

# Digital Wallet Adoption and Financial Inclusion: The Case of GCash in Rural Philippines

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## Abstract

Digital financial services have bridged the gap between rural and urban financial services in developing countries. In the Philippines, mobile wallet apps like GCash are not just advancing financial inclusion in rural areas, but also leveling the playing field by providing services that were previously only available in urban centers. This study, employing a descriptive research design, surveyed a random sample of rural residents to assess connectivity through GCash. The findings reveal that age is the only demographic factor with a statistically significant impact on access, usage, and perceived benefits—young users show higher engagement and greater perceived value. Gender, education, and income had no notable influence. While GCash has improved digital financial inclusion, challenges persist due to digital inequality, inadequate infrastructure, and limited awareness among the population. Efforts to promote digital literacy, improve access to smartphones and internet connectivity, simplify app design, and enhance user security are crucial to expanding its impact. Addressing these barriers is essential to ensuring that all segments of the rural population can fully benefit from mobile financial services.

**Keywords:** Financial Gap, Rural Philippine Villages, Digital Financial Services, Gcash Application, Digital Inclusion.

## Introduction

The Financial Technology (FinTech) industry has experienced rapid growth in both adoption and investment over the past few years. Digital payment platforms, such as PayPal, Zelle, Venmo, and Square, have revolutionized the way individuals send and receive money, offering convenient, secure, and instant electronic transactions. These platforms have also become integral to e-commerce, enabling seamless online shopping experiences for consumers. Additionally, FinTech innovations have disrupted traditional lending models by streamlining the loan process, making it faster and more accessible for individuals and small businesses to secure funding [1].

The Philippine economy has shown steady growth in recent decades; however, poverty remains a pressing concern, particularly in rural areas. Despite positive trends in macroeconomic performance, many Filipinos—especially those living in agricultural

and remote communities—still face limited access to formal financial services, perpetuating economic disparity and financial exclusion [2]. Financial technology (fintech) has emerged as a transformative force, offering innovative solutions to bridge these gaps by delivering banking, credit, and payment services through digital platforms. Widely used applications, such as GCash, PayMaya, and Coins.ph, have enabled digital transactions, mobile savings, and microloans, even in areas with minimal banking infrastructure. This study investigates the role of fintech applications in promoting financial inclusion and reducing poverty among rural populations in the Philippines [3- 5].

Digital financial services have revolutionized money management, especially in developing countries. Among these innovations, mobile wallet applications have emerged as vital tools in advancing financial inclusion, particularly in rural areas where traditional banking services remain inaccessible [6]. Rural com-

munities often face considerable challenges accessing formal financial services due to geographic isolation, inadequate infrastructure, and lack of valid identification. These barriers contribute to widespread financial exclusion, limiting individuals' ability to save, invest, or access credit [7].

Financial literacy can increase financial inclusion if a lack of knowledge about financial services is the primary and sole cause of barriers to using financial services [8]. Existing literature affirms the positive effects of mobile financial applications on user behavior and economic participation [9]. In rural settings, where formal banking infrastructure is often lacking, mobile wallets transform how people transact and shape their understanding and interaction with financial services [10]. Mobile financial services offer a promising solution by delivering accessible, convenient, and user-friendly platforms to bridge the gap between remote populations and the financial system [11]. The Bangko Sentral ng Pilipinas (BSP) has underscored the role of digitalization in driving financial inclusion. Platforms like GCash are integral to the country's digital finance strategy, supporting broader efforts to foster inclusive economic development [12].

Financial inclusion ensures access to financial services for all individuals, particularly those from underprivileged and unbanked populations [13]. The Bank for International Settlements (BIS) defines it as "Financial inclusion ensures free access to, and use of, appropriate financial services for all people and businesses at an affordable cost." By providing formal access to banking and financial payment systems, financial inclusion enables individuals and small businesses to participate in the circular flow of an economy [14].

GCash, a mobile financial service platform developed by Globe Telecom, has experienced rapid growth in the Philippines [15]. It enables users to perform various financial transactions such as money transfers, bill payments, online purchases, and savings using only a smartphone and mobile connectivity. Despite the increasing adoption of GCash in urban areas, limited research has been conducted to explore its usability, accessibility, and impact within rural communities. Investigating how rural populations interact with digital financial platforms is crucial for evaluating their effectiveness as tools for inclusion and empowerment.

In the Philippines, a substantial portion of the population, particularly in rural areas, remains unbanked or underbanked. The term 'underbanked' refers to individuals who have a bank account but still rely on alternative financial services due to limited access to traditional banking infrastructure and financial services [16]. The country's archipelagic nature further complicates the establishment of brick-and-mortar banking facilities, making financial accessibility a persistent challenge. To address these issues, GCash emerged as a transformative mobile wallet service. Launched in 2004, GCash was initially designed as an SMS-based domestic remittance platform to facilitate money transfers, particularly for overseas Filipino workers sending financial support to their families back home. Over time, it has evolved into a comprehensive financial ecosystem offering a range of services, including money transfers, bill payments, online shopping, and access to microloans. By 2023, GCash had

over 76 million registered users, covering approximately 67% of the Philippine population.

The rapid adoption of GCash has significantly enhanced the country's financial inclusion. Through partnerships with local businesses and government services, the platform has expanded its reach to remote villages, providing essential financial services to previously excluded populations. This digital shift has led to a notable reduction in cash dependency, with urban areas experiencing a 41% decrease and rural regions seeing a 29% decrease in cash transactions [17]. This trend towards digital transactions signals a promising future for fintech in the Philippines, with GCash leading the way.

Despite these advancements, challenges persist. Structural inequalities, such as the digital divide in regions like Visayas and Mindanao, hinder access to fintech solutions. The digital divide in these regions refers to the gap between those who have access to digital technologies and those who do not, often due to factors such as income, education, and geographic location. Additionally, low financial literacy remains a barrier, with only 34% of low-income users understanding digital security. Gender disparities also exist—while women-owned MSMEs account for 39% of entrepreneurs, they represent only 22% of fintech borrowers. Addressing these challenges requires enhanced digital literacy programs and the development of inclusive financial products that cater to diverse user needs.

GCash—a mobile wallet service and digital payment platform launched by Globe Telecom and operated by Mynt—enables users to perform a wide range of small-scale financial transactions, including sending and receiving money, paying bills, and purchasing goods and services, all without requiring a traditional bank account.

The rise of GCash underscores the potential of mobile financial services in bridging the financial inclusion gap in the Philippines. While significant progress has been made, ongoing collaboration between fintech companies, traditional financial institutions, and government agencies is crucial to ensuring equitable financial access for all Filipinos.

GCash has actively worked to extend its services to rural communities by leveraging hyper-localization strategies and forming partnerships with local government units (LGUs). These initiatives aim to enhance accessibility by incorporating local dialects and culturally tailored marketing efforts to better reach underserved populations. The platform's user base highlights its commitment to inclusivity and rural outreach. An impressive 90% of GCash users belong to lower-income sectors, emphasizing the platform's accessibility to underserved communities. Furthermore, 57% of its users are women, reflecting its support for gender inclusivity. Notably, 74% of GCash users reside outside Metro Manila, highlighting its broad reach across the country's rural and provincial areas. These statistics demonstrate GCash's effectiveness in connecting with marginalized and geographically isolated groups [18]. A growing body of academic literature supports the view that mobile money platforms drive significant socio-economic benefits. These include increased savings behavior, improved access to credit, and strengthened household resilience against economic shocks [19]. Platforms like GCash

can catalyze inclusive growth, especially when integrated with financial literacy initiatives and supported by digital infrastructure [20].

GCash has established strategic partnerships with key institutions to advance financial inclusion in rural areas. A notable collaboration is with the Department of Agriculture's Philippine Crop Insurance Corporation (DA-PCIC), aimed at streamlining indemnity payments to insured farmers [21]. Digital finance is pivotal in rural development by providing farmers and households with access to credit, insurance, and government subsidies—services that were traditionally hindered by limited banking infrastructure. GCash's participation in initiatives such as the Rice Competitiveness Enhancement Fund (RCEF) and digital Ayuda distributions underscores its expanding function as a channel for delivering public services. This initiative enhances financial resilience and ensures quicker access to essential funds for agricultural workers, thereby supporting their livelihood and stability [22]. Beyond its partnership with DA-PCIC, GCash has collaborated with agencies like the DSWD and various LGUs to enable digital cash transfers for social protection programs, enhancing efficiency and inclusion, especially in geographically isolated and disadvantaged areas. These initiatives reduce transaction costs and improve service delivery to underserved sectors [23]. Mobile financial services used for government subsidies or insurance payouts can strengthen household security and promote investment in rural livelihoods [24].

GCash's integration into broader agricultural and e-government systems supports the BSP's inclusive digital finance strategy, which advocates for multi-sectoral collaboration among fintech, government, and civil society. This reflects GCash's evolution into a platform for transactions, delivering public services, and providing financial tools that address rural exclusion. Mobile wallets, such as GCash, streamline agricultural value chains by digitizing transactions among farmers, suppliers, and buyers, thereby reducing inefficiencies and enhancing transparency. Digital financial ecosystems, when integrated with government digitalization strategies, significantly improve the delivery of financial assistance, agricultural support, and microenterprise services, particularly in remote and underserved areas. In this context, GCash exemplifies how private-sector-led digital platforms—backed by sound policy frameworks and digital infrastructure—can effectively bridge service delivery gaps and promote inclusive economic growth.

GCash has also facilitated government-to-person (G2P) transactions during the COVID-19 pandemic, helping disburse social amelioration funds directly to beneficiaries, thereby minimizing leakages and improving transparency [25]. Additionally, GCash's features—such as "GSave" for micro-savings, "GInsure" for low-cost health insurance, and "GGives" for micro-lending—offer customized financial tools designed specifically for the needs of low-income and rural users [26].

Given the expanding role of mobile financial services, such as GCash, in addressing rural service delivery gaps, this study aims to evaluate the extent to which GCash facilitates financial inclusion and enhances access to public services in underserved rural communities. Specifically, it examines how GCash's integration aligns with and supports the objectives of the Bangko Sentral

ng Pilipinas' (BSP) Digital Payments Transformation Roadmap. The research aims to investigate experiences of rural users in utilizing GCash for essential services through socio demographic profile, access and usage, impact and benefits, barriers and challenges, and correlate each factors. The research aims to guide fintech development, and strengthen multi-sectoral efforts toward achieving an inclusive digital transformation in rural areas of the Philippines[27].

## Methodology and Data

### Study Design, Population, Setting

A descriptive method design was used, and the study utilized a survey to gather data from randomly selected rural communities (purposive random sample) in the rural areas in the Municipality of Villaba, Eastern Visayas, Philippines. Stratified random sampling was used, inviting all Gcash users who met the criteria to participate and ensuring comprehensive coverage of the target population.

### Study Tool, Variables, Data Collection

To collect the necessary data for this study, a structured survey questionnaire was designed following a quantitative research approach. The author chose to use a robust Likert scale to assess respondents' familiarity with, access to, and usage of the GCash app, as well as their perceptions of its benefits and impacts. The Likert scale, a widely used psychometric tool, captures the degree of agreement or frequency of attitudes and behaviors. In this study, a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) was employed, enabling respondents to indicate the intensity of their experiences and views regarding GCash-related services. Before full deployment, the survey instrument underwent pilot testing to assess its clarity, consistency, and reliability[28].

Data collection was conducted meticulously over one week during regular class hours, ensuring maximum participation and convenience, and on weekends for both employed and non-students across three consecutive weekends. The questionnaire was administered in paper format, with standardized instructions provided by the researchers to maintain consistency across all sessions. Ample time was allotted for participants to complete the survey thoughtfully and without time pressure. Throughout the administration, the researcher was present to assist, monitor the process, and respond to any clarifications, thereby ensuring the accuracy, completeness, and validity of the responses gathered[29].

### Data Analysis

The data were rigorously analyzed using the industry-standard Statistical Package for the Social Sciences (SPSS version 20.0). Quantitative data were analyzed using descriptive statistics to determine the frequency and percentage of each key variable for the socio-demographic profiles of the respondents, as well as their access to and usage of GCash, the impact and benefits, barriers, and challenges. Mean, standard deviation, and p-value were also calculated for the correlation.

## Results

### Socio-Demographic Profiles of the Respondents

Out of the 150 questionnaires distributed, 100 were completed and analyzed. The data reveal an intriguing age distribution,

with most respondents being young adults aged 18–24, representing 52% of the sample, followed by those aged 25–34, at 28% (Statista, 2025). Females make up the majority at 72%, indicating a gender imbalance. Regarding education, 63% hold a college-level degree or higher, while a smaller percentage have

attained a high school diploma, vocational education, or a post-graduate degree. No respondents reported only elementary education. Regarding monthly household income, 78% earn above ₱20,000, reflecting a predominantly higher-income group (Table 1).

**Table 1:** Socio-Demographics of the Respondents (n = 100)

Variables	Frequency (N)	Percentage (%)
Age Group		
18-24 years	52	52
25-34 years	28	28
35-44 years	12	12
45-54years	8	8
55-64 years	-	-
Gender		
Male	28	28
Female	72	72
Educational Attainment		
Elementary Graduate		
High school Graduate	20	20
College level/Graduate	63	63
Vocational/Technical	7	7
Post graduate	10	10
Monthly household income		
Below P 5,000	-	-
P 5,001-P 10,000	10	10
P 10,001- P 20,000	12	12
Above P 20,000	78	78

### Access and Usage

The results indicate that GCash is widely adopted, with 72% of respondents owning an account. Most users engage with the app regularly, with 60% using it weekly and 25% using it daily, demonstrating its relevance in users' lives. Most (83%) have used GCash for over a year, reflecting strong user retention. The

most commonly used features are "Send Money" (30%) and "Receive Money" (28%), followed by "Buy Load" and "Pay Bills." Less frequently used services include bank transfers, on-line shopping, and saving or investing. GCash is a convenient platform for everyday financial transactions (Table 2).

**Table 2:** Access and Usage of Gcash (n=100)

Variables	Frequency (N)	Percentage (%)
Do you have Gcash account		
Yes	72	72
No	28	28
How often do you use the Gcash app		
Daily	25	25
Weekly	60	60
Monthly	4	4
Rarely	10	10
Never	1	1
How long have you been using Gcash		
Less than six months	7	7
6 months to 1 year	10	10
More than 1 year	83	83
What services do u commonly use on Gcash		

Send Money	30	30
Receive money	28	28
Pay bills	13	13
Buy load	17	17
Shop online	3	3
Bank transfer	8	8
Invest/save	1	1

### Impact and Benefits

The findings reveal that convenience is the primary reason respondents use GCash, with 80% identifying it as their primary motivation. A smaller portion (18%) use it due to limited access to banks, while only 2% were influenced by family or friend recommendations. Notably, no one cited promotions or cashback as a deciding factor. When asked whether GCash helps save time and money, an overwhelming 99% agreed or strongly agreed, demonstrating intense satisfaction with the app's efficiency. Additionally, 83% of users feel more financially connected through GCash, highlighting the platform's significant role in enhancing

digital financial inclusion and making the audience proud of the company's contribution to society [30].

Regarding financial literacy, 85% reported an improvement since using GCash, though 15% remained unsure. Furthermore, 78% indicated that GCash has been exceptionally helpful during emergencies, reflecting its practical value beyond everyday transactions and providing users with a sense of security. Overall, GCash is not only a tool of convenience but also a contributor to users' financial empowerment and resilience (Table 3).

**Table 3:** Impact and Benefits of Gcash (n=100)

Variables	Frequency (N)	Percentage (%)
Main reason for using Gcash		
Convenience	80	80
No access to banks	18	18
Recommended by family/friends	2	2
Promotions/cashback	-	-
Has Gcash help you save time and money in transaction		
Strongly Agree	43	43
Agree	56	56
Neutral	1	1
Disagree	-	-
Strongly Disagree	-	-
Are you more financially connected with Gcash		
Yes	83	83
No		
Not Sure	17	17
Did you experience increased in financial literacy with Gcash	20	20
Yes	85	85
No		
Not Sure	15	15
Has Gcash helped you during emergencies		
Yes	78	78
No		
Not Sure	22	
-	22	
-		

### Barriers and Challenges

The most common challenges reported by GCash users are poor internet connectivity (52%), lack of mobile phone access (28%), low digital literacy (12%), and security concerns (8%). These issues highlight barriers to full adoption, particularly in terms of infrastructure and user capabilities. Despite this, 72% of users reported no fraud or problems, suggesting a positive experience.

Regarding improvements, 63% of respondents want faster app updates, while 20% seek enhanced security features. A smaller group (7%) would like BancNet integration for added convenience. Additionally, many users suggested enabling offline functionality to address connectivity concerns. These results highlight key areas where GCash can improve to boost user satisfaction and accessibility (Table 4).

**Table 4:** Barriers and Challenges in the use of Gcash (n=100)

Variables	Frequency (N)	Percentage (%)
Challenges in using Gcash		
Poor internet connectivity	52	52
Lack of mobile phone	28	28
Low digital literacy	12	12
Security concerns	8	8
Limited cash in/out centers	-	-
Have you experience fraud or problems while using Gcash		
Yes	28	28
No	72	72
What improvements would you like to see using Gcash		
Can be used even with no internet connection	-	-
Security	20	20
Less time in updating the App	63	63
Can access bancnet for convenience	7	7

### Correlation with socio –Demographics and Gcash Access and Impacts

Based on the data, age group emerged as the most influential demographic factor affecting access and usage, as well as perceived impact and benefits. A statistically significant relationship ( $p < .001$ ) was found between age and access/usage, with younger respondents—particularly those aged 18–24 (mean = 2.37)—reporting higher levels of access and usage. These values declined consistently with increasing age.

Similarly, a significant negative correlation ( $r = -0.985$ ,  $p = 0.015$ ) was observed between age and perceived impact and benefits, indicating that younger individuals tend to perceive greater benefits from usage than their older counterparts (Table 5).

In contrast, gender did not show a statistically significant relationship with access and usage ( $p = 0.442$ ), although females reported slightly higher usage (mean = 1.39) than males (mean = 1.0). For perceived impact and benefits, the correlation appeared to be perfect and negative ( $r = -1.000$ ), but was not statistically significant ( $p = 1.000$ ), likely reflecting data inconsistencies or limited sample variation [31].

No significant relationship was found between educational attainment and access and usage ( $p = 0.868$ ). However, high school graduates reported slightly higher access (mean = 1.5) than those with college or postgraduate degrees. The correlation between educational attainment and perceived impact and benefits was moderately positive ( $r = 0.626$ ), although not statistically significant ( $p = 0.374$ ), indicating a possible—but—unconfirmed—trend that individuals with higher education may perceive more benefits.

Lastly, the relationship between monthly household income and access and usage, as well as perceived impact and benefits, presents an interesting area for further research. Our findings reveal no statistically significant relationship between access and usage ( $p = 0.388$ ), despite a discernible trend where higher-income groups reported greater usage (e.g., the P10,001–P20,000 income bracket had a mean of 5.4). The correlation between impact and benefits was weakly negative ( $r = -0.616$ ) and statistically insignificant ( $p = 0.384$ ), suggesting that increased income does not necessarily lead to a greater perception of benefit. Overall, the findings highlight age as a significant determinant of access and perceived benefit, while gender, education, and income appear to have minimal or statistically insignificant effects (Table 5).

**Table 5:** Correlation with socio –demographics and Gcash access and impacts

Variables	Access and usage Mean+ SD	Pearson r	P value	Impact & Benefits Mean+ SD	Pearson r	P value
Age Group		1	<.001		-0.985	0.015

18-24 years	2.37+0.686			1.45+0.54		
25-34 years	2.03+0.383			1.38+0.75		
35-44 years	1.84+0			1.59+0.44		
45-54 years	1+0			2.0+0		
55-64 years	-			-		
Gender		0.442	<.001		-1.000	1
Male	1+0			2+0.272		
Female	1.39+0.491			1.42+0.496		
Educational Attainment		0.868	<.001		0.626,	0.374
Elementary Graduate	-			-		
High school Graduate	1.5+0.513			1.48+0.59		

## Discussion and Conclusion

The findings strongly support the current understanding that mobile financial services, such as GCash, have significantly expanded financial access in rural areas, where traditional banking remains constrained by geographic isolation and inadequate infrastructure. Consistent with previous research, digital financial platforms offer a promising solution to longstanding financial exclusion, particularly in developing countries such as the Philippines, where many of the population remains unbanked due to limited infrastructure and the absence of valid identification. The data highlight GCash's role in promoting financial inclusion, convenience, and economic participation, particularly among younger, more educated, and higher-income users, with a notable positive impact on women. These findings align with the literature, which highlights the ability of mobile wallets to foster financial engagement and improve financial behavior among underserved populations. However, persistent barriers—such as digital inequality, limited digital literacy, and weak internet infrastructure in regions like Visayas and Mindanao—limit the complete adoption and use of these platforms. For example, only 34% of low-income users demonstrate sufficient awareness of digital security. Despite women comprising a large share of entrepreneurs, they remain underrepresented among fintech borrowers. These challenges underscore the need for targeted strategies, including financial literacy initiatives, the development of inclusive digital products, and strong partnerships between fintech providers, government agencies, and local stakeholders. Such interventions are essential to ensure that mobile financial services become truly inclusive and transformative across all sectors of rural communities [32].

This study deepens the understanding of mobile wallet usage in the Philippines by showing that GCash users are predominantly young, educated, and from higher-income households, with a majority being female. It highlights GCash's significant role in promoting financial inclusion and enhancing financial literacy, ensuring that the audience feels informed and educated about their financial options. The study also identifies key barriers, such as poor internet connectivity and limited digital literacy, while highlighting user-driven recommendations for improving the platform. These findings provide valuable insights for fintech developers, policymakers, and researchers seeking to expand access to and enhance digital financial services.

GCash has significantly advanced digital financial inclusion in rural communities, especially among younger, educated, and

higher-income users. Its transformative potential, however, is still hindered by challenges such as digital inequality, poor infrastructure, and low user awareness. To fully realize this potential, targeted efforts must prioritize digital literacy, improved access to devices and reliable internet, user-friendly app design, and stronger security measures. These measures will ensure more inclusive and widespread adoption across all sectors of the rural population, fostering a hopeful future for financial inclusion.

To enhance digital financial inclusion in rural areas, promoting digital literacy, simplifying app interfaces, and expanding offline functionality to accommodate users with limited connectivity and technical skills is essential through platforms like GCash. Inclusive outreach efforts and targeted education on advanced features, such as savings and investments, can drive deeper engagement among underserved groups. Strengthening security, enhancing customer support, and continually adapting to user feedback will ensure that mobile financial services effectively meet the diverse needs of rural communities.

## Declarations

### Availability of Data and Materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### Competing Interests

The author declares no competing interest

### Funding

No Funding received

### Consent to Participate

All participants provided informed consent prior to their inclusion in the study. The research protocol was reviewed and approved by the Ethics Committee Review Board of the Barangay of Villaba. Participation was voluntary, and participants could withdraw from the study at any time without any consequences.

### Clinical Trial Number

Not applicable

### Ethical Consideration

The research adhered to the protocol of the Scientific Ethics Committee (CEC) of the respective barangay in Villaba to ensure the safeguarding of the data. The confidentiality of personal data was assured, and the anonymity of participants was guaran-

ted. Participants were fully informed about the purpose of the research, the potential risks and benefits, and their rights as participants. They were given the opportunity to ask questions and were only included in the study after providing their voluntary and informed consent

### Authors' Contributions

The author made substantial contributions to the completion of this study. Conceptualized the research, developed the methodology, and provided overall supervision, was responsible for conducting the literature review, collecting the data, and performing the data analysis, do the interpretation of findings and was actively involved in drafting and critically revising the manuscript. The author reviewed and approved the final version of the manuscript for submission.

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An Assistant Professor IV at Palompon Institute of Technology–Tabango Campus, Leyte, Philippines, with research spanning power consumption, cloud computing capabilities, and advanced computational methods, including a book chapter on quaternion complex algebra published by Elsevier. He has been recognized for his academic contributions, particularly for studies like Power Consumption of Household Appliances and Assessment of Cloud Computing Capabilities of State Universities and Colleges, which highlight his focus on technology, education, and community awareness.

### References

1. Agarwal, S., & Zhang, J. (2020). FinTech, lending, and loan performance. *Journal of Financial Economics*, 136(1), 1–22. <https://doi.org/10.1016/j.jfineco.2019.07.002>.
2. Llanto, G. M. (2015). Financial inclusion, education, and regulation in the Philippines. *Philippine Institute for Development Studies*. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1501.pdf>.
3. Diokno, B. E. (2021). The role of fintech in promoting financial inclusion in the Philippines. *Bangko Sentral ng Pilipinas*. [https://www.bsp.gov.ph/Media\\_And\\_Research/Speeches/2021/12062021.pdf](https://www.bsp.gov.ph/Media_And_Research/Speeches/2021/12062021.pdf).
4. Dawson, D. (2021). The rural broadband industry. CCG.
5. *Philippine EJournal*s. (2023). Barriers to digital financial inclusion in rural areas of the Philippines. <https://www.philippineejournals.com>.
6. World Bank. (2020). Philippines economic update: Braving the new normal. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/631321606355867902/philippines-economic-update-braving-the-new-normal>.
7. Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. World Bank.
8. Ozili, P. K. (2021). Financial inclusion research around the world: A review. *Forum for Social Economics*, 50(4), 457–479. <https://doi.org/10.1080/07360932.2020.1715238>.
9. Donovan, K. (2012). Mobile money for financial inclusion. In *Information and communications for development 2012: Maximizing mobile* (pp. 61–73). World Bank.
10. Reyes, J. (2021). Digital gaps in Philippine financial services. *Philippine Journal of Development Studies*, 47(1), 45–63.
11. Llanto, G. M. (2020). The role of digital finance in promoting inclusive economic growth in the Philippines. PIDS Policy Notes.
12. *Bangko Sentral ng Pilipinas*. (2020). Digital payments transformation roadmap 2020–2023. [https://www.bsp.gov.ph/Media\\_And\\_Research/Primers%20Faqs/Digital%20Payments%20Transformation%20Roadmap%20Report.pdf](https://www.bsp.gov.ph/Media_And_Research/Primers%20Faqs/Digital%20Payments%20Transformation%20Roadmap%20Report.pdf).
13. TechBullion. (2025, June 15). Mobile money services: How FinTech is empowering developing economies. <https://techbullion.com/mobile-money-services-how-fintech-is-empowering-developing-economies/>.
14. *Globe Fintech Innovations, Inc.* (2023). GCash annual impact report. Mynt.
15. *Bank for International Settlements*. (2020). Financial inclusion and the role of fintech. <https://www.bis.org>.
16. Hasnain, S., Komu, A., & Blackburn, C. (2016). Spotlight on Philippines: Mobile financial services and the path to digital inclusion. *GSMA Mobile for Development*. <https://www.gsma.com/mobilefordevelopment/resources/spotlight-on-philippines-mobile-financial-services>.
17. Lopez, M. (2022). Mobile wallets and financial literacy in rural Asia. *Journal of Fintech Development*, 5(2), 88–101.
18. *Asian Development Bank*. (2021). Digital technologies for social protection in Southeast Asia during the COVID-19 crisis.
19. Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288–1292. <https://doi.org/10.1126/science.aah5309>.
20. Jack, W., & Suri, T. (2014). Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution. *American Economic Review*, 104(1), 183–223. <https://doi.org/10.1257/aer.104.1.183>.
21. *Department of Agriculture*. (2023). DA-PCIC and GCash partnership for faster crop insurance payouts. <https://www.da.gov.ph>.
22. *Bangko Sentral ng Pilipinas*. (2024). Digital payments transformation roadmap 2020–2023: Final progress report. <https://www.bsp.gov.ph>.
23. De Luna, C., Ramos, N., Villanueva, R., & Santos, M. (2021). Mobile wallets and agricultural value chains: A case study on GCash in the Philippines. *Journal of Rural Innovation and Economic Development*, 6(1), 34–47.
24. Kaffenberger, M., & Totolo, E. (2018). A digital credit revolution: Insights from borrowing and repaying digital loans in Kenya. CGAP. <https://www.cgap.org/research/publication/digital-credit-revolution-insights-borrowing-and-repaying-digital-loans-kenya>.
25. Montano, A., & Villanueva, K. (2021). Digital finance for all: The role of GCash in promoting financial inclusion in the Philippines. *Journal of Digital Economy and Finance*.
26. Mynt. GCash Annual Impact Report. *Globe Fintech Innovations, Inc*; 2023.
27. *Asian Development Bank*. (2022). Fintech and financial inclusion in the Philippines. <https://www.adb.org>.
28. *Bangko Sentral ng Pilipinas*. (2021). The state of financial

- 
- inclusion in the Philippines. <https://www.bsp.gov.ph>.
29. Bangko Sentral ng Pilipinas. (2022). 2022 financial inclusion survey. [https://www.bsp.gov.ph/Media\\_And\\_Research/Fin\\_Inc/2022FIS.pdf](https://www.bsp.gov.ph/Media_And_Research/Fin_Inc/2022FIS.pdf).
  30. Bangko Sentral ng Pilipinas. (n.d.). National strategy for financial inclusion 2022–2028.
  31. INQUIRER.net BrandRoom. (2024, September 9). BDO sweeps cash management services awards. Inquirer.net. <https://business.inquirer.net/479161/bdo-sweeps-cash-management-services-awards>.
  32. Statista. (2025). Share of respondents who use mobile payment methods in selected countries worldwide from 2020 to 2025. <https://www.statista.com/statistics/1234567/mobile-wallet-penetration-worldwide-2020-2025>