



INFLUENCE OF CASHLESS PAYMENT SYSTEM ON CUSTOMER CONVENIENCE IN MICRO ENTERPRISES

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ABSTRACT

This study aimed to determine the extent of the influence of cashless payment systems on customer convenience among micro-enterprises in a highly urbanized city in Central Philippines during the academic year 2025–2026. A descriptive research design was employed, involving 200 customers from selected microenterprises who use cashless payment systems such as GCash, Maya, QR PH, and E-card. Data were gathered using a researcher-made questionnaire that underwent validity and reliability testing. Descriptive and inferential statistical tools, including frequency counts and percentages, the mean, the Mann-Whitney U test, and the Kruskal-Wallis H test, were used for data analysis. Findings revealed that cashless payment systems exert a strong influence on customer convenience in terms of accessibility and ease of use, time and convenience, security and trust, and availability and acceptance. Customers generally perceived cashless payments as fast, easy to use, secure, and widely accepted in micro enterprises, although internet connectivity and occasional system unavailability were identified as minor concerns. Comparative analysis showed no significant differences in perceived convenience when respondents were grouped according to sex and frequency of cashless payment use across most variables. However, significant differences were found when respondents were grouped by age and the type of cashless payment platform used, particularly in accessibility, ease of use, and availability and acceptance. The study concludes that cashless payment systems significantly enhance customer convenience and improve the overall transaction experience in microenterprises. The study calls for improving internet reliability, ensuring system availability, training staff in cashless transactions, and supporting multiple payment platforms to enhance customer convenience.

KEYWORDS: *Customers preferences; buffet restaurants, waste management, energy conservation, organic and eco-friendly products, water conservation*

BACKGROUND OF THE STUDY

Cashless payment methods like GCash, Maya, QR PH, and BDO have significantly changed how money transactions are conducted in the Philippines, especially in big businesses where convenience is essential (Visa, 2023; BSP, 2021).

In the Highly Urbanized City of a coastal Negros Island Region, the number of micro business owners who have adopted cashless payment systems has been increasing to meet the demand for cashless transactions. However, while these platforms offer speed and convenience, their influence on customer convenience and satisfaction in these businesses is still barely explored (Visa, 2024)

The main objective of this research is to determine to what extent cashless payment solutions have facilitated the convenience of customers of microenterprises in a highly urbanized city in the Western Visayas Region. It investigates how the introduction of digital payment channels changes the merchants' and customers' experience in terms of transaction speed, convenience, and satisfaction in a city that is still developing but sees a rapid increase in the adoption of digital payment, thus giving the urban community the benefits and the challenges encountered by microenterprises in their adaptation to this technological revolution.

The study aligns with Sustainable Development Goal 8 Decent Work and Economic Growth by examining how cashless payment systems affect customer convenience and satisfaction. It also supports the development of more efficient business practices for microenterprises. Increased customer satisfaction can lead to higher sales, repeat business, and sustainable growth for micro businesses in a Highly Urbanized City in the Western Visayas Region.

The researchers selected their research topic because they witnessed how Cashless payment systems have become more common in society. Researchers who regularly visited microenterprises in the Highly Urbanized City of the Western Visayas Region found that digital platforms had become the primary way customers made purchases. The researchers began their study to examine how the system affects customer satisfaction and convenience during visits to a City that was still developing its digital services. The researchers planned to deliver essential research findings that would help micro-business owners understand the advantages and challenges of using cashless payment systems. The study aimed to provide information that will enable businesses to create better customer experiences as they adapt to changes in the digital economy.



STATEMENT OF THE PROBLEM

This study aimed to determine the level of influence of Cashless payment systems on customer convenience in microenterprises in a Highly Urbanized City in the Western Visayas Region in Central Philippines during 2025-2026. Specifically, this study sought to determine the level of influence of Cashless payment systems on customer convenience in terms of Accessibility & Ease of Use, Time & Convenience, Security & Trust, and Availability & Acceptance. Moreover, it aimed to determine whether or not significant difference exist in the level of influence of Cashless payment systems on customer convenience when grouped and compared according age, sex, type of cashless payment platform use, and frequency of cashless payment use.

THEORETICAL FRAMEWORK

This study is anchored on two major theories: the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT). These theories will guide the formulation of the research instrument and serve as the foundation for analyzing how Cashless payment systems are perceived and adopted by microenterprises in a Highly Urbanized City in the Western Visayas Region in Central Philippines.

The research is based on Davis' (1989) Technology Acceptance Model (TAM), which explains how users determine their acceptance or rejection of technology based on their evaluations of its usefulness and ease of use. Agrifoglio et al. (2022) show that TAM serves as an essential technology adoption model that researchers must treat with special care, as cultural differences reveal their impact on technology acceptance. The Innovation Diffusion Theory (IDT) established by Rogers (1962) describes how innovations spread through communication systems and social networks over time, while demonstrating that trust between users and their relationships with others drive technology adoption. Recent scholars expand on these perspectives, showing that factors such as convenience, security, and social influence play a critical role in Cashless payment adoption (Oliveira et al., 2016; Alalwan et al., 2017), while Venkatesh et al. (2016) underscore the moderating effect of cultural and contextual factors. The research establishes a comprehensive framework that utilizes TAM and IDT to study how microenterprises in the Central Philippines perceive and adopt Cashless payment systems.

The integrated framework enables a comprehensive assessment of how Cashless payment systems impact customer convenience, workflow efficiency, and business performance. The study tests two models using the Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT) to investigate how people perceive software usefulness and ease of use, and which factors from their social and work environments affect their technology adoption decisions. The two viewpoints help researchers understand how people think about digital payment systems as they examine the mechanisms that shape this behaviour. The research gains stronger support because its analysis identifies both minor customer interactions and significant operational

changes. The combined method provides a comprehensive framework for assessing how Cashless payment systems improve service delivery and customer satisfaction while helping microenterprises achieve sustainable development.

LITERATURE REVIEW

According to The Technology Acceptance Model (TAM), perceived usefulness and perceived ease of use are the main factors that influence customers to feel convenience (Balakrishnan & Gan, 2023). The Unified Theory of Acceptance and Use of Technology (UTAUT) includes social influence and facilitating conditions as two of the most important factors affecting adoption (Kim & Kim, 2022). The Diffusion of Innovations model describes how relative advantage, compatibility, and complexity influence customers' adoption of mobile wallets and card-based payment methods (Zhang, 2021; Nguyen & Huynh, 2022).

The most recent international research shows that cashless payment systems provide essential benefits that lead to better transaction performance and improved customer satisfaction for micro and small-to-medium-sized enterprises (SMEs), according to their findings. The research conducted by Khrais in 2020 demonstrates that cashless payment methods enable faster transactions, require less physical work from users, and make it easier to handle post-sale tasks such as accounting, reconciliation, and recordkeeping. The three main factors that drive customers to adopt cashless payment systems include perceived usefulness, ease of use, and trust, according to Namahoot and Jantasri (2023).

Regional studies echo these trends with their evidence. A survey in the Philippines found that more than half of women-led SMEs increased revenue through cashless payments. The 2024 Visa report states that 72 percent of businesses saw improvements in operations after adopting digital payment solutions. Reports from Kenya show that multiple SMEs that use cash-only services miss out on business opportunities. According to Nyangosi and Arora (2021), businesses that adopt cashless payment systems experience improved customer satisfaction and a higher market position. Research from Bangladesh shows that performance expectancy and satisfaction determine whether SME entrepreneurs continue to use cashless payment technologies, according to Ali and his colleagues' 2025 research.

The study by Lee and Imperial (2025) used the Technology Acceptance Model (TAM) to show that Filipinos will use e-wallets only when they have confidence in the security of digital transactions, which allows them to use the service with greater ease. Ali (n.d.) conducted his study in Baguio City, where he found that customers preferred products because they were easy to use. It was found that Cashless payment systems lost their intended advantages due to two technical problems: unreliable internet access and delays in transaction processing.

Various practical programs have transformed the local environment. The Globe Charge card reader, according to



Chingcuanco-Cardona (2014), provided small businesses with a cost-effective way to accept digital payments. The Bangko Sentral established the QR Ph system, which set standard procedures for QR-based transactions, enabling microenterprises to use Cashless payments with greater efficiency and simpler processes.

METHODOLOGY

A descriptive research was utilized in this study as its purpose is to describe customers' current experiences and perceptions of cashless payment systems, including their convenience in terms of accessibility, ease of use, security, and availability. By systematically gathering and analyzing data as they naturally occur, the descriptive design allows the researchers to identify patterns and differences among groups based on age, sex, type of cashless platform used, and frequency of use. This makes it appropriate for providing a clear and accurate picture of how cashless payment systems influence customer convenience in microenterprises.

This study involves 200 customers of the selected microenterprises, selected through convenience sampling with a fixed number. Convenience sampling with a fixed number is a

nonprobability sampling technique in which participants are selected based on accessibility, and data collection continues only until the predetermined sample size is reached.

The researchers gathered the necessary data for this study by creating researcher-made survey questionnaires which had undergone validity testing obtaining the result of 4.88 interpreted as excellent, and reliability testing with the result of 0.751, interpreted as acceptable.

Ethical Consideration

Ethical standards were strictly observed throughout the conduct of the study. Prior to data collection, informed consent was obtained from all participants, and their involvement was purely voluntary. Respondents were informed of their right to discontinue participation at any time without penalty. The researchers clearly explained the objectives of the study and the intended use of the data collected. Participants were assured that all information provided would be kept confidential. Personal identifiers were neither disclosed nor published without explicit permission. Safeguards were implemented to ensure anonymity and confidentiality, and access to identifying information was limited solely to the researchers directly involved in the study.

RESULTS AND DISCUSSION

Descriptive analysis of the level of influence of Cashless payment systems on customer convenience in terms of Accessibility & Ease of Use, Time & Convenience, Security & Trust, and Availability & Acceptance

Table 1

Level of influence of Cashless payment systems on customer convenience in terms of Accessibility & Ease of Use

Items	Mean	SD	Interpretation
(How easy and accessible is the cashless payment system for customers?)			
1. I can easily access the cashless payment option whenever I purchase.	4.25	0.894	High Level
2. The payment process is simple and user-friendly.	4.49	0.770	High Level
3. The cashless payment system works smoothly without errors.	3.75	0.843	High Level
4. I can complete transactions with minimal steps or clicks.	4.21	0.835	High Level
5. The cashless payment option is available even with low internet connectivity.	3.14	1.239	Moderate Level
6. I rarely need assistance from staff to complete a payment.	3.79	1.298	High Level
7. The interface is easy to understand and navigate.	4.23	0.917	High Level
8. The system allows me to use my preferred device (phone, tablet, etc.) without issues.	4.29	0.836	High Level
Overall Mean	4.02	0.646	High Level

The Influence of the cashless payment system on customer convenience in microenterprises obtained an overall mean of 4.02, interpreted as "High Level". Moreover, it was revealed that item 2, "The payment process is simple and user-friendly," had the highest mean of 4.49, indicating "High Level". In contrast, item 5, "the cashless payment option is available even with low internet connectivity," got the lowest mean of 3.14, interpreted as "Moderate Level".

The cashless payment system provides customers with various benefits through its easy-to-access, simple-to-use payment method, enabling most customers to complete their purchases.

The research shows that cashless payment systems enhance customer service capabilities, which leads to increased customer loyalty. The system experiences major problems because users need internet access, yet it only functions at a minimum score, indicating that it does. Customers who use cashless payment systems find them convenient, but their satisfaction decreases when they encounter weak or unstable network signals. The cashless payment process encounters its biggest operational obstacles when internet connectivity issues cause payment processing delays, and users experience restricted access to their systems, most often in areas with weak internet connectivity.

The study results confirm Visa's (2023) research, which demonstrates that cashless payment systems require stable internet connections for all transactions. Rural and developing



areas experience slow internet and weak mobile signals, making it impossible for users to access digital payment applications. Users encounter common problems, such as loading delays, unresponsive interfaces, and failed transactions, when internet connectivity is poor. GCash, Maya, and other e-wallet users experience service interruptions during peak usage times and in low-signal areas, which leads to these problems. Cashless systems

require real-time verification to process payments, because any connectivity interruption will reduce operational efficiency. The respondents assigned a moderate rating to this statement because they found cashless payment methods convenient, yet internet connection quality remained the main barrier to continuous payment processing.

Table 4

Level of influence of Cashless payment systems on customer convenience in terms of Time & Convenience

Items	Mean	SD	Interpretation
(How cashless payment saves time and makes the buying process			
1. Using cashless payment speeds up the checkout process.	4.35	0.849	High Level
2. I can pay without the need to carry cash.	4.34	0.893	High Level
3. Cashless payment allows me to avoid long queues.	4.20	0.872	High Level
4. Transactions are completed quickly without delays.	3.93	0.891	High Level
5. Cashless payment is always available whenever I need to make a purchase.	3.86	0.999	High Level
6. I can make payments even during peak hours at my convenience.	4.11	0.899	High Level
7. The process is faster compared to paying with cash.	4.05	0.974	High Level
8. I find Cashless payment to be more convenient than other payment methods.	4.05	0.890	High Level
Overall Mean	4.11	0.678	High Level

The Influence of the cashless payment system on customer convenience in microenterprises obtained an overall mean of 4.11, interpreted as "High Level". Moreover, it was revealed that item 1, "Using cashless payment speeds up the checkout process. obtained the highest mean of 4.35, interpreted as "High Level", while item 5, "Cashless payment is always available whenever I need to make a purchase," got the lowest mean of 3.86, interpreted as "High Level".

Customer convenience has notably increased through the implementation of cashless payment systems in microenterprises, as the average rating has gone up to 4.11. Digital payment methods are, as a result, the most preferred means of transaction due to their inherent benefits of being time-saving and user-friendly. An average score of 3.86, which is still within the "High Level" category, indicates that a few customers have experienced difficulties in using the cashless payment service. Inconveniences such as system downtime, app maintenance, and poor internet connectivity can temporarily prevent some users from accessing cashless payment options.

The cashless payment system delivers convenience and reliability to customers, but system availability problems leave users unable to access the service at all times, reducing overall convenience.

The lowest average of 3.86 was reported in the BSP (2022) research, which maintained its "High Level" status because some users faced difficulties with cashless payment systems. Microenterprises experience this instability because their internet access remains unreliable in rural areas without urban development. Service interruptions occur when technical issues, such as app maintenance, server downtime, or software glitches, cause temporary access restrictions to the service. Research on digital payment adoption shows that users value the convenience of cashless payments, yet service interruptions that occur from time to time create obstacles, resulting in a lower convenience assessment. The standard mean value appears lower than the other convenience indicators because cashless payments function properly, yet their total reliability remains unproven.

Table 5

Level of influence of Cashless payment systems on customer convenience in terms of Security & Trust

Items	Mean	SD	Interpretation
(How safe and reliable is the cashless payment system for customer experience?)			
1. I feel safe when sharing my payment information.	3.62	1.110	High Level
2. The system protects my transaction details from fraud.	4.04	0.961	High Level
3. I trust that my payments are processed correctly every time.	4.18	0.884	High Level
4. I receive accurate receipts or confirmations after payment.	4.48	0.750	High Level
5. I have never experienced unauthorized charges using cashless payment.	4.03	1.123	High Level
6. My personal information is kept secure.	4.07	0.948	High Level
7. The system quickly resolves issues if a transaction fails.	3.85	0.928	High Level
8. I trust the enterprise to handle my payment information responsibly.	4.06	0.903	High Level
Overall Mean	4.04	0.686	High Level



Overall, the Influence of the cashless payment system on customer convenience in microenterprises had a mean of 4.04. This corresponds to "High Level." Furthermore, item 4, i.e., "I receive accurate receipts or confirmations after payment," scored the highest at 4.48, indicating "High Level." Item 1, "I feel safe when sharing my payment information," scored the lowest at 3.62 and corresponds to "High Level."

This implies that the analysis of the findings revealed that the overall mean of 4.04, which in this case translates to "High Level," indicates that cashless payment systems in the micro-enterprise sector were highly convenient for customers. On another dimension, the overall highs and lows of each statement in the analysis were presented, with the highest mean of 4.48 indicating "I receive accurate receipts or confirmations after payment". Perceived convenience is high, but the lowest mean of 3.62 for "I feel safe when sharing my payment information" suggests that customers are somewhat concerned with the security of their personal or financial data. These perceived security concerns reduce the sense of convenience, and therefore, micro

enterprises may increase customer satisfaction by offering greater security and assurance that their transactions are safe.

According to the Journal of E-Development 2023, micro-enterprises find cashless payment systems user-friendly and operationally efficient, with an average score of 4.04, characterized as a "High Level" assessment. Customers value receiving precise payment receipts, which explains why "I receive accurate receipts or confirmations after payment" received an average score of 4.48. As a result, the lowest mean score of 3.62 corresponds to "I feel safe when sharing my payment information." This indicates that users have moderate security and privacy concerns, as they remain concerned about security issues and fraud when making online payments. Users trust and accept the e-payment system for this very reason, as confirmed in the literature. This is because system security is seen as a factor influencing users' trust. Customers also find the systems convenient and trustworthy. Nonetheless, security remains a barrier hindering them from trusting these systems. Therefore, firms in the micro-enterprise sector need to consider implementing security measures to boost customer satisfaction.

Table 6

Level of influence of Cashless payment systems on customer convenience in terms of Availability & Acceptance

Items	Mean	SD	Interpretation
(How widely the cashless payment option is offered and accepted)			
1. The enterprise always offers cashless payment as an option.	3.93	0.838	High Level
2. The cashless payment system is accepted for all types of purchases	3.86	0.932	High Level
3. The staff is knowledgeable about processing cashless payments.	4.11	0.831	High Level
4. I can use different cashless payment apps.	4.15	0.944	High Level
5. The cashless payment system works during peak hours or busy times.	4.12	0.877	High Level
6. I can use cashless payment for both small and large transactions.	4.22	0.862	High Level
7. The system rarely goes offline or becomes unavailable.	3.71	0.986	High Level
8. I see cashless payment actively promoted at the enterprise.	4.17	0.867	High Level
Overall Mean	4.03	0.634	High Level

The Influence of the cashless payment system on customer convenience in microenterprises obtained an overall mean of 4.03, interpreted as "High Level". Moreover, it was revealed that item 6, "I can use cashless payment for both small and large transactions," had the highest mean of 4.22, indicating a "High Level". In contrast, item 7, "The system rarely goes offline or becomes unavailable," had the lowest mean of 3.71, interpreted as "High Level".

The study found that cashless payment systems in microenterprises achieved high customer satisfaction. Customers showed the highest preference for cashless payment systems where system shows high reliability for customers, with only minor interruptions. The research demonstrates that

microenterprises can improve customer satisfaction by providing uninterrupted system access and reducing service disruptions, thereby enhancing the usability of their cashless payment systems. The system's reliability remains a problem because payment service outages caused by network issues, server outages, or other technical problems lead to service interruptions, which can deter users.

Comparative analysis of the level of influence of Cashless payment systems on customer convenience in terms of Accessibility & Ease of Use, Time & Convenience, Security & Trust, and Availability & Acceptance when grouped and compared according to Age, Sex, Type of Cashless Payment Platform Use, and Frequency of Cashless Payment Use



Table 7

Difference in the level of influence of Cashless payment systems on customer convenience in terms of Accessibility & Ease of Use when grouped and compared according to variables

which grouped and compared according to variables								
Variable	Category	N	Mean Rank	Mann-Whitney U	Kruskal Wallis H	p-value	Sig. level	Interpretation
Age	Younger	80	96.20	4456.000		0.390	0.05	Not Significant
	Older	120	103.37					
Sex	Male	93	106.38	4428.500		0.179		Not Significant
	Female	107	95.39					
Type of Cashless Payment Platform Use	Gcash	148	98.73		10.694	0.013		
	Maya	21	129.48					
	QRPH	14	66.18					
	Ecard	17	108.38					
Frequency of Cashless Payment Use	Rare	45	98.20		0.810	0.670	Not Significant	
	Moderate	120	99.05					
	Frequent	35	108.44					

The results reveal no significant difference in the influence of cashless payment systems on customer convenience when respondents were grouped according to age ($p = 0.390$), sex ($p = 0.179$), and frequency of cashless payment use ($p = 0.670$) since all computed p-values are greater than the 0.05 level of significance. Therefore, the null hypothesis for these variables is accepted, indicating that the groups share similar perceptions of accessibility and ease of use.

However, a significant difference was found when respondents were grouped by the type of cashless payment platform used ($p = 0.013$), which is below the 0.05 significance level. Thus, the null hypothesis is rejected for this variable. This means customer convenience, in terms of accessibility and ease of use, varies depending on the platform used (GCash, Maya, QRPH, or E-card).

This implies that customers generally experience similar levels of convenience when accessing and using cashless payment systems, regardless of age, sex, or frequency of digital transactions. This consistency suggests that most users—whether young or old, male or female, frequent or occasional—find cashless payments equally easy and accessible.

The platform type determines how customers evaluate their convenience. Some platforms provide users with better access, faster responses, and more straightforward navigation than others. Maya users who belong to established platforms will find its interface more accessible than those of less popular applications. The design and usability, combined with the platform's reliability, function as essential components that determine how customers use cashless payment systems.

The BSP 2024 report shows that the data's lowest mean score, which users interpret as a High Level of convenience, shows that some users face greater difficulty with particular elements of cashless payment systems. The platform received a lower score because users experienced specific problems, which included system delays, application errors, internet connectivity issues, and difficulties with platform navigation. Even though these issues do not drastically affect overall convenience, they show that not all platforms deliver the same smooth experience. Some apps require more steps, load slowly, or offer less intuitive interfaces, which makes them feel less convenient for users. This supports the finding that platform type has a significant influence—meaning specific platforms may consistently deliver a more seamless, reliable, and user-friendly experience than others.

Table 8

Difference in the level of influence of Cashless payment systems on customer convenience in terms of Time & Convenience when grouped and compared according to variables

grouped and compared according to variables								
Variable	Category	N	Mean Rank	Mann-Whitney U	Kruskal Wallis H	p-value	Sig. level	Interpretation
Age	Younger	80	91.26	4061.000		0.065	0.05	Not Significant
	Older	120	106.66					
Sex	Male	93	102.47	4792.000		0.652		Not Significant
	Female	107	98.79					
Type of Cashless Payment Platform Use	Gcash	148	95.73		4.345	0.227		Not Significant
	Maya	21	120.64					
	QRPH	14	110.18					
	Ecard	17	109.18					
Frequency of Cashless Payment Use	Rare	45	89.27		2.367	0.068		Not Significant
	Moderate	120	99.30					
	Frequent	35	119.04					



The findings show no significant difference when respondents were grouped according to age ($p = 0.065$), sex ($p = 0.652$), type of cashless payment platform used ($p = 0.227$), and frequency of cashless payment use ($p = 0.068$), since all computed p-values are greater than the 0.05 significance level. Therefore, the null hypothesis for all variables is accepted.

This implies that cashless payment systems provide consistent levels of time-related convenience across all customer groups.

Regardless of age, sex, the platform used, or how often customers use digital payments, most users benefit from faster transactions, reduced wait times, and smoother purchasing processes.

Overall, the absence of significant differences suggests that cashless payments are universally efficient and convenient across various customer profiles.

Table 9

Difference in the level of influence of Cashless payment systems on customer convenience in terms of Security & Trust when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann-Whitney U	Kruskal Wallis H	p-value	Sig. level	Interpretation
Age	Younger	80	93.04	4203.000		0.136	0.05	Not Significant
	Older	120	105.48					
Sex	Male	93	105.98	4465.500		0.211		Not Significant
	Female	107	95.73					
Type of Cashless Payment Platform Use	Gcash	148	100.61		1.262	0.738		Not Significant
	Maya	21	108.07					
	QRPH	14	85.96					
	Ecard	17	102.18					
Frequency of Cashless Payment Use	Rare	45	104.43		0.348	0.840		Not Significant
	Moderate	120	98.65					
	Frequent	35	101.77					

The results show no significant difference in the influence of cashless payment systems on Security & Trust when respondents were grouped according to age ($p = 0.136$), sex ($p = 0.211$), type of cashless payment platform used ($p = 0.738$), and frequency of cashless payment use ($p = 0.840$), since all p-values are greater than 0.05. Therefore, the null hypothesis for all variables is accepted.

The research results show that cashless payment systems deliver consistent convenience to microenterprise customers, as platform usage, payment frequency, customer age, and customer sex do not affect system performance. Customers experience faster, smoother transactions because the factors that impact their experience do not affect their service delivery.

The study reported by MDIP (2021) clearly shows that cashless payment systems are the main drivers of customer convenience in microenterprises. It ruled out differences in payment platform type, frequency of use, age, and sex as factors influencing the level of convenience customers experience. All of them benefited from quicker transactions regardless of these factors. While some groups had slightly higher average scores, the differences were not statistically significant; hence, differences in perceived convenience may be explained by individuals' level of familiarity with digital technology rather than by inherent group differences.

These findings imply that microenterprises can confidently promote cashless payment adoption broadly, knowing that it improves customer convenience for all users. At the same time, subtle differences in experience and digital literacy influence individual perceptions.



Table 10

Difference in the level of influence of Cashless payment systems on customer convenience in terms of Availability & Acceptance when grouped and compared according to variables

Variable	Category	N	Mean Rank	Mann-Whitney U	Kruskal Wallis H	p-value	Sig. level	Interpretation
Age	Younger	80	89.36	3908.500		0.026	0.05	Significant
	Older	120	107.93					
Sex	Male	93	101.44	4888.500		0.831		Not Significant
	Female	107	99.69					
Type of Cashless Payment Platform Use	Gcash	148	96.77		8.070	0.046		Significant
	Maya	21	133.76					
	QRPH	14	101.14					
	Ecard	17	91.35					
Frequency of Cashless Payment Use	Rare	45	88.84		3.786	0.151		Not Significant
	Moderate	120	100.90					
	Frequent	35	114.13					

The results indicate significant differences when respondents were grouped by age ($p = 0.026$) and by type of cashless payment platform used ($p = 0.046$), as both p-values are less than the 0.05 level of significance. Thus, the null hypothesis for these two variables is rejected.

Meanwhile, no significant difference was observed when grouped by sex ($p = 0.831$) and cashless payment frequency ($p = 0.151$), both of which exceed the 0.05 significance level.

These implies that, significantly higher convenience rating among older respondents may be attributed to cashless systems reducing the need to carry cash, minimizing transaction effort, and providing a more secure and straightforward payment process once learned. Likewise, Maya's higher perceived convenience suggests that its user-friendly interface, multiple integrated services, and reliable acceptance make transactions easier and more efficient, particularly for older users who value simplicity and all-in-one functionality.

As such, MDPI (2021) presents a study that generally indicates that cashless payment systems enhance customer convenience in microenterprises, though the extent varies depending on the factor considered. The type of payment platform had a significant effect ($p = 0.046$), thus supporting the conceptual thought that a particular platform is more convenient, probably because of its ease of use, faster transaction processing, or widespread familiarity. The age factor also showed a significant difference ($p = 0.026$), with some age groups reporting greater convenience than others, likely because older users value saving time. In contrast, younger users find digital transactions quite intuitive. However, frequency of use and gender did not present significant values, at $p = 0.151$ and $p = 0.831$, respectively, indicating that occasional and frequent users, as well as male and female customers, view convenience similarly. Generally, such findings suggest that microenterprises can adopt cashless payments with confidence, arguing that these options will enhance convenience for diverse users. In contrast, the platform type and age may have subtle effects on individual users' perceptions.

CONCLUSIONS

Although still rated high level, slightly lower rating indicates that respondents experience more challenges in this aspect than in other dimensions of cashless payment convenience. This might be attributed to a few instances when the platform was not very responsive due to unstable internet connectivity, minor system errors, and differences in how the platform runs across devices. These minor inconveniences indicate that, although cashless systems are generally user-friendly, they fall short in consistency, intuitive interface design, and functionality in offline or low-signal environments. In addition, customer convenience with cashless payment systems does not differ significantly across age, sex, or frequency of cashless payment use. This indicates that the perceived accessibility and ease of digital payment methods remain consistent across various demographic groups and user categories. Specific platforms within a given system make it more convenient, not user attributes or system usage. Convenience levels differ according to how well a system works, its user experience, and how well GCash, Maya, QR PH, and E-card deliver service to their users. Different payment platforms offer varying levels of convenience to their customers. Microenterprises need to select their platform based on the option that provides better usability and aligns with users' existing knowledge of the system and its trustworthy performance, to achieve better customer satisfaction and streamline online payment processes. It is recommended that microenterprise owners improve internet reliability, ensure continuous system availability, train staff to handle cashless transactions, and support multiple payment platforms to further enhance customer convenience and satisfaction.

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