

Assessment of E-Banking Service Quality and User Satisfaction among Paktia University Staff

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Article Info	ABSTRACT
<p>Article type: Research Article</p> <p>Article history: Received: 16/02/2026 Received in revised form: 22/02/2026 Accepted: 11/03/2026 Available online: 18/03/2026</p> <p>Keywords: E Banking, service quality, satisfaction level and Users</p>	<p>This study examined the perceived level of service quality and customer satisfaction among e-banking users at Paktia University staff. Therefore, it is important to assess the service quality of electronic banking and the satisfaction level of its users at Paktia University. This quantitative study surveyed 198 Paktia University staff using a reliable, self-developed questionnaire measuring service quality and satisfaction. A one-sample t-test was conducted to determine whether the mean scores of service quality and satisfaction significantly differed from their respective hypothesized test values. The results revealed that the mean service quality score ($M = 22.56, SD = 2.37$) was significantly higher than the test value of 13 ($t=197$) = 56.86, $p < .001$), indicating a strong perception of high service quality. Similarly, the mean satisfaction score ($M = 13.74, SD = 1.35$) was significantly greater than the test value of 8 ($t=197$) = 59.88, $p < .001$), suggesting a high level of customer satisfaction. The findings demonstrate that e-banking users at Paktia University perceive both service quality and customer satisfaction to be significantly high, reflecting a positive outlook toward electronic banking services at Paktia University. The banking sector should maintain these positive standards and improve these standards that make customer more loyal to their services.</p>

Cite this article: Jawhar, D. Ghausee, S. & Stanikzai, H. (2026). Assessment of E-Banking Service Quality and User Satisfaction among Paktia University Staff, *Kateb International Journal of Economics and Management*, 1 (1), 31-38.
DOI: <https://doi.org/10.66943/kjem.v4i2.78>



Introduction

Recent research across various countries has increasingly focused on the relationship between e-banking service quality, user satisfaction, and customer loyalty. This study provides valuable insights that can inform a 2025 quantitative investigation about e banking service quality and Satisfaction level among academic and non-academic staff at Paktia University. Digital banking services have emerged as a critical factor influencing customers' choice of banks and its services. Ensuring that customer expectations are met, while simultaneously mitigating perceived risks play a vital role in achieving high levels of satisfaction (Rakocevic et al., 2025).

High service quality and customer satisfaction are found in electronic banking in Batticaloa district (Tharanikaran, et al., 2017). Furthermore, Electronic banking customer satisfaction is significantly influenced by reliability, ease of use, privacy and security, accessibility, efficiency, responsiveness, and cycle time (Ansebo et al., 2022). Beside that, Ease of use, security, privacy, and accessibility significantly influence customer satisfaction in e-banking services provided by public sector banks (Saw et al., 2026).

Furthermore, satisfaction often acts as a mediating variable between service quality and customer loyalty or trust. Factors such as security and perceived risk significantly influence both satisfaction and users' intention to continue using e-banking services across different settings (Agrawal, 2025; Z. Chen et al., 2025). In addition, elements such as word-of-mouth communication, customer engagement, and service convenience can strengthen the relationship between satisfaction and loyalty. Demographic variables including occupation, education level, income, and age may also contribute to variations in user engagement and satisfaction levels (Hasan et al., 2025; Khera & Nayyar, 2025).

Across diverse national contexts, several dimensions namely ease of use, reliability; security, responsiveness, and convenience consistently drive e-banking satisfaction. This satisfaction, in turn, supports the development of customer loyalty and trust. Moreover, prior research indicates that demographic differences such as gender may not always significantly affect digital banking satisfaction. For example, a study conducted among students in Ahmedabad city found no significant gender differences in satisfaction levels, although factors such as service charges, reduced waiting time, and overall digital banking experience were significantly associated with customer satisfaction (Khawrin et al., 2022). Building on these established dimensions and analytical approaches, a 2025 quantitative study has been conducted at Paktia University can further examine service quality and satisfaction level of academic and non-academic staff.

Research Problem

Despite the growing importance of e-banking services worldwide, there is limited empirical evidence on assessing e-banking service quality and user satisfaction within the Afghan context, particularly among university staff. While prior studies highlight key dimensions such as reliability, security, ease of use and responsiveness as major determinants of satisfaction, these findings are largely derived from different socio-economic environments and may not fully apply to Paktia University. Furthermore, little is known about to find out the satisfaction levels of academic and non-academic staff. Therefore, this study seeks to address this gap by examining the quality of e-

banking services and measuring user satisfaction among Paktia University staff in 2025.

Importance of the Study

This study is important because it provides context-specific insights into e-banking service quality and user satisfaction in Afghanistan, contributing to a limited body of local research. The findings will help banks and other financial institutions better understand which service quality dimensions most strongly influence user satisfaction, enabling them to improve digital banking services and enhance customer loyalty. Additionally, the study offers practical value for policymakers and university stakeholders by highlighting the role of efficient and secure e-banking systems in supporting daily financial activities.

Objectives:

- To determine the service quality level of electronic banking
- To measure the level of satisfaction among electronic banking users in Paktia university

Hypothesis:

Alternative Hypothesis 1: The average level of electronic banking service quality is significantly higher than the specified standard.

Alternative Hypothesis 2: The level of customer satisfaction among electronic banking users is significantly higher than the average level.

Literature review

E-banking services

E-banking service quality is commonly conceptualized through a set of specific dimensions that influence customer satisfaction, loyalty, and use intentions. Empirical research across different countries shows a strong convergence on several core factors that consistently shape users' perceptions and experiences of digital banking services. Among these dimensions, reliability is frequently identified as the most critical determinant of e-banking service quality. In the Lebanese banking sector, reliability alongside efficiency, ease of use, responsiveness, and security has been found to significantly influence customer satisfaction (Hammoud et al., 2018a). Similarly, in Ethiopia's emerging banking industry, key dimensions such as responsiveness, reliability, security, speed, and convenience play a significant role in shaping both customer satisfaction and loyalty (Ayinaddis et al., 2023a). In addition to these factors, website-related attributes also contribute to customer satisfaction. Research indicates that reliability, website design, privacy, and security strongly affect satisfaction levels, while customer involvement moderates the relationship between these service quality dimensions and satisfaction (Kappil & Santhi, 2025). This highlights the importance of both technical and user-experience aspects in e-banking environments.

Further evidence from Saudi Arabian commercial banks shows that multiple dimensions including reliability, efficiency of transaction, customer support, security, ease of use, system performance, and service content have a significant impact on customer satisfaction (Alkhaibari et al., 2023). These findings reinforce the

multidimensional nature of e-banking service quality. Moreover, beyond satisfaction, certain dimensions such as reliability, privacy, and security have been shown to directly enhance customer loyalty. Importantly, initial trust in e-banking acts as a mediating factor between service quality dimensions and customer loyalty, except in the case of website design. Additionally, consumer involvement moderates these relationships, with varying effects observed between, more and less involved users (Shankar & Jebarajakirthy, 2019). Overall, the literature consistently demonstrates that reliability, security, responsiveness, and usability-related factors are central to delivering high-quality e-banking services, which in turn foster customer satisfaction, trust, and long-term loyalty.

E-banking users

Research on e-banking consistently conceptualizes customer satisfaction as users' overall evaluation formed by comparing their expectations with the actual performance of online banking services. Accurately measuring this construct requires clearly defined dimensions, validated measurement scales, and appropriate quantitative analytical techniques. A substantial body of literature emphasizes the role of service quality dimensions in shaping customer satisfaction. For instance, reliability, efficiency, and ease of use, along with responsiveness and communication, as well as security and privacy, have all been found to significantly influence customer satisfaction. Among these, reliability often emerges as the most influential dimension. Moreover, effective implementation of e-banking services not only enhances customer satisfaction but also provides banks with a competitive advantage. Understanding the relative importance of these dimensions enables banks to focus on the factors that most strongly drive customer satisfaction (Hammoud et al., 2018).

Similarly, studies conducted in different national contexts emphasize the importance of these dimensions. In Bangladeshi commercial banks, perceived security risk, ease of use, website quality, and responsiveness significantly affect online banking customer satisfaction (Anwarul et al., 2023). In Ethiopia's emerging banking sector, responsiveness, reliability, security, speed, and convenience have been shown to significantly influence both customer satisfaction and loyalty (Ayinaddis et al., 2023b). In addition to recognizing key determinants, several studies have focused on developing and validating measurement instruments for e-banking service quality and satisfaction. For example, the DBSQual instrument has been found effective in measuring online service quality in the Indian banking sector, supporting banks in improving their marketing and operational strategies (Mir et al., 2022). Likewise, earlier research highlights that dimensions such as personal needs, site organization, user-friendliness, and website efficiency positively influence both e-customer satisfaction and loyalty (Amin, 2016). Furthermore, the development of standardized measurement tools has contributed to more reliable assessment of customer satisfaction. A validated 18-item instrument for measuring satisfaction with internet banking put emphasis on the importance of addressing safety and security worries to improve user satisfaction (R.-F. Chen et al., 2012). Overall, the literature demonstrates that e-banking customer satisfaction is a multidimensional construct influenced by service quality, usability, security, and system performance, and that robust measurement tools are essential for accurately capturing these relationships.

Methodology

This study is quantitative research in which data were collected using a self-developed questionnaire. The study population consists of academic and non-academic staff of Paktia University. A sample of 198 respondents was selected based on Cochran’s formula, and the sampling method used was simple random sampling.

The questionnaire had two dimensions: service quality and satisfaction. The service quality dimension included five components, while the satisfaction dimension consisted of three components. The data for the service quality dimension were normally distributed, with a reliability coefficient (Cronbach’s alpha) of 0.80. The satisfaction dimension data were also normally distributed, with a reliability coefficient (Cronbach’s alpha) of 0.74.

The data from the questionnaire were analyzed using SPSS software, and a One-Sample t-test was applied for the said data.

Conceptual Framework (with Variables)

The conceptual framework of this study focuses on two variables: e-banking service quality and user satisfaction. E-banking service quality comprises five dimensions: reliability, security and privacy, ease of use, accessibility, and speed. Since the study employs a one-sample t-test, the objective is to determine whether the mean scores of service quality and user satisfaction are significantly different from the neutral benchmark value. Therefore, the framework includes only the variables measured and analyzed in the study.

Results and findings:

Table 1: Descriptive statistics participant’s age

Descriptive Statistics of age					
	n	Minimum	Maximum	Mean	Std. Deviation
age	198	23	57	34.32	6.990

Table 1 shows the descriptive statistics and provides an overview of the demographic characteristics of the respondents included in the study. The results show that all 198 observations were valid and included in the analysis. Regarding age, respondents ranged from 23 to 57 years, with a mean age of 34.32 (SD = 6.99), indicating that the sample is composed primarily of adults in their early to mid-career stages.

Table 2: Descriptive statistics participant’s qualification

Education level	n	Bachelor	Master	PhD.	Bachelor%	Master%	PhD.%
	198	87	101	10	44	51	5

Table 2 shows that 44 percent of respondent were bachelor, 51 percent were masters and 5 percent were PhD. It shows more percentage of respondents are

moderate and high qualified, so they have the basic knowledge about banking service quality.

Table 3: Descriptive statistics participant's Occupation

Occupation	N	Academic staff	No academic staff	Academic staff %	No academic staff%
	198	146	52	74%	26%

Similarly table 3 shows that 74 percent of respondents were academic staff and 26 percent were non-academic staff, it further indicates that the majority of respondents are lecturers and professors.

Overall, the descriptive results suggest a relatively homogeneous sample in terms of education and occupation, while age shows moderate variability among respondents. These characteristics provide important context for interpreting subsequent analyses in the study.

Table 4: Descriptive statistics of service quality

Service quality	N	Mean	Std. Deviation	Std. Error Mean
	198	22.5606	2.36597	.16814

Table 5: one sample t test of service quality

Service quality	Test Value = 13					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
	56.860	197	.000	9.56061	9.2290	9.8922

Table 4 and 5 show one-sample t-test was conducted to find out whether the mean service quality score differ significantly from the test value of 13. The results indicated that the mean service quality score ($M = 22.56$, $SD = 2.37$, $N = 198$) was significantly higher than the hypothesized value, $t(197) = 56.86$, $p < .001$. The mean difference between the observed and test values was 9.56, with a 95% confidence interval ranging from 9.23 to 9.89. These findings suggest that the perceived level of service quality is significantly greater than the hypothesized value of 13, indicating a high level of service quality among the respondents. Therefore the H_1 is accepted.

Furthermore, to determine the level of satisfaction among the e-banking users at Paktia University it has been also tested through t- test.

Table 6: Descriptive statistics of Satisfaction level

	N	Mean	Std. Deviation	Std. Error Mean
satisfaction	198	13.7475	1.35064	.09599

Table 7: one sample t test of satisfaction level

satisfaction	Test Value = 8					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
	59.878	197	.000	5.74747	5.5582	5.9368

Results of table 6 and 7 indicate that the satisfaction level score ($M = 13.74$, $SD = 1.35$, $N = 198$) was significantly higher than the hypothesized value, $t(197) = 59.78$, $p < .001$. The mean difference between the observed and test values was 5.74, with a 95% confidence interval ranging from 5.55 to 5.93. These findings suggest that the perceived level of satisfaction is greater than the hypothesized value of 8, indicating

a high level of satisfaction among the respondents. So we can conclude that satisfaction level among e-banking user is significantly high in the Paktia University. Therefore, H_2 is accepted.

Conclusion

The analysis clearly shows that e-banking users at Paktia University experience both high service quality and strong satisfaction with banking services. The one-sample t-test results confirmed that the mean service quality and satisfaction scores were significantly higher than the hypothesized benchmark values. Specifically, the high mean differences indicate that users view the e-banking services as reliable, efficient, and satisfactory. These findings imply that banks offering e-services to Academic staff and non-academic staff in this context have successfully met or exceeded user expectations. Consequently, enhancing and maintaining such service quality standards could bring trust and make customer loyal and further promote the adoption of e-banking within the university community.

Recommendations:

As the findings shows that e-banking service quality and satisfaction level is significantly higher than average level.

1. The banking industry should maintain this quality.
2. The banking industry should improve their standard according to time to maintain customer high level of satisfaction and loyalty.

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