Determinants of Paleng-QR Ph plus Adoption among Micro-Entrepreneurs in General Santos City Public Market: A Study Using the Unified Theory of Acceptance and Use of Technology

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ABSTRACT

This study examined the determinants influencing behavioral intention to adopt Paleng-QR Ph Plus among micro-entrepreneurs in General Santos City Public Market, Philippines, using an extended Unified Theory of Acceptance and Use of Technology (UTAUT). A descriptive-correlational, quantitative cross-sectional survey was conducted with 120 micro-entrepreneurs (market vendors and tricycle operators) selected through simple random sampling. Data were collected using a modified and structured 39-item, 4-point Likert scale questionnaire adapted from prior UTAUT studies. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to assess the measurement model (outer loadings, reliability, convergent validity) and the structural model. The measurement model demonstrated excellent reliability, with Cronbach's alpha coefficients exceeding 0.90 and all outer loadings above 0.70. The structural model revealed that Effort Expectancy ($\beta = 0.30$, $p < 0.01$), Perceived Trust ($\beta = 0.25$, $p < 0.01$), and Self-Efficacy ($\beta = 0.21$, $p < 0.05$) had significant positive effects on Behavioral Intention, collectively explaining 73% of the variance ($R^2 = 0.73$). Performance Expectancy ($\beta = -0.04$), Social Influence ($\beta = 0.10$), Perceived Risk ($\beta = 0.04$), and Perceived Cost ($\beta = 0.13$) were not significant predictors. Effort Expectancy, Perceived Trust, and Self-Efficacy are the primary drivers of digital payment adoption among public market micro-entrepreneurs, meaning that ease of use, security trust, and personal confidence matter more than perceived productivity gains, social pressure, risk concerns, or cost. Policymakers and the Bangko Sentral ng Pilipinas may prioritize simplified interfaces, confidence-building training, and trust communication campaigns to accelerate Paleng-QR Ph Plus adoption.

Keywords: Digital payment adoption, micro-entrepreneurs, Paleng-QR Ph Plus, PLS-SEM, UTAUT

INTRODUCTION

The Philippines has committed to a comprehensive Digital Payments Transformation Roadmap led by the Bangko Sentral ng Pilipinas (BSP), aiming to convert fifty percent of retail transactions to digital form by 2025. A flagship initiative under this roadmap is the Paleng-QR Ph Plus program, which introduces QR code-based digital payments in public markets, a traditionally cash-dominated environment. The program targets micro-entrepreneurs, including market vendors and tricycle operators, who handle daily cash transactions and face risks such as theft, counterfeit money, and accounting errors.

Despite the program's potential benefits in terms of transaction efficiency, financial inclusion, and transparent economic activity, adoption rates among micro-entrepreneurs in public markets remain inconsistent. Nationally, the program has seen rapid growth: from 68 local government units (LGUs) in early 2024 to 207 by September 2025, and further expanding to 922 LGUs by the end of 2025. However, local onboarding varies widely. For instance, Bacolod City onboarded 78% of its market vendors, while Butuan City reached only 58% of vendors at its Taboan Public Market. In some areas like San Rafael, Bulacan, adoption reached as high as 98% of market

stalls. This variability from 58% to 98% highlights that adoption is not automatic but depends on local factors. General Santos City, as one of the major economic hubs in Mindanao, presents a critical case for understanding these adoption barriers and enablers.

Research Problem

The specific factors influencing the adoption of Paleng-QR Ph Plus among micro-entrepreneurs in the General Santos City Public Market have not been systematically examined. Without empirical evidence, policymakers and local government units (LGUs) cannot design targeted interventions. The central problem is that adoption remains variable and unexplained. Some micro-entrepreneurs readily adopt digital payments, while others continue to rely exclusively on cash, potentially missing the benefits of digitalization. This variability suggests that contextual factors ranging from perceived ease of use to trust in security differentially affect adoption intention. However, which factors matter most for this specific population remains unknown.

Three specific gaps exist in the literature. First, no study has applied the extended UTAUT framework to Paleng-QR Ph Plus adoption among public market micro-entrepreneurs, a population distinct from typical technology users due to daily cash handling, limited formal education, and unique vendor-to-vendor social dynamics. Second, the relative importance of each predictor for this population remains unknown; it is unclear whether Perceived Usefulness matters more than Effort Expectancy, or whether Perceived Trust outweighs Perceived Cost in driving adoption intention. Third, the General Santos City public market context has not been empirically studied for digital payment adoption, leaving a geographic and contextual gap in the literature.

Research Objectives

This study aims to determine the contextual factors influencing behavioral intention to adopt Paleng-QR Ph Plus among micro-entrepreneurs in General Santos City Public Market using the extended UTAUT framework. Specifically, this study seeks to describe the demographic profile of micro-entrepreneurs in terms of age, sex, and educational attainment; to assess the perceived level of Performance Expectancy, Effort Expectancy, Social Influence, Self-Efficacy, Perceived Trust, Perceived Risk, and Perceived Cost; to determine the level of Behavioral Intention toward the adoption of Paleng-QR Ph Plus; to examine the significant relationship between the seven contextual factors and Behavioral Intention; and to identify which of the seven factors significantly influence Behavioral Intention.

Hypotheses

Based on the research questions and theoretical framework, the following null hypotheses were tested:

HO_1: There is no significant influence of the contextual factors (PE, EE, SI, SE, PT, PR, PC) on the behavioral intention of micro-entrepreneurs toward the adoption of Paleng-QR Ph Plus.

HO_2: There is no single factor that significantly predicts the behavioral intention of micro-entrepreneurs toward the adoption of Paleng-QR Ph Plus.

Theoretical Framework

This study is grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al. (2003). UTAUT synthesizes eight prior technology acceptance models into a unified framework, proposing that four core constructs, Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions, determine behavioral intention and subsequent technology use. The extended UTAUT model incorporates additional constructs relevant to digital payments: Self-Efficacy (drawn from Bandura's social cognitive theory), Perceived Trust (security and reliability beliefs), Perceived Risk (uncertainty and potential loss), and Perceived Cost (economic rationality). The theoretical framework posits that these seven factors jointly determine behavioral intention, which precedes actual adoption behavior. This study adopts the extended UTAUT model to examine Paleng-QR Ph Plus adoption among micro-entrepreneurs.

Conceptual Framework

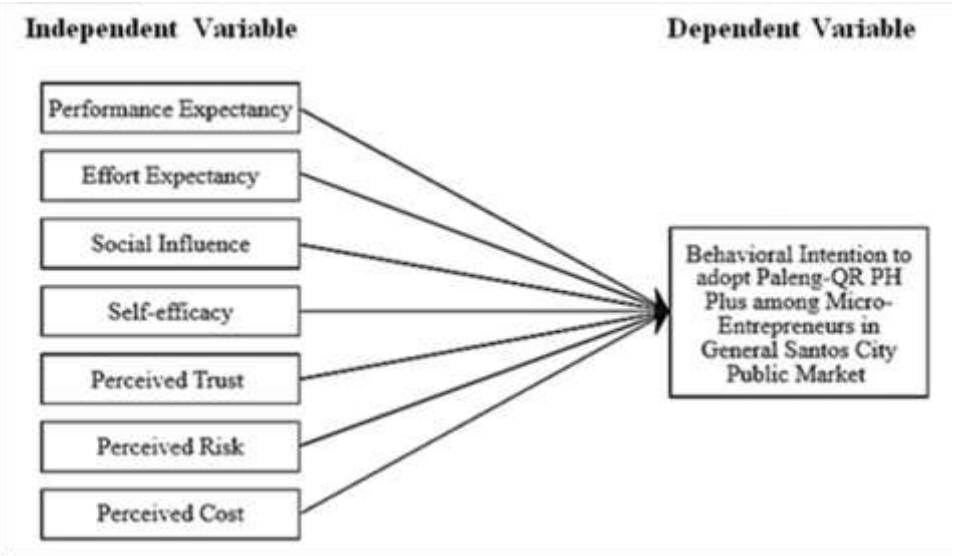

Figure 1.

Significance of the Study

This study contributes to both academic literature and practical policy. Theoretically, it provides empirical evidence on technology adoption in informal economic sectors, a population underrepresented in UTAUT validation studies. The findings extend UTAUT by identifying which constructs drive adoption for micro-entrepreneurs specifically.

Practically, the results provide policymakers, the BSP, the Local Government Unit of General Santos City, and e-wallet providers (GCash, Maya, and other QR Ph-enabled platforms) with data-driven guidance for designing interventions that address specific adoption barriers. The validated instrument can also be used for future adoption studies in similar public market contexts across the Philippines.

Moreover, this study directly supports several United Nations Sustainable Development Goals (SDGs). By accelerating digital payment adoption among micro-entrepreneurs, the research contributes to SDG 8 (Decent Work and Economic Growth) by promoting productive activities, entrepreneurship, and financial inclusion for small-scale vendors and drivers. It also advances SDG 9 (Industry, Innovation, and Infrastructure) by encouraging the use of digital technologies and resilient financial infrastructure in traditionally cash-based markets. Furthermore, increased access to secure digital payments helps reduce poverty-related vulnerabilities, aligning with SDG 1 (No Poverty). Ultimately, understanding adoption determinants can accelerate the national digital payments agenda, promote financial inclusion, and improve economic efficiency for micro-entrepreneurs while contributing to the global sustainable development framework.

METHODOLOGY

This study employed a descriptive-correlational research design using a quantitative, cross-sectional survey approach. The reference period for all survey items was the current year (2026).

The target population comprised micro-entrepreneurs operating in the General Santos City Public Market, including: (1) market vendors (wet market and dry goods vendors) and (2) tricycle operators/drivers operating within the public market vicinity. Inclusion criteria were: (a) actively operating as a micro-entrepreneur, (b) aged 18 years or older, (c) current or potential future user of digital payments, and (d) willing to provide informed consent.

Simple random sampling was used to select 120 respondents from a complete sampling frame. The sample size of 120 exceeds the minimum recommended for PLS-SEM analysis with seven predictors (minimum recommended $N \geq 100$; adequate statistical power requires at least 10 cases per predictor).

A modified, structured questionnaire was developed, consisting of three parts: Part I (demographic profile, 3 items); Part II (factors influencing adoption, 35 items measuring seven constructs with 5 items each); Part III (behavioral intention, 4 items). All items were measured on a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). The instrument was adapted from validated UTAUT-based studies, including Venkatesh et al. (2003, 2012), Fan et al. (2021), Al-Saedi et al. (2020), Da Silva (2021), and Maglinte et al. (2025).

For respondents with limited reading ability, researchers read each item aloud in Bisaya/Cebuano and recorded the answer. Each survey took approximately 5–10 minutes. Completed questionnaires were checked for completeness on-site, ensuring a 100% completion rate.

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with RStudio Software. PLS-SEM was selected because the data were non-normal (confirmed by Shapiro-Wilk tests), the research objective was prediction-oriented, and the model complexity is well-suited to PLS-SEM. Analysis proceeded in two stages: (1) measurement model assessment using indicator reliability (outer loadings ≥ 0.70), internal consistency reliability (Cronbach's α and composite reliability ≥ 0.70), and convergent validity (AVE ≥ 0.50); (2) structural model evaluation using path coefficients (β), bootstrapping with 5,000 subsamples, and coefficient of determination (R^2).

This study complied with the Data Privacy Act of the Philippines (RA 10173). Participants received written and verbal explanations of the study and signed consent forms. No personal identifiers were collected. All data were stored in locked cabinets and password-protected spreadsheets, accessible only to the research team. Records will be shredded and deleted 12 months after publication.

RESULTS

Table 1. The Demographic Profile Distribution of the 120 respondents.

Characteristics	Category	Frequency (n)	Percentage (%)
Age	18–27 years	37	31.80%
	28–37 years	28	23.30%
	38–47 years	31	25.80%
	48–57 years	16	13.30%
	58 years and up	8	6.70%
	Total	**120**	**100.00%**
Sex	Female	83	69.20%
	Male	37	30.80%
	Total	**120**	**100.00%**
Educational Attainment	Elementary Level/Graduate	20	16.70%
	High School Level/Graduate	53	44.20%
	College Level	41	34.20%
	College Graduate	1	0.80%

	Vocational Course Graduate	5	4.20%
	Total	**120**	**100.00%**

Table 2. The Descriptive Statistics for Performance Expectancy (PE)

Item No.	Statement	Mean	SD	Interpretation
PE1	I would find Paleng-QR Ph Plus useful in my daily business transactions.	2.73	0.99	Moderate High
PE2	Using Paleng-QR Ph Plus would help me accomplish transactions more quickly.	2.69	0.96	Moderate High
PE3	Using Paleng-QR Ph Plus would increase my sales or income.	2.58	0.98	Moderate High
PE4	Using Paleng-QR Ph Plus would make it easier for me to receive payments from customers.	2.67	1.00	Moderate High
PE5	Using Paleng-QR Ph Plus would improve the efficiency of my business operations.	2.63	0.96	Moderate High
Overall Mean		**2.66**	**0.97**	**Moderate High**

Table 3. Descriptive Statistics for Effort Expectancy (EE)

Item No.	Statement	Mean	SD	Interpretation
EE1	Learning how to use Paleng-QR Ph Plus would be easy for me.	2.97	0.97	Moderate High
EE2	My interaction with Paleng-QR Ph Plus would be clear and understandable.	2.86	0.93	Moderate High
EE3	I would find Paleng-QR Ph Plus easy to use.	2.88	0.95	Moderate High
EE4	It would be easy for me to become skillful at using Paleng-QR Ph Plus.	2.94	0.92	Moderate High
EE5	I think the content and process of Paleng-QR Ph Plus is clear and understandable.	2.90	0.95	Moderate High
Overall Mean		**2.91**	**0.94**	**Moderate High**

Table 4. Descriptive Statistics for Social Influence (SI)

Item No.	Statement	Mean	SD	Interpretation
SI1	People who are important to me (family, friends) think that I should use Paleng-QR Ph Plus.	2.72	0.97	Moderate High
SI2	People who influence my behavior (co-vendors, fellow drivers) think that I should use Paleng-QR Ph Plus.	2.62	0.95	Moderate High
SI3	My customers prefer that I use Paleng-QR Ph Plus for payments.	2.62	0.90	Moderate High

SI4	The local government unit (LGU) and BSP promote the use of Paleng-QR Ph Plus.	2.40	1.04	Moderate Low
SI5	Many vendors/drivers in my area are using Paleng-QR Ph Plus.	2.43	1.00	Moderate Low
Overall Mean		**2.56**	**0.97**	**Moderate High**

Table 5. Descriptive Statistics for Self-Efficacy (SE)

Item No.	Statement	Mean	SD	Interpretation
SE1	I could use Paleng-QR Ph Plus on my own without anyone's help.	2.65	0.99	Moderate High
SE2	I am confident in using Paleng-QR Ph Plus even if there is no one around to show me how to do it.	2.59	1.01	Moderate High
SE3	I have the knowledge necessary to use Paleng-QR Ph Plus.	2.70	0.99	Moderate High
SE4	I could complete a transaction using Paleng-QR Ph Plus if I had only the instruction manual or online help for reference.	2.73	0.91	Moderate High
SE5	If I were to open a mobile wallet account, I think I could use it by myself.	2.78	0.97	Moderate High
Overall Mean		**2.69**	**0.98**	**Moderate High**

Table 6. Descriptive Statistics for Perceived Trust (PT)

Item No.	Statement	Mean	SD	Interpretation
PT1	I believe that Paleng-QR Ph Plus is trustworthy.	2.83	0.88	Moderate High
PT2	I trust that my money will be safe when using Paleng-QR Ph Plus.	2.74	0.90	Moderate High
PT3	I believe that my personal information will be kept secure when using Paleng-QR Ph Plus.	2.79	0.84	Moderate High
PT4	I trust that transactions made through Paleng-QR Ph Plus will be processed accurately.	2.77	0.87	Moderate High
PT5	I believe that the e-wallet providers (GCash, Maya) are reliable.	2.80	0.87	Moderate High
Overall Mean		**2.79**	**0.87**	**Moderate High**

Table 7. Descriptive Statistics for Perceived Risk (PR)

Item No.	Statement	Mean	SD	Interpretation
PR1	I am concerned about the security of Paleng-QR Ph Plus transactions.	2.92	0.92	Moderate High

PR2	I worry that my personal information might be exposed to others when using Paleng-QR Ph Plus.	3.02	0.90	Moderate High
PR3	I am afraid that my money might be lost or stolen if I use Paleng-QR Ph Plus.	2.98	0.95	Moderate High
PR4	I worry about fraud or scams when using digital payments.	3.09	0.92	Moderate High
PR5	I am concerned that transactions might not be processed correctly.	2.95	0.91	Moderate High
Overall Mean		**2.99**	**0.92**	**Moderate High**

Table 8. Descriptive Statistics for Perceived Cost (PC)

Item No.	Statement	Mean	SD	Interpretation
PC1	The transaction fees for using Paleng-QR Ph Plus are affordable.	2.88	0.89	Moderate High
PC2	The cost of mobile data or internet connection to use Paleng-QR Ph Plus is reasonable.	2.89	0.83	Moderate High
PC3	Using Paleng-QR Ph Plus is cost-effective for my business.	2.88	0.87	Moderate High
PC4	I believe there is no hidden charges or fees when using digital payments.	2.69	0.95	Moderate High
PC5	The benefits I get from using Paleng-QR Ph Plus outweigh the costs.	2.88	0.87	Moderate High
Overall Mean		**2.85**	**0.88**	**Moderate High**

Table 9. Descriptive Statistics for Behavioral Intention (BI)

Item No.	Statement	Mean	SD	Interpretation
BI1	I intend to use Paleng-QR Ph Plus in my daily transactions.	2.84	0.91	Moderate High
BI2	I will recommend to my fellows to use Paleng-QR Ph Plus.	2.86	0.88	Moderate High
BI3	I am likely to subscribe to Paleng-QR Ph Plus within six months.	2.74	0.97	Moderate High
BI4	I expect to increase my use of Paleng-QR Ph Plus over time.	2.78	0.96	Moderate High
Overall Mean		**2.81**	**0.93**	**Moderate High**

Table 10 Correlation Analysis using the Spearman Method

IV	DV	Correlation	Strength	P_Value	Interpretation
PE	BI	0.57	Moderate	0.00	Significant

EE	BI	0.73	Strong	0.00	Significant
SI	BI	0.66	Strong	0.00	Significant
SE	BI	0.72	Strong	0.00	Significant
PT	BI	0.73	Strong	0.00	Significant
PR	BI	0.22	Weak	0.02	Significant
PC	BI	0.68	Strong	0.00	Significant
All IVs Combined	**BI**	**0.80**	**Strong**	**0.00**	**Significant**
All IVs Combined	**All DVs Combined**	**0.80**	**Strong**	**0.00**	**Significant**

Table 11. Partial Least Squares Structural Equation Modeling (PLS-SEM) Analysis

Table 11.1 Path Coefficients (β)		
Predictor → BI	**Path Coefficient (β)**	**Interpretation**
PE → BI	-0.04	Negligible effect on BI
EE → BI	**0.30**	**Strong effect on BI**
SI → BI	0.10	Weak effect on BI
SE → BI	**0.21**	**Moderate effect on BI**
PT → BI	**0.25**	**Moderate effect on BI**
PR → BI	0.04	Very weak effect on BI
PC → BI	0.13	Weak effect on BI

Table 12.2 Outer Loadings (Indicator Reliability)

Latent Variable	Indicator	Loading	Interpretation
PE	PE1	0.88	High reliability
	PE2	0.90	High reliability
	PE3	0.88	High reliability
	PE4	0.91	High reliability
	PE5	0.93	High reliability
EE	EE1	0.95	Very high reliability
	EE2	0.94	Very high reliability
	EE3	0.96	Very high reliability

	EE4	0.93	Very high reliability
	EE5	0.94	Very high reliability
SI	SI1	0.93	High reliability
	SI2	0.95	High reliability
	SI3	0.92	High reliability
	SI4	0.79	Acceptable reliability
	SI5	0.82	Acceptable reliability
SE	SE1	0.94	High reliability
	SE2	0.92	High reliability
	SE3	0.94	High reliability
	SE4	0.92	High reliability
	SE5	0.91	High reliability
PT	PT1	0.90	High reliability
	PT2	0.94	High reliability
	PT3	0.96	Very high reliability
	PT4	0.94	High reliability
	PT5	0.91	High reliability
PR	PR1	0.90	High reliability
	PR2	0.85	High reliability
	PR3	0.88	High reliability
	PR4	0.90	High reliability
	PR5	0.92	High reliability
PC	PC1	0.90	High reliability
	PC2	0.90	High reliability
	PC3	0.90	High reliability
	PC4	0.86	High reliability
	PC5	0.90	High reliability
BI	BI1	0.91	High reliability

	BI2	0.89	High reliability
	BI3	0.90	High reliability
	BI4	0.88	High reliability

DISCUSSION

The finding that 69.20% of respondents were female and 80% were aged 18–47 years indicates that the primary target population for Paleng-QR Ph Plus adoption interventions is young to middle-aged female entrepreneurs. The educational attainment profile (44.2% high school level/graduate, 34.2% college level) suggests that training materials should be designed for moderate literacy rather than assuming college-level comprehension.

All seven constructs received "Moderate High" mean scores (ranging from 2.56 to 2.99), indicating generally positive perceptions toward Paleng-QR Ph Plus. However, the "Moderate Low" scores for SI_Q4 (LGU/BSP promotion, mean = 2.40) and SI_Q5 (peer usage, mean = 2.43) are critical findings. These indicate that respondents do not perceive strong promotional efforts from government institutions nor observe widespread adoption among their peers. This represents a specific actionable gap for policymakers.

The overall mean for Behavioral Intention was 2.81 ("Moderate High"), indicating that micro-entrepreneurs generally have positive intentions to adopt Paleng-QR Ph Plus. Specifically, respondents agreed that they intend to use it in daily transactions (2.84), will recommend it to others (2.86), are likely to subscribe within six months (2.74), and expect to increase use over time (2.78).

The correlation analysis revealed that all seven contextual factors had statistically significant positive relationships with Behavioral Intention ($p < 0.05$). Effort Expectancy ($r = 0.73$) and Perceived Trust ($r = 0.73$) showed the strongest correlations, followed by Self-Efficacy ($r = 0.72$) and Perceived Cost ($r = 0.68$). Social Influence ($r = 0.66$) and Performance Expectancy ($r = 0.57$) showed moderate correlations, while Perceived Risk ($r = 0.22$) showed a weak but significant correlation. The combined effect of all seven factors on BI was strong ($r = 0.80$). Therefore, the null hypothesis (HO_1) stating no significant relationship is rejected.

The PLS-SEM results identified three significant predictors of Behavioral Intention: Effort Expectancy ($\beta = 0.30$, $p = 0.00$), Perceived Trust ($\beta = 0.25$, $p = 0.01$), and Self-Efficacy ($\beta = 0.21$, $p = 0.02$). EE has the strongest effect, followed by PT and then SE. The R^2 value of 0.73 indicates that these seven predictors explain nearly three-quarters of the variance in adoption intention. Performance Expectancy ($\beta = -0.04$, $p = 0.65$), Social Influence ($\beta = 0.10$, $p = 0.25$), Perceived Risk ($\beta = 0.04$, $p = 0.59$), and Perceived Cost ($\beta = 0.13$, $p = 0.15$) were not significant predictors. Therefore, the null hypothesis (HO_2) stating no single factor significantly predicts BI is rejected, as EE, SE, and PT were found to be significant predictors.

Comparison with Previous Studies

The dominant role of Effort Expectancy ($\beta = 0.30$) aligns with Venkatesh et al.'s (2003) original UTAUT proposition that ease of use is a fundamental determinant of technology acceptance. However, the magnitude of the EE effect in this study exceeds that reported in studies of general urban populations (Fan et al., 2021; Al-Saedi et al., 2020). For example, Al-Saedi et al. (2020) reported EE effects ranging from $\beta = 0.18$ to 0.24 across mobile payment studies. The stronger effect observed here ($\beta = 0.30$) suggests that micro-entrepreneurs in public markets place even greater emphasis on simplicity and ease of use than other user groups, a plausible finding given their daily operational demands, limited time for learning new systems, and moderate educational attainment.

The significance of Self-Efficacy ($\beta = 0.21$) corroborates findings from Al-Saedi et al. (2020) and the World Bank Global Findex Database (2025). Bandura's social cognitive theory posits that self-efficacy beliefs influence whether individuals will attempt a behavior, how much effort they will expend, and how long they will persist. For a population with 44.2% having only high school level education, confidence in independent technology use

becomes a critical enabler. This finding extends Bandura's theory to the digital payment adoption context among informal sector entrepreneurs.

Perceived Trust (β = 0.25) emerged as a strong predictor, consistent with Zhou et al. (2019) and Anico (2024). The mean score for PT_Q2 ("money will be safe") was 2.74 ("Agree"), but the regression coefficient indicates that even small increases in trust substantially increase adoption intention. This reinforces that security and reliability concerns are paramount for micro-entrepreneurs handling daily cash income any perceived risk to their money may be unacceptable.

Contrary to expectations, Performance Expectancy was not significant. This diverges from Venkatesh et al. (2003) but aligns with Da Silva (2021), who found that perceived usefulness may be secondary to ease of use in early adoption stages. For public market micro-entrepreneurs, the immediate question is not "Will this help me earn more?" but "Can I figure this out without losing money or time?" The near-zero negative coefficient (β = -0.04) suggests that focusing marketing messages on productivity gains may be ineffective for this population.

The non-significance of Social Influence is particularly interesting. While correlation showed a significant relationship (r = 0.66), the PLS-SEM path coefficient (β = 0.10, p = 0.25) indicates no direct effect. This suggests that social influence operates indirectly through other constructs, as seeing peers use the system may increase perceived ease of use or self-efficacy, rather than directly driving intention. This finding extends UTAUT by clarifying the mechanism of social influence in this context.

The weak and non-significant effect of Perceived Risk (β = 0.04, p = 0.59) contrasts with some prior studies (Zheng et al., 2025) but aligns with others (Al-Saedi et al., 2020) who found mixed results for risk. The mean score for PR items was high (2.99, "Agree"), indicating that respondents do perceive risks. However, these risk perceptions do not translate into reduced adoption intention, perhaps because high trust (β = 0.25) neutralizes risk concerns or because the perceived necessity of digital payments outweighs the risks.

Lastly, Perceived Cost (β = 0.13, p = 0.15) was not significant, diverging from UTAUT2 studies (Venkatesh et al., 2012; Fan et al., 2021). Low or subsidized transaction fees and perceived savings from reduced cash-handling losses likely explain this. Cost concerns, when present, appear to operate indirectly rather than directly suppressing intention.

Theoretical Implications

The most important theoretical contribution of this study is that not all UTAUT factors matter equally for market vendors and tricycle drivers. For these micro-entrepreneurs, only three things directly influence their intention to use Paleng-QR: how easy it is to use, how much they trust it, and how confident they feel using it alone. Things like how useful it is, what others think, or how much it costs do not directly affect their decision, at least not at first. This means there is an order: first, the system must be simple and feel safe. Only then do other factors like productivity or social pressure start to matter. In other words, for this type of user, ease and trust are the gatekeepers. If a digital payment system is hard to use or seems risky, no amount of advertising or peer pressure will make them adopt it. Therefore, researchers should not assume that every UTAUT factor works the same way for every group. Future theoretical development should focus on identifying conditional hierarchies by which predictors matter first, and for whom.

CONCLUSION

This study examined the determinants of Paleng-QR Ph Plus adoption among micro-entrepreneurs in General Santos City Public Market using an extended UTAUT framework. The findings reveal that Effort Expectancy, Perceived Trust, and Self-Efficacy are the only significant predictors of Behavioral Intention, collectively explaining 72.9% of its variance. Performance Expectancy, Social Influence, Perceived Risk, and Perceived Cost do not significantly influence adoption intention. This indicates that micro-entrepreneurs prioritize ease of use, security, and personal confidence over perceived productivity gains or social pressure. To accelerate digital payment adoption, policymakers and stakeholders should focus on simplifying user interfaces, building trust through secure and transparent systems, and fostering vendor self-confidence through peer-led training. The

study contributes empirical evidence on technology adoption in informal sector markets and provides actionable guidance for the BSP, LGUs, and e-wallet providers.

RECOMMENDATIONS

For the Bangko Sentral ng Pilipinas (BSP). To address Effort Expectancy, the BSP can mandate e-wallet providers (GCash, Maya) to develop a simplified, one-tap interface for Paleng-QR Ph Plus with visual guides and minimal text. For Perceived Trust, the BSP may establish a real-time dispute resolution hotline available in Filipino and Cebuano, along with a zero-liability policy for unauthorized transactions. For Self-Efficacy, the BSP funding hands-on, peer-led training sessions in public markets allows confident vendors to demonstrate the system to others.

For Local Government Units (LGUs). To improve Effort Expectancy, LGUs installing free public Wi-Fi in market areas and posting large-format, step-by-step posters in Cebuano on how to use QR payments will support adoption. To enhance Perceived Trust, LGUs publishing regular transparency reports on the number of successful transactions and resolved disputes builds confidence. To build Self-Efficacy, LGUs can establish vendor champion programs enables trained micro-entrepreneurs to mentor their peers during slow business hours.

For Micro-Entrepreneurs. To benefit from Effort Expectancy, vendors practicing Paleng-QR during non-peak hours help the process become automatic. To strengthen Perceived Trust, vendors starting with small transactions verify that money arrives safely before accepting larger payments. To develop Self-Efficacy, vendors attempting to use the system without assistance after one training session and sharing their success stories with fellow vendors reinforces independent use.

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