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Exploring Millennials' Perception of Service Quality and Customer Satisfaction in Online Banking: A Mixed Method Analysis

DAVID ROWEL M. ONG1, MYRNA C. CALMA, CPA, Ph.D., FriAcc2, RICARDO S. JIMENEZ, LPT, DBA3,

1Institute of Business and Computing Education, Mabalacat City College, Tarlac, Philippines
ongdavid2001@gmail.com
1Institute Dean of Business and Computing Education, Mabalacat City College, Pampanga, Philippines
myrna.calma@mcc.edu.ph
3Research Management Office/College of Business Studies, Pampanga State University, Bacolor, Philippines
rsjimenez@dhvsu.edu.ph

Abstract: *This study explores the millennials' perceptions of service quality and customer satisfaction within online banking, focusing on empathy, reliability, assurance, responsiveness, and tangibility. As digital banking continues to grow, particularly among younger generations, understanding millennial preferences in service interactions is essential for banks aiming to enhance user experience and loyalty. Using a mixed-method SERVQUAL analysis, the research combines quantitative and qualitative approaches to gauge how millennials in Mabalacat City experience and evaluate online banking services. Findings reveal that millennials value responsive customer service, reliable transaction processes, and accessible online platforms. Results indicate a significant positive relationship between perceived service quality and customer satisfaction, with particular emphasis on the importance of empathy and prompt responsiveness in digital banking interactions. The findings offer practical insights for banks to optimize service strategies in alignment with millennial expectations and highlight the role of personalized, high-quality online experiences in promoting satisfaction.*

Keywords— Millennials, Online Banking, Service Quality, Customer Satisfaction, SERVQUAL analysis

1. INTRODUCTION

According to the International Monetary Fund (IMF), banks acted as middlemen between depositors and borrowers. They accepted deposits from people and lend money to those in need. Banks earned money by charging depositors fees for storing their money and charging borrowers interest on their loans. It was important to note that depositors and borrowers came from various entities, such as individuals, households, financial and nonfinancial companies, and local and national governments.

One of the primary trends in mobile banking in 2023 would be cashless transactions, which had practically become required and would continue to develop in the future. To ensure a seamless user experience, digital sales platforms should offer the widest range of payment options. Additionally, the newest trends in digital banking could make it easier for customers to convert currencies, making international transactions even quicker and simpler.

About the trends in digital banking, the increase in online transactions was not new; instead, it was an approach in the remote nature of things had significantly increased. These days, consumers paid for their goods and services at retail or online retailers using digital means. Two-factor authentication and transaction confirmation were used when people make these kinds of digital payments in order to speed up and increase the security of mobile banking. People only selected online transactions over offline ones for this reason.

In the Philippines, tighter regulations and the emergence of mobile payment technology had led to a growth in the use of online banking. Notwithstanding, marketers encounter obstacles like evolving banking practices, security apprehensions, and technological problems. To keep up with this expanding trend, banks must modify their offerings. For a seamless experience, online banking for transactional needs should be balanced with preserving in-person contact with bank employees. Online banking was nevertheless a vast financial innovation despite these difficulties.

To enable bank clients to transfer money and access their bank accounts via mobile devices. Simplifying payment with just the beneficiary's mobile number to support the Banko Sentral ng Pilipinas (BSP) objective of electrifying retail payments. From the comfort of their mobile devices, these apps offered users a simple and safe way to manage their bank accounts, including checking balances, transferring money, making bill payments, depositing checks, and accessing other banking services.

Since new technology had advanced in the banking industry, online banking became more popular than traditional banking. Moreover, it came from the development of new technology that shortens the physical distance between clients in the modern world. Millennials' strong preference for online interactions and visibility was evident in their behavior, as they sought high accessibility and visibility online (Firmansyah et al., 2019). Online banks that offered seamless integration with third-party services like budgeting apps or investment platforms could attract millennials seeking holistic financial management solutions. When it comes to online money

management, millennials place a high priority on security. They feel more secure about online banking transactions when banks use strong security measures like encryption and multi-factor authentication. In order to lessen their carbon footprint, several millennials preferred paperless banking choices. Online banking was consistent with its principles by providing digital transactions, online communication channels, and electronic statements.

When it came to handling their money, millennials highly emphasized ease and flexibility. Without having to go to a real bank branch, they may use online banking to access their accounts, conduct transactions, and pay their bills from anywhere with an internet connection.

This study aimed to explore the perceptions of millennials about service quality and customer satisfaction with regard to the use and efficiency of online banking transactions. Through a Mixed Method SERVQUAL Analysis, the study delved into millennials' views on service quality in online banking. By analyzing qualitative and quantitative data, it aimed to pinpoint what aspects of service quality mattered most to millennials and how these aspects affected their satisfaction and loyalty to online banking services. This research had practical implications for banks looking to improve their online services for millennials, contributing to understanding service management and guiding strategies to enhance the online banking experience for this demographic.

2. REVIEW OF RELATED LITERATURE

Several studies have explored the factors influencing Millennials' adoption of digital banking across various geographic and cultural contexts. Kochukalam et al. (2018) investigated Millennials in Kerala, India, and found that convenient access to bank branches, ATMs, online services, and responsive customer support significantly influenced their bank preferences. These service elements were central to enhancing customer satisfaction and competitiveness among financial institutions. Building on this, Adhimursandi et al. (2021) focused on Millennials in East Kalimantan, Indonesia, highlighting that ease of access, search, evaluation, and post-benefit services strongly affected their willingness to adopt mobile banking. This study suggested that service quality can be further refined through active user feedback, emphasizing the need for customer-centric service design.

Similarly, Thusi and Maduku (2020) studied mobile banking adoption among Millennials in developing African economies, identifying perceived risk, habits, performance expectancy, and institutional trust as major influences. Their research stressed the importance of tailoring banking strategies to address Millennials' motivations and concerns. In a complementary study, Baraba and Mahmudi (2023) demonstrated that perceived usefulness, ease of use, and security positively shaped Millennials' attitudes toward digital banking, while perceived risk had a detrimental effect. These attitudes were found to significantly influence actual usage behavior, reinforcing the importance of risk mitigation and user-friendly designs.

Expanding on generational preferences, Windasari et al. (2022) explored digital-only banking adoption among Generations Y and Z. They found that rewards, unique features, and word-of-mouth were strong motivators, while advertising and curiosity had less influence. This underscores the growing need to craft compelling digital experiences that align with the expectations of younger users. Suhartanto et al. (2021) added to this discourse by examining loyalty toward AI-enabled Islamic mobile banking in Indonesia, noting that trust, positive attitudes toward AI, service quality, and religious values played pivotal roles in fostering user loyalty among Millennials.

In South Africa, Ncube and Justice (2020) developed a loyalty model focused on convenience, usability, and personalization, advocating for the design of flexible and user-friendly mobile apps. Meanwhile, Bondeson and Lindbom (2018) analyzed Swedish Millennials and found that perceived risk, Net Promoter Scores, and relationship quality significantly influenced customer loyalty. Despite its limited scope, the study provided insights into effective marketing strategies tailored to this demographic.

A cross-generational study by M. Jiang et al. (2022) in the U.S. revealed that both Millennials and Boomers valued benefit and coping perceptions in internet banking use, though trust was more critical for older users. This highlighted the need for age-specific digital strategies. Complementing this, Kavya and Rakesh (2022) emphasized the broader digital transformation of the financial sector, noting how digital banking streamlines financial activities and supports diverse customer groups.

However, concerns remain regarding financial behaviors, as Scheresberg (2020) found that Millennials using mobile payments in the U.S. exhibited higher tendencies toward risky financial behavior. This raised the need for targeted interventions to promote financial literacy. In the Philippines, Capistrano (2021) identified trust and ease of use as major enablers of internet banking adoption but noted that social influence and performance expectations required enhancement to improve acceptance rates.

Using the UTAUT model, Al Tarawneh (2023) investigated Malaysian Millennials and found that pricing value, habit, perceived risk, hedonic motivation, and interface design all played critical roles in influencing mobile banking use. These findings offer a nuanced understanding of the behavioral dynamics in a tech-savvy and rapidly evolving generation. Similarly, Kumar and Yukita (2021) extended the Technology Acceptance Model by incorporating trust, perceived risk, and mindset, concluding that these elements affected perceived usefulness, which in turn shaped users' attitudes and adoption intentions.

Singh (2020) contributed an overarching perspective on consumer attitudes, emphasizing how advanced technology enhances digital banking by eliminating the need for physical interactions. This aligns with Brodmann's (2021) comparison of Millennials with older generations, which highlighted differences in financial literacy, debt burdens, and mobile

banking habits—indicating that Millennials' preferences are shaped by unique economic and technological circumstances.

Reflecting on generational values, Finotta (2023) noted that Millennials and Gen Z place high importance on convenience, personalization, and social responsibility in banking. This paradigm shift is redefining industry expectations and fostering innovation. Ganguly et al. (2023) further examined mobile banking adoption in India's peripheral cities, revealing that Gen Z's embrace of technology overcame barriers in semi-urban contexts, thus promoting inclusive digital finance.

During the COVID-19 pandemic, Jimenez (2021) applied the SERVQUAL model to evaluate service quality under the "New Normal," identifying assurance, empathy, reliability, responsiveness, and tangibility as crucial dimensions in maintaining customer satisfaction across service sectors, including banking. Banu et al. (2019) also emphasized these dimensions in the Indian context, extending the Technology Acceptance Model and DTPB. Their study revealed that, contrary to common assumptions, security and internet access were less significant than self-efficacy, ease of use, and cost efficiency in shaping perceived usefulness and satisfaction.

Focusing on Bangladesh, Karim, Mahmud, and Latif (2018) assessed Janata Bank's customer satisfaction, identifying areas for improvement such as service charges, online banking features, and inter-branch coordination. Despite limitations, the bank maintained a favorable image due to its reliable service and deposit schemes. Meanwhile, in Pakistan, Javed, Rashidin, and Li (2018) evaluated e-service quality using the e-SERVQUAL model, finding that reliability and privacy were the most influential dimensions of customer satisfaction. They advocated for continuous service enhancement to sustain user loyalty.

In the Sub-Saharan context, Mwiya et al. (2022) examined service quality in Zambia during the pandemic, noting the influence of gender-specific concerns such as privacy for female users. Their findings contributed to a broader understanding of how e-service quality affects customer satisfaction and loyalty during crises. Similarly, Hammoud, Bizri, and El Baba (2018) studied Lebanon's e-banking landscape, identifying reliability as the strongest predictor of satisfaction and calling for strategies tailored to cultural variations.

Finally, Sugiarto and Octaviana (2021) emphasized the importance of interpersonal elements—such as empathy, assurance, and flexibility—in enhancing service quality and customer satisfaction. Complementing this, Talavera (2020) employed Q-methodology to examine Filipino banking experiences, finding that reliability, empathy, and problem resolution were prioritized over aesthetic factors. Together, these studies present a comprehensive picture of how Millennials' digital banking adoption is shaped by contextual, psychological, and technological factors, all of which must be considered in developing responsive, inclusive, and future-ready banking solutions.

3. CONCEPTUAL FRAMEWORK

The theoretical/conceptual framework for this study combined the Technology Acceptance Model (TAM) with the Service Quality (SERVQUAL) framework to understand the factors influencing Filipino consumers' perceptions of online banking service quality. The TAM suggested that users' acceptance of technology was influenced by perceived usefulness and ease of use (Davis, F. D. 1989), which was particularly relevant in the context of online banking, as it had transformed how individuals manage their finances, enhancing inclusivity and convenience while ensuring security.

In this study, the SERVQUAL framework, developed by Parasuraman et al. (1988), was employed to identify and assess the dimensions of service quality considered important by Filipino consumers in evaluating an excellent bank. These dimensions include tangibles, reliability, responsiveness, assurance, and empathy. By understanding these key attributes, banks could enhance their service quality to bolster customer patronage, retention, loyalty, and satisfaction. This integrated framework provided a comprehensive approach to analyzing the quality of online banking services and its impact on consumer behavior in the Filipino context.

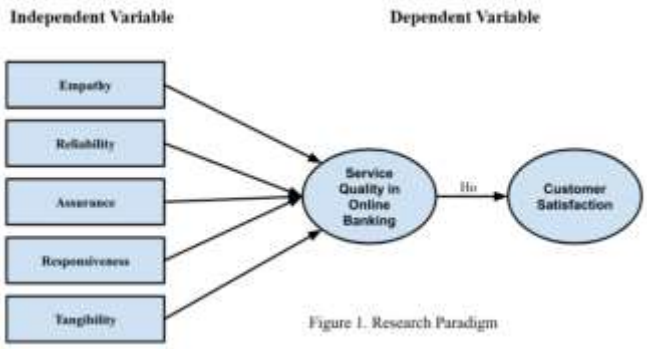


Figure 1. Research Paradigm

This study utilized the Conceptual Framework to analyze the independent and dependent variables, focusing on Empathy, Reliability, Assurance, Responsiveness, and Tangibility, to measure the satisfaction of customers with Online Banking Transactions.

4. RESEARCH PROBLEMS

The researcher aimed to explore the Millennials' Perceptions of Service Quality and Customer Satisfaction in Online Banking Transactions in Mabalacat City, Pampanga. This study sought to answer the following questions:

1) How the respondent's demographic profile be described in terms of the following elements:

- 1.1 Age;
- 1.2 Sex;
- 1.3 Civil Status;
- 1.4 Employment;
- 1.5 Monthly Income; and
- 1.6 Banking Institution

2) How the service quality be described in terms of?
- 2.1 Empathy;
- 2.2 Reliability;
- 2.3 Assurance;
- 2.4 Responsiveness; and
- 2.5 Tangibility

3) How can the millennial perception be described in terms of customer satisfaction with online Banking Transactions?

4) Is there a significant relationship between service quality and customer satisfaction in millennials' perceptions?

5) How would you describe the quality of services provided by your online banking platform?

6) How is the millennial generation satisfied with the online banking services they provide?

5. HYPOTHESIS OF THE STUDY

H_0: There is no significant relationship between service quality and customer satisfaction in millennial perceptions.

H_1: There is a significant relationship between service quality and customer satisfaction in millennial perceptions.

6. METHODOLOGY

6.1. Research Design

This study employed a mixed-methods concurrent triangulation design, wherein quantitative and qualitative data were collected and analyzed separately but integrated during interpretation. This design aimed to enhance the validity and depth of findings by comparing and combining different types of evidence.

In the quantitative phase, a structured survey was administered to millennial online banking users. Data were analyzed using descriptive statistics and multiple regression via SPSS, with responses rated on a four-point Likert scale. This phase identified patterns in service quality perception and customer satisfaction.

The qualitative phase followed with semi-structured interviews to explore deeper insights, clarify quantitative results, and address sensitive topics. Transcripts were thematically coded and analyzed to examine millennial perceptions of service quality using SERVQUAL dimensions.

This mixed approach enabled complementarity, expansion, and development of the findings, offering a more comprehensive understanding of how service quality influences customer satisfaction in online banking.

6.2. Research Locale

The study utilized a hybrid (mixed) sampling method, combining purposive and convenience sampling to enhance the validity and applicability of findings. Purposive sampling was used to select millennial participants based on specific criteria such as age, experience, and familiarity with online banking, while convenience sampling addressed participant accessibility and availability. The research focused on millennials in Mabalacat City, Pampanga, to ensure contextual consistency and control for cultural or regional variations that might influence perceptions of online banking services.

6.3. Key Informants

In the quantitative phase, the study employed a hybrid sampling method, combining purposive and convenience techniques to enhance reliability and representativeness. Respondents were selected based on two key criteria: (1) being part of the Millennial Generation, and (2) actively using online banking. A target population of 98,088 was estimated using PSA data and growth rates, and a sample size of 383 was determined using the Raosoft calculator for adequate statistical power.

For the qualitative phase, the same inclusion criteria were used. A non-probability sampling approach—specifically purposeful (evaluation) sampling—was adopted to select individuals with relevant experience. This method, as noted by Foley et al. (2021), relies on the researcher's judgment to ensure insight-rich contributions. Ultimately, six participants were interviewed to achieve data saturation and ensure balanced input for the concurrent triangulation design.

6.4. Instrument

The study used a survey questionnaire as the primary data collection tool, with interview questions triangulated based on the quantitative results for enhanced validity.

Quantitative Phase. A structured questionnaire was developed from relevant literature to assess millennials' perceptions of service quality and customer satisfaction in online banking. It was validated by a panel of experts in research, statistics, and finance, who reviewed its clarity, relevance, and comprehensiveness. Feedback from both internal and external validators was incorporated into the final version. The instrument, partly adapted (with permission) from a study by Don Honorio Ventura State University, underwent a pilot test with 30 respondents. It was administered in both printed and digital formats using a four-point Likert scale.

Scale	Range	Description	Verbal Interpretation
4	3.5-4.0	Strongly Agree	The Millennial Generation expected measurements towards service quality and customer satisfaction is highly acceptable.
3	2.5-3.49	Agree	The Millennial Generation expected measurements towards service quality and customer satisfaction is acceptable.
2	1.50-2.49	Disagree	The Millennial Generation expected measurements towards service quality and customer satisfaction is unacceptable.
1	1-1.49	Strongly disagree	The Millennial Generation expected measurements towards service quality and customer satisfaction is highly unacceptable.

Statistical analysis, including multiple regression, was used to interpret relationships between variables, with a 0.05 significance level guiding result interpretation.

Qualitative Phase. In-depth online and face-to-face interviews were conducted with selected millennial online banking users from Mabalacat City. The interview guide was validated by three domain experts and revised accordingly. The interviews aimed to provide narrative insights that could complement and contextualize the survey findings.

Dimension (Sub- Variables)	No. of Items	Cronbachs' Alpha	Interpretation
Empathy	4	0.77	Acceptable
Reliability	4	0.82	Good
Assurance	4	0.72	Acceptable
Responsiveness	4	0.76	Acceptable
Tangibles	4	0.78	Acceptable
Customer Satisfaction	4	0.75	Acceptable

No.	Coefficient of Cronbach's Alpha	Reliability Level
1	More than 0.90	Excellent
2	0.80-0.89	Good
3	0.70-0.79	Acceptable
4	0.60-6.69	Questionable
5	0.50-0.59	Poor
6	Less than 0.59	Unacceptable

The second part used a researcher-made interview guide composed of six items, designed to validate the responses from the quantitative phase. This guide was submitted for validation by experts to ensure its accuracy and relevance.

Summary of Validators

VALIDATORS	*PROFESSION*	*Educational Qualification/ Field of Specialization*
VALIDATOR 1	PROFESSOR COMPLIANCE OFFICER/RURAL BANK BOD	Doctor in Business Administration
VALIDATOR 2	PROFESSOR	Doctor of Philosophy in Business Administration
VALIDATOR 3	PROFESSOR	Doctor of Philosophy Technology Education

The component validators are from different professions, researchers, statisticians, academicians, and banking and financial institution Practitioners

6.5. Data Collection

The study employed a questionnaire method as its primary mode of data collection, supported by structured interviews for triangulation. Each participant received standardized and clearly instructed questions. Descriptive statistics, frequency counts, and percentage distributions were used to profile respondents and analyze their assessments regarding millennial use of online banking.

Quantitative Phase. Survey questionnaires were distributed either online via Google Forms or onsite, depending on participant availability. Respondents were millennial users of online banking services residing in Mabalacat City, Pampanga.

Qualitative Phase. Well-structured onsite and online interviews were conducted. Participants were informed of the study's objectives, their rights, and their voluntary role. Interviews were conducted once per participant, but they were allowed to clarify or expand their responses. Each session was audio-recorded, transcribed verbatim, and analyzed thematically.

6.6. Data Processing and Statistical Treatment

For the quantitative data, sums, frequencies, percentages, mean scores, and multiple regression were used in this study. The results were utilized to determine whether the respondents' expected measurements of service quality and customer satisfaction regarding online banking services were met. This analysis was conducted personally by the researcher.

For Sums:

sum= a+b+c+d

For Frequency and Percentage:

$$P=\frac{f}{N}\ X\ 100\%$$

For Mean Score:

$$\text{Mean}=\frac{\Sigma Xi}{n}$$

For Multiple Regression:

$$y=\beta0+\beta1x1+\beta2x2+\beta3x3+\beta4x4+\beta5x5+\epsilon$$

Where

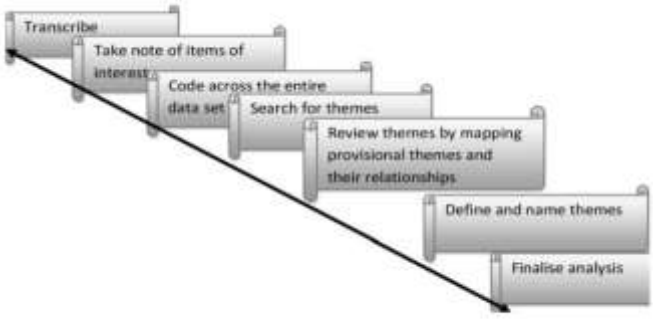
Y is the outcome value — $x_{1..q}$ is the value of predictor variable

β_0 is the intercept — $\beta_{1..q}$ is the slope coefficient

ε is the error aka residual

For the qualitative data, the study employed thematic content analysis to examine interview transcripts and supporting documents. Coded responses were grouped into themes to validate and enhance the quantitative findings, aligning with the concurrent triangulation design. Data were analyzed iteratively, identifying patterns and connections that reflected millennial users' experiences with online banking. The integration of both data sets allowed for comprehensive conclusions and evidence-based recommendations.

For Thematic Analysis:



(Braun and Clarke, 2012)

6.7. Ethical Consideration

This study adhered to the ethical guidelines set by the Institute of Business and Computing Education of Mabalacat City College. Institutional clearance and permission were

obtained from MCC and relevant agencies. Participants were informed of their rights, and informed consent was secured, emphasizing voluntary participation without coercion. Confidentiality was strictly maintained, and while real names were temporarily used for internal tracking, all identities were anonymized in the final reporting to protect respondents' privacy and dignity.

7. PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter presents the data gathered and corresponding results, analyses of the data, and interpretation of the same. The results and findings are presented in the order in which the statements of the problem were presented.

PART I

7.1. Respondents Profile: According to Age, Sex, Civil Status, Employment, Monthly Income, and Banking Institution.

Table 1 presents the frequency and percentage distribution of the respondents according to age.

TABLE 1
Frequency and Percent Distribution of the Respondents According to Age

Age	*Frequency (f)*	*Percent (%)*
28-31 Years old	208	54.30
32-35 Years old	91	23.80
36-39 Years old	51	13.30
40-43 Years old	33	8.60
Total	**383**	**100.00**

It could be gathered from the data presented in Table 1 the age distribution of the respondents shows that the majority (54.30%) are between 28-31 years old, followed by 23.80% aged 32-35, 13.30% aged 36-39, and only 8.60% aged 40-43, with a total of 383 participants. This indicates a strong predominance of younger adults, particularly those in their late 20s and early 30s, in the sample. The underrepresentation of older respondents, especially those aged 40-43, suggests that the findings may primarily reflect the attitudes or behaviors of younger age groups. This distribution could have implications for the study's generalizability and relevance to different age demographics, particularly if age significantly impacts the phenomena being investigated.

Table 2 presents the frequency and percentage distribution of the respondents according to sex.

TABLE 2
Frequency and Percent Distribution of the Respondents According to Sex

Sex	*Frequency (f)*	*Percent (%)*
Male	170	44.39
Female	184	48.04
Prefer not to say	29	7.57
Total	**383**	**100.00**

Table 2 presents the respondent's sex distribution of the sample and reveals that females constitute the largest group, making up 48.04% of the total respondents, while males account for 44.39%. Additionally, 7.57% of the participants preferred not to disclose their gender. This relatively balanced representation between males and females suggests that both genders are well-represented in the study, although females slightly outnumber males. The presence of a small portion of respondents who opted not to disclose their gender highlights the importance of inclusivity in research. Overall, the sample appears to reflect a diverse gender composition, which can enhance the study's relevance to a broader population.

Table 3 presents the frequency and percentage distribution of the respondents according to civil status.

TABLE 3
Frequency and Percent Distribution of the Respondents According to Civil Status

Civil Status	*Frequency (f)*	*Percent (%)*
Single	178	46.50
Married	193	50.40
Widow	12	3.10
Total	**383**	**100.00**

Table 3 presents the respondent's civil status distribution of the sample and reveals that married individuals form the largest group, making up 50.40% of the total respondents, while single individuals account for 46.50%. A small percentage, 3.10%, of the participants are widowed. This distribution indicates a relatively balanced representation between single and married individuals, with married respondents slightly outnumbering single ones. The presence of a small portion of widowed individuals highlights the inclusion of diverse life experiences in the study. Overall, the sample appears to reflect a varied civil status composition, which can provide insights relevant to different relationship situations.

Table 4 presents the frequency and percentage distribution of the respondents according to employment.

TABLE 4
Frequency and Percent Distribution of the Respondents According to Employment

Employment	*Frequency (f)*	*Percent (%)*
Self-employed	82	21.40
Employed	279	72.80
Unemployed	22	5.70
Total	**383**	**100.00**

Table 4 presents the respondent's employment status; the majority of respondents are employed, representing 72.80% of the total sample. Self-employed individuals make up 21.40%, while 5.70% of the respondents are unemployed. This distribution shows a strong employment presence in the sample, with a notable portion of self-employed participants. The relatively small proportion of unemployed individuals suggests that the majority of the respondents have active engagement in the workforce, either through employment or self-employment. This diversity in employment status can

enhance the study's relevance across different economic sectors.

Table 5 presents the frequency and percentage distribution of the respondents according to monthly income.

TABLE 5
Frequency and Percent Distribution of the Respondents According to Monthly Income

Monthly Income (₱)	*Frequency (f)*	*Percent (%)*
10,957 to 21,914	109	28.50
21,915 to 43,828	196	51.20
43,829 to 76,669	58	15.10
76,670 to 131,484	14	3.70
131,485 to 219,140	4	1.00
219,141 and above	2	0.50
Total	**383**	**100.00**

In terms of monthly income that shows in the Table 5, the majority of respondents (51.20%) fall within the range of ₱21,914 to ₱43,828, while 28.50% earn between ₱10,957 and ₱21,914. A smaller group, 15.10%, have an income ranging from ₱43,828 to ₱76,669. Only a small percentage (1.00%) report earnings between ₱131,483 and ₱219,140, while 0.50% earn more than ₱219,140. This income distribution suggests that the sample predominantly consists of individuals within the lower to middle-income brackets, with fewer high-income earners. The data provides a broad perspective on income levels, which can contribute to understanding economic diversity within the sample.

Table 6 presents the frequency and percentage distribution of the respondents according to banking institution

TABLE 6
Frequency and Percent Distribution of the Respondents According to Banking Institution

Banking Institution	*Frequency (f)*	*Percent (%)*
BDO Unibank (BDO)	135	35.20
Bank of the Philippine Islands (BPI)	83	21.70
Metrobank	59	15.40
Philippine National Bank (PNB)	10	2.60
Security Bank	22	5.70
UnionBank of the Philippines	12	3.10
Land Bank of the Philippines (LandBank)	26	6.80
China Banking Corporation (China Bank)	15	3.90
EastWest Bank	12	3.10
Rizal Commercial Banking Corporation (RCBC)	2	0.50
Maybank Philippines	2	0.50
HSBC Philippines	2	0.50
Bank of Commerce	3	0.80
Total	**383**	**100.00**

Table 6 shows the distribution of banking institutions used by the respondents and reveals that BDO Unibank (BDO) makes up the largest group, accounting for 35.20% of the total participants. Bank of the Philippine Islands (BPI) represents 21.70%, while Metrobank follows with 15.40%. Other banks such as Security Bank and Philippine National Bank (PNB) constitute 5.70% and 2.60% of the respondents, respectively. Additionally, smaller portions of respondents reported using Land Bank of the Philippines (6.80%), China Banking Corporation (3.90%), UnionBank of the Philippines (3.10%), and EastWest Bank (3.10%). The remaining respondents are distributed across various other banks, with Rizal Commercial Banking Corporation (RCBC), Maybank, HSBC, and Bank of Commerce making up less than 1% each. This distribution suggests that while a few major banks dominate the sample, there is a noticeable representation of other institutions as well. The diversity of banking preferences within the sample reflects a broad range of experiences and potentially different perspectives on online banking services. Overall, the representation of various banking institutions enhances the relevance of the study to a wider population in Mabalacat City.

7.2. Service quality is described in terms of:

Table 7 presents the respondent's assessments in service quality in terms of empathy.

TABLE 7
Respondent's Assessments in Service Quality in terms of Empathy

EMPATHY	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
1. Customer service representatives are friendly and courteous during online banking interactions.	3.59	0.50	1	Strongly Agree
2. I am satisfied with the affordability and transparency of fees and charges associated with online banking transactions.	3.41	0.55	4	Strongly Agree
3. The online banking platform understands and caters to my specific needs and preferences during transactions.	3.49	0.56	2.5	Strongly Agree
4. Online banking staff provide personalized attention and recognize my individual needs during online interactions.	3.49	0.56	2.5	Strongly Agree
GRAND MEAN	**3.49**	**0.42**		Strongly Agree

Table 7 shows the data on empathy in online banking interactions and provides a comprehensive look at customer satisfaction across various dimensions. The highest-rated item is the perception that customer service representatives are friendly and courteous during interactions, with a mean score of 3.59 and a relatively low standard deviation (SD) of 0.50, suggesting a consistently strong and positive experience across respondents. This indicates that most users have a favorable view of the customer service aspect of their online banking experiences.

In a study by Kumar and Mokha (2020) highlights that effective customer relationship management (E-CRM) practices, which include prompt and courteous service, lead to increased customer loyalty in the banking sector. This suggests that friendly and courteous interactions are not merely beneficial but essential for fostering a positive customer experience.

Respondents also express satisfaction with the affordability and transparency of fees and charges, which received a mean score of 3.41 and an SD of 0.55. Though slightly lower than the other items, the "strongly agree" verbal interpretation indicates that customers still find the cost and clarity of transactions satisfactory, but with a bit more variability in responses.

Research indicates that affordability directly influences customer satisfaction, particularly in the context of mobile banking services. For instance, a study conducted in Dodoma City, Tanzania, found that the affordability of mobile banking services, including fee transparency, significantly enhances personal financial savings, suggesting that lower costs and clear fee structures are crucial for customer satisfaction in banking services ("Influence of Mobile Banking Affordability on Personal Financial Savings in Dodoma City, Tanzania", 2024).

Both the platform's ability to cater to specific needs and the personalized attention provided by online banking staff are rated equally, with a mean score of 3.49 and an SD of 0.56. These scores reflect strong agreement that online banking services not only understand user preferences but also provide personalized support. The slightly higher standard deviation here suggests a wider range of experiences, potentially reflecting differences in expectations or levels of interaction with online staff.

The understanding and catering of online banking platforms to specific customer needs and preferences is a critical aspect of enhancing customer satisfaction. Recent studies have highlighted that the quality of e-service significantly influences customer satisfaction in online banking contexts. For instance, a study by Islam et al., (2023) emphasizes the importance of various e-service quality dimensions, such as perceived security, ease of use, and responsiveness, in shaping customer satisfaction among online banking users. This aligns with findings from Rupal, (2024), who notes that customer experience factors, including transparency and ease of use, are pivotal in determining overall satisfaction with online banking services.

Overall, with an aggregate mean of 3.49 and a standard deviation of 0.42, the data suggests that respondents strongly agree that their online banking services are empathetic, providing friendly, personalized, and affordable experiences. The low standard deviations across items indicate a general consistency in positive experiences, though there is some variation in how strongly these aspects are felt, particularly in the areas of fees and personalized attention. This data implies that online banking platforms are succeeding in meeting customer needs, but there could still be room for improvement in ensuring consistent personalization and transparency across the user base.

In the study of Zouari and Abdelhedi (2021) highlight that positive personal interactions, which inspire trust and engagement, are crucial for enhancing customer experiences in digital banking environments. This aligns with the findings of Ullah (2023), who asserts that empathetic interactions are vital for fostering customer loyalty and satisfaction. Moreover, the consistency in positive experiences, as indicated by low standard deviations in survey responses, suggests that customers generally perceive online banking services as reliable and efficient. This is supported by the work of Nordin (2024) which emphasizes the importance of service quality factors such as convenience and website quality in shaping customer perceptions and satisfaction. Additionally, the study by Trang et al., (2022) identifies empathy as a significant factor affecting customer satisfaction, particularly during the COVID-19 pandemic, which has accelerated the adoption of online banking services.

Table 8 presents the respondent's assessments in service quality in terms of reliability.

TABLE 8
Respondent's Assessments in Service Quality in terms of Reliability

RELIABILITY	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
1. The staff assisting with online banking transactions are well-trained and knowledgeable.	3.50	0.50	1.5	Strongly Agree
2. Complaints and problems with online banking transactions are handled graciously by customer service representatives.	3.43	0.54	4	Strongly Agree
3. The online banking platform provides services as promised.	3.47	0.53	3	Strongly Agree
4. Online banking transactions are performed correctly the first time they are attempted.	3.50	0.56	1.5	Strongly Agree
GRAND MEAN	**3.47**	**0.43**		Strongly Agree

Table 8 shows that the data on reliability in online banking interactions of the respondents generally express strong confidence in the reliability of their online banking services. The highest-rated aspects are the perception that staff are well-trained and knowledgeable and that transactions are performed correctly on the first attempt, both receiving a mean score of 3.50 with standard deviations (SD) of 0.50 and 0.56, respectively. This indicates a consistently positive experience with staff expertise and transaction accuracy, though there is slightly more variability in the experiences related to the accuracy of transactions.

A well-trained staff is essential for enhancing customer satisfaction and fostering loyalty in the online banking sector. Research indicates that the perceived competence of staff significantly influences customer perceptions of service quality in banking environments. For instance, Moghavvemi et al., (2018) highlight that "knowledge and staff competency" are critical factors that customers consider when evaluating online banking services, particularly in the context of foreign banks where reputation and service quality are paramount.

The handling of complaints and problems by customer service representatives is rated slightly lower with a mean of 3.43 and an SD of 0.54, indicating that while users generally strongly agree with the quality of problem resolution, there is some variability in satisfaction. The reliability of the platform in providing services as promised is also rated highly, with a mean score of 3.47 and an SD of 0.53, suggesting that the platform largely meets customer expectations. In line with this, effective complaint resolution is crucial for enhancing

customer satisfaction. Dogra (2023) emphasizes that the settlement of customer complaints directly influences consumers' perceptions of an organization's competency, thereby contributing to trust and overall service quality.

With an overall mean of 3.47 and an SD of 0.43, the data suggests strong agreement that the online banking services are reliable, consistently delivering as expected. The relatively low standard deviations across the board indicate a uniformity in customer satisfaction regarding the reliability of the service, though some slight variability exists in areas like transaction accuracy and problem resolution. This overall strong performance reflects confidence in the operational reliability of online banking services, from staff competency to accurate and efficient transactions.

Table 9 presents the respondent's assessments in service quality in terms of assurance.

TABLE 9
Respondent's Assessments in Service Quality in terms of Assurance

ASSURANCE	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
1. The online banking platform instills confidence in clients regarding the security and reliability of transactions.	3.49	0.57	1.5	Strongly Agree
2. The availability of online banking services is convenient for clients in terms of access and timing.	3.45	0.53	3	Strongly Agree
3. Employees involved in online banking transactions demonstrate a high level of occupational knowledge.	3.43	0.52	4	Strongly Agree
4. The online banking platform provides a safe and secure environment for clients to conduct transactions.	3.49	0.56	1.5	Strongly Agree
GRAND MEAN	**3.46**	**0.44**		Strongly Agree

Table 9 shows that the data on assurance in online banking services reflects a strong level of confidence among respondents regarding the platform's security, reliability, and convenience. The highest-rated aspects are the platform's ability to instill confidence in clients regarding transaction security and its provision of a safe and secure environment for conducting transactions, both receiving a mean score of 3.49 with standard deviations (SD) of 0.57 and 0.56, respectively. These scores indicate that users strongly agree with the security features of the online banking platform, though there is a small range of variability in their experiences.

In the study of Hammoud & Baba (2018) highlight that reliability and security are critical dimensions that significantly impact customer satisfaction in the Lebanese banking sector. Their findings suggest that when banks effectively implement these dimensions, they not only enhance customer satisfaction but also gain a competitive advantage in the market. This aligns with the notion that a strong perception of security in online banking fosters greater trust among users. Moreover, the study by Muthusamy & Vithanawasam (2019) emphasizes the positive correlation between security and consumer trust in online banking transactions. Their research indicates that effective communication regarding security measures can significantly enhance customers' trust, which is crucial for their commitment to using online banking services. This trust is further reinforced by the perception of a secure environment for transactions, which is a key aspect of customer satisfaction in online banking.

The convenience of access and timing of online banking services is also rated highly, with a mean score of 3.45 and an SD of 0.53, reflecting strong satisfaction with the availability of services. Employees' occupational knowledge was rated slightly lower at 3.43 with an SD of 0.52, but it still falls within the "strongly agree" category, showing that respondents generally have confidence in the competence of the staff, though there is a bit more variation in this area. The flexibility offered by online banking—allowing customers to perform transactions without the constraints of traditional banking hours—has been shown to significantly impact customer satisfaction. Rupal (2024) study indicates that the overall satisfaction with online banking services is closely linked to the convenience and reliability of these services, which are essential for maintaining customer trust and loyalty.

Overall, with a mean score of 3.46 and a low SD of 0.44, the data suggests that respondents strongly agree that online banking platforms provide a high level of assurance, particularly in terms of security, reliability, and convenience. The relatively consistent standard deviations indicate a general uniformity in positive experiences across the sample, though minor variations exist in the perceived knowledge of employees and security measures. This overall positive feedback points to the strength of online banking platforms in building trust and confidence among users.

Table 10 presents the respondent's assessments in service quality in terms of responsiveness.

TABLE 10
Respondent's Assessments in Service Quality in terms of Responsiveness

RESPONSIVENESS	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
1. Online banking staff give individual attention to clients, addressing their specific needs and concerns.	3.53	0.51	1	Strongly Agree
2. Online banking services are provided promptly, without unnecessary delays.	3.33	0.59	4	Strongly Agree
3. Online banking staff demonstrate a willingness to help clients with their inquiries or issues.	3.45	0.55	3	Strongly Agree
4. Online banking staff are available when needed to assist clients with their transactions or concerns.	3.46	0.54	2	Strongly Agree
GRAND MEAN	**3.44**	**0.46**		Strongly Agree

Table 10 shows that the data on responsiveness in online banking interactions reveals that respondents generally have a strong level of agreement regarding the attentiveness and promptness of services. The highest-rated item is that online banking staff give individual attention to clients, with a mean score of 3.53 and a standard deviation (SD) of 0.51, indicating that customers feel their specific needs and concerns are well addressed. The need for personal interaction with banking staff is a recurring theme in the literature. In a study of Anysiadou (2021) highlights that customers often experience stress when using online banking services, which can hinder their satisfaction and adoption of these services. This suggests that

providing personalized attention can alleviate such stress and enhance the overall customer experience

The willingness of staff to help with inquiries or issues and their availability when needed are also rated positively, with mean scores of 3.45 and 3.46, and SDs of 0.55 and 0.54, respectively. These scores suggest that clients are generally satisfied with the support they receive, though there is slightly more variability in the responses.

The study of Guul et al. (2020) found that frontline employees, including those in banking, are more inclined to assist clients who demonstrate high motivation and competence. This suggests that when clients are proactive and knowledgeable, staff are more likely to engage positively, thereby enhancing the service experience. Furthermore Hammoud & Baba (2018) emphasize that dimensions of e-banking service quality, such as reliability and responsiveness, significantly impact customer satisfaction. When staff are trained to deliver these qualities effectively, their willingness to assist clients increases, leading to higher satisfaction levels. Moreover, the availability of online banking staff during critical transaction times is essential for client support.

However, the item related to services being provided promptly, without unnecessary delays, received a lower mean score of 3.33 and a higher SD of 0.59, indicating that while clients still strongly agree, there is more variation in their experiences with timeliness. The role of customer expectations cannot be overlooked. The study by Muchimba (2024) emphasizes that attributes such as prompt customer support and the accuracy of transactions are essential for customer satisfaction in banking services. When expectations are not met, it can lead to dissatisfaction and a decline in customer loyalty (Suson, 2023). This suggests that while some customers may have had satisfactory experiences with promptness, others may have faced delays that did not align with their expectations, contributing to the observed variability in scores.

Overall, with an average mean score of 3.44 and an SD of 0.46, respondents express strong agreement with the responsiveness of online banking services. The slight variability in promptness suggests an area for improvement, but the consistently positive ratings indicate that clients are generally satisfied with the attention and assistance they receive.

Table 11 presents the respondent's assessments in service quality in terms of tangibility.

TABLE 11
Respondent's Assessments in Service Quality in terms of Tangibility

TANGIBILITY	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
1. The design of the online banking platform is visually appealing and user-friendly.	3.50	0.54	1	Strongly Agree
2. The online banking interface maintains a neat and professional appearance.	3.37	0.52	4	Strongly Agree
3. The equipment and technology used for online banking are well-maintained and reliable.	3.42	0.55	2.5	Strongly Agree
4. The ambiance environment of the online banking platform is suitable for conducting financial transactions.	3.42	0.55	2.5	Strongly Agree
GRAND MEAN	**3.43**	**0.45**		Strongly Agree

Table 11 shows that the data on tangibility in online banking interactions highlights strong agreement among respondents regarding the platform's visual appeal, functionality, and technology. The highest-rated item is the design of the online banking platform, which is perceived as visually appealing and user-friendly, with a mean score of 3.50 and a standard deviation (SD) of 0.54. This suggests that users are highly satisfied with the interface design. In the study of Lee and Kim (2020) emphasize that in an online environment, aesthetic elements such as graphic design, color schemes, and layout play a pivotal role in building trust and satisfaction among users. This aligns with findings from Hossain et al., (2020) who argue that usability and the perceived ease of use are essential determinants of customer intention to utilize online banking services.

The professional appearance of the interface scored slightly lower, with a mean of 3.37 and an SD of 0.52, though it still falls within the "strongly agree" range. Similarly, the reliability of equipment and technology and the suitability of the platform's environment for financial transactions both received mean scores of 3.42, indicating strong satisfaction, though with a bit more variability in experiences (SDs of 0.57 and 0.55, respectively). The reliability of equipment and technology is crucial in shaping customer satisfaction in online banking. Research by Sadek & Mehelmi (2020) emphasizes that a positive online brand experience directly impacts brand satisfaction, which is closely tied to the reliability of the services offered. Similarly, the findings from Tahtamouni (2022) indicate that ease of use and reliability are significant predictors of customer satisfaction in banking contexts. These studies collectively underscore the importance of a reliable technological infrastructure in ensuring customer satisfaction, particularly in financial transactions where trust and security are paramount.

Overall, with a mean score of 3.43 and an SD of 0.45, the data indicates strong agreement on the tangibility aspects of online banking, particularly the design, reliability, and professionalism of the platform. While all areas are positively rated, the slightly lower scores for interface appearance and technology suggest areas where further enhancements could be beneficial to ensure consistently high satisfaction across all tangible elements of the platform.

Table 12 presents the total respondent's assessments in service quality.

TABLE 12
Total Respondent's Assessments in Service Quality

SERVICE QUALITY	*Mean*	*Standard Deviation*	*Rank*	*Verbal Interpretation*
Empathy	3.49	0.42	1	Strongly Agree
Reliability	3.47	0.43	2	Strongly Agree
Assurance	3.46	0.44	3	Strongly Agree
Responsiveness	3.44	0.46	4	Strongly Agree
Tangibility	3.43	0.45	5	Strongly Agree
GRAND MEAN	**3.46**	**0.36**		Strongly Agree

Table 12 revealed the overall service quality data for online banking interactions and shows strong agreement across all dimensions of service, with each aspect receiving positive ratings. Empathy is rated the highest, with a mean score of 3.49 and a standard deviation (SD) of 0.42, indicating that respondents feel well-understood and valued by the online banking services. Reliability follows closely with a mean of 3.47 and an SD of 0.43, reflecting confidence in the accuracy and consistency of transactions and services provided.

Recent studies have shown a consensus on the positive ratings across multiple dimensions of service quality, with empathy emerging as a highly-rated aspect. This indicates that customers feel well-understood and valued by their banking services, which is crucial for fostering loyalty and satisfaction (Rupal, 2024; Hammoud & Baba, 2018; NGUYEN et al., 2020). Empathy in online banking is characterized by the banks' ability to understand and cater to the individual needs of their customers. Research has demonstrated that when banks exhibit high levels of empathy, it significantly enhances customer satisfaction (Dugaishem & Khawaja, 2018; Khan et al., 2023). This aligns with findings that emphasize the importance of personal interaction and understanding in digital banking environments, where customers often seek reassurance and support (Octavia, 2022). Furthermore, the reliability of online banking services closely follows empathy in terms of customer ratings. Reliability encompasses the accuracy and consistency of transactions, which are critical for building trust in digital banking platforms. Studies have shown that reliability is a key determinant of customer satisfaction, as it assures customers that their transactions are secure and dependable (Hammoud & Baba, 2018; NGUYEN et al., 2020; "Internet Banking Service Quality and Customer Retention in Deposit Money Banks in Rivers State- Nigeria", 2020).

Assurance (mean of 3.46, SD 0.44) and responsiveness (mean of 3.44, SD 0.46) also received high ratings, demonstrating that users trust the platform's security and availability and feel that staff are helpful and attentive. Tangibility, though slightly lower, still maintains strong agreement with a mean of 3.43 and an SD of 0.45, suggesting that the platform's design, technology, and professional appearance are generally satisfactory.

The study by Nguyen et al., (2020) emphasizes that all five factors of service quality, including reliability, responsiveness, assurance, empathy, and tangibility, positively correlate with customer satisfaction in e-banking. This correlation underscores the importance of responsive customer service and assurance in fostering a trusting environment for users. Similarly, the research by Tulcanaza-Prieto et al., (2022) indicates that trust and service guarantees, which are closely related to assurance, significantly influence customer satisfaction and loyalty in banking environments. This further supports the notion that high ratings in assurance and responsiveness are indicative of a secure and supportive banking environment. While tangibility received slightly lower ratings compared to assurance and responsiveness, it still maintains strong agreement among users, suggesting general satisfaction with the platform's design, technology, and professional appearance. For instance, the study by Boateng et al., (2021) found that tangibles, along with other service quality dimensions, positively influence customer satisfaction. This finding aligns with the results from the research conducted by Nyabundi et al., (2021) which revealed that tangibility significantly affects customer satisfaction, indicating that the physical and aesthetic aspects of online banking platforms are still valued by users.

With an overall mean of 3.46 and an SD of 0.36, the data indicates that respondents strongly agree that the service quality of their online banking experience is high across all areas, with consistent and reliable performance in empathy, reliability, assurance, responsiveness, and tangibility. The relatively low standard deviations reflect uniformity in positive experiences, pointing to a well-rounded, high-quality service experience for users.

7.3. Millennial Perception of Customer Satisfaction in Online Banking Transactions

Table 13 shows the millennial perception of customer satisfaction in online banking transactions

TABLE 13

Millennial Perception of Customer Satisfaction in Online Banking Transactions

CUSTOMER SATISFACTION	*Mean*	*SD*	*Rank*	*Interpretation*
1. I am satisfied with the overall service provided by my online bank.	3.45	0.54	7.5	Strongly Agree
2. The online banking service meets my expectations.	3.42	0.55	10	Strongly Agree
3. I would recommend my online bank to others.	3.45	0.54	7.5	Strongly Agree
4.The online banking service is reliable.	3.41	0.55	11	Strongly Agree
5. The online banking platform is easy to navigate.	3.44	0.53	9	Strongly Agree
6. It is easy to find the features I need on the online banking website/app.	3.51	0.51	3	Strongly Agree
7. The process of logging into my account is straightforward.	3.46	0.51	6	Strongly Agree
8. I find it easy to complete transactions online.	3.49	0.55	4.5	Strongly Agree
9. I prefer using online banking over visiting a physical branch.	3.56	0.54	1	Strongly Agree
10. The online banking experience has improved over time.	3.49	0.54	4.5	Strongly Agree
11. I feel that my online bank values me as a customer.	3.54	0.52	2	Strongly Agree
GRAND MEAN	**3.48**	**0.42**		Strongly Agree

Table 13 shows the customer satisfaction data for online banking services reveals a consistently high level of satisfaction among users across various dimensions. The highest-rated aspect is the strong preference for using online banking over visiting physical branches, with a mean score of 3.56, highlighting the convenience and accessibility that online platforms provide. Users also feel valued by their banks, as reflected in the 3.54 rating, suggesting that banks have effectively communicated customer appreciation. Other aspects, such as ease of completing transactions, navigating the platform, and the overall reliability of services, all scored strongly, with mean scores ranging from 3.41 to 3.51. The data shows that users find online banking not only easy to use but also reliable and efficient. With an overall mean of 3.48 and a low SD of 0.42, it is clear that online banks have cultivated a positive and consistent customer experience. This demonstrates that online banking services are meeting and often exceeding customer expectations, making them a preferred choice for financial transactions.

The data on customer satisfaction with online banking services reflects consistently high levels of satisfaction across all measured dimensions. The highest-rated item is that respondents prefer using online banking over visiting a physical branch, with a mean score of 3.56 and a standard deviation (SD) of 0.54, indicating a strong preference for the convenience of online banking. Similarly, the feeling that the online bank values the customer is rated highly, with a mean of 3.54, suggesting that respondents feel appreciated and respected by their bank.

The ease of finding needed features (mean of 3.51) and the straightforwardness of completing transactions (mean of 3.49) also score well, indicating that users find the platform easy to navigate and efficient for their needs. Items such as overall satisfaction with services, recommendation of the bank to others, and the reliability of the platform also score highly, with mean scores of 3.45 and 3.41, reflecting strong agreement.

In recent years, the preference for online banking over traditional banking methods has gained significant traction, particularly among millennials. This demographic shift can be attributed to several factors that enhance the appeal of online banking services. A key reason for this preference is the convenience that online banking offers. Customers appreciate the ability to conduct transactions anytime and anywhere without the constraints of physical branch hours. A study found that the convenience of having transactions available at any time and place is crucial for customers, highlighting that online banking facilities provide the highest utility for users (Maulana et al., 2019). Another significant factor influencing the preference for online banking is the perceived efficiency and time-saving benefits associated with digital transactions. Research indicates that customers often choose online banking due to its ability to save time and provide instant feedback, which traditional banking cannot match (Sikira, 2021). The immediacy of online services, such as fund transfers and bill payments, aligns well with the fast-paced lifestyle of millennials, who prioritize quick and efficient banking solutions (Sharul et al., 2019).

The overall mean score of 3.48 and an SD of 0.42 indicates that respondents strongly agree that their online banking experiences meet or exceed expectations. The low SD across most items suggests a high degree of consistency in customer experiences, with respondents expressing strong agreement that the platform is easy to use, reliable, and a preferred method of banking. This feedback suggests that online banks have successfully cultivated a high level of customer satisfaction, with room for continued improvements in reliability and the user experience.

7.4. Significant Relationship between Service Quality and Customer Satisfaction in Millennials' Perceptions

Table 14 shows the significant relationship between service quality and customer satisfaction in millennials' perceptions.

TABLE 14
Significant Relationship between Service Quality and Customer Satisfaction in Millennials' Perceptions

	Correlations	Customer Satisfaction	Result	Hypothesis
Empathy	Pearson Correlation	.524**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		
Reliability	Pearson Correlation	.619**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		
Assurance	Pearson Correlation	.575**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		
Responsiveness	Pearson Correlation	.633**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		
Tangibility	Pearson Correlation	.617**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		
Service Quality	Pearson Correlation	.731**		
	Sig. (2-tailed)	.000	Significant	Reject Null Hypothesis
	N	383		

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

Table 14: In this study, service quality is identified as the independent variable, with customer satisfaction as the dependent variable. Service quality is further broken down into five key sub-variables: empathy, reliability, assurance, responsiveness, and tangibility. Each of these parameters reflects different aspects of how customers perceive the quality of the service they receive.

Empathy refers to the ability of the service provider to show care and individualized attention to customers. The Pearson correlation result (r = .524, p = .000) indicates a significant but moderate positive relationship between empathy and customer satisfaction, meaning that the more empathetic the service is perceived to be, the higher the customer satisfaction.

Reliability measures the ability to deliver promised services dependably and accurately. It shows a strong positive correlation with customer satisfaction (r = .619, p = .000). This suggests that customers are more satisfied when the service is consistently dependable.

Assurance reflects the service provider's ability to instill trust and confidence through knowledge and courtesy. The correlation between assurance and customer satisfaction is also significant (r = .575, p = .000), showing that as customers perceive more trustworthiness and assurance, their satisfaction increases.

Responsiveness pertains to the willingness and readiness of service providers to help customers and respond promptly. This dimension has the highest correlation with customer satisfaction (r = .633, p = .000), emphasizing the importance of timely and efficient responses in driving customer satisfaction.

Tangibility refers to the physical aspects of the service, such as equipment, facilities, and the appearance of personnel. It has a significant correlation with customer satisfaction (r = .617, p = .000), indicating that customers value the tangible elements of service when evaluating their overall satisfaction.

The overall service quality variable, which encompasses all five sub-variables, shows a very strong positive correlation with customer satisfaction (r = .731, p = .000). This high correlation implies that customer satisfaction is significantly influenced by the perceived quality of service, with improvements in any of the five dimensions of service quality likely leading to increased customer satisfaction.

This study reveals that all aspects of service quality—empathy, reliability, assurance, responsiveness, and tangibility—are critical drivers of customer satisfaction. Among these, responsiveness stands out as the most influential factor, suggesting that organizations should prioritize prompt and effective customer service. The overall strong correlation between service quality and customer satisfaction underscores the importance for businesses to continually enhance the quality of their services to maintain and improve customer satisfaction.

PART II

7.5. Service Quality of Online Banking Platforms

Throughout the investigation, the study examined the quality factors that users identify as essential in their online banking experience. This question focused on user perspectives regarding the critical elements that define quality in digital banking, such as convenience, security, reliability, customer support responsiveness, and user interface. Participants provided insights into how these factors shape their banking interactions, sharing detailed responses about their expectations for high-quality online banking services.

The analysis of responses revealed several primary themes that participants consider vital to service quality: Empathy in Customer Experience, Reliability of Transactions, Assurance through Security Measures, Responsiveness of Customer Support, and Tangibility of the Online Banking Platform. These themes highlight that users not only value efficient, remote access to banking services but also prioritize seamless transaction speed, dependable service, and comprehensive security measures. Together, these factors create a reliable and accessible banking experience, underscoring the significance of these themes in maintaining a high standard of service that meets users' needs.

Empathy in Customer Experience: reflects a bank's ability to understand and respond to the personal needs of its customers, particularly those who have been with the bank for a long time. By showing empathy, banks create an emotional connection that enhances loyalty and customer satisfaction. Long-term users especially value a personalized approach, which strengthens their relationship with the bank and makes them feel appreciated.

Personalized Service for Long-Term Users. Personalized service for long-term users emphasizes how banks cater to the unique needs of their long-standing customers. These users appreciate when the bank goes beyond generic service to offer support that acknowledges their loyalty and tenure, fostering a sense of connection and trust.

SQCSA1: *"I've been with my bank for a long time and appreciate how convenient the service is, making me feel valued as a customer."*

SQCSA2: *"I feel like my bank cares about my needs. It's been with me for years, and I feel valued by the personalized support."*

Personalized service caters to these users by acknowledging their specific preferences, financial behaviors, and potential for continued engagement. Such service personalization may manifest in tailored financial advice, preferential service channels, or loyalty rewards that make customers feel recognized as valued stakeholders rather than just account holders. This kind of engagement builds a deeper sense of trust and loyalty, which is critical for long-term customer satisfaction and retention.

Several studies from existing literature emphasize the significance of tailored service in enhancing customer satisfaction, particularly among long-standing clients. For instance, Bondeson and Lindbom (2018) found that customer loyalty in the mobile banking sector is positively impacted when users perceive a high quality of relationships. This sense of relationship quality emerges from banks' efforts to go beyond transactional interactions, fostering an experience where customers feel understood and valued. Similarly, Ncube and Justice (2020) highlighted how personalized mobile banking experiences, including user-friendly, flexible, and customized applications, lead to increased loyalty among millennial users. This aligns with participants' appreciation for banks that tailor services to individual needs, as they experience a greater sense of loyalty when the bank recognizes their unique position and relationship.

Additionally, Banu et al. (2019) emphasize the importance of trust and ease of use in digital banking, showing that when banks address specific needs and provide customized solutions, customer perceptions of service quality improve. This study reveals that personalized services can foster trust, particularly among long-term customers who may seek added assurance that their bank values and supports their financial goals. The literature reflects a shared understanding that personalization reinforces customer loyalty, demonstrating to clients that the bank views them as partners in a long-term financial relationship. Furthermore, Karim, Mahmud, and Latif (2018) found that service customization and proactive support significantly impact customer satisfaction in the banking industry. They highlighted that banks focusing on personalized service strategies, such as loyalty programs and relationship-building efforts, see improvements in customer retention, especially in competitive markets. This resonates with participants' feedback, which underscores the value of loyalty recognition and relationship continuity in their banking experience.

Saving Time and Enhancing Lifestyle. Based on participants' perceptions of online banking, this sub-theme refers to the belief that online banking significantly enhances their quality of life by saving time and providing convenience. Respondents highlighted that the ability to conduct transactions without the need to visit physical branches allows them to allocate more time to personal interests and family activities. Furthermore, the streamlined nature of online banking services contributes to reduced stress and improved organization, enabling users to manage their finances efficiently. This enhancement of their lifestyle is particularly valued by individuals with busy schedules, as it empowers them to prioritize what matters most in their lives.

SQCSA1: *"Using online banking gives me a more convenient life. With my busy schedule, being able to transact without visiting a branch saves time for myself, my hobbies, and family."*

SQCSA6: *"Convenience and user-friendliness are essential. It's helpful when online banking is tailored to my needs, allowing me to manage my finances without hassle."*

The ability of online banking to save time is a critical factor in customer satisfaction, especially for those managing complex schedules. This view is supported by Kochukalam et al. (2018), who found that millennials prioritize prompt service and accessible banking options, showing that time-saving features in online banking directly enhance user satisfaction by integrating seamlessly into their fast-paced lives. This is further echoed by Banu et al. (2019), who emphasize that ease of use and time efficiency in digital banking contribute significantly to positive customer perceptions. For many users, the elimination of branch visits transforms banking into a convenient aspect of daily life, enhancing their ability to balance work, family, and personal pursuits.

Additionally, Adhimursandi et al. (2021) found that online banking features—such as easy access, streamlined search functions, and simplified post-service accessibility—play a key role in facilitating lifestyle convenience, as users can complete tasks with minimal interruptions. This resonates with the study's participants, who highlighted the ease of managing transactions on the go, reducing the time and effort typically required for financial tasks. The literature also aligns with broader trends in consumer behavior, where convenience and time efficiency are paramount. As Jiang et al. (2022) observed, customers across generations value the convenience of online banking for its ability to simplify transactions and reduce stress associated with traditional banking. This shift toward digital solutions helps customers integrate financial management into their lives without compromising other responsibilities. For participants in this study, the convenience of online banking supports a balanced lifestyle, where they can complete financial tasks quickly, leaving more time for family, hobbies, and relaxation. By minimizing the effort required to handle banking tasks, online banking not only enhances users' daily routines but also fosters a sense of control and independence in managing finances. This alignment with modern expectations for immediacy and accessibility not only improves user satisfaction but also meets the needs of those

balancing various aspects of life, underscoring the practical and lifestyle-enhancing benefits of digital banking services.

Reliability of Transactions: Reliability in transactions refers to the consistent performance of the banking platform, which is crucial for user satisfaction. Respondents underscored the necessity for a dependable service that functions smoothly, particularly during critical or time-sensitive transactions.

Dependability During Critical Transactions. Based on participants' perceptions, this sub-theme highlights the importance of a banking platform that operates reliably, especially when users are engaged in high-stakes transactions. Respondents expressed that any inconsistency during these moments can lead to frustration and uncertainty regarding the transaction process.

SQCSB2: *"Occasional downtimes can be frustrating, especially when I need to complete urgent transactions."*

SQCSB5: *"It delays transactions and makes me feel unsure about using online banking for critical payments."*

Reliability in service is a core aspect of user satisfaction, especially when it concerns transactions with immediate or significant outcomes. Hammoud, Bizri, and El Baba (2018) emphasize that reliability is a primary predictor of customer satisfaction within the digital banking sector, as users depend on uninterrupted service to manage important transactions smoothly. For participants in this study, this aspect of reliability reassures them that they can trust the platform to perform consistently, reducing the stress associated with high-stakes financial activities. Moreover, Talavera (2020) identified reliability as one of the top service quality dimensions valued by Filipino bank customers, who prioritize accurate and consistent bank processes, particularly for critical interactions. The consistent operation of a banking platform during pivotal transactions ensures that users experience minimal disruptions, which directly contributes to building their confidence in the service. Participants in this study similarly expressed the need for seamless functionality in high-stakes situations, highlighting how vital it is for banks to maintain robust infrastructure that supports critical transactions without issues. In addition, Ncube and Justice (2020) emphasize the importance of usability and stability in mobile banking, as these factors contribute to a positive user experience, especially for those navigating complex financial tasks. When participants encounter reliable and stable services, their trust in the platform is reinforced, furthering their engagement and satisfaction with digital banking. Dependability in digital banking is increasingly crucial as users perform a variety of sensitive transactions online. For participants, knowing that their bank can handle these moments reliably minimizes the anxiety associated with large transactions, fostering a sense of security and dependability that extends to other aspects of their banking experience. This expectation for consistency reflects a broader trend in digital services, where users rely on platforms to perform efficiently and effectively, especially during critical financial activities.

Minimizing System Downtime and Maintenance Interruptions. This sub-theme reflects the participants' concerns about the impact of system maintenance and downtime on transaction reliability. Frequent or poorly timed maintenance can disrupt user activities, emphasizing the need for a banking system that minimizes interruptions to enhance overall satisfaction.

SQCSB6: *"Reliability is essential, especially when transactions need to reflect quickly. Disruptions can be a huge inconvenience."*

SQCSB5: *"System slowdowns during peak hours are frustrating, particularly when they delay my transactions."*

Participants expressed a preference for banking systems that demonstrate high uptime reliability, particularly during commonly active times. This perspective is aligned with Mwiya et al. (2022), who found that service reliability is a core component of customer satisfaction, especially in digital environments where users expect constant access. The authors emphasize that maintaining seamless service, even during necessary updates, is essential for sustaining customer loyalty and confidence. Similarly, Hammoud, Bizri, and El Baba (2018) underscore the importance of reliability in digital banking services, noting that disruptions can undermine trust, especially if customers experience them frequently or at inconvenient times. Furthermore, Talavera (2020) highlights how Filipino bank customers prioritize responsiveness and reliability in digital services, emphasizing that banks need to plan maintenance effectively to avoid interruptions that could impact user satisfaction. This study suggests that banks should schedule maintenance during off-peak hours or communicate well in advance to prevent disrupting customers' activities. Participants in this current study echo these findings, stressing that a well-managed maintenance schedule allows them to rely on the platform without hesitation. In addition, Kochukalam et al. (2018) highlight that the availability of 24/7 service is increasingly expected in the modern digital banking environment. For participants, the ability to access services anytime without maintenance interruptions supports their need for flexibility and reliability in managing their finances. This demand for constant availability aligns with broader shifts in digital banking, where minimal downtime has become a fundamental aspect of customer satisfaction. By minimizing system downtime and effectively communicating planned maintenance, banks can enhance users' trust and satisfaction, showing customers that they prioritize seamless access and reliability. This proactive approach to system management not only strengthens the user experience but also aligns with modern expectations for uninterrupted digital services, fostering a sense of dependability that is essential in today's fast-paced, always-on world.

Assurance through Security Measures: Assurance through security measures emphasizes the importance of robust protections in online banking, which instill confidence and peace of mind among users. Participants expressed that effective security features are crucial for safeguarding their personal information and financial transactions.

Enhanced Security Features for Peace of Mind. Based on respondents' perspectives, this sub-theme highlights millennials' appreciation for enhanced security features such as one-time passwords (OTP) and two-factor authentication.

These measures are seen as essential for providing an extra layer of protection, making users feel more secure when accessing their online banking services.

SQCSC3: *"Security before accessing online banking is crucial, with additional steps like OTP for every transaction."*

SQCSC5: *"Security features like two-factor authentication help me feel confident that my transactions and personal information are safe."*

Millennials' emphasis on security aligns with findings from Kumar & Yukita (2021), who observed that perceived security is a critical factor in users' acceptance of mobile banking. They found that additional security layers, such as two-factor authentication, not only enhance perceived protection but also foster positive attitudes toward digital banking. For participants in this study, the presence of these security features translates to a feeling of peace of mind, as it mitigates concerns about the risks of online banking and reinforces their trust in the platform. Additionally, Baraba and Mahmudi (2023) highlight how security measures like OTP and multi-factor authentication positively impact users' attitudes toward digital banking by reducing perceived risk. They emphasize that when banks implement such security features, users feel more protected and are more likely to engage with online services confidently. Participants in this study echoed these findings, noting that these protections allow them to focus on financial tasks without worrying about potential security breaches. Thusi & Maduku (2020) also support the significance of institution-based trust in promoting mobile banking adoption among millennials. Their study reveals that enhanced security features can act as trust-building mechanisms, essential for encouraging usage in environments where users might otherwise be hesitant. By prioritizing security, banks create a safer environment that appeals particularly to millennials, who value both convenience and safety in digital transactions. Enhanced security features are becoming a fundamental expectation in digital banking, particularly among users who are increasingly aware of cybersecurity risks. For participants, these features not only protect their assets but also demonstrate that their bank is committed to maintaining a secure platform. This assurance fosters loyalty and increases their willingness to engage more deeply with digital banking, creating a trusted user experience that aligns with modern security expectations.

Proactive Fraud Prevention. Participants indicated a strong concern regarding phishing and fraud, underscoring the value of proactive measures to prevent potential threats. This sub-theme reflects the expectation that banks implement comprehensive security protocols to address these concerns effectively.

SQCSC6: *"It's important that security measures are robust, as I worry about phishing attempts and fraud. The added layers of protection make me feel safer."*

SQCSC5: *"Even though security is in place, I sometimes worry about fraud, so more safety measures would add peace of mind."*

The emphasis on proactive fraud prevention is supported by Javed, Rashidin, & Li (2018), who underscore the importance of e-service quality in online banking, particularly in the dimensions of assurance and privacy. They found that robust security protocols are essential in fostering customer satisfaction and trust, as users rely on their bank to safeguard their personal and financial information from external threats. This resonates with participants' feedback, as they prioritize banks that actively work to secure their transactions from potential fraud. Additionally, Scheresberg (2020) highlights how users who adopt digital financial tools tend to be more concerned with potential risks like identity theft, emphasizing the need for comprehensive fraud prevention strategies. The study shows that financial institutions with strong fraud detection mechanisms enhance users' peace of mind, as they can confidently conduct transactions without constant worry about phishing attempts or security breaches. Ncube and Justice (2020) further highlight the role of personalized security measures, such as fraud alerts and multi-layered authentication, in promoting loyalty among millennial users. Participants in this study valued banks that not only respond to fraud reactively but also employ proactive monitoring systems. These systems, which might include real-time alerts and advanced fraud detection algorithms, reassure users that the bank is consistently protecting them from potential threats. In today's digital landscape, users expect their financial institutions to not only have responsive security measures but also to take a proactive stance against emerging fraud tactics. For participants, the bank's dedication to fraud prevention builds trust and supports their continued engagement with digital banking services, making it clear that their safety is a priority. This approach aligns with modern security expectations, where proactive measures are essential for maintaining a secure and reliable online banking experience.

Responsiveness of Customer Support: Customer support responsiveness refers to the promptness with which banking representatives address user issues. This theme highlights that millennials expect quick assistance during technical difficulties, viewing responsive customer service as integral to a high-quality banking experience.

Timely Resolution During Emergencies. Based on participants' experiences, this sub-theme emphasizes the critical need for immediate support during emergencies. Respondents expressed frustration when faced with delays in customer service, particularly in urgent situations where quick resolutions are essential for maintaining trust in their banking services.

SQCSD1: *"Customer service seems to be slow in responding to my queries. It's frustrating, especially when I need help urgently and can't visit a branch."*

SQCSD5: *"I expect fast and responsive customer support, especially during technical issues."*

SQCSD4: *"Customer support should be fast and responsive, especially when it comes to troubleshooting or solving technical issues."*

This highlights the expectation for prompt, efficient assistance during technical difficulties or other issues. Participants expressed frustration with delayed responses, particularly in situations requiring immediate attention. Quick

and effective customer support, is seen as a critical component of a high-quality online banking experience. The literature underscores the importance of responsive support in digital banking, especially for millennials who may prioritize convenience and accessibility. Thusi & Maduku (2020) found that millennials' trust in online banking is influenced by the perceived reliability of customer support, suggesting that quick response times are essential to fostering a positive user experience. Ncube & Justice (2020) similarly emphasized that efficient customer support enhances satisfaction and can serve as a point of differentiation in the competitive digital banking market. Addressing millennial expectations for responsive customer service is therefore essential, as slow or ineffective support may negatively impact users' perception of the bank's commitment to quality service.

The need for prompt customer support also aligns with millennials' broader digital experiences, where quick assistance is an expectation across service platforms. By ensuring that customer service teams are readily available and capable of resolving issues efficiently, banks can meet these expectations, reinforcing their reputation for reliability and responsiveness. The ability to deliver timely support is instrumental in maintaining user satisfaction and can play a crucial role in a bank's strategy to retain millennial customers, who value immediate problem resolution as part of their service quality evaluation

Tangibility of the Online Banking Platform: The tangibility of the online banking platform refers to the physical and aesthetic aspects of the digital service, which significantly influence user experience. Participants emphasized the importance of a well-designed and visually appealing platform that enhances usability and accessibility.

User-Friendly Design and Layout. Based on respondents' feedback, this sub-theme highlights the value of a straightforward and user-friendly design that facilitates ease of navigation and quick access to essential banking functions. A clean layout contributes to a seamless transaction process, enabling users to complete tasks efficiently.

SQCSE5: *"The design is clean and easy to understand, which makes it simple to perform transactions like transferring funds or paying bills."*

SQCSE6: *"It's easy to use, even for someone like me, who's a newbie with the bank's features."*

This study reveals the fact that millennials' prefer straightforward and user-friendly interfaces, which allow them to complete transactions efficiently. Participants highlighted that intuitive design simplifies tasks, enhancing their satisfaction. However, some users expressed a desire for updates to the platform's design, suggesting that improved navigation could further streamline their experience. This preference for user-friendly design aligns with findings from Windasari et al. (2022), who identified ease of use as essential for driving digital banking adoption, particularly among younger users. Kochukalam et al. (2018) similarly found that millennial banking choices are influenced by the accessibility and clarity of digital interfaces, where intuitive navigation reduces friction and creates a more engaging experience. For banks aiming to attract and retain millennial users, investing in design updates that align with digital trends could meet evolving user expectations, further enhancing satisfaction and engagement

Modernization and Visual Appeal. While some respondents expressed satisfaction with the current platform, others noted that it could benefit from a more modern design to enhance the overall user experience. This sub-theme reflects the desire for updates that improve visual appeal and usability, ensuring a smoother navigation experience.

SQCSE2: *"The layout is straightforward but sometimes feels a bit outdated or clunky. Improvements could make navigation smoother."*

SQCSE5: *"The experience is smooth but could benefit from some user-friendly enhancements."*

The significance of an appealing and user-friendly interface is supported by Ncube and Justice (2020), who found that ease of use and customization are key factors in fostering a positive mobile banking experience. Their study reveals that a visually attractive, intuitive design contributes significantly to user satisfaction, as it allows users to engage with the platform effortlessly. This aligns with participants' feedback, as they value a design that balances functionality with aesthetics, ensuring that navigation is easy and visually enjoyable. Bondeson and Lindbom (2018) also emphasize that an updated, modern interface can boost customer loyalty by enhancing the emotional connection users have with the platform. They observed that platforms with well-designed, aesthetically pleasing interfaces create a more positive impression, making users feel that the bank is attuned to current digital trends. For participants in this study, a modern design represents the bank's commitment to adapting and providing a high-quality user experience that keeps pace with technology. Furthermore, Ganguly et al. (2023) observed that younger users, especially millennials and Gen Z, are more likely to engage with digital services that emphasize convenience and visual appeal. This demographic increasingly expects digital platforms to be both functional and attractive, highlighting the role of visual elements in shaping users' perceptions of service quality. For participants, a refreshed design would contribute to a sense of ease and satisfaction, as they could navigate the platform more intuitively, improving both usability and their overall impression of the service. This desire for a modernized platform reflects broader trends in digital consumer expectations, where users prioritize visual appeal and streamlined design in the services they use daily. For participants, a visually appealing and user-friendly banking platform would not only make transactions smoother but also reinforce their confidence in the bank's commitment to innovation and quality service.

7.6. Millennial Satisfaction with Online Banking Services

Throughout the investigation, the study examined the factors contributing to millennial satisfaction with online banking services. This question aimed to understand how millennials evaluate their banking experiences, focusing on elements such as convenience, ease of use, security, customer

support responsiveness, personalization, and reliability of transactions. Participants shared detailed insights into their preferences and expectations, highlighting the aspects of online banking that enhance their overall satisfaction.

The analysis of responses revealed several central themes that characterize millennial satisfaction: Convenience and Accessibility, Ease of Use and Interface Design, Security and Trust, Responsiveness of Customer Support, Personalization and Tailored Services, and Reliability and Speed of Transactions. These themes underscore the millennials' demand for accessible and intuitive banking solutions that align with their digital-first lifestyles.

Convenience and Accessibility. Based on participants' perceptions of online banking, this theme emphasizes the priority millennials place on convenience as a key factor in their satisfaction. Respondents highlighted that online banking integrates seamlessly into their busy lifestyles, allowing them to complete transactions on the go without the need to visit physical branches. This accessibility enhances their overall banking experience, as it enables them to manage their finances more efficiently.

SQCSF1: *"Using online banking services gives me a more convenient life. Being busy with work and personal life, transacting without going to a bank branch helps me save time."*

SQCSF5: *"The convenience is great, allowing me to manage my finances and complete transactions from anywhere without needing to visit a branch."*

SQCSF6: *"It's convenient because I don't need to go to the bank to make transactions."*

This emphasizes the crucial role that time efficiency plays in users' perceptions of online banking quality. For many users, especially those balancing demanding work schedules, family responsibilities, and personal pursuits, time has become one of their most valuable resources. Online banking services eliminate the need for physical travel to a branch, allowing users to manage their finances quickly and efficiently from anywhere, which has proven to be an invaluable convenience. This ability to complete transactions from the comfort of their own space—whether at home, in the workplace, or on the go—transforms the traditionally time-consuming process of banking into a seamless part of daily routines.

Several studies from existing literature support the importance of time efficiency in digital banking. Kochukalam et al. (2018) found that Millennials prioritize prompt service and accessible banking options, highlighting that time-efficient features contribute greatly to their satisfaction with online banking. This resonates with users' perspectives in this study, who emphasized the convenience of not needing to visit a branch and the ability to complete transactions on the go, making online banking a time-saving and essential tool for managing finances. Similarly, Adhimursandi et al. (2021) found that characteristics such as access and post-service convenience impact millennials' adoption of mobile banking by enhancing accessibility, allowing users to manage financial activities seamlessly from any location. In this study, participants expressed a strong appreciation for the time-saving aspect of online banking, which they found to be critical in adapting banking into their busy schedules without interruption

Banu et al. (2019) also underscore the importance of time savings and ease of use in shaping positive perceptions of online banking. They emphasize that time efficiency not only enhances the appeal of online banking but also directly impacts user satisfaction by integrating seamlessly into users' busy lifestyles. In thisstudy, this theme emerged clearly as participants noted that the time saved through online banking allowed them to dedicate more energy to personal pursuits and responsibilities, making it a significant factor in their overall satisfaction with digital banking.

This ability to complete transactions from any location aligns with broader shifts in consumer behavior, where digital services are increasingly expected to provide instant access and prompt completion. Participants' responses reflect a strong appreciation for the convenience of transferring money, paying bills, and checking balances without delays, revealing how this feature aligns with modern expectations for immediacy. Notably, this time-saving element not only adds to user satisfaction but also fosters a deeper sense of control over their finances. By empowering users to handle banking tasks whenever it suits them, online banking meets a critical need in today's fast-paced, multitasking society, contributing to a positive, integrated experience that supports work-life balance.

Ease of Use and Interface Design. Based on participants' feedback, this theme reflects the importance of a user-friendly interface in online banking. Many respondents noted that an intuitive layout is essential for efficiently completing banking tasks. While some users express moderate satisfaction, pointing out that the interface feels somewhat outdated or lacks intuitiveness, others appreciate its clean design, which simplifies transactions. Overall, the responses suggest that improvements to the interface could significantly enhance user experience and satisfaction.

SQCSF2: *"I am moderately satisfied with BDO's user interface. The layout is straightforward, but sometimes it feels a bit outdated. Improvements could make navigation smoother."*

SQCSF5: *"I am fairly satisfied with the interface. The design is clean, making transactions simple, but some features could be more intuitive."*

SQCSF6: *"Very satisfied because it is easy to use, even for someone like me, who's new to the bank's features."*

The significance of ease of use and intuitive design in digital banking aligns with Ncube and Justice (2020), who found that flexibility and user-centered design are essential in creating positive experiences in mobile banking. Their study highlights how a well-organized, intuitive interface not only facilitates smooth navigation but also encourages users to engage more frequently and confidently with digital services. For participants in this study, a more intuitive layout would enhance their satisfaction by making transactions and account management quicker and easier to perform. Similarly, Bondeson and Lindbom (2018) observed that a clear, user-friendly design plays a vital role in improving customer loyalty

within the digital banking sector. They found that when users perceive an interface as easy to navigate and visually clear, they are more likely to form positive associations with the service. Participants in this study reflected this sentiment, noting that an updated, visually intuitive design could elevate their overall banking experience and strengthen their loyalty. Furthermore, Sugiarto and Octaviana (2021) emphasize the importance of usability as a key dimension of service quality in digital services. Their findings show that clear, straightforward interfaces significantly impact customer satisfaction by reducing the cognitive load required to complete tasks. For the participants here, a design that anticipates their needs and reduces complexity would not only enhance usability but also contribute to a smoother, more enjoyable online banking experience. In today's digital landscape, where consumers increasingly expect seamless, user-centered design, improvements to interface functionality and aesthetics could markedly enhance user satisfaction. For participants, such enhancements would not only simplify daily banking tasks but also demonstrate the bank's commitment to staying current and responsive to user needs, furthering their confidence and engagement with the platform.

Security and Trust. Based on participants' feedback, this theme underscores the paramount importance of security in online banking. Respondents indicated that robust security measures, such as one-time passwords (OTP) and two-factor authentication, are crucial for building trust in the banking platform. Many users emphasized their concerns about potential threats, such as phishing attempts, and highlighted that strong security features provide peace of mind, contributing significantly to their overall satisfaction with the service.

SQCSF3: *"I value the security of the account owner and additional validations like OTP before every transaction."*

SQCSF5: *"Security, transaction speed, and customer support are factors I consider. Two-factor authentication helps me feel safe."*

SQCSF6: *"Security measures are vital, especially as I sometimes worry about phishing attempts. The added protection makes me feel safer."*

The emphasis on security as a foundation for trust is consistent with findings from Kumar & Yukita (2021), who observed that perceived security strongly influences user attitudes toward mobile banking adoption. They found that when users feel their information is safeguarded, they are more likely to trust the platform and use it regularly. Participants in this study similarly noted that robust security features play a major role in reassuring them of the platform's reliability, making it easier for them to conduct transactions with confidence. Baraba and Mahmudi (2023) also affirm that security measures, particularly those involving multi-layer authentication, positively impact user trust by addressing perceived risks. Their research shows that proactive security protocols, like OTP and two-factor authentication, are vital in mitigating users' concerns about fraud and unauthorized access. This reflects participants' feedback, as they highlighted these features as essential in maintaining their trust and satisfaction with the banking platform. Moreover, Hammoud, Bizri, and El Baba (2018) underscore that in digital banking, security and reliability are core components of customer satisfaction, as they directly affect the perceived quality of service. They emphasize that when banks prioritize security, it not only protects customers but also establishes a strong foundation for loyalty. For participants in this study, a secure banking platform translates to a trustworthy one, underscoring the bank's commitment to their protection and well-being.

Responsiveness of Customer Support. Based on participants' experiences, this theme emphasizes the need for quick and efficient customer support in online banking. Respondents expressed frustration over slow response times during critical situations, indicating that timely assistance is essential for maintaining user satisfaction. Users expect that customer support should be readily available and responsive, particularly during technical issues, highlighting the importance of effective communication in enhancing the overall banking experience.

SQCSF1: *"Customer service is slow in responding to my queries. It's frustrating, especially when I need help urgently and can't visit a branch."*

SQCSF5: *"I expect fast and responsive customer support, especially during technical issues."*

SQCSF4: *"Customer support should be quick, particularly with troubleshooting."*

The emphasis on responsiveness in customer support aligns with findings from Ncube and Justice (2020), who examined mobile banking loyalty in South Africa. They observed that for millennials, convenience and usability, along with personalized and responsive customer support, are vital in building user loyalty. Quick response times, especially in urgent matters, play a crucial role in shaping positive user experiences, as users feel valued and assured that their concerns will be addressed promptly. This expectation for high-quality customer support echoes the feedback in this study, where participants stressed the importance of having accessible assistance during times of need. Similarly, in the study by Kochukalam et al. (2018) on millennial banking preferences in Kerala, India, respondents prioritized the availability of prompt customer support as a decisive factor in their bank choice. The study found that responsive support not only enhances user satisfaction but also positions banks competitively in the market. This finding complements the participants' desire in the current study for reliable, quick assistance, especially during technical or transactional issues. Moreover, Talavera (2020) highlighted responsiveness as one of the four key service quality dimensions valued by Filipino bank consumers. By examining how quickly and effectively banks resolve client queries, Talavera's study emphasizes that responsiveness significantly impacts customer satisfaction. In line with this, the participants' frustrations over slow response times in the current study suggest that improving responsiveness could directly enhance user satisfaction, indicating that banks need to invest in efficient support mechanisms. Finally, the study by Hammoud, Bizri, and El Baba (2018) reinforces the significance of responsive support

within the digital banking sector, showing that reliability, which includes the consistency and timeliness of customer support, strongly correlates with customer satisfaction. Their research suggests that when users perceive that they can rely on customer support for timely assistance, they are more likely to trust the service. This is reflected in the participants' feedback, as their expectations for efficient support underscore its importance in shaping their confidence and loyalty to the banking platform.

Personalization and Tailored Services. Based on participants' insights, this theme illustrates the desire for personalized banking experiences that align with individual financial goals. Respondents expressed that features like spending insights and tailored financial advice could significantly enhance their user experience. This emphasis on personalization indicates that millennials appreciate banking services that consider their unique needs, demonstrating empathy and understanding from the bank.

SQCSF2: *"Improving user experience through more modern design and enhancing mobile functionality would be helpful, along with personalized features like spending insights."*

SQCSF5: *"It would be great if the apps offered more personalized experiences, like financial advice tailored to my spending habits."*

The importance of personalization in enhancing the user experience is echoed by Ncube and Justice (2020), who explored millennial loyalty in mobile banking. They identified customization and flexibility in mobile app features as key factors that drive millennial loyalty. When banks offer personalized services that address individual financial goals and spending patterns, users feel a stronger connection to the platform, which fosters loyalty. The current study's participants similarly highlighted the value of tailored advice and insights, underscoring that customization plays a vital role in their banking satisfaction. In a related study, Windasari et al. (2022) examined factors influencing digital-only banking adoption among Generation Y and Z, emphasizing that rewards and unique selling points, such as personalized features, are critical to attracting younger customers. This finding reinforces the participants' desire for individualized services, suggesting that personalization is more than a preference—it's a key factor in the adoption and sustained use of digital banking services among younger generations. Additionally, the research by Suhartanto et al. (2021) highlights that millennials' loyalty to AI-enabled mobile banking in Indonesia is significantly influenced by the quality of personalized service. The study found that when AI technology is used to deliver personalized financial insights and recommendations, it enhances customer trust and satisfaction. Finally, Bondeson and Lindbom (2018) found that personalized engagement positively impacts mobile banking loyalty in Sweden. Their study shows that millennials value banking services that align with their lifestyle and preferences, which contributes to a positive perception of the bank's services. This is consistent with the insights from participants in the current study, who emphasized the importance of personalized banking features, such as spending insights and customized financial advice, in creating a meaningful and satisfying banking experience.

Reliability and Speed of Transactions. Based on participants' experiences, this theme highlights the critical importance of reliable transaction processing in online banking. Users indicated that frequent downtimes or slow transaction speeds can lead to significant frustration, particularly during urgent financial tasks. The respondents underscored the need for a dependable banking platform that ensures quick and seamless transactions, reflecting the expectations for a high-quality banking experience.

SQCSF2: *"Occasional downtimes can be frustrating, especially during urgent transactions."*

SQCSF5: *"System slowdowns during peak hours are frustrating, particularly when they delay my transactions."*

SQCSF6: *"Reliability is essential, especially when transactions need to reflect quickly. Disruptions are inconvenient."*

Reliability and Speed is consistent with findings from Kochukalam et al. (2018), who found that millennials prioritize fast and uninterrupted access to banking services when choosing a bank in Kerala, India. Their study highlights the importance of operational efficiency, as it directly affects user satisfaction and loyalty. For the participants in this study, reliability in transactions is seen as essential to maintaining a positive experience, especially during time-sensitive situations.

Similarly, the research by Hammoud, Bizri, and El Baba (2018) in Lebanon identifies reliability as a core predictor of customer satisfaction in digital banking. The study demonstrates that dependable services, particularly in terms of transaction processing speed, are essential for user trust and satisfaction. This finding resonates with the feedback from participants here, who expressed frustration over system downtimes and delays, showing that a bank's reliability is crucial for customer retention. Moreover, Thusi and Maduku (2020) found that millennials in underdeveloped regions, such as parts of Africa, are significantly influenced by performance expectations in mobile banking. The study notes that if mobile banking platforms fail to meet these expectations in terms of speed and reliability, users may be discouraged from adopting or using the service. This aligns with the current study, where respondents highlighted the need for quick and seamless transactions, reinforcing that reliable and fast service is fundamental to their satisfaction. Finally, in their examination of online banking in the Philippines, Capistrano (2021) observed that ease of use and reliability are crucial for encouraging digital banking adoption. The study suggests that when platforms ensure smooth and efficient transactions, users are more inclined to trust and regularly use online banking services. This directly supports the participants' feedback in this study, where transaction speed and platform reliability are paramount for fostering a positive, stress-free banking experience.

7.7. EMERGING FRAMEWORK

Figure 2. Service Quality in Online Banking: A Framework for Enhancing Customer Satisfaction

7.8. SYNTHESIS

Based on the results of both quantitative survey data and qualitative interview responses, this chapter examines millennials' perceptions of online banking service quality and customer satisfaction. The study addresses multiple dimensions of service quality, each contributing to a comprehensive view of customer experiences and expectations.

7.8.1. Service Quality in Online Banking

Empathy. The informants concludes that "*The online banking platform that understands and caters the specific needs and preferences of its customer during transactions"* and "*Online banking staff provide personalized attention and recognize the individual needs of its customer during online interactions*" are both rated *Strongly Agree* with a weighted mean equally of 3.49, showing strong agreement that online banking services not only understand user preferences but also provide personalized support enhancing the convenience of their online banking experience. Supporting this, respondents shared specific positive insights from open-ended responses, such as: *SQCSA1. "Using online banking services gives me a more convenient life. Being busy with work and personal life, transacting without going to a branch is a big help for me to save time and spend more time on myself, my hobbies, and my family."* ; *"I've been with my bank for a long time and appreciate how convenient the service is, making me feel valued as a customer."* and *SQCSA2. "I feel like my bank cares about my needs. It's been with me for years, and I feel valued by the personalized support."* These qualitative responses not only corroborate the quantitative findings but also underscore the importance of empathy in customer service within the context of online banking. By demonstrating empathy through understanding user preferences and providing personalized support, online banking services effectively cultivate trust and loyalty among customers. This support makes their banking experience seamless and significantly reduces the stress associated with in-person banking visits, contributing to a stronger sense of satisfaction and long-term commitment to the service.

Reliability. The informants concludes that *"The staff assisting with online banking transactions are well-trained and knowledgeable"* and *"Online banking transactions are performed correctly the first time they are attempted"* both receiving a weighted mean of 3.50, rated as *Strongly Agree*. These scores reflect strong confidence in the competence of online banking staff and the platform's ability to perform transactions accurately. Supporting qualitative responses highlight issues related to downtimes and delays during peak hours as minor but notable frustrations, as in SQCSB2. *"Occasional downtimes can be frustrating, especially when I need to complete urgent transactions."* and SQCSB5. *"System slowdowns during peak hours are frustrating, particularly when they delay my transactions."* These insights suggest that while customers generally perceive online banking as reliable, there are occasional concerns about system availability. The emphasis on reliability fosters a sense of trust in the platform, as users value consistent, dependable services that work as expected. This reliability, particularly in staff knowledge and transaction accuracy, is fundamental to customer confidence and satisfaction in online banking.

Assurance. The informants concludes that *"The online banking platform instills confidence in clients regarding the security and reliability of transactions"* and *"The online banking platform provides a safe and secure environment for clients to conduct transactions."* both receiving a weighted mean of 3.49, rated as *Strongly Agree*. Customers express satisfaction with security features, such as two-factor authentication, as evidenced in open-ended res like SQCSC3. *"Security before accessing online banking is crucial, with additional steps like OTP for every transaction."* and SQCSC5. *"Security features like two-factor authentication help me feel confident that my transactions and personal information are safe."* These security measures contribute to a heightened sense of trust and safety, making users more comfortable conducting financial transactions online. The data and responses underline the importance of robust security protocols in enhancing user confidence, suggesting that the more users perceive the platform as secure, the more likely they are to trust and use the service consistently.

Responsiveness. Responsiveness scored positively, with a mean score of 3.44. informants particularly appreciate the individual attention from staff, rated highest with a mean of 3.53 interpreted as *strongly agree*. However, promptness of service received a slightly lower rating with a mean of 3.33, with more variability. Supporting feedback highlights a desire for faster support, especially during technical issues, as noted in SQCSD1. *"Customer service seems to be slow in responding to my queries. It's frustrating, especially when I need help urgently and can't visit a branch."* and SQCSD4. *"Customer support should be fast and responsive, especially when it comes to troubleshooting or solving technical issues."* These insights show that while customers feel online banking staff are generally willing to help, there is room for improvement in response time. The data indicates that responsiveness is a valued aspect of service quality, with a

focus on timely assistance to reinforce customer trust and satisfaction.

Tangibility. Tangibility received strong ratings, with the *"visually appealing and user-friendly"* design of the platform rated the highest, at a mean of 3.50 interpreted as *strongly agree*. Customers are satisfied with the appearance and functionality of the online banking interface, as expressed in SQCSE5. *"The design is clean and easy to understand, which makes it simple to perform transactions like transferring funds or paying bills."* and SQCSE6. *"It's easy to use, even for someone like me, who's a newbie with the bank's features."* However, some users feel the interface could be modernized to enhance navigation, as noted in SQCSE2. *"The layout is straightforward but sometimes feels a bit outdated or clunky."* These insights suggest that while the platform's visual design and usability are generally well-regarded, continuous updates to improve intuitiveness could further enhance the user experience. Tangibility in design and functionality plays an essential role in making online banking services more accessible and user-friendly, reinforcing customers' positive experiences.

7.8.2. Customer Satisfaction

Customer satisfaction with online banking services is consistently high across dimensions, with an overall mean score of 3.48. The strongest satisfaction comes from customers' preference for online banking over visiting physical branches, which has a mean score of 3.56 interpreted as *strongly agree,* underscoring the value customers place on convenience, flexibility, and accessibility. Respondents report that the ability to conduct transactions anytime, anywhere greatly enhances their satisfaction. As expressed by three respondents, SQCSF1. *"Using online banking services gives me a more convenient life. Being busy with work and personal life, transacting without going to a bank branch helps me save time."*, SQCSF5. *"The convenience is great, allowing me to manage my finances and complete transactions from anywhere without needing to visit a branch."* and lastly, SQCSF6*. "It's convenient because I don't need to go to the bank to make transactions."* This preference for digital banking reflects an appreciation for time-saving options, allowing customers to manage finances on their terms without the limitations of traditional banking hours.

Responsiveness and Reliability are equally important elements in fostering satisfaction. Informants rated "*The online banking service is reliable"* as the lowest mean in customer satisfaction scoring 3.41 but still interpreted as *strongly agree,* indicating that while clients still strongly agree, there is more variation in their experiences in some aspects. This score reflect the need for improvement in platform's reliability measures and customer service staff's promptness. Responses suggest that users appreciate the personalized attention and readiness of staff to address their needs, though some report delays in responses, especially during technical issues. As one user expressed, *"Customer support should be fast and responsive, especially when it comes to troubleshooting or solving technical issues"* (SQCSD5). This feedback reveals a general satisfaction with support quality but also indicates a desire for faster response times in critical situations, suggesting that enhancing promptness in customer service could boost satisfaction further. Respondents also value the dependability of online banking, rating transaction accuracy and service consistency highly. However, occasional technical issues, such as system downtimes during peak hours, are noted as frustrations. For instance, SQCSB5 states, *"System slowdowns during peak hours are frustrating, particularly when they delay my transactions."* While reliability is generally strong, these issues highlight areas where improvements could further enhance user satisfaction. In line with this, under this item Security is also important elements in fostering satisfaction. Respondents strongly agree that the platform's security measures, such as two-factor authentication and OTPs, instill confidence with a mean score of 3.54. Many users mention feeling reassured by these security features, with one stating, SQCSC5.*"Security features like two-factor authentication help me feel confident that my transactions and personal information are safe"*. This sense of security is critical, as it reduces customer concerns about fraud and phishing, making them more likely to trust and regularly use online banking services.

Ease of use is another significant factor in customer satisfaction, with the simplicity of the platform's navigation and transaction processes receiving positive ratings with a mean of 3.51 interpreted as *strongly agree*. Many users find the design intuitive and straightforward, as highlighted by SQCSF6. *"It's easy to use, even for someone like me, who's new to the bank's features."* However, there are also comments suggesting that while the interface is generally functional, it could benefit from updates to improve its modernity and smoothness, such as in SQCSF2. *"The layout is straightforward but sometimes feels a bit outdated. Improvements could make navigation smoother."* This feedback indicates that users appreciate the existing user interface but would welcome refinements to make the experience even more seamless.

Lastly, the platform's ability to make users feel valued is a significant contributor to overall satisfaction, as indicated by a score of 3.54 on feeling appreciated by their bank. Respondents convey that the personalized support and understanding of their needs contribute to a strong sense of loyalty and trust. For instance, SQCSA2 shares, *"I feel like my bank cares about my needs. It's been with me for years, and I feel valued by the personalized support."* This sentiment underscores how empathy and recognition of individual needs can deepen customers' connection to the service, fostering long-term commitment and satisfaction.

Customer Satisfaction in online banking is driven by the convenience, security, reliability, ease of use, and promt support that these platforms offer. While satisfaction is high across all dimensions, customers suggest that minor improvements in response speed, interface design, and occasional technical stability could enhance the experience further. Overall, online banks have successfully crafted a service that meets modern banking needs, earning them a

strong preference over traditional banking methods and promoting long-term loyalty and trust among users.

8. DISCUSSION

This chapter presents a summary of findings based on the data gathered and analyzed, conclusions drawn from these findings, and recommendations relevant to improving online banking services based on millennials' perceptions.

8.1. Summary of Findings

The study was conducted to explore how millennials perceive various aspects of service quality and customer satisfaction in online banking, focusing on empathy, reliability, assurance, responsiveness, and tangibility.

8.2. Profile of the Respondent

8.2.1. Age: The largest age group was between twenty-eight to thirty-one years old, comprising 54.3% of the sample, followed by thirty-two to thirty-five years old (23.8%). This indicates a predominance of younger adults, particularly in the late twenties and early thirties.

8.2.2. Sex: Female respondents represented the majority at 48.04%, followed closely by male respondents at 44.39%, with 7.57% opting not to disclose their gender.

8.2.3. Civil Status: The majority of respondents were married comprised 50.4%, while singles made up 46.5%, with a small portion of widowed individuals at 3.1%.

8.2.4. Employment: The majority of respondents, 72.8%, were employed, while 21.4% were self-employed. A smaller portion, 5.7%, were unemployed. This suggests that online banking is primarily used by those with stable employment.

8.2.5. Monthly Income: Most respondents, 51.2%, had a monthly income between twenty-one thousand nine hundred fourteen pesos and forty-three thousand eight hundred twenty-eight pesos, followed by 28.5% earning between ten thousand nine hundred fifty-seven pesos and twenty-one thousand nine hundred fourteen pesos. A smaller group, 15.1%, reported income levels between forty-three thousand eight hundred twenty-eight pesos and seventy-six thousand six hundred sixty-nine pesos, with only 1% and 0.5% earning in higher brackets. This reflects a predominance of middle-income users among online banking clients.

8.2.6. Banking Institutions: BDO Unibank was the most commonly used bank at 35.2%, followed by BPI at 21.7% and Metrobank at 15.4%.

8.3. Service Quality Dimensions in Online Banking

8.3.1. Empathy: Respondents showed a strong agreement on empathy-related aspects, particularly the friendliness and courteousness of customer service representatives. Personalized support also ranked high, indicating a positive perception of empathy in service delivery.

8.3.2. Reliability: The reliability dimension received a verbal interpretation of strongly agree, reflecting a high level of trust in the platform's accuracy and dependability. The consistency in performing transactions correctly and well-trained staff were key factors contributing to this perception. Minor variability suggests occasional inconsistencies that could impact trust if not addressed effectively.

8.3.3. Assurance: Assurance was rated positively with a verbal interpretation of strongly agree. Respondents valued the security and reliability of online transactions, with particular emphasis on confidence in the platform's security features.

8.3.4. Responsiveness: The dimension of responsiveness received a verbal interpretation of strongly agree. While respondents appreciated timely and attentive service, some variability in promptness was noted, indicating a potential area for improvement. This highlights an opportunity to improve response times, as millennials expect swift resolutions to maintain trust.

8.3.5. Tangibility: The tangibility dimension, rated strongly agree, encompassed elements such as platform design and visual appeal. The online banking interfaces were viewed as professional and user-friendly, though some respondents noted that modernization could enhance their experience. Tangibility is vital in ensuring a smooth and engaging interaction, and it presents an opportunity to enhance satisfaction through design updates aligned with current digital trends.

8.4. Millennial Perception of Customer Satisfaction in Online Banking Transactions

Respondents showed strong satisfaction with online banking, evidenced by a verbal interpretation of strongly agree. They valued the convenience, efficiency, and accessibility of online platforms, with a preference for remote banking over in-branch services. Features like ease of navigation, quick transaction completion, and the ability to bank from anywhere contributed significantly to satisfaction, as did a perceived sense of appreciation from the bank.

8.5. Relationship Between Service Quality Dimensions and Customer Satisfaction

The analysis revealed a statistically significant relationship between each service quality dimension and customer satisfaction in online banking. For empathy, this dimension demonstrated a moderate positive relationship with customer satisfaction, explaining roughly twenty-seven point four percent of its variation. This significant finding, supported by statistical analysis, affirms that empathy positively influences customer satisfaction, resulting in the rejection of the null hypothesis for this dimension.

In terms of reliability, the analysis reveals a significant relationship between reliability and customer satisfaction in online banking services. A moderate positive correlation was found, indicating that a substantial portion of customer satisfaction variability can be attributed to perceptions of reliability. The statistical significance of this finding supports the influence of reliability on customer satisfaction, leading to a rejection of the null hypothesis for this dimension.

The assurance dimension showed a moderate positive relationship with customer satisfaction in online banking, with over a third of satisfaction variability linked to the assurance provided by the platform. The statistical analysis confirmed this relationship as significant, resulting in the rejection of the null hypothesis for this dimension.

Responsiveness showed the strongest correlation with customer satisfaction, suggesting that the responsiveness of the online banking platform plays a key role in shaping customer satisfaction. A significant portion of the satisfaction variability is explained by responsiveness, and the statistical analysis confirms a strong positive relationship. This leads to the rejection of the null hypothesis for this dimension as well.

Finally, tangibility also demonstrated a significant impact on customer satisfaction, with a strong correlation indicating that the tangible aspects of online banking, such as design and usability, account for a notable portion of the variance in customer satisfaction. The results suggest that improvements in these tangible features can significantly enhance customer satisfaction, further supporting the rejection of the null hypothesis for this dimension.

In summary, the study found that all five service quality dimensions—empathy, reliability, assurance, responsiveness, and tangibility—have a significant positive relationship with customer satisfaction, with responsiveness showing the strongest correlation. These findings indicate that improvements in any of these dimensions are likely to enhance overall customer satisfaction in online banking services.

9. CONCLUSION

Based on these findings, the following conclusions can be drawn:

Millennials generally express a high level of satisfaction with online banking services, with particular appreciation for empathy, reliability, and assurance. Respondents value service attributes that include secure transactions, consistent service reliability, and the ability to interact with customer support representatives who exhibit friendliness and understanding. These qualities collectively foster loyalty and trust, as millennials feel their needs are being met in a dependable and personalized way. Banks that excel in these areas can expect increased customer loyalty.

The responsiveness and empathy dimensions stand out as the most influential factors in customer satisfaction. Consistently, responsive customer support is a fundamental expectation among millennials, who prioritize quick and effective assistance, especially in urgent or complex situations. While millennials generally report satisfaction with the availability of support, there is some variability in the timeliness of responses, which may influence overall satisfaction. Ensuring a swift response to customer inquiries and resolving issues promptly can greatly improve customer experience, reinforcing millennials' perception of the bank as reliable and attentive to their needs. Empathy also ranks highly, as respondents appreciate personalized service that reflects an understanding of their unique needs. Banks that prioritize attentiveness and individualized support are more likely to cultivate long-term loyalty among millennials, who regard these qualities as essential in fostering a positive online banking experience.

Millennials show a clear preference for online banking over traditional in-branch services, primarily due to the convenience it offers. The ability to manage financial transactions remotely without time or location restrictions aligns well with the busy, digital-oriented lifestyles of millennial users. This preference for convenience underscores the need for banks to maintain accessible and user-friendly digital platforms. Furthermore, this shift from traditional banking to digital solutions reflects a broader trend toward remote and mobile financial management that meets millennials' needs for efficiency and flexibility.

Millennials generally find the interface user-friendly and professional, yet some respondents suggested that modernizing the design would enhance their overall satisfaction. Updating the platform's layout, aesthetics, and functionality can help meet the expectations of digitally savvy millennials who value visually engaging, intuitive experiences. By enhancing the platform's visual appeal and ease of navigation, banks can increase user satisfaction and differentiate themselves in a competitive market.

Security emerged as a vital factor for millennial satisfaction, with respondents emphasizing the importance of strong security features in maintaining trust. Given millennials' awareness of cybersecurity risks, robust protections such as two-factor authentication, fraud alerts, and secure logins contribute significantly to their overall confidence in online banking platforms. Assurance in secure transactions helps foster a reliable banking environment where millennials feel their financial information is protected. For banks, continuously improving and communicating these security measures is essential to reassure users and maintain their confidence in online services.

Millennials increasingly expect online banking services to offer lifestyle-oriented tools that extend beyond basic transactions. Respondents highlighted the potential value of features such as budgeting tools, personalized financial planning, and goal-setting functionalities, which help them manage their finances more effectively. Banks that integrate these lifestyle-focused tools into their platforms can better meet millennials' desire for proactive financial management, offering added value that goes beyond traditional banking services. This shift reflects millennials' interest in digital tools that not only simplify daily transactions but also support their broader financial goals.

10. RECOMMENDATION

Based on the conclusions and findings of the study, the following recommendations are presented to enhance service quality and customer satisfaction among millennial online banking users.

10.1. Given that responsiveness is a key satisfaction driver, banks should prioritize improving the speed and efficiency of processing customer concerns. While AI-driven chatbots and

real-time support ensure immediate responses, the resolution of issues often remains delayed. Banks can address this by streamlining internal workflows through advanced automation tools, enhancing inter-departmental coordination, and regularly monitoring resolution timelines to identify and eliminate bottlenecks. By focusing on reducing resolution times, banks can further improve customer experiences, building trust and reinforcing their commitment to high-quality online banking services.

10.2. To strengthen relationships with millennial customers, banks should develop more personalized offerings, such as tailored financial advice, rewards for loyalty, and targeted product recommendations. This could include providing dedicated support for frequent or high-value customers and integrating personalized communication channels to make customers feel valued.

10.3. Millennials are increasingly interested in using their banking platforms as tools for proactive financial management. Banks should consider integrating features such as budgeting tools, financial goal trackers, and savings calculators into their online banking interfaces. These lifestyle-oriented features help customers manage their finances holistically, aligning with millennials' desire for resources that support both daily transactions and long-term financial planning. By positioning the platform as a comprehensive financial tool, banks can differentiate themselves from competitors and increase millennial satisfaction.

10.4. To address security concerns, banks can develop educational materials on safe online banking practices, such as recognizing phishing attempts or securing personal devices. By fostering informed and security-conscious users, banks can help reduce risks and enhance trust in the digital banking experience.

10.5. For the future researchers may consider conducting the same study but expanding sample diversity by exploring broader demographic groups or other generations, such as comparing millennials and Gen Z or older adults, to identify any unique preferences or expectations across age groups in online banking. Comparative studies on digital banking satisfaction between millennials and Gen Z, for instance, may reveal nuanced preferences in digital service quality, which can guide banks in tailoring their platforms to meet diverse user needs.

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