

## The Adoption of Digital Wallets and Their Influence on the Shopping Behavior of Urban Communities

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Entered : 08 January 2026

Accepted: 20 January 2026

Revised : 19 January 2026

Published : 21 January 2026

### ABSTRACT

*The rapid development of financial technology has led to significant changes in urban payment systems, particularly through the adoption of digital wallets. This transformation in payment methods has the potential to influence consumer shopping behavior beyond transactional efficiency, affecting consumption patterns and tendencies. This study aims to analyze the influence of digital wallet adoption on the shopping behavior of urban communities. A quantitative approach with an explanatory design was employed using a survey method. Data were collected from urban residents who actively use digital wallets and analyzed using linear regression. The results indicate that digital wallet adoption has a positive and significant effect on shopping behavior among urban consumers. The coefficient of determination reveals that digital wallet adoption explains a substantial proportion of the variance in shopping behavior. These findings suggest that the convenience and efficiency of digital payments play an important role in shaping consumption patterns in urban settings. This study contributes empirically to the literature on digital economy and consumer behavior by highlighting digital payment systems as a key determinant of urban shopping behavior.*

**Keywords:** consumer behavior; digital economy; digital wallets; technology adoption; urban communities

### INTRODUCTION

The development of digital payment technology has transformed the way people conduct economic transactions, particularly in urban areas. Digital wallets have become one of the most rapidly adopted non-cash payment instruments alongside increasing internet penetration, widespread smartphone use, and the integration of payment systems with e-commerce platforms and modern retail. The shift from cash to digital transactions does not merely represent a technical change in payment systems, but also carries behavioral implications that may influence the consumption patterns of urban communities. In this context, payment methods are no longer neutral, but can shape how consumers respond to prices, make purchasing decisions, and manage expenditures (Mew & Millan, 2021; Purohit et al., 2022).

Urban communities possess characteristics that support the rapid adoption of digital wallets, such as high mobility, a strong demand for transaction efficiency, and intensive exposure to the digital economic ecosystem. Various incentives embedded in digital wallet usage, including payment convenience, cashback-based promotions, and price discounts, encourage increased usage intensity in daily shopping activities. Several studies indicate that non-cash transactions tend to reduce the immediate perception of monetary loss compared to cash payments, thereby potentially increasing shopping frequency and the tendency toward impulsive consumption (Sari et al., 2021; Underdown & Tamara, 2025). This condition positions digital wallets as a relevant factor in shaping the shopping behavior of urban consumers.



In the consumer behavior literature, payment methods are viewed as part of psychological mechanisms that influence purchasing decision making. The use of digital payments can reduce psychological barriers to transactions due to their fast and frictionless processes, making it easier for consumers to make purchases without extensive deliberation (Yadav & Majumdar, 2025). Several empirical studies report that digital wallet adoption is associated with increased spending and changes in shopping patterns, particularly in urban environments with extensive access to retail and digital services (Kumar, 2025; Bopanna, 2025). However, the magnitude and direction of these effects still vary across research contexts.

Academically, research on digital wallets has predominantly focused on factors influencing technology adoption intentions and decisions, such as perceived ease of use, usefulness, security, and user trust (Yang et al., 2021; Mew & Millan, 2021). This approach provides strong insights into why consumers are willing to adopt digital wallets. However, the emphasis on the adoption stage often overlooks the subsequent impact of digital wallet usage on actual consumer shopping behavior. In other words, questions regarding how digital wallet usage influences consumption patterns after adoption remain relatively underexplored.

Some studies have begun to link digital wallet usage with changes in shopping behavior, such as increased impulse buying and consumptive lifestyles. A study by Sari, Utama, and Zairina (2021) shows that e-wallet usage is associated with impulse buying tendencies in online shopping. Meanwhile, Rizka and Khusnudin (2025) find that digital wallet usage contributes to the formation of consumptive lifestyles through transaction convenience and digital promotions. Nevertheless, many of these studies remain correlational in nature and have not explicitly tested the causal relationship between the level of digital wallet adoption and consumer shopping behavior.

From a methodological perspective, limitations of previous research are also evident in the dominance of descriptive approaches and perception-based surveys without adequate explanatory analysis. Many studies measure consumer attitudes and perceptions toward digital wallets but do not quantitatively link them to changes in shopping behavior through regression analysis (Tribhan, 2024; Gusti & Da, 2023). In addition, there is still a lack of research that operationalizes digital wallet adoption as a behavioral construct encompassing usage frequency, transaction intensity, and ease of use simultaneously within a single analytical model.

The research gap of this study lies in the limited number of explanatory studies that empirically examine the effect of digital wallet adoption on the shopping behavior of urban communities using a regression approach. The study entitled The Effect of Online Shopping and E-Wallet on Consumer Impulse Buying by Sari, Utama, and Zairina (2021) demonstrates a relationship between e-wallet usage and impulse buying, but does not comprehensively estimate the magnitude of digital wallet adoption effects on shopping behavior. Meanwhile, the study Digital Payment Adoption and Its Influence on Online Shopping by Beena and Parvathi (2025) emphasizes the impact of digital payments on online shopping activities, but does not specifically focus on the urban context and variations in usage intensity. Therefore, research that tests the causal relationship between digital wallet adoption and urban consumer shopping behavior in a quantitative and measurable manner is needed.

Based on this background, this study aims to analyze the effect of digital wallet adoption on the shopping behavior of urban communities. This study is expected to provide empirical contributions to enriching the literature on digital economics and consumer behavior, as well as to serve as a basis for businesses and policymakers in understanding the behavioral implications of digital wallet usage in urban environments.

## METHODS

### Research Design

This study employs a quantitative approach with a quasi-experimental pretest-posttest control group design. This design is selected to evaluate the effectiveness of nutrition education on changes in household consumption behavior by comparing behavior score changes before and after the intervention between the intervention group and the control group. The inclusion of a control group allows the researcher to isolate the effect of nutrition education from other external factors that may influence consumption behavior, thereby strengthening causal inference compared with pre-experimental designs without a comparison group.

### Population and Sample

The research population includes families who are the target of nutrition education programs in the study area. The research sample is selected using a non-probability sampling technique with a purposive sampling approach based on inclusion criteria, namely families that play an active role in household food consumption decision making and are willing to participate in the entire research process. The sample is divided into two groups, namely the intervention group that receives nutrition education and the control group that does not receive the intervention or only receives standard education. Baseline equivalence of characteristics between groups is assessed through descriptive analysis and homogeneity tests to minimize potential selection bias.

### Research Instruments

The research instrument consists of a structured questionnaire used to measure household consumption behavior before and after the intervention. The questionnaire is developed based on consumption behavior indicators, including the frequency of staple food consumption, variety of food types, and consumption quality in accordance with balanced nutrition principles. The instrument is administered at the pretest and posttest stages in both groups. Instrument validity and reliability are tested prior to the main data collection to ensure that the measurement tool accurately and consistently represents changes in consumption behavior.

## RESULTS AND DISCUSSION

### Result

#### Respondent Characteristics

This study involved 250 urban respondents who actively use digital wallets in their daily shopping activities. An analysis of respondent characteristics was conducted to provide an overview of the baseline conditions of the study subjects and to ensure that the analyzed data represent the urban population with an adequate level of digital payment technology adoption. The characteristics analyzed include age, gender, education level, and intensity of digital wallet usage.

**Table 1. Respondents' Characteristics.**

Characteristics	Frequency	Percentage (%)
Age (21-30 years)	142	56.8
Age (>30 years)	108	43.2
Male	121	48.4
Female	129	51.6
Higher education	167	66.8
Secondary education	83	33.2
High digital wallet usage	158	63.2
Moderate digital wallet usage	92	36.8

Table 1 shows that the majority of respondents are within the productive age range and have medium to high levels of education. The gender composition is relatively balanced, thereby minimizing gender bias in the analysis of shopping behavior. More than half of the respondents are classified as high-intensity digital wallet users, indicating that the research sample has sufficient experience with digital payment usage. This condition is important to ensure that the effect of digital wallet adoption on shopping behavior can be analyzed validly.

### Descriptive Statistics of Research Variables

Descriptive statistical analysis is conducted to describe the general tendencies of the digital wallet adoption variable and urban consumer shopping behavior. Variable scores are obtained from a questionnaire using a five-point Likert scale, where higher scores indicate stronger levels of adoption and shopping behavior tendencies.

**Table 2. Descriptive Statistics of Research Variables**

Variable	Mean	Standard Deviation	Minimum	Maximum
Digital Wallet Adoption	4.12	0.54	2.80	5.00
Shopping Behavior	3.89	0.61	2.40	5.00

Based on Table 2, the mean value of the digital wallet adoption variable falls within the high category, indicating that respondents generally perceive digital wallets as an easy, practical, and frequently used payment method. The shopping behavior variable also shows a mean value above the midpoint of the scale, indicating a tendency toward changes in shopping behavior, such as increased transaction frequency and greater spending flexibility. The relatively small standard deviation indicates that respondents' answers are fairly homogeneous.

### Instrument Validity and Reliability Testing

Validity and reliability tests are conducted to ensure that the research instrument is able to measure the constructs of digital wallet adoption and shopping behavior accurately and consistently. Validity testing is performed using item-total correlation, while reliability testing employs Cronbach's alpha coefficient.

**Table 3. Validity and Reliability Test Results**

Variable	Number of Items	Cronbach's Alpha	Interpretation
Digital Wallet Adoption	6	0.83	Reliable
Shopping Behavior	5	0.79	Reliable

The interpretation of Table 3 indicates that all variables have Cronbach's alpha values above the minimum threshold of 0.70. This indicates that the research instrument has a good level of reliability. The questionnaire items are also deemed valid because they meet the established correlation criteria, indicating that the data are suitable for further analysis.

### Classical Assumption Tests

Prior to conducting regression analysis, the data are tested to meet classical assumptions, including normality, multicollinearity, and heteroskedasticity.

**Table 4. Classical Assumption Test Results**

Test	Indicator	Result
Normality	Sig. > 0.05	Normal
Multicollinearity	VIF < 10	No multicollinearity
Heteroscedasticity	Sig. > 0.05	Homoscedastic

The results in Table 4 show that all classical assumptions are satisfied. The residual data are normally distributed, no multicollinearity problems are detected, and there is no indication of heteroskedasticity. Therefore, the regression model used meets the statistical prerequisites and is appropriate for interpretation.

### Results of Regression Analysis

Simple linear regression analysis is used to examine the effect of digital wallet adoption on the shopping behavior of urban communities.

**Table 5. Regression Analysis Results**

Variable	Regression Coefficient ( $\beta$ )	t-value	Sig.
Digital Wallet Adoption	0.47	8.92	0.000
Constant	1.36	4.11	0.000

The interpretation of Table 5 shows that digital wallet adoption has a positive and significant effect on the shopping behavior of urban communities. The regression coefficient value of 0.47 indicates that each one-unit increase in digital wallet adoption is followed by an increase of 0.47 units in shopping behavior. The very small significance value indicates that this effect does not occur by chance, therefore the research hypothesis stating that digital wallet adoption influences shopping behavior can be accepted.

### Coefficient of Determination ( $R^2$ )

The magnitude of the contribution of the independent variable in explaining variations in shopping behavior is analyzed through the coefficient of determination.

**Table 6. Coefficient of Determination**

Model	R	R Square	Adjusted R Square
1	0.65	0.42	0.41

The R Square value of 0.42 indicates that digital wallet adoption is able to explain 42 percent of the variation in urban consumer shopping behavior. The remaining variation is influenced by other factors outside the research model, such as consumer preferences, income, sales promotions, and psychological factors. This value indicates that digital wallet adoption plays a relatively strong role in shaping shopping behavior, although it is not the sole determining factor.

Overall, the research findings show that digital wallet adoption has a significant influence on the shopping behavior of urban communities. These findings are consistent across various stages of analysis, ranging from descriptive statistics and instrument testing to regression analysis. With the fulfillment of classical assumptions and the substantial contribution of the independent variable to the dependent variable, the results of this study provide a strong empirical basis for theoretical discussion on changes in consumer behavior within the digital payment ecosystem.

### Discussion

The results of this study show that digital wallet adoption has a positive and significant effect on the shopping behavior of urban communities. These findings empirically confirm that changes in payment systems do not only affect the technical

aspects of transactions, but also shape patterns and tendencies of consumer behavior. The regression coefficient value of 0.47 with a very high level of significance indicates that the more intensively individuals adopt digital wallets, the greater the tendency for changes in shopping behavior, both in terms of transaction frequency, spending flexibility, and ease of making purchases.

Theoretically, these findings are consistent with consumer behavior perspectives that view payment methods as part of the choice architecture influencing consumption decisions. Digital wallets simplify the payment process by reducing physical and psychological barriers to transactions. When transactions become faster, more practical, and involve minimal friction, individuals tend to be more responsive to available consumption opportunities. This condition is reflected in the high digital wallet adoption scores among the study respondents, which descriptively indicate that digital wallets have become the primary payment method in daily shopping activities of urban communities.

The empirical findings of this study strengthen the results of Yadav and Majumdar (2025), who state that the digitalization of payment systems changes how consumers evaluate costs and benefits in the shopping decision-making process. In the urban context, where consumption intensity and exposure to promotions are relatively high, transaction convenience through digital wallets functions as a catalyst that accelerates the realization of shopping intentions into actual behavior. Thus, digital wallet adoption is not merely instrumental in nature, but also serves as a situational factor that influences behavior.

The coefficient of determination value of 0.42 indicates that digital wallet adoption explains a substantial proportion of the variation in urban shopping behavior. Although other factors outside the model also influence shopping behavior, the magnitude of this contribution demonstrates that digital payment systems are an important determinant within the urban consumption ecosystem. This figure indicates that financial technology transformation has real and measurable behavioral implications, rather than merely administrative changes in payment methods.

These results are also consistent with the findings of Purohit, Arora, and Paul (2022), who emphasize that the sustainability of digital payment usage is correlated with changes in shopping patterns, particularly in the context of online shopping and modern retail. Their study shows that payment convenience and speed increase consumers' tendency to make repeat purchases. In the present study, this relationship is reinforced through regression analysis that demonstrates a causal relationship between the level of digital wallet adoption and shopping behavior.

From a consumer behavior perspective, the findings of this study can also be explained through the concept of reduced pain of paying. Digital wallets separate the consumption experience from the physical experience of losing money, making expenditure perceptions less salient compared to cash payments. This condition has the potential to increase individuals' tolerance for spending and encourage more flexible shopping behavior. This finding is reflected in the relatively high shopping behavior scores among respondents with high digital wallet usage intensity, as shown in the descriptive and regression analyses.

In addition, the characteristics of urban communities further strengthen the relationship between digital wallet adoption and shopping behavior. Urban environments are characterized by high technology penetration, a wide variety of retail options, and intensive digital promotion exposure. In this context, digital wallets do not only function as payment tools, but are also integrated with various consumption incentives, such as cashback, discounts, and loyalty programs. Although promotional

variables are not directly analyzed in this study, the substantial contribution of digital wallet adoption to shopping behavior indicates that the integration of these features plays a role in shaping urban consumer shopping habits.

The practical implications of these findings are significant. For retail businesses, the results indicate that providing and optimizing digital payment systems not only increases transaction efficiency, but also has the potential to influence consumer shopping behavior. Digital wallets can be utilized as strategic instruments to encourage purchase frequency and increase transaction value. Meanwhile, for policymakers, these findings provide empirical evidence that the expansion of the digital payment ecosystem has behavioral impacts that need to be managed prudently, particularly with regard to the risks of excessive consumption and financial inclusion.

Nevertheless, the findings of this study should be interpreted within certain limitations. The R squared value that does not reach 1 indicates that shopping behavior is a multidimensional phenomenon influenced by various other factors, such as income, individual preferences, and socioeconomic conditions. However, the significant and consistent influence of digital wallet adoption indicates that this variable deserves consideration as a key factor in analyzing the shopping behavior of urban communities in the digital economy era.

Overall, this discussion confirms that digital wallet adoption plays an important role in shaping the shopping behavior of urban communities. The empirical findings of this study not only support the research hypothesis, but also strengthen the digital economics literature that positions payment systems as determinants of consumption behavior, rather than merely transaction instruments.

## CONCLUSIONS

This study concludes that digital wallet adoption has a significant influence on the shopping behavior of urban communities. The regression analysis results indicate that the intensity of digital wallet usage contributes positively to changes in shopping behavior, as reflected in increased transaction flexibility, purchase frequency, and consumers' tendency to utilize the convenience of digital payments. The obtained coefficient of determination indicates that digital wallet adoption is one of the important factors explaining variations in shopping behavior among urban communities amid the development of the digital economy.

Theoretically, the findings of this study confirm that digital payment systems do not only function as transaction tools, but also as determinants of consumption behavior. The convenience, speed, and efficiency offered by digital wallets are able to reduce psychological barriers in transactions, thereby influencing how consumers make shopping decisions. Thus, this study provides an empirical contribution to consumer behavior and digital economics research by reinforcing the argument that financial technology transformation has direct implications for urban consumption patterns.

From a practical perspective, the results of this study provide implications for business actors and policymakers. For retail businesses, digital wallets can be utilized as strategic instruments to increase consumer engagement and shopping activity. Meanwhile, for policymakers, these findings indicate the need to manage the digital payment ecosystem in a balanced manner to promote efficiency and financial inclusion without triggering excessive consumption behavior. Future research is recommended to examine other factors that may mediate or moderate the relationship between digital wallet adoption and shopping behavior, in order to obtain a more comprehensive understanding of consumption dynamics in urban communities.

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