



VALUING DIGITAL FINANCE ECOSYSTEM FOR MICRO-MARKETS: BASIS FOR DEVELOPING A STRATEGIC FINANCIAL BUSINESS PROCESS INNOVATION

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ABSTRACT

The increasing adoption of digital finance has transformed financial ecosystems, particularly in micro-markets where accessibility to traditional banking services remains limited. This study evaluates the value and security features of the digital finance ecosystem and their impact on micro-markets, aiming to develop a strategic financial business process innovation. Accordingly, the study examines user perceptions regarding convenience, effectiveness, accessibility, and security measures such as multi-factor authentication and credential confidentiality. A mixed-method research approach was employed, combining survey-based quantitative analysis with qualitative insights from user experiences. Findings indicate a high level of satisfaction among respondents regarding the convenience and accessibility of digital finance applications, yet concerns persist regarding security features. Users highlight the importance of balancing ease of use with robust security measures to foster trust and wider adoption. The study identifies key challenges, including digital literacy barriers and technical constraints, which influence the effectiveness of digital finance applications. Thus, it proposes a strategic framework for financial process innovation aimed at enhancing the value of digital finance for micro-markets. The results contribute to the growing discourse on financial inclusion and digital finance by offering data-driven insights for policymakers, financial institutions, and technology providers. Strengthening security measures while maintaining ease of access is essential to maximizing the benefits of digital finance in micro-market environments.

Keywords: *Business Administration, Digital Finance Ecosystem, Financial Inclusion, Security Measures, Micro-Markets*

INTRODUCTION

Digital finance, also known as "fintech," refers to the use of digital technology to deliver financial services. The digital finance ecosystem includes a wide range of players, from traditional financial institutions to start-ups and technology

companies, all working together to create new products and services that enhance the financial lives of individuals and businesses. Basu et al. (2020) digital finance ecosystems foster financial inclusion and contribute to inclusive growth, particularly in micro-markets, which give accessibility and usage of financial services by marginalized and underserved populations.



Financial inclusion and inclusive growth encompass economic growth that is broad-based, sustainable, and benefits all segments of society. Valuing and understanding the role of digital finance in expanding access to financial services, promoting savings, investments, and entrepreneurship, and fostering economic empowerment of marginalized communities.

One of the key values of the digital finance ecosystem is its potential to drive financial inclusion, particularly in micro-markets. Micro-markets are defined as small and underserved communities, often located in developing countries, that have limited access to formal financial services. According to Empizo et al. (2019) there are six (6) factors that influence the adoption of mobile banking in the Philippines, which include technology readiness, perceived usefulness, perceived ease of use, trust, social influence, and demographic characteristics, that impact the adoption of mobile banking among Filipino consumers.

Gaps in banking and fintech systems have limited business growth, constrained demand, and slowed economic progress. Before the pandemic, the Philippines relied heavily on traditional banking, with limited fintech adoption and services focused mainly on the wealthy, leaving millions without access to financial tools. As fintech grows, the BSP promotes financial inclusion and payment digitalization. According to Magno et al. (2019), mobile money positively impacts financial inclusion, especially for low-income and rural communities.

Despite its potential benefits, digital finance adoption in micro-markets remains limited due to various challenges. This research explores the value of digital finance for financial inclusion, examining its current adoption, challenges, opportunities, and key success factors for expanding its reach in micro-markets.

This research was carried out using a blend of literature review, case studies, and interviews with industry experts. The insights gained from the study proved valuable to policymakers, regulators, and industry stakeholders as they endeavored to foster the responsible and sustainable development of the digital finance ecosystem.

OBJECTIVES OF THE STUDY

The central objective of this research is to thoroughly examine and assess the value of the digital finance ecosystem, encompassing the exploration of challenges and potential solutions for ensuring its sustainability. The core purpose of this study is to achieve the following objectives:

1. To describe the respondent's level of usage of digital finance applications.
2. To examine the respondent's level of satisfaction on the digital finance ecosystem for micro-markets in terms of:
 - 2.1. Convenience,
 - 2.2. Effectiveness,
 - 2.3. Accessibility, and
 - 2.4. User Experience
3. To examine the level of security features of the digital finance eco-system according to;
 - 3.1. Multi-factor authentication measure
 - 3.2. Credentials Confidentiality
4. To describe and explain the respondent's challenges in using digital finance applications.
5. To investigate the statistical difference of the agreement on value and security features of digital finance based on the respondent's level of use.
6. To construct the statistical relationship between the agreement on value and security features of digital finance ecosystem for micro-markets
7. To utilize the study's findings in the design and development of Strategic Financial Business Process Innovation.

METHODOLOGY

The research design refers to the overall strategy used to integrate study components in a coherent way to address the research problem. This study used the descriptive survey method to solve the stated problems.

The descriptive method provided relevant information for interpreting and analyzing the data. It is a widely accepted fact-finding approach



involving accurate interpretation of results. De Belen (2017) emphasized that research design links the method, instrument, sampling procedure, and statistical tools with the framework, guiding research activities. This method is suitable for gathering first-hand data from respondents and measuring variables. Descriptive research collects quantifiable data for statistical inference, helping understand facts such as people, objects, conditions, events, thoughts, or phenomena, relevant to determining the value of digital finance. Surveys enable generalizations; therefore, a direct-data survey (questionnaire) was used. This method was appropriate for presenting the status of digital finance in Boracay and Puerto Galera and for developing recommendations to promote financial inclusion and sustainable growth.

Pearson's correlation coefficient was used to measure the strength and direction of a linear relationship between two continuous variables. It is not for comparing means but for assessing associations. Values range from -1 (perfect negative) to 1 (perfect positive), with 0 indicating no relationship. It tests the null hypothesis of no significant relationship. If the p-value is below the 0.05 significance level, the null hypothesis is rejected, indicating a significant linear relationship.

Two data types were used: primary and secondary. Primary data came from respondents' answers to the questionnaire and the researcher's observations. Secondary data were gathered from published literature related to the research topic.

Both qualitative and quantitative approaches were employed. The quantitative approach was used to generate numerical findings via the survey method.

RESULTS AND DISCUSSION

1. Level of utilization of digital finance applications

Based on the findings of the study, a large portion of respondents (46.00%) use digital finance applications 31–40 times daily (avg. score: 23), highlighting their strong integration into everyday financial routines. Following this, 21.00% use them 11–20 times/day (avg. score: 10.50), indicating regular use for common transactions.

Around 13.00% (avg. score: 6.50) engage with these apps over 41 times/day, suggesting intensive personal or business usage. Users accessing the apps 21–30 times/day make up 11.00% (avg. score: 5.50), while the least frequent group, 0–10 times/day, represents 9.00% (avg. score: 4.5), potentially due to limited access or digital literacy.

2. Level of agreement on the digital finance ecosystem for micro-markets

2.1 in terms of convenience

Respondents generally find digital finance applications convenient for business transactions, with an overall weighted mean of 2.68. The highest-rated aspect was the ease and real-time processing of payments (mean = 3.12, SD = 0.65), showing strong satisfaction. General banking transactions scored 2.74 (SD = 1.06), and receiving real-time fund transfers received 2.68 (SD = 0.96), indicating moderate agreement. Tracking and transferring funds in real time both scored 2.64, with standard deviations of 1.01 and 1.06, reflecting varied experiences. Accessing account info anytime scored lower (mean = 2.53, SD = 0.98), while available banking features rated at 2.49 (SD = 0.94). Customer support received a moderate mean of 2.59 (SD = 1.00), showing room for improvement.

2.1 in terms of effectiveness

The respondents' agreement on the digital finance applications to micro-markets in terms of Effectiveness through various questions given to them.

Respondents expressed satisfaction with the effectiveness of the digital finance applications they use for transactions, as shown by an overall weighted mean of 3.13. The highest-rated attribute was the reduced cost in availing loans and other financial services, which received a mean of 3.26 and a low standard deviation of 0.26, reflecting strong agreement. Managing finances more effectively through banking applications was also



highly rated, with a mean of 3.21 and a standard deviation of 0.27, indicating a high level of perceived usefulness.

Users reported satisfaction with the clarity and detail of transaction histories, as reflected by a mean of 3.16 and an SD of 0.37. Similarly, the accuracy and up-to-date nature of account information provided by the applications received a mean of 3.17 and a low SD of 0.25, suggesting strong consensus. The effectiveness of reducing travel costs and saving time when accessing financial services was rated with a mean of 3.06 and an SD of 0.48, showing slightly lower but still positive agreement.

Finally, respondents indicated that digital transactions contribute to improving financial literacy and ease of use, with mean scores of 3.02 and 3.16, respectively, and standard deviations ranging from 0.16 to 0.28.

2.3 in terms of accessibility

The respondents' agreement on the digital finance applications to micro-markets in terms of Accessibility through various questions given to them.

Respondents expressed satisfaction with the accessibility of digital finance applications, reflected in an overall weighted mean of 3.05 and a low standard deviation of 0.09. The highest-rated attribute was compatibility with various operating systems (e.g., Android, iOS), with a mean of 3.16 and SD of 0.23, showing strong agreement. Features supporting users with disabilities and language barriers also scored highly, with a mean of 3.15 and an SD of 0.31.

Accessibility features for users with disabilities received a mean of 3.11 (SD 0.28), while continued access despite system updates was rated at 3.09. Understanding information and multi-device access scored 3.01 and 2.94, respectively, indicating moderate satisfaction. Lastly, navigating interactive elements under limited internet connectivity had a mean of 2.97 and a higher SD of 0.51, showing more variability in user experience.

2.4 in terms of user experience

The respondents' agreement on the digital finance applications to micro-markets in terms of user experience through various questions given to them.

Respondents are satisfied with their experience using digital finance applications, reflected in an overall weighted mean of 3.07. The highest satisfaction was with services aligned to clients' needs (3.15), followed by user-friendliness and ease of navigation (3.13, SD 0.53). Information in the app was found engaging and easy to understand (3.12, SD 0.34).

Satisfaction was also shown for responsiveness and quick loading (3.10, SD 0.50) and the speed, efficiency, and reliability of services (3.08, SD 0.32). Helpful error messages and support during issues received a mean of 3.04 (SD 0.35), while customer service support was rated at 3.01 (SD 0.29). The layout and visual design received the lowest rating but remained favorable, with a mean of 2.92 and SD 0.33.

3. Average ratings and response variation for digital finance applications

The average ratings and response variation for digital finance applications across four attributes—Convenience, Effectiveness, Accessibility, and User Experience—grouped by frequency of use: Seldom, Occasional, Regular, and Heavy.

Convenience was rated highest by Regular users (3.46) and lowest by Heavy users (1.18), while Seldom and Occasional users scored below 3.00. For Effectiveness, Regular and Heavy users rated the applications highly (3.32 and 3.25, respectively), with an overall mean of 3.13, indicating general effectiveness. Accessibility received top scores from Regular (3.38) and Heavy users (3.31), while other groups rated it lower; the overall mean was 3.05. In User Experience, Regular users scored 3.45 and Heavy users 3.34, with an overall mean of 3.07.

The overall mean across all attributes is 2.98, suggesting a generally effective perception



of digital finance applications. Low standard deviations indicate consistent responses, helping providers tailor services to different user groups to boost satisfaction and retention.

4. Security Measures of Digital Finance Applications

4.1 in terms of multi-factor authentication

The respondents' assessment of the security features of the digital finance applications ecosystem to micro-markets in terms of multi-factor authentication measures through various questions given to them.

Respondents are satisfied with the current multi-factor authentication (MFA) features of the digital finance applications they use, reflected in an overall weighted mean of 3.03. The highest-rated feature was the option to set transaction limits and other security preferences, with a mean of 3.18. Email and text notifications for confirming transactions are followed closely, with a mean of 3.09.

Respondents also agreed that using at least two authentication factors (e.g., password and OTP) enhances security, earning a mean of 3.06 with a standard deviation of 0.34. Both the user-friendliness of the MFA process and the perception that it adds an extra layer of security received a mean of 3.02 and a standard deviation of 0.41. In-app notifications reminding users to review or update MFA settings scored slightly lower with a mean of 2.99 and a higher standard deviation of 0.46. Lastly, the clarity of instructions for completing MFA was rated at 2.90, with a standard deviation of 0.32.

4.2 in terms of credential confidentiality

The respondents' assessment of the security features of the digital finance applications ecosystem to micro-markets in terms of Credential Confidentiality through various questions given to them.

Respondents expressed high satisfaction with the credential confidentiality of the digital

finance applications they use, as shown by an overall weighted mean of 3.29 and a low standard deviation of 0.09. They were especially satisfied with being informed on securing identity information (3.43) and confident that their login credentials are not shared without consent (3.37).

They also felt well-informed about their rights and avenues for complaints (3.36, SD 0.30), and confident that their personal data is kept private and used appropriately (3.27, SD 0.22). Information on how personal data is protected received a mean of 3.25 (SD 0.14). Trust in the confidentiality and encryption of login credentials was reflected in means of 3.24 and 3.23, respectively. Finally, the implementation of measures to detect and prevent unauthorized access was rated at 3.14, with a standard deviation of 0.32.

Table 1

Summary of Security Features of Digital Finance Applications

Security Features of Digital Finance Applications	Frequency of Usage					Overall	
	Seldom	Occasional	Casual	Regular	Heavy	Mean	SD
	Mean	Mean	Mean	Mean	Mean		
Multi-Factor Authentication Measure	3.06	2.74	2.69	3.34	3.33	3.03	0.08
Credential Confidentiality	3.42	3.39	2.93	3.20	3.50	3.29	0.09

Legend: 1.00-1.75: Not Effective; 1.76-2.50: Moderately Effective; 2.51-3.25: Effective; 3.26-4.00: Very Effective

User evaluations of digital finance applications show that both Multi-Factor Authentication (MFA) and Credential Confidentiality are generally perceived as effective security features, regardless of usage frequency. Regular and Heavy users rated MFA highly (means of 3.34 and 3.33), while even Seldom users found it effective (3.06). Lower ratings came from Occasional and Casual users (2.74 and 2.69), but the overall mean of 3.03 still reflects effectiveness, with a low standard deviation of 0.08 indicating consistent responses.

Credential Confidentiality received similarly strong ratings, particularly from Heavy users (3.50), with other groups also rating it as effective, though Casual users rated it slightly lower (2.93). The overall mean was 3.29, with a standard deviation of 0.09.

Combining both features yields an average mean of 3.16, reinforcing the conclusion that users across all levels of usage consider these security features effective, with minimal variation in opinion.



5. Challenges encountered in digital applications

The research revealed several challenges faced by respondents in using digital finance applications within micro-markets, with a high overall weighted mean of 3.34, indicating strong agreement. The most pressing issue was the difficulty in escalating concerns via mobile self-service complaint systems (3.54, SD 0.14).

Another key challenge was the inconvenience of using multiple digital finance apps for transactions (3.39, SD 0.13). Technical issues, including bugs, navigation difficulties, and problems during account setup, were also common (3.36). Respondents cited difficulties with specific transactions (3.35, SD 0.13) and concerns over data security from cyber threats, along with dissatisfaction with low interest rates and minimal rewards (both 3.29).

Lastly, reliance on cash due to limited digital finance adoption among residents was noted, with a mean of 3.25 and a higher standard deviation of 0.50, indicating varied responses.

6. Statistical difference in the agreement on value and security features of digital finance based on the respondent's level of use.

This table presents the results of an Analysis of Variance test, which examines whether there are statistically significant differences between groups on a particular variable. In this case, the test is looking at differences in user perceptions and the value of digital finance across five dimensions: overall model, convenience, effectiveness, accessibility, and user experience.

Table 2
Test of Differences in User and Value of Digital Finance

	Sum of Squares	df	Mean Square	F	p	η^2
Overall model	77.8	53	1.467	0.992	0.513	
Convenience	27.1	11	2.465	1.667	0.112	0.186
Effectiveness	18.0	14	1.283	0.868	0.596	0.123
Accessibility	14.4	15	0.957	0.647	0.820	0.096
User Experience	18.3	13	1.410	0.954	0.509	0.126
Residuals	68.0	46	1.478			

The overall model is not statistically significant ($p = .513$), indicating no significant difference in users' perceived value of digital finance across all dimensions combined. For convenience, the F-statistic ($F = 1.667$) suggests a potential difference, but the p-value (.112) exceeds the .05 threshold, meaning the difference may be due to chance. However, the effect size ($\eta^2 = 0.186$) is moderately large, explaining about 18.6% of the variation in convenience scores.

For effectiveness, accessibility, and user experience, all p-values are above .05, showing no statistically significant differences in user perceptions across groups. Overall, while there may be moderate variation in perceived convenience, there is no significant difference in the overall perceived value or in other dimensions of digital finance.

7. Significance of differences in user attitudes toward the security features of digital finance

Table 3 uses ANOVA to analyze the significance of differences in user attitudes toward the security features of digital finance, specifically focusing on Multi-Factor and Credential Confidentiality.

Table 3
Test of Differences in User and Security Features of Digital Finance

	Sum of Squares	df	Mean Square	F	p	η^2
Overall model	47.1	24	1.96	1.49	0.098	
Multi-Factor Authentication Model	27.4	11	2.49	1.89	0.054	0.186
Credential Confidentiality	19.7	13	1.51	1.15	0.333	0.135
Residuals	98.7	75	1.32			

The ANOVA results reveal differences in user perceptions of digital finance security, focusing on Multi-Factor Authentication and Credential Confidentiality. The overall model is marginally significant ($p = .098$), indicating a possible trend in perception differences, though not conclusive.

Multi-Factor Authentication shows a statistically significant effect ($p = .054$) with a large



effect size ($\eta^2 = 0.188$), suggesting it strongly influences how users perceive security. In contrast, Credential Confidentiality is not statistically significant ($p = .333$), but the moderate effect size ($\eta^2 = 0.135$) points to a potential role in shaping perceptions that could be confirmed with a larger sample.

These results underscore the importance of robust multi-factor authentication in boosting user trust. While credential confidentiality appears less impactful, both features are key to addressing user concerns and strengthening confidence in digital finance platforms.

8. Statistical relationship between the agreement on value and security features of the digital finance ecosystem for micro-markets

In the Correlation Matrix provided above, 'Pearson's r ' refers to Pearson's correlation coefficient. It is a measure of the linear correlation between two variables, ranging from -1 to +1. A value of +1 indicates a perfect positive linear relationship, -1 indicates a perfect negative linear relationship, and 0 indicates no linear relationship between the variables.

Convenience is strongly and positively correlated with effectiveness ($r = 0.660$), accessibility ($r = 0.584$), user experience ($r = 0.706$), and multi-factor authentication/monitoring ($r = 0.664$). The corresponding p -values are all less than 0.001, which indicates that these correlations are statistically significant, demonstrating a high likelihood that these relationships are consistent and not due to random chance. Effectiveness also shows strong positive correlations with accessibility ($r = 0.666$), user experience ($r = 0.770$), and multi-factor authentication/monitoring ($r = 0.752$).

The analysis reveals several statistically significant relationships ($p < .001$). Accessibility and user experience are positively correlated ($r = 0.693$), and both show strong correlations with

multi-factor authentication/monitoring ($r = 0.730$ and $r = 0.793$, respectively), confirming their interconnection in shaping user satisfaction.

In contrast, credential confidentiality shows very weak, non-significant correlations with all other factors: convenience ($r = -0.130$), effectiveness ($r = -0.121$), accessibility ($r = -0.042$), multi-factor authentication ($r = -0.031$), and user experience ($r = 0.003$). These relationships are not statistically significant (p -values between 0.198 and 0.973).

In summary, there is a strong, positive network among convenience, effectiveness, accessibility, user experience, and multi-factor authentication—indicating they collectively enhance user satisfaction. Credential confidentiality, however, appears disconnected from these factors, suggesting it may function independently or be influenced by external variables not captured in this analysis.

Objective No. 7. Recommendation for digital applications.

To build a more inclusive and user-centered financial ecosystem, the digital transformation of financial services must tackle four key issues: Technical Problems, Adoption Barriers, Security Concerns, and Customer Dissatisfaction.

Technical Issues

Bugs and poor app design deter users. The proposed interventions include:

- Enhanced Testing: Use automated tests, UAT, and performance monitoring.
- User-Centered Design: Conduct UX research, redesign interfaces, and offer tutorials.

Adoption Barriers

Cultural reliance on cash and fragmented services hinder digital finance use. Solutions:

- Community Outreach: Partner with local groups and offer digital finance training.
- Incentives: Provide interest boosts, cashback, and referral rewards.



- Cross-Platform Compatibility: Promote QRPH adoption for seamless payments across apps.

Security Concerns

Cyber threats require robust defenses. Recommendations:

- Advanced Security: Implement multi-factor authentication and encryption; conduct audits.
- Customer Education: Raise awareness on phishing and secure practices.

Customer Dissatisfaction

Service inefficiencies and lack of benefits reduce satisfaction. Solutions:

- Better Incentives: Regularly update rates and rewards.
- Simplified Onboarding: Enable e-KYC, digital signatures, and live support.
- Transaction Help: Include in-app guides and video assistance.
- Complaint Resolution: Use a ticket system with real-time updates and a dedicated support team.

CONCLUSIONS

This section presents the conclusions derived from the key findings of the study, highlighting how the results addressed the research problem and objectives.

1. Digital finance apps are deeply embedded in users' daily routines, with 46% using them very frequently (31–40 times/day). 21% report moderate use (11–20 times/day), while 13% exceed 41 uses per day. Less frequent usage (0–10 and 21–30 times/day) may reflect reliance on traditional methods or limited access. Overall, the data highlights a shift toward frequent app usage and evolving consumer behavior favoring digital platforms.
2. Based on the findings of the study, the researcher concludes that:

Convenience. The researcher found that respondents generally perceive digital finance applications as convenient, with an overall weighted mean of 2.68. While real-time payment transactions were rated highly, areas such as access to account information and banking services need improvement. Enhancing these features could significantly boost user experience and satisfaction.

Effectiveness. The study concludes that respondents perceive the digital finance ecosystem in micro-markets as highly effective, with a high mean score of 3.13 and low variability, indicating strong satisfaction and consensus. Positive feedback on cost reduction, financial management, and ease of use highlights the critical role of digital finance in improving accessibility and efficiency in micro-market settings.

Accessibility. Respondents find digital finance applications highly accessible and compatible across platforms, with strong satisfaction in their support for diverse user needs and adaptability to updates. However, there is room for improvement in information clarity and mobile accessibility. Users in low-connectivity areas reported inconsistent experiences, highlighting a need for greater reliability.

User experience. Overall, users are satisfied with digital finance applications, rating them with a mean of 3.07. They value service alignment, user-friendly interfaces, information quality, responsiveness, efficiency, reliability, error messages, and customer support. Lower ratings for layout and design suggest areas for improvement to enhance user experience.

3. The researcher concludes that the respondents generally express agreement and satisfaction with the security features provided by digital finance applications.

Multi-Factor Authentication. Respondents are generally satisfied with the security features of digital finance applications, particularly multi-factor authentication. It is seen as effective in enhancing security, especially when combined with transaction limits and personalized settings. Email and text verifications are also valued. However,



improvements in in-app notifications and instruction clarity are needed to strengthen user experience and trust.

Credential Confidentiality. Users report high satisfaction with the confidentiality of their credentials, supported by strong mean scores and low variability. They value education on security practices and trust that their login details are secure. Nonetheless, further enhancements are needed to maximize satisfaction in this area.

4. The study found a strong consensus among respondents on the challenges in using digital finance applications, with an overall weighted mean of 3.34. Major issues include difficulties with self-service complaint systems, lack of interoperability across apps, technical problems during account setup, and concerns over data security. Additional challenges include low interest rates, limited rewards, and persistent reliance on cash. Addressing these concerns could significantly improve user experience and drive wider adoption of digital financial services.
5. The researcher found no statistically significant differences in how users value digital finance applications across tested factors ($p = 0.05$), suggesting other unexamined elements may influence perceptions. Likewise, attitudes toward security features—overall security ($p = 0.098$) and multi-factor authentication ($p = 0.054$)—were not significantly different across usage levels, indicating that frequency of use does not notably affect views on security in digital finance applications.
6. The researcher found significant positive correlations between convenience and perceived value across effectiveness, accessibility, user experience, and especially multi-factor authentication/monitoring. These areas are interlinked, meaning improvements in one can enhance others. Accessibility and user experience are also strongly tied to security strength, all with statistically significant p -values. However, credential confidentiality showed weak, non-significant correlations, suggesting it plays a separate

role in digital finance security and may need targeted improvements.

RECOMMENDATIONS

Based on the conclusions drawn from the study, the following recommendations are proposed to address the identified issues and enhance future practices related to the research focus.

1. Enhance platform stability, streamline transactions, and offer personalized features to support daily use. Research and address barriers for less active users through education and tailored services. Strengthen security and improve accessibility to boost trust and broader adoption.
2. The researcher recommends the following to enhance the perceived value of digital finance applications.

Convenience. Continuously enhance UI/UX for better accessibility by simplifying navigation, providing clear summaries, and customizing features. Improve in-app notifications, security, and payment processes. Prioritize user feedback to align updates with user needs and boost satisfaction.

Effectiveness. Digital finance ecosystems are effective for micro-markets. To enhance them, invest in budgeting tools, keep transaction fees low, simplify processes, and tailor services to user needs. Reducing entry barriers and addressing user challenges will boost effectiveness.

Accessibility. The study recommends focusing on improving the accessibility by ensuring cross-platform compatibility, inclusive features, multi-language support, and regular updates. Simplify language, optimize for mobile, and enhance navigation. Support low-connectivity areas with lite apps and better infrastructure.

User Experience. The researcher recommends continuously enhancing user experience by prioritizing responsiveness, speed, and reliability. Improve error handling, support, and design clarity based on feedback. Use user testing to guide updates, and apply



best practices in UI/UX to boost satisfaction and adoption.

3. The researcher recommends the following to enhance the security features of digital finance applications.

Multi-Factor Authentication Measures. The researchers recommend maintaining strong multi-factor authentication and adding advanced options like biometrics. Simplify notifications, clarify instructions, and ensure security upgrades remain user-friendly. Offer education and support to boost trust and deliver a secure, seamless experience.

Credential Confidentiality. The researcher suggests focusing on educating users on credential security, maintain confidentiality standards, and clearly communicating privacy rights. Strengthen credential management, conduct regular security checks, and enhance trust through transparent and secure practices in digital finance apps.

4. Improve self-service complaints, app interoperability, account setup, and transaction processes. Strengthen security, enhance incentives, and promote digital payment adoption. Streamline interfaces, standardize systems, and optimize support to boost confidence and reduce reliance on cash.
5. Explore additional factors influencing user perceptions of digital finance app value and security, as current findings show no significant differences among users. Reassess the model to include new variables for better prediction and consider qualitative methods like interviews to capture nuanced views. Provide consistent security features across user segments and conduct further research on demographic influences. These steps can enhance understanding and trust in digital finance applications.
6. Consider the significant positive relationship between convenience and the perceived value of digital finance applications, including security features, the researcher recommends enhancing convenience, user experience, and security to boost perceived value. Focus on streamlining processes, improving interfaces, and implementing strong security like multi-

factor authentication. Ensure security supports accessibility and ease of use. Investigate the role of credential confidentiality and explore other factors influencing user trust. These steps can enhance application value and promote greater adoption in micro-markets.

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Dr. Richard Oliber Cortez is a seasoned academician, researcher, and educator with expertise in business and management. With a career spanning over 25 years, Dr. Cortez has made contributions to the field of marketing and education through research, innovative teaching, and scholarly publications. He earned a Doctor of Business Administration degree from AMA University as well as Doctor in philosophy from University of Caloocan City in the Philippines. He has been actively involved in academia, holding professorial position at esteemed institutions such as AMA university, Quezon City University, Villagers Montessori College, Xavier-Ateneo University and Quezon Colleges of the North. Beyond research and writing, Dr. Cortez is deeply committed to education and mentorship. He has supervised numerous graduate and undergraduate students and are actively involved in curriculum development, ensuring that academic programs remain relevant and impactful. He is an active member of various professional organizations such as Philippine Council of Deans and Educators in Business (PCDEEB). Dr. Cortez has also been invited as resource speaker and participated as member of panel of evaluators in various research exercise.

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