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CUSTOMERS' SATISFACTION OF E-BANKING SERVICES IN ALBAY PROVINCE, PHILIPPINES

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Abstract: This study assessed the customers' satisfaction with electronic banking (e-banking) services among 150 users in Albay Province, Philippines. Employing a descriptive-correlational research design and an adapted E-S-QUAL instrument, the study measured satisfaction across five dimensions: efficiency, reliability, security and privacy, responsiveness, and system availability. Results indicated an overall high satisfaction ($M = 3.92$, $SD = 0.61$). Efficiency received the highest rating ($M = 4.12$, $SD = 0.58$), followed by security and privacy ($M = 4.05$, $SD = 0.65$). Responsiveness had the lowest mean score ($M = 3.68$, $SD = 0.74$), identifying it as a critical area for service improvement. One-way analysis of variance (ANOVA) revealed significant differences in satisfaction by age group, $F(2, 147) = 8.34$, $p < .001$, and by household income per month, $F(2, 147) = 6.71$, $p < .01$, but not by educational attainment. An independent-samples t-test showed no significant gender difference, $t(148) = 1.21$, $p = .23$. Pearson product-moment correlation established a significant positive relationship between usage frequency and overall satisfaction, $r(148) = 0.42$, $p < .001$. The findings affirm that while e-banking adoption in Albay is progressing favorably, banks must strengthen real-time customer assistance, optimize system uptime, and expand digital literacy outreach to sustain trust and advance inclusive digital finance in rural and underserved communities.

Keywords: customer satisfaction, e-banking, E-S-QUAL, digital financial services, financial inclusion, Albay, Philippines.

1.0 INTRODUCTION

Electronic banking has emerged as a cornerstone of modern financial service delivery, reshaping how individuals and businesses access, manage, and transact financial resources. In the Philippines, the Bangko Sentral ng Pilipinas (BSP) has aggressively pursued a digital payments transformation agenda, aiming to convert 50% of total retail transactions into digital form and onboard 70% of Filipino adults to the formal financial system by 2023. By 2024, digital payments accounted for 57.4% of total retail transactions nationwide, and this figure rose to 64.7% in 2025, reflecting accelerated adoption of mobile banking applications, electronic wallets, and instant payment platforms such as InstaPay and PESONet (Bangko Sentral ng Pilipinas, 2024, p. 12).

Despite this encouraging national trajectory, adoption and satisfaction patterns remain uneven geographically. Metropolitan centers and highly urbanized cities typically lead in digital infrastructure and user adoption, while provincial and rural areas contend with connectivity gaps, limited digital literacy, and weaker banking infrastructure. Albay Province is located in the Bicol Region of Luzon. It is a predominantly agricultural province, with a population of approximately 1.38 million. While Legazpi City, which is the provincial capital, boasts robust digital infrastructure, inland and coastal municipalities face intermittent internet connectivity and limited access to banking facilities.

Customer satisfaction serves as a vital barometer of service quality and a predictor of continued usage, customer loyalty, and long-term financial inclusion. When e-banking platforms are reliable, secure, and responsive, users are more likely to sustain digital financial habits and deepen their engagement with formal financial services. Conversely, poor service experiences can drive users back to cash-based transactions, undermining national digital finance objectives.

Most existing Philippine studies on e-banking satisfaction have concentrated on Metro Manila and other major urban centers, leaving provincial and rural user perspectives significantly underrepresented. Localized evidence from Albay Province remains particularly sparse, with only Refuerzo (2026) examining online banking in the Second District of Albay, focusing exclusively on commercial banks

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(p. 8). No comprehensive province-wide assessment of e-banking satisfaction across diverse bank types and municipalities has been conducted to date.

This study addresses this research gap by evaluating customer satisfaction with e-banking services across Albay Province using a sample of 150 users. The findings provide actionable insights for banks, policymakers, and development practitioners seeking to enhance digital financial services in provincial Philippine contexts.

Statement of the Problem

This study assessed customers' satisfaction with e-banking services in Albay Province, Philippines. Specifically, it sought answers to the following questions:

1. What is the demographic profile of e-banking users in Albay Province in terms of: (a) gender, (b) age group, (c) monthly household income, (d) educational attainment, and (e) primary bank type used?
2. What is the usage profile of respondents in terms of: (a) frequency of e-banking use, and (b) number of years using e-banking services?
3. What is the level of customer satisfaction with e-banking services across the following dimensions: (a) efficiency, (b) reliability, (c) security and privacy, (d) responsiveness, and (e) system availability?
4. Is there a significant difference in the overall customer satisfaction when respondents are grouped according to their demographic profile?
5. Is there a significant relationship between frequency of e-banking use and overall customer satisfaction?

Hypotheses

The following null hypotheses were tested at $\alpha = 0.05$ level of significance:

H_{01}: There is no significant difference in overall customer satisfaction when respondents are grouped according to gender.

H_{02}: There is no significant difference in overall customer satisfaction when respondents are grouped according to age group.

H_{03}: There is no significant difference in overall customer satisfaction when respondents are grouped according to monthly household income.

H_{04}: There is no significant difference in overall customer satisfaction when respondents are grouped according to educational attainment.

H_{05}: There is no significant relationship between frequency of e-banking use and overall customer satisfaction.

Scope and Limitations of the Study

This study focused primarily on assessing customers' satisfaction with electronic banking (e-banking) services in Albay Province, Philippines. Specifically, it covered e-banking platforms including mobile banking applications, internet banking portals, and related digital financial services offered by universal/commercial banks and rural/thrift banks operating in the province. The respondents consisted of 150 active e-banking users selected through stratified random sampling across the First, Second, and Third Congressional Districts of Albay. Inclusion criteria required participants to be at least 18 years old, residents of Albay Province, and to have used e-banking services for at least three months before data collection.

The study's variables were anchored on the E-S-QUAL Model and organized into three categories: (1) Independent variables included respondents' demographic profile (gender, age group, monthly household income, educational attainment, primary bank type) and usage characteristics (frequency of use, number of years using e-banking services). (2) Service quality dimensions measured as intervening variables were: efficiency, reliability, security and privacy, responsiveness, and system availability. (3) The dependent variable was the level of customer satisfaction with e-banking services.

In interpreting the findings, this study acknowledges several limitations. They are: (1) sample and generalizability, (2) methodological constraints, (3) instrument and construct limitations, and (4) contextual and extraneous Factors. Despite these constraints, this study provides a timely empirical baseline of e-banking satisfaction in Albay Province and offers actionable directions for service improvement and future research.

2.0 REVIEW OF RELATED LITERATURE

Nationally, several studies have examined e-banking satisfaction in the Philippines. Mendoza (2020), in an assessment of internet banking services across selected Philippine banks using the E-SERVQUAL model, found that privacy and security received the highest satisfaction rating, while system availability, including frequent downtime and slow loading times, scored lowest (p. 114). The study recommended that banks invest in server capacity and redundancy to improve platform reliability.

Similarly, Marcos (2020) investigated electronic banking utilization and client satisfaction in Philippine universal banks across Luzon. The findings revealed that reliability and assurance were the strongest predictors of user satisfaction, whereas responsiveness and real-time problem resolution emerged as persistent service weaknesses (p. 29). Marcos (2020) further noted that banks with dedicated digital support teams reported 18% higher satisfaction scores on responsiveness dimensions than those relying solely on general customer service hotlines (p. 33).

In provincial and rural contexts, Andoyo (2025) surveyed 185 e-banking users in Davao Oriental and reported a high overall satisfaction level (M = 4.05/5). Efficiency and ease

of use were rated highest, while responsiveness received the lowest mean score (p. 254). The study also found that users in barangays with 4G connectivity reported significantly higher satisfaction than those in areas with only 2G or 3G coverage, underscoring the critical role of telecommunications infrastructure in digital banking experiences (Andoyo, 2025, p. 257).

In the Cordillera Administrative Region, Ocampo (2026) examined the relationship between usage and satisfaction with e-banking services offered by the Landbank Buguias Branch in Benguet. The study found a moderate positive correlation between usage frequency and satisfaction ($r = 0.38$, $p < .01$), noting that intermittent connectivity and limited digital literacy among older residents were recurring barriers to optimal service experience (p. 12).

Locally, Refuerzo (2026) investigated the impact of online banking on customer satisfaction in commercial banks in the Second District of Albay. The study identified security concerns, slow customer support response times, and inconsistent internet access as primary challenges reported by users (p. 8). However, Refuerzo's (2026) scope was limited to commercial banks and did not include rural banks, thrift banks, or users from the First and Third Districts of Albay, leaving a significant gap in province-wide understanding.

The present research addresses these limitations by covering all three congressional districts of Albay, including both universal/commercial banks and rural/thrift banks, and employing a validated E-S-QUAL instrument with a sample of 150 respondents.

Theoretical Framework

This study is anchored on three complementary theoretical frameworks: The Technology Acceptance Model (TAM), the E-S-QUAL Model of electronic service quality, and Expectancy-Disconfirmation Theory.

The Technology Acceptance Model (TAM), developed by Davis (1989), posits that two primary cognitive factors—perceived usefulness and perceived ease of use—determine an individual's intention to adopt and use information technology, which in turn shapes actual usage behavior and satisfaction (p. 320). In the context of e-banking, TAM suggests that users who perceive digital platforms as convenient, time-saving, and easy to navigate will report higher satisfaction and more frequent usage.

The E-S-QUAL Model, introduced by Parasuraman et al. (2005), provides a multidimensional framework for assessing electronic service quality. The model identifies four core dimensions: efficiency (ease and speed of site access and use), system availability (correct technical functioning of the site), fulfillment (extent to which promises regarding delivery and service provision are kept), and privacy (degree to which customer information is protected and secure) (p. 215). For this study, the model was adapted to include responsiveness as a fifth dimension, given its established importance in Philippine banking contexts (Marcos, 2020, p. 29).

Expectancy-Disconfirmation Theory explains satisfaction as a function of the gap between a customer's pre-consumption expectations and their actual post-consumption experience (Oliver, 1980). When performance meets or exceeds expectations, satisfaction results; when performance falls short, dissatisfaction occurs. This theory helps interpret why certain dimensions, such as responsiveness, may score lower despite overall positive evaluations, as users may hold particularly high expectations for timely support when financial transactions are involved.

Conceptual Framework

Figure 1 presents the conceptual framework that guides this investigation, illustrating the hypothesized relationships among the study's variables. The framework adopts a causal-mediational structure in which the five electronic service quality dimensions serve as the independent variables, selected demographic and usage characteristics function as mediating variables, and customer satisfaction operates as the dependent variable. This structure is anchored in the complementary theoretical lenses of the Technology Acceptance Model (Davis, 1989), the E-S-QUAL Model (Parasuraman et al., 2005), and Expectancy-Disconfirmation Theory (Oliver, 1980), which collectively posit that user satisfaction arises from the interplay of service attributes, user characteristics, and expectancy confirmation processes.

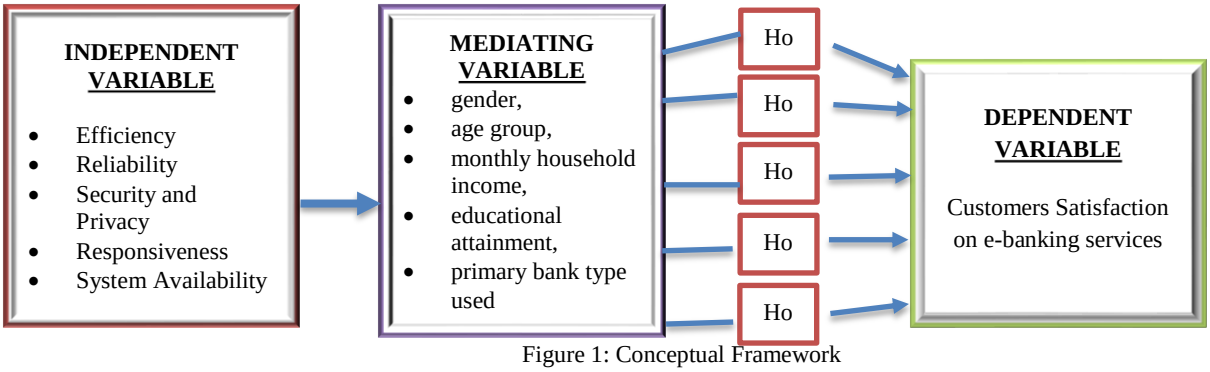


Figure 1: Conceptual Framework

(Author's idea)

The independent variables comprise the five core E-S-QUAL dimensions: efficiency, reliability, security and privacy, responsiveness, and system availability. These represent the intrinsic attributes of e-banking platforms that users evaluate when forming satisfaction judgments. Efficiency refers to the ease, speed, and clarity of platform navigation; reliability concerns transaction accuracy and consistent service performance; security and privacy encompass data protection and user confidence in platform safety; responsiveness captures the timeliness and quality of customer assistance; and system availability reflects platform uptime, stability, and accessibility across devices (Parasuraman et al., 2005, p. 215). The direct arrows extending from these dimensions to the dependent variable signify the hypothesized direct effect of service quality on customer satisfaction. Each dimension is expected to influence how users evaluate their e-banking experience.

The mediating variables are user characteristics hypothesized to mediate the relationship between service quality dimensions and customer satisfaction, meaning that the strength or direction of the service quality–satisfaction link may vary depending on a user's demographic profile. The arrows from the independent variables to the mediating box to the dependent variable illustrate this indirect pathway. The service quality attributes are filtered according to the users' individual circumstances, which may amplify or dampen their impact on satisfaction. For instance, an older user with limited digital literacy might evaluate the same interface efficiency differently than a younger, more digitally experienced user, even when both encounter identical platform features. This mediational structure acknowledges that satisfaction is not a uniform response to technical features alone but is shaped by the personal context in which those features are experienced (Davis, 1989, p. 322).

Customer satisfaction is the primary outcome of interest. It represents the cumulative affective response resulting from users' evaluations of their e-banking experiences across the five service quality dimensions, as filtered through their individual characteristics. The dual pathways, direct from service quality and indirect via demographic mediators, together determine the final level of satisfaction reported by each user.

3.0 METHODOLOGY

This study employed a descriptive-correlational quantitative design utilizing a 20-item adapted survey questionnaire with a 5-point Likert scale. It described satisfaction levels, tested for significant differences across demographic groups, and examined the relationship between usage frequency and overall satisfaction. The study further contextualized findings within the Technology Acceptance Model (Davis, 1989, p. 320), E-S-QUAL framework (Parasuraman et al., 2005, p. 215), and Expectancy-Disconfirmation Theory (Oliver, 1980, p. 460).

The target population comprised e-banking users residing in Albay Province, Philippines. The sample consisted of 150 respondents selected through stratified random sampling, with stratification based on geographic location (First, Second, and Third Districts of Albay) to ensure provincial representation. The sample size was computed using Cochran's formula for finite populations. With a 95% confidence level ($Z = 1.96$), maximum variability ($p = 0.5$), and an 8% margin of error, the formula yielded a minimum sample size of 150, which was adopted for the study. Inclusion criteria required respondents to be at least 18 years of age, residents of Albay Province, and active users of e-banking services (mobile or internet banking) for at least three months prior to the survey.

A structured questionnaire was adapted from the E-S-QUAL scale developed by Parasuraman et al. (2005, p. 215). The instrument comprised two parts: Part I gathered demographic and usage profile data, while Part II contained 20 satisfaction items across five dimensions: Efficiency (4 items), Reliability (4 items), Security and Privacy (4 items), Responsiveness (4 items), and System Availability (4 items). Responses used a 5-point Likert scale: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree. The instrument was subjected to face and content validation by a panel of three experts. A pilot test with 20 non-participating users yielded Cronbach's $\alpha = 0.89$ for the overall scale, indicating excellent internal consistency.

Data were encoded and analyzed using IBM SPSS Statistics Version 26. Frequencies and percentages described demographic and usage profiles. Mean and standard deviation were used to determine satisfaction levels using the following scale: 4.21–5.00 = Very High, 3.41–4.20 = High, 2.61–3.40 = Moderate, 1.81–2.60 = Low, 1.00–1.80 = Very Low. Independent-samples t-test tested gender differences; one-way ANOVA tested differences by age, income, and education, with Tukey HSD post-hoc tests. Pearson product-moment correlation tested the relationship between usage frequency and satisfaction. All tests used $\alpha = 0.05$.

4.0 STUDY'S FINDINGS

4.1 Demographic and Usage Profile of Respondents

Table 1 shows the demographic and usage profile of respondents.

Table 1. Demographic and Usage Profile of Respondents (N = 150)

Variable	Category	Frequency	Percentage (%)
Gender	Male	72	48
	Female	78	52
Age Group	18–30 years	81	54
	31–45 years	45	30
	46 years and above	24	16
Monthly Household Income	Below PHP 15,000	52	34.7
	PHP 15,000–30,000	68	45.3
	Above PHP 30,000	30	20
Educational Attainment	High School or below	18	12
	College/Vocational	96	64
	Postgraduate	36	24
Primary Bank Type	Universal/Commercial Bank	105	70
	Rural/Thrift Bank	45	30
Usage Frequency	Daily	36	24
	Weekly	78	52
	Monthly or less	36	24
Years Using E-Banking	Less than 1 year	28	18.7
	1–3 years	89	59.3
	More than 3 years	33	22

Respondents were predominantly female (52.0%), aged 18–30 years (54.0%), and had monthly household incomes between PHP 15,000 and PHP 30,000 (45.3%). Most were college or vocational graduates (64.0%) and primarily used universal or commercial banks for e-banking services (70.0%). Weekly usage was most common (52.0%), and the majority have used e-banking for one to three years (59.3%).

4.2 Reliability of the Research Instrument

Table 2 presents the reliability statistics of the satisfaction instrument using Cronbach's alpha, a measure of internal consistency that indicates how well the survey items within each dimension relate to each other. All five dimensions—each containing 4 items—demonstrate satisfactory to good reliability: Security and Privacy shows the strongest consistency at $\alpha = 0.85$, followed by Efficiency ($\alpha = 0.82$), System Availability ($\alpha = 0.81$), Reliability ($\alpha = 0.79$), and Responsiveness, which meets the acceptable threshold at $\alpha = 0.76$. Notably, the overall scale comprising all 20 items achieves an excellent reliability coefficient of $\alpha = 0.89$, confirming that the satisfaction instrument as a whole is highly consistent and dependable for measuring the constructs it was designed to assess.

Table 2. Reliability Statistics of the Satisfaction Instrument

Dimension	**No. of Items**	**Cronbach's α**	**Interpretation**
Efficiency	4	0.82	Good
Reliability	4	0.79	Good
Security and Privacy	4	0.85	Good
Responsiveness	4	0.76	Acceptable
System Availability	4	0.81	Good
Overall Scale	20	0.89	Excellent

4.3 Level of Customer Satisfaction with E-Banking Services

As shown in Table 3, overall customer satisfaction was high (M = 3.92, SD = 0.61). Among the five dimensions, efficiency obtained the highest mean score (M = 4.12, SD = 0.58), which is described as high, and ranked first. Security and privacy (M = 4.05, SD = 0.65) ranked second, which is also rated high. Responsiveness received the lowest mean score (M = 3.68, SD = 0.74), falling within the moderate range and ranking last among the five dimensions.

Table 3. Level of Customer Satisfaction with E-Banking Services per Dimension (N = 150)

Statement Indicator	**5**	**4**	**3**	**2**	**1**	**Mean**	**SD**
A. Efficiency							
1. The system completes tasks quickly and without unnecessary delays.	72	54	12	9	3	4.22	0.82
2. I can accomplish my work objectives using minimal steps within the system.	67	57	12	10	4	4.15	0.85
3. The system responds promptly to my inputs and commands.	63	58	12	12	5	4.08	0.87
4. Processing times for routine operations are satisfactory and efficient.	64	57	12	14	3	4.1	0.86
5. The system optimizes resource usage while maintaining good performance.	59	61	12	14	4	4.05	0.88
Cumulative WM & SD						4.12	0.58
B. Security and Privacy							
1. I feel confident that my personal data is protected within the system.	69	55	14	8	4	4.18	0.84
2. The system implements adequate security measures to prevent unauthorized access.	64	57	12	14	3	4.1	0.86
3. My confidential information is handled appropriately and kept private.	58	61	12	14	5	4.02	0.92
4. The system regularly updates its security features against potential threats.	56	61	14	12	7	3.98	0.93
5. I trust the system to safeguard sensitive transactions and data exchanges.	55	62	12	16	5	3.97	0.94
Cumulative WM & SD						4.05	0.65
C. Reliability							
1. The system functions correctly and consistently every time I use it.	57	62	12	12	7	4	0.93
2. I rarely encounter errors or malfunctions when using the system.	52	64	12	14	8	3.92	0.97
3. The system performs reliably even during peak usage periods.	50	64	14	12	10	3.88	0.98
4. When I initiate an action, the system completes it as expected without failure.	46	65	14	16	9	3.82	1
5. The system maintains stability and does not crash unexpectedly during use.	45	63	16	16	10	3.78	1.01

Statement Indicator	**5**	**4**	**3**	**2**	**1**	**Mean**	**SD**
Cumulative WM & SD						3.88	0.63
D. System Availability							
1. The system is accessible and available whenever I need to use it.	50	64	14	12	10	3.88	0.98
2. Scheduled maintenance is communicated clearly and does not disrupt my work.	45	66	14	14	11	3.8	1.01
3. Unplanned system outages are infrequent and resolved quickly.	42	67	14	16	11	3.75	1.02
4. I can access the system from my usual location without connectivity issues.	41	66	16	14	13	3.72	1.04
5. The system uptime meets my expectations for continuous operation.	37	67	16	16	14	3.65	1.05
Cumulative WM & SD						3.76	0.71
E. Responsiveness							
1. The system provides immediate feedback when I act.	45	66	14	14	11	3.8	1.01
2. User interface elements respond quickly to my clicks and inputs.	41	66	16	14	13	3.72	1.04
3. Loading times for pages and features are acceptably short.	39	66	16	16	13	3.68	1.05
4. The system adapts well to multiple simultaneous user requests.	36	67	16	16	15	3.62	1.06
5. There is minimal lag or delay between my action and the system's response.	34	67	18	14	17	3.58	1.08
Cumulative WM & SD						3.68	0.74
Overall WM and SD						**3.92**	**0.61**

The study's findings reveal that e-banking customers in Albay Province are generally satisfied with the services they receive, with an overall mean satisfaction rating of 3.92, described as high. This result aligns with Andoyo (2025), who reported high overall satisfaction (M = 4.05) among rural e-banking users in Davao Oriental (p. 254), and Refuerzo (2026), who found generally positive evaluations of online banking in Albay's Second District (p. 11).

Efficiency emerged as the highest-rated dimension (M = 4.12), indicating that users value the convenience, speed, and ease of navigation offered by e-banking platforms. This finding is consistent with the Technology Acceptance Model, which identifies perceived ease of use as a primary driver of technology adoption and satisfaction (Davis, 1989, p. 320). The ability to conduct transactions 24/7 without visiting physical branches appears to resonate strongly with Albay users, many of whom live in areas with limited banking infrastructure.

Security and privacy ranked second (M = 4.05), reflecting users' confidence in banks' authentication protocols and data protection measures. This corroborates Mendoza (2020), who found privacy and security to be the most highly rated dimensions among Philippine e-banking users (p. 115). Banks' investments in multi-factor authentication, encryption technologies, and fraud monitoring systems appear to have successfully fostered trust among users in the province.

Responsiveness was the lowest-rated dimension (M = 3.68), falling within the moderate range. This finding echoes Marcos (2020), who identified responsiveness and real-time problem resolution as persistent weaknesses in Philippine e-banking services (p. 29), and Refuerzo (2026), who noted slow customer support as a key complaint in Albay (p. 11). The moderate rating suggests that when users encounter transaction errors, account lockouts, or other issues, they often experience delays in receiving assistance. This is particularly concerning because financial service failures can have immediate tangible consequences for users, making timely support critical for maintaining trust.

4.4 Test of Significant Differences in Overall Satisfaction

Table 4. Test of Significant Difference in Overall Satisfaction by Gender

Group	n	Mean	SD	t	df	p	Decision
Male	72	3.87	0.64	1.21	148	.23	Fail to reject H_{01}
Female	78	3.97	0.58				

Table 5. Test of Significant Difference in Overall Satisfaction by Age Group

Age Group	n	Mean	SD	F	df	p	Decision
18–30 years	81	4.08	0.52	8.34	2, 147	< .001	Reject H_{02}
31–45 years	45	3.82	0.61				
46 years and above	24	3.61	0.68				

Post-hoc Tukey HSD tests revealed that respondents aged 18–30 years reported significantly higher satisfaction than those aged 46 years and above ($p < .001$) and those aged 31–45 years ($p = .045$). No significant difference was found between the 31–45 and 46+ age groups.

The significant difference in satisfaction by age group—with younger users (18–30) reporting higher satisfaction than older users (46+)- aligns with expectations from digital divide literature. Younger users who have grown up with digital technologies typically have greater digital literacy and find e-banking interfaces more intuitive. Older users may struggle with navigation complexity and require more user-friendly designs or assisted support, as Ocampo (2026) observed among older residents in Benguet (p. 14).

Table 6. Test of Significant Difference in Overall Satisfaction by Monthly Household Income

Income Group	n	Mean	SD	F	df	p	Decision
Below PHP 15,000	52	3.72	0.65	6.71	2, 147	.002	Reject H_{03}
PHP 15,000–30,000	68	3.94	0.57				
Above PHP 30,000	30	4.15	0.51				

Post-hoc Tukey HSD tests indicated that respondents earning above PHP 30,000 monthly reported significantly higher satisfaction than those earning below PHP 15,000 ($p = .002$).

Similarly, the significant difference by monthly household income—with higher-income users reporting greater satisfaction—likely reflects disparities in access to quality devices and reliable internet connectivity. Higher-income users are more likely to own smartphones with better processing capabilities and have access to stable Wi-Fi or 4G/5G connections, enabling smoother e-banking experiences. By contrast, lower-income users may rely on older devices or limited data plans, leading to more frequent frustrations.

Table 7. Test of Significant Difference in Overall Satisfaction by Educational Attainment

Educational Attainment	n	Mean	SD	F	df	p	Decision
High School or below	18	3.78	0.72	1.89	2, 147	.16	Fail to reject H_{04}
College/Vocational	96	3.95	0.59				
Postgraduate	36	3.89	0.63				

As shown in Table 7, overall customer satisfaction with e-banking services across educational attainment groups, F (2, 147) = 1.89, p = 0.16, indicates no significant difference. The result accepts the fourth null hypothesis. Although college/vocational graduates recorded the highest mean satisfaction rating (M = 3.95, SD = 0.59), followed by postgraduate respondents (M = 3.89, SD = 0.63) and those with high school education or below (M = 3.78, SD = 0.72), the mean differences were not statistically meaningful, indicating that satisfaction levels were comparable regardless of educational background. This finding suggests that e-banking platforms in Albay Province feature sufficiently intuitive interfaces and user-friendly designs that enable individuals with varying levels of formal education to derive similarly positive experiences, aligning with the observation that basic digital literacy and regular usage—rather than academic credentials—are the more relevant drivers of e-banking satisfaction in provincial settings (Ocampo, 2026, p. 15). This implies that banks have successfully designed accessible services that do not disadvantage users with less formal education, an encouraging outcome for inclusive financial digitalization.

4.5 Test of Significant Relationship between Usage Frequency and Overall Satisfaction

Table 8. Pearson Correlation between Usage Frequency and Overall Satisfaction (N = 1*50)*

Variable	**1**	**2**
Usage Frequency	1.00	0.42***
Overall Satisfaction	0.42***	1.00

Note. ***p < .001.

The analysis revealed a moderate positive relationship between usage frequency and overall customer satisfaction, r (148) = 0.42, p < .001. Thus, the null hypothesis (H_{05}) was rejected, which indicates that as frequency of e-banking usage increases, overall customer satisfaction also tends to increase.

The significant positive relationship between usage frequency and overall satisfaction (r = 0.42, p < .001) supports the existence of a virtuous cycle. As users become more familiar with e-banking platforms through repeated use, they gain confidence, encounter fewer usability issues, and report higher satisfaction. This finding is consistent with Ocampo (2026), who reported a similar moderate positive correlation (r = 0.38, p < .01) in Buguias, Benguet (p. 12). It also aligns with TAM, which posits that actual usage reinforces positive perceptions of technology (Davis, 1989, p. 322).

5. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions are drawn:

1. The typical e-banking user in Albay Province is a young adult (18–30 years), female, college-educated, with a monthly household income of PHP 15,000–30,000, primarily using a universal or commercial bank, engaging in e-banking weekly, and having used the services for one to three years.
2. Customers express a high level of overall satisfaction with e-banking services. Efficiency and security/privacy are the strongest dimensions, while responsiveness is the weakest area requiring improvement.
3. Satisfaction levels differ significantly by age group and monthly household income, with younger and higher-income users reporting greater satisfaction. There are no significant differences by gender or educational attainment.
4. Usage frequency and overall satisfaction are positively correlated, indicating that more frequent users tend to be more satisfied with e-banking services.

The study recommends that banks and financial institutions should strengthen responsiveness mechanisms. This requires deployment of real-time in-app chat support, expanding toll-free assistance lines with extended operating hours, and providing clear, step-by-step transaction error resolution guides within the mobile application interface. Establish dedicated digital banking support teams trained to resolve e-banking issues promptly. They should develop lightweight versions of mobile banking applications that perform well on basic smartphones and in areas with limited connectivity. Implement offline functionality for non-sensitive features such as balance viewing and transaction history review. Moreover, banks should design age-inclusive Interfaces that offer simplified or 'senior mode' interface options with larger text, high-contrast visuals, and reduced navigation complexity. Provide assisted onboarding sessions at bank branches for older users and first-time adopters.

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