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THE EFFECT OF INTERNET BANKING SERVICE QUALITY ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA

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Abstract

This study investigates the influence of service quality dimensions on customer satisfaction in internet banking, with a specific focus on the Commercial Bank of Ethiopia. The primary objective is to determine the extent to which reliability, ease of use, responsiveness, security and privacy, and system availability shape users' perceptions and levels of satisfaction. A mixed research approach was employed using an explanatory design, where quantitative data were collected from 368 active internet banking customers through structured questionnaires, while qualitative insights were obtained from open-ended responses to enhance interpretation. Multiple regression analysis demonstrates that reliability ($B = 0.545$, $p < 0.001$) is the most dominant predictor of satisfaction, followed by security and privacy ($B = 0.396$, $p < 0.001$), ease of use ($B = 0.046$, $p = 0.014$), and responsiveness ($B = 0.033$, $p = 0.015$), whereas system availability did not show a statistically significant effect ($p > 0.05$). The regression model explains approximately 81.7% of the variance in customer satisfaction ($R^2 = 0.817$), indicating high explanatory power. The findings suggest that customer satisfaction in digital banking is strongly rooted in transaction accuracy, secure financial interactions, intuitive interface usability, and timely support. Based on these results, it is recommended that the bank enhance platform reliability, reinforce cybersecurity mechanisms, simplify navigation features, and strengthen customer support responsiveness. Future studies are encouraged to examine moderating effects such as digital literacy, customer trust, and generational differences in shaping satisfaction and loyalty in online financial platforms.

Index Terms— Internet Banking, Service Quality, Customer Satisfaction, Digital Banking, Ethiopia, CBE, E-Service Quality

1. INTRODUCTION

1.1 Background of the Study

The rapid growth of information and communication technology has transformed traditional banking, enabling banks to offer digital channels such as internet banking (Amin, 2016). These platforms provide customers with convenience, faster transaction processing, and 24/7 access. For developing countries like Ethiopia, internet banking supports financial inclusion and reduces service delivery constraints associated with branch-based operations (Daniel, 2018).

In Ethiopia, the Commercial Bank of Ethiopia (CBE) is a leading provider of digital financial services. Despite improvements, system downtimes, limited responsiveness, and perceived security concerns continue to affect customer satisfaction. Understanding how service quality affects satisfaction is essential as banking customers increasingly rely on digital channels (Mekonen & Tadesse, 2020).

1.2 Statement of the Problem

Although CBE has invested significantly in improving its digital infrastructure, customer complaints persist regarding slow system performance, login failures, delayed support, and transaction inconsistencies. Studies in other countries have shown mixed results on how different service quality dimensions influence satisfaction (Santos, 2003; Ladhari, 2010). There is limited empirical evidence focusing specifically on Ethiopia's context despite rapid digital adoption.

1.3 Research Objectives

- To assess the level of internet banking service quality in CBE.
- To examine the effect of reliability, efficiency, responsiveness, security, and accessibility on customer satisfaction.
- To identify the strongest predictors of customer satisfaction in internet banking.

1.4 Significance of the Study

The findings will guide CBE management in improving digital service quality, assist policymakers in enhancing digital infrastructure, and contribute to academic literature on e-service quality in emerging economies.

2. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 SERVQUAL Model

The SERVQUAL model, developed by Parasuraman et al., measures service quality based on reliability, responsiveness, assurance, empathy, and tangibles. In digital banking, reliability and responsiveness are key determinants of satisfaction (Parasuraman, Zeithaml, & Malhotra, 2005).

2.1.2 Expectation–Confirmation Theory (ECT)

ECT proposes that satisfaction results from the comparison of expectations and actual experiences (Bhattacherjee, 2001). If internet banking meets or exceeds expectations, satisfaction increases.

2.1.3 Technology Acceptance Model (TAM)

TAM suggests that perceived usefulness and ease of use strongly predict technology adoption (Gefen et al., 2003). In online banking, system efficiency influences both perceptions.

2.1.4 E-S-QUAL Framework

The E-S-QUAL model emphasizes efficiency, system availability, fulfillment, and privacy as determinants of electronic service quality (Zeithaml et al., 2002).

2.2 Empirical Review

Studies consistently show that reliability, efficiency, and security influence satisfaction in online banking (Ayyash, 2017; Hassan & Shukur, 2019). In African contexts, system downtime and poor responsiveness remain significant barriers (Wood & Arora, 2021). Ethiopian studies reveal similar challenges, particularly regarding responsiveness and system availability (Mekonen & Tadesse, 2020).

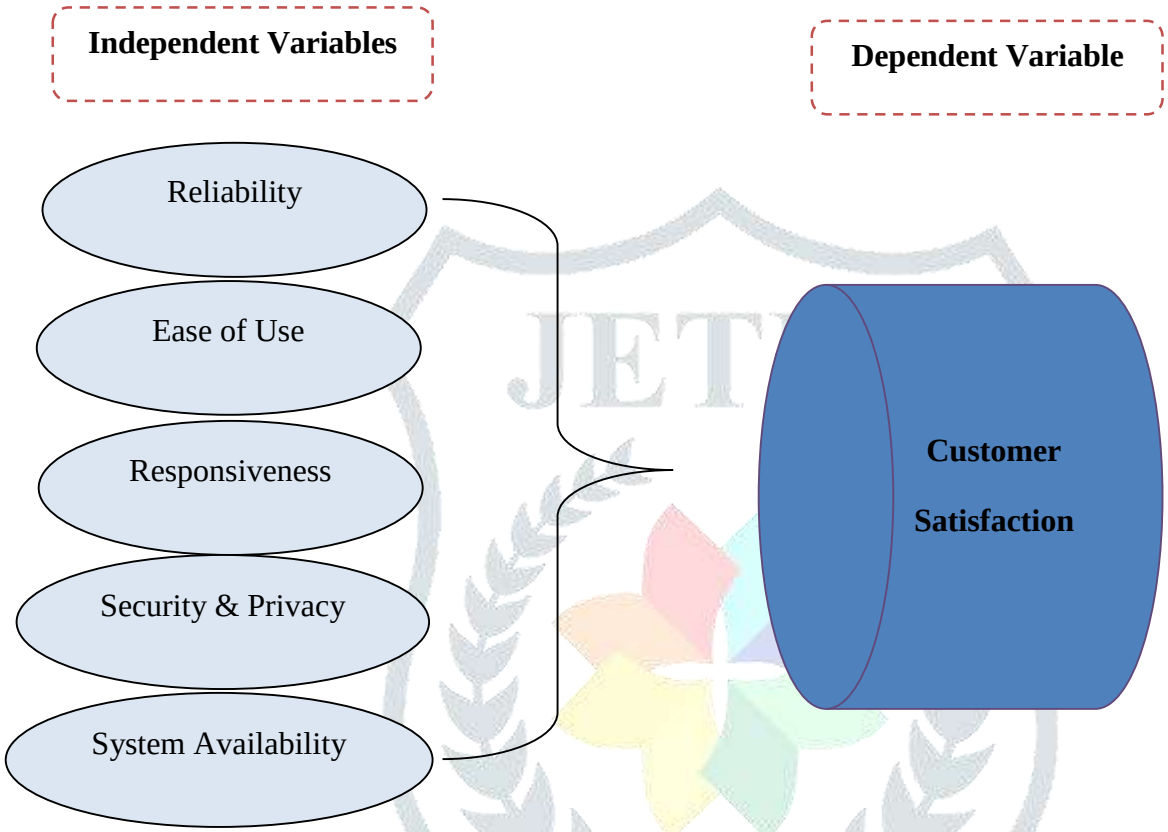
2.3 Research Gap

Few studies examine CBE's internet banking service quality using updated models. Responsiveness and accessibility have rarely been explored in Ethiopian studies despite being critical determinants of digital experience.

2.4 Conceptual Framework

Figure 1: conceptual framework

Source: Model developed by the researcher based on (Nguyen, 2021; Maseko & Ndlovu, 2021).



3. RESEARCH METHODOLOGY

3.1 Research Design

A quantitative, cross-sectional survey design was used to examine relationships between variables.

3.2 Population and Sample

The population comprises active CBE internet banking users. A valid sample size was selected using convenience sampling, reflecting real active users.

3.3 Data Collection Instrument

A structured questionnaire with Likert-scale items measured the variables.

3.4 Reliability and Validity

Cronbach's alpha exceeded 0.70 for all constructs, confirming strong reliability (Hair et al., 2020).

Variables	Cronbach's Alpha value	No of Items	Remarks
Reliability	0.746	5	Reliable
Ease of Use	0.773	6	Reliable
Access	0.735	5	Reliable
Security	0.786	4	Reliable
Transaction Efficiency	0.721	5	Reliable
Customer Satisfaction	0.749	5	Reliable
Total	**0.808**	**30**	**Reliable**

Table 1: Reliability of the study instrument

Sources: - Survey data, SPSS 2023 Result

3.5 Data Analysis Methods

Data were analyzed using SPSS:

- Descriptive statistics
- Pearson Correlation
- Multiple Regression Analysis

Regression Model:

$$CS = \beta_0 + \beta_1 RL + \beta_2 EF + \beta_3 RS + \beta_4 SC + \beta_5 AC + \varepsilon$$

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Respondents reported generally favorable perceptions of reliability and efficiency, while responsiveness and accessibility had moderate scores.

4.2 Correlation Analysis

All service quality dimensions showed **positive correlations** with customer satisfaction, consistent with earlier findings (Tam & Oliveira, 2017).

Correlations [c]

		Customer Satisfaction	Reliability	Ease of Use	Access	Security	Efficiency
Customer Satisfaction	Pearson Correlation	1					
Reliability	Pearson Correlation	.846**	1				
	Sig. (2-tailed)	.000					
Ease of Use	Pearson Correlation	.376**	.460**	1			
	Sig. (2-tailed)	.000	.000				
Responsiveness	Pearson Correlation	.530**	.510**	.178**	1		
	Sig. (2-tailed)	.000	.000	.001			
Security	Pearson Correlation	.864**	.805**	.254**	.514**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
System Availability	Pearson Correlation	-.094	-.131*	.000	-.057	-.092	1
	Sig. (2-tailed)	.073	.012	1.000	.276	.077	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

c. List wise N=368

Table 2: the Relation between independent and dependent Variables

Sources: - Survey data, 2023 SPSS Output

4.3 Regression Results

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.459	.159		2.934	.004
	Reliability	.545	.065	.362	8.340	.000
	Ease of use	.046	.019	.065	2.480	.014
	Responsiveness	.033	.013	.066	2.453	.015
	Security & privacy	.396	.030	.523	13.175	.000
	System Availability	.005	.020	.006	.254	.800

a. Dependent Variable: Customer Satisfaction

Table 3: Regression Coefficient Result

Sources: *Field Survey, SPSS Output (2023)*

Regression results revealed:

- **Reliability** and **Efficiency** were the strongest determinants of satisfaction ($p < 0.05$).
- **Responsiveness**, though positive, had moderate significance.
- **Security** moderately influenced satisfaction, confirming global findings (Baabdullah et al., 2019).
- **Accessibility** had a positive but lower effect.

4.4 Discussion

The results support SERVQUAL and TAM, demonstrating that system accuracy, speed, and stability significantly shape satisfaction. Ethiopian customers value dependable platforms due to limited alternatives and digital infrastructure challenges.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Internet banking service quality significantly influences customer satisfaction in CBE. Reliability and efficiency play the greatest roles, while responsiveness and security require improvement.

5.2 Recommendations

- Upgrade system infrastructure to prevent downtime.
- Improve user-interface speed and design.
- Strengthen helpdesk responsiveness.
- Implement advanced security features.
- Ensure greater accessibility and system uptime.

5.3 Limitations and Future Research

Limited to Addis Ababa; future studies should explore rural users and mobile banking.

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