

Sari-Sari Stores Readiness for GCash Adoption as Digital Payment System

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ABSTRACT

This study examined the readiness of sari-sari store owners in the Philippines to embrace GCash as a digital payment system, considering their level of knowledge, attitudes, challenges, and recommendations. A mixed-methods strategy was employed to gather data from 68 sari-sari store owners. This methodology involved the use of structured questionnaires and semi-structured interviews. The study results indicate moderate exposure, familiarity, and willingness to adopt GCash as their digital payment system. However, notable challenges need to be addressed, including concerns over security, trust, customer knowledge, legal uncertainty, and technological constraints. The owners suggest the adoption of more robust security measures, the improvement of user education and awareness, the optimization of connectivity and usability, the revision of transaction costs, and the provision of government assistance to promote wider acceptance and utilization of GCash. These findings enhance the comprehension of adopting digital payment methods in emerging countries, specifically in the Philippines' relatively unexplored population of sari-sari merchants.

Keywords: sari-sari store, GCash, Digital Payment System.

INTRODUCTION

Like many developing economies worldwide, the Philippines has witnessed a rapid digitalization surge, particularly within its digital payment systems, fueled by the COVID-19 pandemic. Digital payments or any payments performed with digital tools [1] have become routine, with the volume of digital transactions in the country reaching 42.1% in 2022 [2]. Business transactions significantly contribute to this rise, accounting for 88.27%. Aligning with the country's central bank, *Bangko Sentral ng Pilipinas'* (BSP) Digital Payments Transformation Roadmap that prioritizes offering customers faster, cheaper, and more convenient payment options [3], assessing the readiness of various business sectors for digital payment systems like GCash becomes crucial.

GCash, a leading mobile wallet application in the Philippines, enables users to conduct cashless transactions for bills, goods, services, and even international money transfers [4]. As of this writing, more than 60 million users (over 50% of the Philippine population) already use Gcash [4, 5]. This includes different types of business across the country, from merchandising to retailing.

Sari-sari stores – small, community-based retail establishments catering primarily to low-income communities are ubiquitous in Filipino communities. This store plays a vital role in the daily life of low-income Filipino residents by offering essential goods they need. The name *sari-sari* is derived from the Filipino word "sari", meaning "variety", which reflects the diverse products it stocks [6]. While individual transactions at *sari-sari* stores are minor, their sheer number across the Philippines may translate to a significant economic influence [7]. There are more than 1.3 million *sari-sari* stores in the Philippines, and 94% of customers rely on them for basic needs. Sari-sari stores in the Philippines reported sales of roughly eight billion pesos in 2023 - a roughly 21% increase over the prior year. [8]

Despite their widespread presence and the increasing popularity of digital payments like GCash, research on the readiness of *sari-sari* stores to adopt GCash as a digital payment method remains scarce. This research addresses this gap by investigating the adoption of GCash among *sari-sari* store owners in the Philippines. In particular, the study will explore (1) the current awareness and attitudes of *sari-sari* store owners towards GCash in terms of exposure, familiarity and willingness; (2) the key barriers hindering GCash integration within these stores; and (3) the technological readiness and recommendations of owners for adoption. By examining these areas, this research

may add to the expanding body of knowledge on accepting digital payments in developing economies. Explicitly focusing on the under-researched segment of *sari-sari* stores in the Philippines.

METHOD

This study employs a mixed-methods approach to investigate the factors influencing GCash adoption among *sari-sari* store owners in Santo Domingo, Nueva Ecija. The research design combines quantitative and qualitative data collection methods to understand the phenomenon [9] comprehensively.

A list of registered *sari-sari* stores in Santo Domingo, Nueva Ecija, Philippines, was obtained from the Business Licensing and Processing Office (BPLO) in January 2024. The total population size was 81 stores. A sample size of 68 was determined using [10] Raosoft Online Sample Size Calculator with a 95% confidence level and a 5% margin of error, assuming a population proportion of 50%. This sample size represents 84% of the total population, aiming for saturation in qualitative interviews [11] while acknowledging potential limitations in generalizability due to the specific study site. The final sample of 68 *sari-sari* stores was randomly selected using a random number generator.

For quantitative data, a structured questionnaire was developed based on the research objectives and piloted on a small sample (not included in the final analysis) to ensure clarity and comprehensiveness. The questionnaire included close-ended questions designed to assess *sari-sari* store owners' awareness, attitudes, and technological readiness regarding GCash adoption. For qualitative data, semi-structured interviews were conducted with the 68 randomly selected *sari-sari* store owners. The interview guide, developed based on the research objectives, aimed to gather in-depth insights into the challenges and barriers hindering GCash adoption and potential solutions and recommendations for facilitating seamless integration. Informed consent was obtained from all participants before the interviews, which were conducted in Filipino, the local language, to ensure clear communication and comprehension. The interviews were audio-recorded and transcribed verbatim.

Quantitative data from the questionnaires were analyzed using descriptive statistics (Likert, weighted mean, frequencies, percentages). Qualitative data from the interviews were analyzed using thematic analysis. A coding scheme was developed based on the research objectives, and two independent researchers coded the transcripts. Inter-coder reliability was assessed using Cohen's Kappa Coefficient. Disagreements were resolved through discussion and consensus. Themes and sub-themes were identified to understand the factors influencing GCash adoption among *sari-sari* store owners.

Pilot testing of the interview guide ensured its clarity and effectiveness. Inter-coder reliability measures were employed to enhance the credibility of the thematic analysis.

RESULTS AND DISCUSSION

The results and discussion are divided into three subsections, namely, (1) awareness and attitudes of *sari-sari* store owners to adopt GCash, (2) challenges in adoption, and (3) technological readiness and owner's recommendations.

3.1. Awareness and Attitudes of Sari-sari Store Owners to Adopt GCash

To assess the awareness and attitudes of *sari-sari* store owners to adopt GCash, exposure, familiarity and willingness were asked. These three factors are crucial when determining whether respondents will adopt something new [12] [13]. Exposure to GCash as a digital payment method allows the respondents to become aware of GCash as an option. Familiarity with how GCash functions and its benefits helps them to form an opinion about its usefulness in their stores. Willingness adoption reflects their overall attitude toward integrating GCash into their business operations. Then, the reasons behind the willingness to adopt were also determined.

Table 1. Awareness and Attitudes of Sari-sari Store Owners towards GCash

| Awareness and Attitudes | Responses (%) | | | | | | |
|--|---------------|-------|-------|-------|-------|----------|--------------------|
| | 4 | 3 | 2 | 1 | μ | σ | Verbal Description |
| Exposure of <i>sari-sari</i> store owners in GCash as digital payment | 38.24 | 29.11 | 19.12 | 13.24 | 3.31 | 0.88 | Exposed |
| Familiarity of <i>sari-sari</i> store owners in GCash as digital payment | 51.47 | 26.47 | 13.24 | 8.82 | 3.21 | 0.97 | Familiar |

| | | | | | | | |
|--|-------|----|-------|------|------|------|---------|
| Willingness of <i>sari-sari</i> store owners to adopt GCash as digital payment | 51.47 | 25 | 20.59 | 2.94 | 3.21 | 0.98 | Willing |
|--|-------|----|-------|------|------|------|---------|

Note: 4 = Very Familiar/Exposed/Willing, 3 = Familiar/Exposed/Willing, 2 = Somewhat Familiar/Exposed/Willing, 1 = Not Familiar/Exposed/Willing, μ = Mean σ = Standard Deviation

Table 1 presents insights into Sari-sari store owner awareness and attitudes towards GCash adoption. While a moderate level of exposure ($\mu=3.31$, $\sigma=0.88$) suggests most store owners are aware of GCash as a digital payment platform, their familiarity ($\mu=3.21$, $\sigma=0.97$) is slightly lower. This disparity highlights a potential knowledge gap. Furthermore, the data reveals a moderate willingness to adopt GCash ($\mu=3.21$, $\sigma=0.98$), indicating an overall positive inclination. However, a segment of store owners might require additional persuasion or support to embrace GCash fully.

Table 2. Thematic Presentation of the Factors Influencing Willingness to Adopt GCash in Sari-sari Store

| Major Themes | Sub themes | Frequency (f) | Percentage (%) |
|-------------------------|----------------------|---------------|----------------|
| 1. Efficiency | Ease of Transactions | 25 | 61.76 |
| | Less Time Consumed | 8 | |
| | Quick Process | 5 | |
| | Less Hassle | 4 | |
| 2. Convenience | Easy to use | 7 | 19.12 |
| | Simple process | 4 | |
| | User Friendly | 1 | |
| | Accessible | 1 | |
| 3. Cashless Transaction | Cashless Payment | 6 | 8.82 |
| 4. Financial Management | Load | 5 | 10.29 |
| | Income Generation | 2 | |
| Total | | 68 | 100.00 |

Sari-sari store owners were asked about the primary reasons influencing their willingness to adopt GCash. As shown in Table 2, a thematic analysis of these factors revealed four major themes:

1. Efficiency (61.76%): Easy transactions (27 mentions), less time consumed (8 mentions), quick process (5 mentions), and less hassle (3 mentions) were frequently mentioned responses. This highlights the time-saving and operational efficiency benefits perceived by store owners when using GCash, aligning with findings that efficiency is a crucial driver of mobile payment adoption [14].
2. Convenience (19.12%): Responses emphasized the importance of convenient use (7 mentions), simplicity (implicit in "Easy Transactions"), and accessibility (1 mention). User-friendliness emerges as a crucial factor for adoption, potentially lowering barriers for less tech-savvy store owners, as research shows that convenience is a significant factor influencing mobile wallet adoption [15].
3. Cashless Transactions (8.82%): The ability to move away from cash handling, as indicated by "Cashless Payments" (6 mentions), is a clear advantage of GCash. Cashless transactions reduce security risks associated with holding cash [1] and simplify reconciliation processes.
4. Financial Management (8.82%): The possibility of using GCash for loading (5 mentions) suggests potential benefits in managing store finances. Additionally, "Extra Income" (2 mentions) suggests some owners perceive opportunities for earning additional income through GCash, possibly through commissions or incentives offered by the platform.

3.2. Challenges in GCash Adoption

Challenges emerging from digital payments vary from one economy to another [16]. Despite the willingness to adopt online payment methods in the Philippines, *sari-sari* store owners may still encounter challenges in adopting GCash

as their digital payment method. Respondents were asked to list three challenges that might affect their adoption of GCash for digital payment.

Table 3. Thematic Presentation of the Challenges in GCash Adoption as Digital Payment System

| Major Themes | Sub themes | Frequency (f) | Percentage (%) |
|---|--|---------------|----------------|
| 1. Security Concerns | Safety of Information | 42 | 31.86 |
| | Unauthorized Access | 15 | |
| | Guarantees if something goes wrong | 8 | |
| 2. Lack of trust in digital transaction | Hesitation of putting money online | 35 | 26.96 |
| | Hearing of stories getting scammed online | 20 | |
| 3. Limited awareness among customers | Customers might be unfamiliar with GCash | 19 | 15.20 |
| | Older Customers preference due to possible technicalities | 12 | |
| 4. Regulatory and Legal Barriers | Requirements may be complex | 10 | 14.70 |
| | Integration in business may require possible additional licenses | 13 | |
| | Uncertainty about how regulations will be enforced in the long run | 7 | |
| 5. Technological Limitations | Remote location with unreliable internet access | 14 | 11.28 |
| | Limitation in owner's mobile device | 9 | |
| Total Percentage as to frequency of responses | | 204 | 100.00 |

Table 3 highlights the five main themes stemming from the challenges of adopting GCash as a digital payment system. These are as follows:

1. Security remains the primary challenge for Sari-sari store owners, with a significant portion of 31.86% mentions expressing concerns. These security concerns involve information safety, unauthorized access, and uncertainty in determining whether something goes wrong. Multiple studies have proven this to be a challenge. For instance, Ref [17] claims that security is a significant consideration in influencing the use of digital payment. This aligns with existing research on digital payment adoption in developing economies, where security in digital transactions is often a hurdle. One of the access credits that ensures privacy and security when using digital payments instead of cash is security in the electronic payment system [18].
2. Closely linked to security concerns, a lack of trust in digital transactions, equivalent to 26.96% of the responses, presents another significant challenge. These issues in trust include the hesitation of putting money online instead of actual cash transactions and some stories they heard from other people of being scammed. This may highlight the need for initiatives to promote user confidence in GCash's security protocols and dispute-resolution mechanisms. As linked, security and trust are both essential in encouraging customers to adopt electronic payments [19]
3. Limited customer awareness of digital payment systems (15.20%) can pose a significant barrier for *sari-sari* store owners adopting GCash. Several studies have indicated a strong correlation between customer awareness and the adoption of mobile payment systems [20] (Singh et al., 2018). This suggests that when a substantial portion of the clientele prefers cash or traditional methods, store owners may hesitate to fully embrace GCash out of fear of potential resistance or lack of customer interest [21]. Encouraging customer education and promoting the benefits of GCash can be crucial in overcoming this hurdle, as customer awareness plays a vital role in adopting digital payment systems in *sari-sari* stores.

4. Overcoming the regulatory and legal barriers associated with GCash adoption is another challenge that *sari-sari* store owners may face. The lack of clarity surrounding regulations and legal aspects of GCash adoption can create uncertainty and hesitation among store owners. This includes concerns about the perceived complexity of GCash requirements, the possibility of needing additional licenses for business integration, and doubts about the long-term stability of regulations [22]. Addressing these concerns through clear and accessible communication from regulatory bodies and GCash itself can foster trust and encourage adoption.

5. While not the most prominent concern, technological limitations pose challenges for a segment of *sari-sari* store owners (11.28%). Limited internet access in remote areas (14 mentions) and the constraints of some mobile devices (phones or tablets) can hinder the use of GCash as a payment system [23]. Investing in infrastructure development to improve internet connectivity in remote areas and offering alternative solutions like offline transactions (where applicable) can help address these limitations and expand GCash accessibility.

3.3. Technological Readiness and Recommendations

This section gauged *sari-sari* store owners' perceptions of their technological readiness for GCash Adoption and their recommendations for GCash use. Examining technological preparedness and suggestions provided by the proprietors of *sari-sari* stores extends beyond merely assessing the possibilities for GCash adoption. This study offers significant insights for stakeholders, including GCash developers, policymakers, and researchers. These insights may be utilised to address the digital divide, encourage user-centred adoption, enhance the GCash ecosystem, and inspire policies that enable *sari-sari* merchants to prosper in the digital era.

Table 4. Perceived Technological Infrastructure Capabilities for GCash Transactions in Sari-sari Stores

| Responses | Frequency (f) | Percentage (%) |
|-----------------|---------------|----------------|
| Very Adequate | 4 | 5.88 |
| Adequate | 36 | 52.94 |
| Inadequate | 15 | 22.06 |
| Very Inadequate | 13 | 19.12 |

Table 4. reveals that a majority (52.94%) of respondents perceived their current technological infrastructure as adequate for accommodating GCash Adoption. This suggests a moderate confidence level in their systems' handling of the digital payment platform. However, a concerning proportion (22.06%) of store owners expressed concerns regarding the inadequacy of their technological infrastructure, indicating a need for improvement in a substantial segment of the *sari-sari* store landscape.

In the last part of the interview, *sari-sari* store owners were asked for their final recommendation for the broader adoption of GCash as their digital payment system. As shown in Table 5, the thematic analysis revealed five key themes driving owners' sentiment: security, user education & awareness, connectivity & usability, fees & incentives, and government regulation & support.

Table 5. Thematic Presentation of the Recommendations of Sari-sari store owners for GCash Adoption as Digital Payment System

| Theme | Recommendation | Sample Phrases from <i>sari-sari</i> store owners | Frequency (f) | Percentage (%) |
|----------|---|---|---------------|----------------|
| Security | Enhance security and provide government assurance | <i>Security is a big concern for me. I would feel more comfortable using GCash if I knew they had the strongest possible security measures in place.</i> <i>"Having the government publicly endorse GCash and vouch for its security would go a long way in building trust among both store owners and customers."</i> | 21 | 30.88 |

| | | | | |
|-----------------------------------|--|---|----|-------|
| User Education & Awareness | Improve user education and awareness | <i>"Many of my customers aren't familiar with GCash yet. If there were clearer explanations and maybe even demonstrations on how to use it, I think more people would be willing to try it."</i> <i>"A lot of my customers are older folks who are comfortable with cash. Maybe some informational campaigns or in-store posters could help spread awareness about GCash benefits."</i> | 15 | 22.05 |
| Connectivity and Usability | Simplify transactions and enable offline usage | <i>The GCash transaction process can be a bit cumbersome sometimes. Streamlining it would make things faster for both me and my customers."</i> <i>"Not everyone has a strong internet connection here. If GCash could work offline for certain transactions, that would be a huge advantage, especially for stores like here."</i> | 14 | 20.59 |
| Fees & Incentives | Review and reduce fees | <i>"The fees associated with GCash transactions can add up, especially for smaller transactions. It would be great if they could be lowered a bit to make it more attractive for everyday use."</i> <i>"Some customers might be hesitant to try GCash because of the fees. A more competitive fee structure could definitely encourage wider adoption."</i> <i>"A program that helps sari-sari stores like mine get started with GCash, maybe with some training or even initial fee waivers, would be a great incentive for adoption."</i> | 10 | 14.71 |
| Government Regulation and Support | Enhance security measures and provide government assurance | <i>"Security is a big concern for me. I would feel more comfortable using GCash if I knew they had the strongest possible security measures in place."</i> <i>"Having the government publicly endorse GCash and vouch for its security would go a long way in building trust among both store owners and customers."</i> | 8 | 11.77 |

1. The owners emphasized the necessity of implementing robust security protocols to safeguard the integrity of their transactions in GCash. Expressions such as "Security is a significant concern for me" and "implementing the most robust security measures" illustrate the significance of establishing confidence using verifiably secure systems. Furthermore, owners propose that the government's support for GCash's security would be crucial in promoting broader acceptance. This finding is aligned with many studies like Ref [24], which explain that users' concerns about security and privacy may be the reason for the lack of acceptance of digital payments.

2. It was suggested that there is a requirement for enhanced user education and awareness about GCash. The statements made by *sari-sari* store owners, such as "Many of my customers are not yet acquainted with GCash" and "informational campaigns," highlight the significance of educating both store owners and their customers regarding the advantages and user-friendly nature of GCash. Customer awareness plays a crucial role in driving mobile payment adoption [25]. Users who lack adequate information or understanding of the new technology or system being implemented will likely view the adoption and utilization process negatively, reducing their likelihood of completely embracing the new approach. [26]
3. Additionally, there were notable concerns with connectivity and usability. To enhance user experience, particularly in regions with restricted internet connectivity, proprietors proposed optimizing the transaction process and implementing offline capabilities in GCash. The digital divide is one of the hindrances to achieving financial inclusion [27]. Owners argue that the capacity of GCash to overcome connectivity limits may play a pivotal role in facilitating broader acceptance and utilization as a digital payment system. In another study, simplicity of use is one of the crucial determinants in adopting mobile wallets [28]. Customers place a high value on convenience and user-friendliness when selecting a mobile wallet [29]. A user-friendly mobile wallet may bridge the gap and promote acceptance among less technologically proficient customers in this generation.
4. Examining fees related to GCash transactions was an additional area of emphasis. The owners proposed a thorough evaluation and possible decrease in costs to enhance the competitiveness of GCash and encourage its adoption, especially for smaller transactions. According to a study conducted [30], charge structures can influence corporate decisions regarding the use of mobile payment systems [4]. In addition, research by [31] shows that reducing transaction costs can significantly promote the adoption of mobile wallets.
5. The proprietors of *Sari-sari* stores emphasized the significance of government assurances about the security of GCash. Furthermore, there were indications of a need for government initiatives to facilitate the implementation of GCash in *sari-sari* stores. Although there is a lack of specific research on government support programmes targeting GCash, [29] conducted a study on programmes similar to those provided by Alipay in China. Their research offers valuable insights into how government initiatives can promote mobile payment adoption among small businesses. In addition, [32] conducted a study highlighting the significance of government policies in fostering confidence and enhancing the security of digital payment systems.

CONCLUSION

This study reveals a paradox in GCash adoption among Philippine *sari-sari* stores. While moderate awareness and a desire for efficiency highlight potential, security concerns, limited customer awareness, and technological hurdles pose significant barriers. A multifaceted approach is required. GCash developers must prioritize robust security protocols to build trust. User education campaigns targeting store owners and customers are crucial to address knowledge gaps. Optimizing GCash for offline functionality and improving connectivity in remote areas can enhance accessibility. Reassessing fee structures, particularly for smaller transactions, can incentivize adoption. Finally, collaboration among policymakers, GCash, and regulators is essential to foster trust, provide clear guidance, and potentially introduce supportive programs for *sari-sari* stores. This research contributes to understanding GCash adoption within a previously under-researched segment and offers valuable insights for promoting financial inclusion and fostering a more digitalized Philippine economy, potentially informing broader digital payment strategies in developing economies.

RECOMMENDATIONS

Security measures should be enhanced, notably with the inclusion of robust protocols such as multi-factor authentication and real-time fraud detection, which can engender trust in digital transactions. In addition, comprehensive user education drives at the level of store owners and customers will help fast-track the adoption of GCash among *sari-sari* store owners by addressing knowledge gaps and misconceptions about GCash. Moreover, making the platform more functional offline and improving connectivity in remote areas will increase its usage, while revising the fee structure—especially for smaller transactions—may further drive adoption. For its part, GCash should work with relevant policymakers and regulators in order to nurture trust and guidelines for the digital transformation of *sari-sari* stores. This would be a fillip to the broader cause of financial inclusion and economic digitalization in the Philippines.

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