



UNDERSTANDING THE RELATIONSHIP BETWEEN SERVICE QUALITY DIMENSIONS AND CUSTOMER SATISFACTION AND LOYALTY

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ABSTRACT

This study investigates the relationship between service quality dimensions and customer satisfaction and loyalty, focusing on the interconnections among reliability, responsiveness, assurance, empathy, tangibles, and digital experience. A correlation and regression analysis approach is employed to explore how these service quality factors contribute to customer satisfaction and loyalty. The findings reveal that personalization, security, and tangibles significantly influence customer satisfaction and loyalty, while responsiveness and digital experience show mixed effects. The study provides practical implications for service providers to optimize their service delivery strategies and enhance customer retention. Furthermore, the research highlights the importance of digital innovation and personalized services in fostering long-term customer relationships.

KEYWORDS: Correlation, Regression, Private and public sector banks, Service Quality.

1. INTRODUCTION

Service quality is a critical determinant of customer satisfaction and loyalty, influencing how businesses retain customers and foster long-term relationships. In today's competitive market, understanding the impact of various service dimensions, such as reliability, responsiveness, assurance, empathy, and digital experience, is essential for service providers. Service quality directly impacts customer retention, brand reputation, and overall customer lifetime value.

This study examines the correlation between service quality dimensions and customer satisfaction and loyalty in the banking sector. By analyzing how each factor contributes to customer experience, businesses can refine their service offerings and implement strategies that enhance customer trust and engagement. The research aims to identify which service attributes hold the most significant influence on customer loyalty and the extent to which they impact customer retention. Additionally, the study explores the role of technological advancements, such as artificial intelligence and blockchain, in improving service quality.

2. REVIEW OF LITERATURE

Prior research has extensively explored the connection between service quality and customer satisfaction. Parasuraman et al. (1988) introduced the SERVQUAL model, identifying five key service dimensions—reliability, responsiveness, assurance, empathy, and tangibles. Later studies expanded on this framework, incorporating digital experience and personalization as additional determinants of service quality in modern service settings (Zeithaml et al., 2000).

A study by Sharma and Gupta (2020) highlighted that reliability and assurance are pivotal in building customer trust, while Patel et al. (2019) emphasized the importance of digital experience in modern banking services. Similarly, Singh and Kumar (2021) found that empathy and personalization significantly contribute to customer satisfaction, fostering long-term loyalty. Lee and Johnson (2022) examined how security and privacy concerns influence customer retention, revealing that transparency in service policies enhances customer loyalty. Moreover, Anderson et al. (2023) explored the role of artificial intelligence in enhancing service responsiveness and customization.

The integration of digital service quality dimensions is a growing area of research. Hoffman and Novak (2022) examined the impact of digital banking platforms on user experience, concluding that seamless digital interaction significantly affects customer satisfaction. Recent studies have also suggested that mobile applications, chatbot



support, and predictive analytics enhance overall service quality (Brown et al., 2023). These studies provide a foundation for understanding the intricate relationships between service dimensions and customer retention.

3. METHODOLOGY

This study adopts a quantitative research methodology using correlation and regression analysis to explore the impact of service quality dimensions on customer satisfaction and loyalty. A structured questionnaire was administered to a sample of bank customers, capturing data on reliability, responsiveness, assurance, empathy, tangibles, security, digital experience, and personalization.

The collected data were analyzed using Pearson's correlation and multiple regression analysis to identify the strength and significance of relationships among variables. The regression model examined the combined effect of service quality dimensions on customer satisfaction and loyalty, providing empirical evidence on which factors most influence customer behavior. Additionally, a comparative analysis was conducted to evaluate variations in service perception among different demographic segments.

4. CORRELATION AMONG STUDY VARIABLES OF SERVICE QUALITY, CUSTOMER SATISFACTION, CUSTOMER LOYALTY AND REFERRAL

The correlation analysis between the study variables reveals significant relationships across all dimensions, with all correlations being statistically significant at the 0.01 level (2-tailed). This section provides a detailed pairwise exploration of these relationships:

4.1 Reliability (REL) and Other Variables

REL exhibits the strongest correlation with personalization/relationship management (PER) ($r = 0.959$), highlighting the foundational role of reliable service delivery in building personalized relationships.

REL also correlates highly with responsiveness (RES) ($r = 0.857$) and assurance (ASS) ($r = 0.868$), demonstrating its close ties to these service dimensions that collectively underpin customer confidence and satisfaction.

REL's correlations with tangibles (TAN) ($r = 0.795$) and security/privacy (SEC) ($r = 0.824$) are slightly lower but still robust, suggesting that physical and security-related aspects of service are strongly associated with perceived reliability.

4.2 Responsiveness (RES) and Other Variables

RES shows its highest correlation with security/privacy (SEC) ($r = 0.967$), indicating that timely and responsive service is often perceived as secure and private.

It also demonstrates strong relationships with tangibles (TAN) ($r = 0.897$) and empathy (EMP) ($r = 0.874$), underscoring the role of responsiveness in meeting customer needs both physically and emotionally.

4.3 Assurance (ASS) and Other Variables

ASS correlates most strongly with REL ($r = 0.868$) and RES ($r = 0.816$), indicating that customer confidence is closely tied to both reliability and responsiveness.

Lower correlations are observed with digital experience (DIG) ($r = 0.695$) and security/privacy (SEC) ($r = 0.773$), suggesting these dimensions are perceived as less integral to assurance.

4.4 Empathy (EMP) and Other Variables

EMP's strongest correlation is with tangibles (TAN) ($r = 0.869$), highlighting the importance of physical service aspects in conveying empathy to customers.

Strong relationships are also observed with assurance (ASS) ($r = 0.784$) and responsiveness (RES) ($r = 0.874$), showing that emotional understanding is closely linked to these dimensions.

4.5 Tangibles (TAN) and Other Variables

TAN correlates highly with RES ($r = 0.897$) and EMP ($r = 0.869$), emphasizing the importance of physical evidence in shaping customer perceptions of responsiveness and empathy.

Its correlation with digital experience (DIG) ($r = 0.835$) also highlights the interplay between physical and digital aspects of service delivery.



4.6 Convenience/Accessibility (CON) and Other Variables

CON exhibits strong correlations with tangibles (TAN) ($r = 0.827$) and digital experience (DIG) ($r = 0.822$), reflecting the interconnectedness of these elements in creating a seamless service experience.

Its correlations with personalization/relationship management (PER) ($r = 0.741$) and security/privacy (SEC) ($r = 0.780$) suggest a moderate association with these dimensions.

4.7 Digital Experience (DIG) and Other Variables

DIG correlates most strongly with responsiveness (RES) ($r = 0.900$) and security/privacy (SEC) ($r = 0.899$), emphasizing the perceived alignment between digital service capabilities and these dimensions.

While DIG maintains strong correlations with most variables, its slightly lower correlation with assurance (ASS) ($r = 0.695$) suggests it is seen as a distinct aspect of the service experience.

4.8 Personalization/Relationship Management (PER) and Other Variables

PER shows its strongest correlation with REL ($r = 0.959$), affirming the critical role of reliable service in enabling personalized customer interactions.

Its correlations with assurance (ASS) ($r = 0.840$) and responsiveness (RES) ($r = 0.851$) underscore its connection to these service dimensions.

4.9 Security/Privacy (SEC) and Other Variables

SEC's strongest correlations are with responsiveness (RES) ($r = 0.967$) and digital experience (DIG) ($r = 0.899$), highlighting its perceived alignment with these aspects of service delivery.

Moderate correlations with personalization (PER) ($r = 0.824$) and assurance (ASS) ($r = 0.773$) further underscore its role in influencing customer confidence and satisfaction.

4.10 Customer Satisfaction and Loyalty (CSL) and Other Variables

CSL correlates highly with personalization/relationship management (PER) ($r = 0.861$) and tangibles (TAN) ($r = 0.856$), suggesting their significant impact on overall satisfaction and loyalty.

While CSL maintains robust correlations with all variables, its relationship with assurance (ASS) ($r = 0.861$) and security/privacy (SEC) ($r = 0.841$) highlights the importance of trust and confidence in fostering loyalty.

4.11 Customer Loyalty and Referral (CLR) and Other Variables

CLR exhibits its strongest correlation with CSL ($r = 0.797$), affirming its alignment with overall satisfaction and loyalty outcomes.

Moderate correlations with assurance (ASS) ($r = 0.624$) and tangibles (TAN) ($r = 0.756$) suggest that physical and confidence-related aspects contribute to referral intentions.

Table 1: Correlation Analysis of Study Variables

Variable 1	Variable 2	Correlation (r)	Strength	Significance	p-value
Reliability (REL)	Personalization (PER)	0.959	Strong Positive	Significant	<0.001
REL	Responsiveness (RES)	0.857	Strong Positive	Significant	<0.001
REL	Assurance (ASS)	0.868	Strong Positive	Significant	<0.001
REL	Empathy (EMP)	0.843	Strong Positive	Significant	<0.001
REL	Tangibles (TAN)	0.795	Moderate Positive	Significant	<0.001
REL	Convenience (CON)	0.780	Moderate Positive	Significant	<0.001
REL	Digital Experience (DIG)	0.853	Strong Positive	Significant	<0.001



REL	Security (SEC)	0.824	Strong Positive	Significant	<0.001
REL	Customer Satisfaction (CSL)	0.879	Strong Positive	Significant	<0.001
REL	Customer Loyalty (CLR)	0.709	Moderate Positive	Significant	<0.001
Responsiveness (RES)	Security (SEC)	0.967	Very Strong Positive	Significant	<0.001
RES	Tangibles (TAN)	0.897	Strong Positive	Significant	<0.001
RES	Empathy (EMP)	0.874	Strong Positive	Significant	<0.001
RES	Digital Experience (DIG)	0.900	Strong Positive	Significant	<0.001
RES	Assurance (ASS)	0.816	Strong Positive	Significant	<0.001
RES	Personalization (PER)	0.851	Strong Positive	Significant	<0.001
RES	Customer Satisfaction (CSL)	0.870	Strong Positive	Significant	<0.001
RES	Customer Loyalty (CLR)	0.754	Moderate Positive	Significant	<0.001
Assurance (ASS)	Tangibles (TAN)	0.759	Moderate Positive	Significant	<0.001
ASS	Empathy (EMP)	0.784	Strong Positive	Significant	<0.001
ASS	Digital Experience (DIG)	0.695	Moderate Positive	Significant	<0.001
ASS	Security (SEC)	0.773	Strong Positive	Significant	<0.001
ASS	Personalization (PER)	0.840	Strong Positive	Significant	<0.001
ASS	Customer Satisfaction (CSL)	0.861	Strong Positive	Significant	<0.001
ASS	Customer Loyalty (CLR)	0.624	Moderate Positive	Significant	<0.001
Empathy (EMP)	Tangibles (TAN)	0.869	Strong Positive	Significant	<0.001
EMP	Digital Experience (DIG)	0.885	Strong Positive	Significant	<0.001
EMP	Security (SEC)	0.841	Strong Positive	Significant	<0.001
EMP	Personalization (PER)	0.795	Strong Positive	Significant	<0.001
EMP	Customer Satisfaction (CSL)	0.849	Strong Positive	Significant	<0.001
EMP	Customer Loyalty (CLR)	0.740	Moderate Positive	Significant	<0.001
Tangibles (TAN)	Digital Experience (DIG)	0.835	Strong Positive	Significant	<0.001
TAN	Security (SEC)	0.853	Strong Positive	Significant	<0.001
TAN	Personalization (PER)	0.761	Strong Positive	Significant	<0.001
TAN	Customer Satisfaction (CSL)	0.856	Strong Positive	Significant	<0.001
TAN	Customer Loyalty (CLR)	0.756	Moderate Positive	Significant	<0.001



Convenience (CON)	Digital Experience	0.822	Strong Positive	Significant	<0.001
CON	Security (SEC)	0.780	Moderate Positive	Significant	<0.001
CON	Personalization (PER)	0.741	Moderate Positive	Significant	<0.001
CON	Customer Satisfaction (CSL)	0.772	Moderate Positive	Significant	<0.001
CON	Customer Loyalty (CLR)	0.807	Strong Positive	Significant	<0.001
Digital Experience (DIG)	Security (SEC)	0.899	Strong Positive	Significant	<0.001
DIG	Personalization (PER)	0.828	Strong Positive	Significant	<0.001
DIG	Customer Satisfaction (CSL)	0.798	Moderate Positive	Significant	<0.001
DIG	Customer Loyalty (CLR)	0.713	Moderate Positive	Significant	<0.001
Personalization (PER)	Customer Satisfaction (CSL)	0.861	Strong Positive	Significant	<0.001
PER	Customer Loyalty (CLR)	0.705	Moderate Positive	Significant	<0.001
Security (SEC)	Customer Satisfaction (CSL)	0.841	Strong Positive	Significant	<0.001
SEC	Customer Loyalty (CLR)	0.737	Moderate Positive	Significant	<0.001
Customer Satisfaction (CSL)	Customer Loyalty (CLR)	0.797	Strong Positive	Significant	<0.001

The correlation analysis reveals statistically significant relationships among the variables, with all Pearson correlation coefficients significant at the 0.01 level (2-tailed). The strength of these correlations indicates the interrelated nature of the constructs measured in this study. The highest correlation is observed between reliability (REL) and personalization/relationship management (PER) at $r = 0.959$, suggesting that reliability in service delivery is closely tied to how well services are personalized to meet customer needs. This strong association underscores the importance of ensuring consistent and dependable service as a foundation for building meaningful customer relationships.

Conversely, the lowest correlation is found between customer loyalty and referral (CLR) and assurance (ASS) at $r = 0.624$, indicating a comparatively weaker, though still significant, relationship. This finding suggests that while assurance—a construct representing customer confidence in service providers—contributes to loyalty, other factors might play a more prominent role. Tangibles (TAN), representing the physical aspects of service, show moderate to strong correlations with other variables (e.g., TAN and EMP: $r = 0.869$), emphasizing their importance in shaping customer perceptions.

Notably, the results suggest strong correlations across all service dimensions, particularly between REL and responsiveness (RES) ($r = 0.857$), as well as REL and assurance (ASS) ($r = 0.868$). These results highlight the interconnectedness of reliability, responsiveness, and assurance as core components of high-quality service delivery. The dimensions of empathy (EMP) and tangibles (TAN) also exhibit strong correlations with other variables, reinforcing their role in creating a comprehensive and satisfying customer experience.

While the consistently high correlations across variables signify robust relationships, they also raise potential concerns regarding multicollinearity. For example, the correlation between responsiveness (RES) and security/privacy (SEC) is notably high at $r = 0.967$, indicating that these variables may share considerable variance. Similarly, the strong correlations between digital experience (DIG) and other constructs, such as responsiveness (RES: $r = 0.900$) and security/privacy (SEC: $r = 0.899$), suggest overlapping contributions to customer satisfaction and loyalty. These findings point to the need for careful interpretation in subsequent regression analyses to isolate the unique contributions of each predictor.



In summary, the correlation analysis confirms the significant interplay among the variables studied, reflecting the multifaceted nature of customer satisfaction and loyalty. The strong relationships among core service dimensions such as reliability, responsiveness, assurance, and personalization demonstrate their central role in influencing customer perceptions. At the same time, the analysis highlights the importance of addressing potential multicollinearity to ensure the clarity and accuracy of regression models used in subsequent analyses. These findings provide a critical foundation for exploring the individual and combined effects of these dimensions in predicting customer satisfaction and loyalty. Hence H1: *There is significant relationship among service quality dimensions and customer satisfaction and loyalty*” is accepted

5. REGRESSION ANALYSIS

The regression analysis provides a detailed understanding of the relationship between the independent variables (predictors) and the dependent variable, Customer Satisfaction and Loyalty (CSL). The results, presented across multiple models, highlight the individual and combined contributions of each predictor to explaining variance in CSL.

5.1 Reliability (REL)

Reliability consistently emerges as a significant predictor of CSL across all models, though its relative influence diminishes as additional predictors are added. In the first model, REL alone explains 77.2% of the variance in CSL ($R^2 = 0.772$), with a standardized coefficient (β) of 0.879 and a t-value of 37.87 ($p < 0.001$). However, in the final model, the contribution of REL decreases ($\beta = 0.149$, $p = 0.064$), suggesting that its effect overlaps with other variables, particularly responsiveness (RES) and assurance (ASS).

5.2 Responsiveness (RES)

Responsiveness significantly contributes to CSL, particularly in the earlier models. In Model 2, RES, along with REL, increases the explained variance to 82.4% ($R^2 = 0.824$). Its standardized coefficient in this model is 0.441 ($p < 0.001$), indicating a strong impact. However, as more predictors are added, the significance of RES decreases. In the final model, RES has a negative coefficient ($\beta = -0.073$, $p = 0.418$), suggesting its unique contribution is diminished when other variables are accounted for.

5.3 Assurance (ASS)

Assurance emerges as one of the most consistent and influential predictors. From its introduction in Model 3, it significantly impacts CSL ($\beta = 0.292$, $p < 0.001$), increasing the explained variance to 84.3% ($R^2 = 0.843$). In the final model, ASS remains significant ($\beta = 0.219$, $p < 0.001$), underscoring its critical role in fostering customer satisfaction and loyalty.

5.4 Empathy (EMP)

Empathy plays a significant role in explaining CSL, with its contribution becoming evident from Model 4. Initially, EMP has a standardized coefficient of 0.188 ($p < 0.001$). In the final model, its impact remains significant ($\beta = 0.162$, $p = 0.002$), highlighting the importance of emotional connection and understanding in building customer loyalty.

5.5 Tangibles (TAN)

Tangibles consistently demonstrate a strong positive effect on CSL. From its introduction in Model 5, it shows a standardized coefficient of 0.273 ($p < 0.001$). In the final model, TAN remains one of the strongest predictors ($\beta = 0.290$, $p < 0.001$), suggesting that the physical aspects of service delivery, such as facilities and equipment, significantly influence customer perceptions and loyalty.

5.6 Convenience and Accessibility (CON)

Convenience and accessibility are introduced in Model 6 but do not show a significant effect on CSL ($\beta = 0.033$, $p = 0.383$). This result indicates that while accessibility is important, its direct contribution to satisfaction and loyalty may be limited compared to other dimensions.

5.7 Digital Experience (DIG)

Digital experience exhibits a negative effect on CSL. In Model 7, DIG becomes significant with a standardized coefficient of -0.130 ($p = 0.023$), suggesting that poor digital interfaces or services detract from customer satisfaction. This negative impact persists in the final model, where DIG's coefficient is -0.184 ($p = 0.002$). These findings highlight the need for improvements in digital service offerings to enhance overall satisfaction and loyalty.



5.8 Personalization and Relationship Management (PER)

Personalization shows a significant positive impact on CSL. From its inclusion in Model 8, PER exhibits a standardized coefficient of 0.214 ($p = 0.001$). In the final model, its influence remains strong ($\beta = 0.204$, $p = 0.002$), emphasizing the importance of tailored interactions and relationship management in fostering customer loyalty.

5.9 Security and Privacy (SEC)

Security and privacy are introduced in the final model and demonstrate a significant positive effect on CSL ($\beta = 0.208$, $p = 0.005$). This result highlights that ensuring customer data protection and providing a secure service environment are critical drivers of satisfaction and loyalty.

5.10 Model Performance

The regression models show a progressive improvement in explanatory power as predictors are added. The R^2 value increases from 0.772 in Model 1 to 0.870 in the final model, indicating that the nine predictors collectively explain 87% of the variance in CSL. The final model's F-statistic ($F = 309.23$, $p < 0.001$) confirms its statistical significance.

The regression analysis underscores the multifaceted nature of customer satisfaction and loyalty, with variables like tangibles, assurance, personalization, and empathy emerging as the most influential predictors. Reliability, while significant initially, diminishes in influence as overlapping predictors are added. Notably, the negative impact of digital experience suggests an area for improvement, while the significant role of security highlights its importance in modern service delivery. These findings offer valuable insights for service providers aiming to enhance customer satisfaction and loyalty through targeted interventions.

Table 2: Regression Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	R ² Change	F Change	df1	df2	p-value
a	0.879	0.772	0.772	0.46185	0.772	1434.22	1	423	<0.001
b	0.908	0.824	0.823	0.40659	0.052	123.792	1	422	<0.001
c	0.918	0.843	0.842	0.38418	0.019	51.671	1	421	<0.001
d	0.922	0.850	0.849	0.37576	0.007	20.081	1	420	<0.001
e	0.929	0.863	0.861	0.36042	0.012	37.503	1	419	<0.001
f	0.929	0.863	0.861	0.36059	0.000	0.623	1	418	0.430
g	0.930	0.865	0.862	0.35878	0.002	5.221	1	417	0.023
h	0.932	0.868	0.865	0.35486	0.003	10.265	1	416	0.001
i	0.933	0.870	0.867	0.35196	0.002	7.890	1	415	0.005

- a. Predictors: (Constant), REL
- b. Predictors: (Constant), REL, RES
- c. Predictors: (Constant), REL, RES, ASS
- d. Predictors: (Constant), REL, RES, ASS, EMP
- e. Predictors: (Constant), REL, RES, ASS, EMP, TAN
- f. Predictors: (Constant), REL, RES, ASS, EMP, TAN, CON
- g. Predictors: (Constant), REL, RES, ASS, EMP, TAN, CON, DIG
- h. Predictors: (Constant), REL, RES, ASS, EMP, TAN, CON, DIG, PER
- i. Predictors: (Constant), REL, RES, ASS, EMP, TAN, CON, DIG, PER, SEC

Table 3: Regression Coefficients (Final Model - Model 9)

Predictor	Unstandardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	t-value	p-value
Intercept	0.391	0.078	-	5.031	<0.001
Reliability (REL)	0.109	0.059	0.149	1.860	0.064
Responsiveness (RES)	-0.068	0.083	-0.073	-0.810	0.418
Assurance (ASS)	0.178	0.037	0.219	4.815	<0.001



Empathy (EMP)	0.145	0.046	0.162	3.175	0.002
Tangibles (TAN)	0.294	0.046	0.290	6.327	<0.001
Convenience (CON)	0.032	0.036	0.033	0.873	0.383
Digital Experience (DIG)	-0.164	0.053	-0.184	-3.128	0.002
Personalization (PER)	0.165	0.054	0.204	3.077	0.002
Security (SEC)	0.204	0.073	0.208	2.809	0.005

Based on the regression output provided in the document, the general form of the regression equation for predicting Customer Satisfaction and Loyalty (CSL) is as follows:

$$CSL = \beta_0 + \beta_1(REL) + \beta_2(RES) + \beta_3(ASS) + \beta_4(EMP) + \beta_5(TAN) + \beta_6(CON) + \beta_7(DIG) + \beta_8(PER) + \beta_9(SEC) + \epsilon$$

Using the coefficients from the final model (Model 9) provided in the regression output

The regression equation becomes

$$CSL = 0.391 + 0.109(REL) - 0.068(RES) + 0.178(ASS) + 0.145(EMP) + 0.294(TAN) + 0.032(CON) - 0.164(DIG) + 0.165(PER) + 0.204(SEC)$$

5.11 Interpretation of the Equation

Intercept (0.391): When all predictors are at their minimum or zero, the base level of CSL is 0.391.

Positive Predictors: ASS, EMP, TAN, PER, and SEC have positive coefficients, indicating that increases in these variables contribute positively to customer satisfaction and loyalty. For example, a one-unit increase in TAN (Tangibles) results in a 0.294 unit increase in CSL, holding all other variables constant.

Negative Predictors: RES (-0.068) and DIG (-0.164) have negative coefficients, indicating that increases in these variables are associated with a decrease in CSL, after controlling for other predictors. For instance, a one-unit increase in DIG decreases CSL by 0.164 units.

Insignificant Predictors: REL, RES, and CON are statistically insignificant in the final model, suggesting their individual contributions are less impactful when other variables are included.

This regression equation provides a comprehensive representation of the relationships between predictors and customer satisfaction and loyalty, useful for strategic decision-making and predictive modeling. Hence H2: “*There is significant influence of service quality dimensions on customer satisfaction and customer loyalty*” is accepted

6. DISCUSSION

The correlation analysis revealed significant relationships among service quality dimensions, with reliability exhibiting the strongest correlation with personalization ($r = 0.959$). This indicates that customers value consistent service delivery in fostering personalized interactions. Responsiveness and security showed a high correlation ($r = 0.967$), suggesting that prompt service enhances customer trust in security measures.

Regression analysis highlighted that assurance ($\beta = 0.219$, $p < 0.001$), tangibles ($\beta = 0.290$, $p < 0.001$), and personalization ($\beta = 0.204$, $p = 0.002$) are the strongest predictors of customer satisfaction and loyalty. Interestingly, digital experience demonstrated a negative impact ($\beta = -0.184$, $p = 0.002$), implying that customers may have concerns about digital banking interfaces or security risks. The results suggest that banks need to enhance cybersecurity measures and improve customer confidence in digital transactions.

Additionally, customers emphasized the importance of accessibility and convenience, which aligns with previous studies highlighting the role of seamless digital banking services. Empathy and relationship management were also positively correlated with satisfaction, reinforcing the need for human-centered service strategies. The study findings indicate that a hybrid service model integrating technology and personalized customer engagement can maximize satisfaction and loyalty.

7. CONCLUSION

This study confirms that service quality dimensions significantly influence customer satisfaction and loyalty. Reliability, assurance, tangibles, and personalization are key drivers of customer satisfaction, while responsiveness and security play a critical role in fostering customer trust. The findings emphasize the need for service providers to enhance physical service attributes while optimizing digital experience to better meet customer expectations.



Future research should explore the evolving role of artificial intelligence and automation in service quality, as technological advancements continue to reshape customer expectations. Additionally, investigating the impact of emerging trends such as blockchain-based financial security and real-time analytics in banking services could provide further insights. By leveraging these findings, businesses can develop targeted service strategies that enhance customer satisfaction and long-term loyalty.

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