76

Iriqat, R. A. M. & Daqar, M. A. (2018b). The mediating role of customers" satisfaction on the effect of crm on long-term customers loyalty in the banking sector in the palestinian territory. Canadian Center of Science and Education. https://doi.org/10.5539/ass.v14n8p76

Banahene, S. (2018). The impact of customer satisfaction on loyalty in the ghana banking sector: the effect of trust mediation. Advances in Social Sciences Research Journal. https://doi.org/10.14738/ASSRJ.512.5545

Shah, S. A., Bilal, H., & Sanober, I. (2024). Nexus between service quality & customer loyalty: mediating role of customer satisfaction in banking sector. Journal of Social Research Development. https://doi.org/10.53664/jsrd/05-01-2024-04-37-46

Sasono, I., Jubaedi, A., Novitasari, D., Wiyono, N., Riyanto, R., Oktabrianto, O., Jainuri, J., & Waruwu, H. (2021). The impact of e-service quality and satisfaction on customer loyalty: empirical evidence from internet banking users in indonesia. None. https://doi.org/10.13106/JAFEB.2021.VOL8.NO4.0465

Minh, N.V., & Huu, N.H. (2016). "The Relationship between Service Quality, Customer Satisfaction and Customer Loyalty: An Investigation in Vietnamese Retail Banking Secto". Journal of Competitiveness 8(2), 103-116.

Ooi, C.S. (2013). Service quality, customer satisfaction and service loyalty in retail banking sector in Thailand & Malaysia: an exploratory research on validity and critical factor. Unpublished Master Thesis, Business Administration, Songkla University. Thailand.

Mishra, U. (2022). The effect of customer satisfaction on loyalty: a moderating role of corporate communication in the banking sector. None. https://doi.org/10.3126/jki.v8i1.52934

Albarq, A. N. (2023). The impact of ckm and customer satisfaction on customer loyalty in saudi banking sector: the mediating role of customer trust. Administrative Sciences. https://doi.org/10.3390/admsci13030090

Sefnedi, S. (2019). The impact of service quality on banking customer loyalty: the role of satisfaction and switching costs as mediator. Jurnal Apresiasi Ekonomi. https://doi.org/10.31846/JAE.V7I1.191

Zaid, S.M., Alajili, S.M., Musah, A.A., & Ramamoorthy, J. (2022). "The Effects of Transactional Leadership Dimensions on the Task Performance: Intrapersonal Skills as Mediator in Libyan Universities". The Seybold, 17(11), 2305-2328.