

THE INFLUENCE OF CONSUMER BEHAVIOR, FINANCIAL LITERACY, AND TRANSACTION SECURITY ON THE USE OF DIGITAL PAYMENT METHOD IN GEN Z

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Abstract

This research explores the impact of consumer behavior, financial literacy, and transaction security on Gen Z's propensity to use digital payment methods, specifically e-wallets. A quantitative approach was adopted, with data analyzed through multiple linear regression, determination coefficient (R^2), partial (t), and simultaneous (F) tests. The study's results reveal several key insights. The Consumer Behavior variable (X1) significantly affects digital payment method usage (Y), as indicated by a t-value of 2.017 ($p < 0.05$). Likewise, Financial Literacy (X2) demonstrates a significant effect on e-wallet usage (Y), with a t-value of 3.333 ($p < 0.05$). Additionally, Transaction Security (X3) is found to significantly influence digital payment method usage (Y), reflected by a t-value of 5.123 ($p < 0.05$). In all cases, the t-values surpassed the critical t-table value of 1.984. Finally, with an F-count of 47.450 ($p < 0.05$) exceeding the F-table value of 2.70, it's evident that Consumer Behavior (X1), Financial Literacy (X2), and Transaction Security (X3) jointly have a significant influence on the use of digital payment methods (Y).

Keywords: Consumer Behavior, Financial Literacy and Transaction Security and Digital Payment Method

INTRODUCTION

Contemporary technological advancements are indirectly transforming how technology is utilized in the financial sector, particularly in financial transactions. One notable innovation is the digital payment method, or e-wallet, which has gained considerable traction among younger demographics, especially Generation Z (Gen Z). Defined as individuals born between 1997 and 2012, Gen Z is recognized for their strong familiarity with technology and the internet, leading them to rapidly embrace digital solutions across various domains, including finance.

Digital payment Methods provide many benefits, such as ease of transactions, budget management, and better accessibility. The use of digital wallets has become increasingly widespread during the pandemic, not only supported by conditions but also by the "opportunity" situation that digital wallet developers have taken advantage of further promoting their platforms by providing shopping discounts, cashback, and free shipping programs with a number of merchants or e-commerce partners if they pay with their digital wallets. However, these benefits are also balanced by challenges, especially in terms of security and privacy. Therefore, it is important to analyze how consumer behavior, financial literacy and transaction security are interrelated and influence e-wallet usage among Gen-Z.

In Indonesia, e-wallets usage has increased rapidly in recent years. Various e-wallet platforms have been launched, offering diverse and attractive services to users. However, this rapid adoption is not always accompanied by a deep understanding of financial literacy and transaction security. This raises questions about the extent to which Gen Z understands the risks and benefits of using e-wallets. (Rahayu et al., 2020).

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Consumer Behavior

Consumer behavior is how a person, either individually or in a group, considers, chooses, buys, utilizes, and evaluates a product in order to fulfill their needs. Consumer behavior with a person's financial responsibility is closely related to financial of management. Good consumer behavior can be seen from good financial planning, management and control. Good consumer behavior can help someone avoid financial risks.

Financial Literacy

Financial literacy describes an individual's competence in comprehending, evaluating, and utilizing financial data to make informed decisions. Financial Literacy is a very valuable skill in this modern era. By understanding the basic concepts of accounting, we can make better financial decisions, both for business and for personal life. Low Financial Literacy can make someone unable to behave wisely in understanding finance.(Sri Rahayu, 2024)

Transaction Security

Transaction Security is an important aspect in any form of exchange involving money or sensitive data. In the digital era, where transactions are often done online, maintaining the security of information and money is very crucial. Awareness and understanding of these security features need to be possessed by everyone to avoid the risks of hacking that could occur by irresponsible individuals. E-wallet applications generally have a multi-layered security Method. Usually, users must enter an identification number (PIN) or password when registering an account or logging in to the e-wallet application. The most vulnerable and unconscious threat to users who are the target of security attacks is the use of single-use codes or OTP One Time Passcode (OTP). The OTP code is obtained when verifying a legitimate user, either when registering for the first time on the e-wallet application or when the user changes the device used to access the e-wallet application.

Financial Technology

Fintech, or financial technology, is an innovative branch of the financial services industry that utilizes technology. Typically, fintech products are built as systems to manage specific financial transaction processes. Fintech's goal is to offer practical, efficient, comfortable, and affordable access to financial services. This includes various transactions like payments, investments, loans, transfers, financial planning, and product comparisons. The financial technology sector is now a rapidly growing and popular financial service method in the digital era.

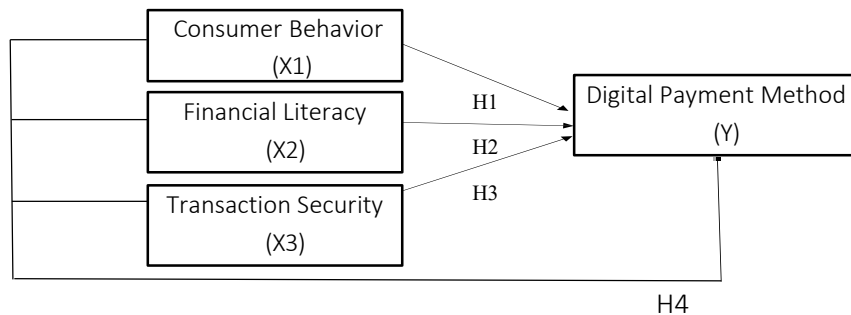
Digital Payment Method

In Indonesia, digital payments represent one of the most rapidly expanding segments within the Fintech industry. Digital payment is a method of payment transactions through digital media. Thanks to digital payments, users can make transactions without having to go to a bank teller while carrying cash. With just a gadget and internet, users can pay bills quickly, easily, and safely. The convenience and security of this method are in fact key factors in the digital payment Method being increasingly eyed by the public. In addition, various innovations that are present through digital service features also encourage people's curiosity to get to know this payment method better.

E Wallet

E-wallet is actually also included in the e-money category. The difference is that e-money uses chip-based technology embedded in the card. With its card form, e-money becomes more popular because it can still be held physically so it is easy to use and psychologically, the owner feels comfortable. While e-wallet uses server-based technology. e-wallet is an application that can save transaction history so that all payments will be recorded automatically. For example GoPay, Dana, LinkAja, Ovo, ShopeePay and Livin By Mandiri.

Figure 1 Conceptual Framework



Hypothesis

- H1: The use of digital payments is greatly influenced by the level of consumer behavior.
 H2: The use of digital payments is greatly influenced by the level of financial transaction.
 H3: The use of digital payments is greatly influenced by the level of transaction security.
 H4: The combination of consumer behavior, financial literacy and transaction security significantly influences the use of digital payment methods.

RESEARCH METHODS

Research Design

This study employs a quantitative research design, primarily focusing on the collection and analysis of numerical or statistical data. The purpose is to test hypotheses, measure relationships between variables, and make generalizations that can be applied to a wider population. The method used is collected by questionnaires through groups of individuals to reveal phenomena.(Sri Rahayu, 2024)

Population and Sample

This research focuses on Generation Z individuals residing in a specific South Jakarta district. We define a population as the entire collection of subjects (human) intentionally assembled from a given location to form the basis for concluding a study's results. According to the Indonesian Central Statistics Agency quoted from one of District In Figures 2024, there are 124,484 Gen Z in one of District.(Rahayu et al., n.d.)

To conduct a study, a sample is taken as a segment of the population for detailed observation and analysis. This approach allows for inferences about the full population without comprehensive examination of all its members. The ability to generalize research findings hinges on proper sampling methodologies. A representative sample is instrumental in mitigating bias and strengthening the reliability of research results. Given that the population size was already identified for this study, the Slovin formula was applied to derive the sample. (Sri Rahayu, 2024)

Data Collection and Instrument Development

The act of research measurement is essentially a structured method for collecting pertinent data to answer study questions or test proposed hypotheses. In this investigation, a Likert scale was chosen for measurement, which is adept at quantifying the strength of respondents' attitudes or emotions toward a given subject. Utilizing a Likert scale allows for the acquisition of rich data, essential for subsequent analysis and gaining comprehensive insights into participants' viewpoints. Questionnaires were disseminated to respondents via both digital and physical channels for data collection Each variable has 10 statements that include the instrument assessment indicators.(Sri Rahayu, 2024)

Data Analysis Techniques

Technical analysis of research using tests: Test by validity test, Test by reliability test, Classical Assumption Test (with 4 tests that is Normality, Multicollinearity, Heteroscedasticity and Autocorrelation Test), the statistical procedures involved a correlation coefficient assessment, a multiple linear regression analysis, a determination coefficient evaluation, as well as T-tests and F-testst.

RESULTS AND DISCUSSION

1. Validity Test

To ascertain if a questionnaire reliably measures what it aims to, a validity test is conducted. A questionnaire achieves validity if the observed correlation coefficient (r count) is greater than the critical r-table value (r table), and the significance level is below 0.05. With n=100, the degrees of freedom (df = 98) result in an r-table value of 0.1966. A recapitulation of the validity test findings for the research variables follows..

Table 1
 Recapitulation of the Validity Test
 (Variable X1, X2 and X3)

Statement	r count (X1)	r count (X2)	r count (X3)	r table	Results Description
X1.1	0,698	0,646	0,270	0,1966	Valid
X1.2	0,591	0,681	0,379	0,1966	Valid
X1.3	0,633	0,265	0,375	0,1966	Valid
X1.4	0,389	0,461	0,539	0,1966	Valid
X1.5	0,705	0,563	0,408	0,1966	Valid
X1.6	0,620	0,669	0,583	0,1966	Valid
X1.7	0,731	0,690	0,606	0,1966	Valid
X1.8	0,768	0,726	0,622	0,1966	Valid
X1.9	0,503	0,750	0,538	0,1966	Valid
X1.10	0,601	0,728	0,508	0,1966	Valid

Table 2
 Recapitulation of the Validity Test
 (Variable Y)

Statement	r count (Y)	r table	Results Description
Y1	0,693	0,1966	Valid
Y2	0,715	0,1966	Valid
Y3	0,752	0,1966	Valid
Y4	0,708	0,1966	Valid
Y5	0,668	0,1966	Valid
Y6	0,339	0,1966	Valid
Y7	0,810	0,1966	Valid
Y8	0,812	0,1966	Valid
Y9	0,747	0,1966	Valid

Y10	0,776	0,1966	Valid
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From the analysis of the output, it is evident that every statement item concerning the variable of interest in utilizing digital payment methods (e wallet) is addressed are declared valid because $r \text{ count} > r \text{ table}$ (0.1966).

2. Reliable Test

The reliability test assesses the degree to which a measurement instrument can be consistently trusted reliable. This reliability test measurement uses statistics with the Cronbach's Alpha Technique with an Alpha level of 0,60.

Table 3
 Recapitulation of the Reliable Test

Variable	Cronbach's Alpha Count	Cronbach's Alpha Standard	Results Description
Consumer Behavior	0,877	>0,60	Reliable
Financial Literacy	0,871	>0,60	Reliable
Transaction Security	0,762	>0,60	Reliable
Digital Payment Method	0,916	>0,60	Reliable

Table 3 presents overall Cronbach's Alpha values presented are > 0.60 , meaning the indicators or statements in the questionnaire are reliable or can be trusted as a measuring tool for variables.

3. Classical Assumption Test

a. Normality Test

The normality test, specifically utilizing the Normal P-P Plot of Regression Standardized Residuals, involves observing how closely the data's distribution follows the diagonal line. The visual representation of this normality test, as shown in the Normal P-P Plot of Regression Standardized Residuals, is presented in Figure 2 below:

Figure 2
 Normality Test

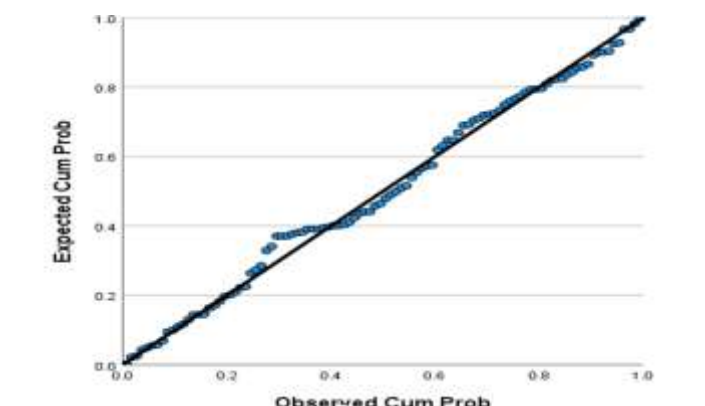


Figure 2 visualization indicates that the points are broadly dispersed around and align with the diagonal line, confirming that the residual data in this study is normally distributed.

b. Multicollinearity Test

Multicollinearity test can be shows from the tolerance value > 0.1 and the VIF (Variance Inflation Factor) value < 10 in the coefficients table. Multicollinearity testing can be seen in table 4 as follows:

Table 4
Multicollinearity Test

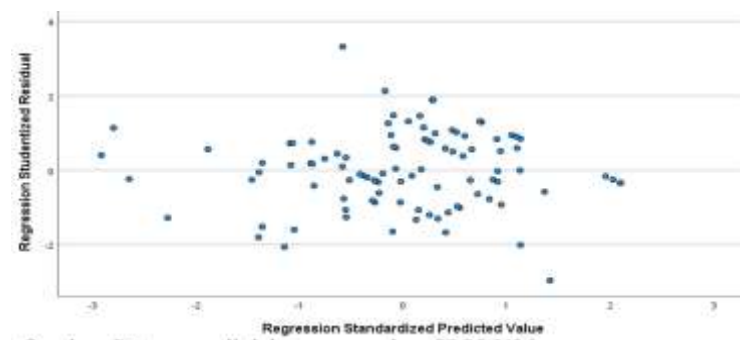
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.228	3.571		.064	.949		
	Consumer Behavior	.193	.096	.194	2.017	.047	.452	2.213
	Financial Literacy	.307	.092	.286	3.333	.001	.570	1.756
	Transaction Security	.519	.101	.428	5.123	.000	.600	1.667

As shown in Table 4, the multicollinearity test revealed that all independent variables have a VIF value under 10 and a tolerance value above 0.1. Therefore, we can conclude that this study does not suffer from multicollinearity.

c. Heteroscedasticity Test

The heteroscedasticity test with a scatterplot graph is carried out by looking at the points spread across the scatterplot graph, which can be seen in Figure 3 as follows:

Figure 3
Heteroscedasticity Test



The scattered, pattern less distribution of points both above and below the center in Figure 3 confirms that the regression model does not exhibit heteroscedasticity. Consequently, the model is suitable for the research.

d. Autocorrelation Test

Table 5
Autocorrelation Test

Model	R	RSquare	AdjustedR Square	Std.Error of the Estimate	Durbin-Watson
1	.773 ^a	.597	.585	3.582	1.889

The autocorrelation test results in Table 5 show a Durbin-Watson value of 1.889. Given a sample size (n) of 100 and three independent variables (K=3), the critical dU value from the Durbin-Watson table is 1.7364, which in turn gives us a 4-dU value of 2.2636. Because the DW value (1.889) lies within the range of dU and 4-dU ($1.7364 < 1.889 < 2.2636$), it is determined that autocorrelation is absent.

4. Correlation Coefficient Test

To determine the closeness of the relationship between the independent and dependent variables, the correlation coefficient method is utilized. A positive correlation suggests a direct, unidirectional relationship among the four variables. Conversely, a negative correlation coefficient implies that the four variables have an inverse relationship.

Based on the results of the correlation coefficient test, it can be concluded as follows:

- 1) The correlation coefficient of Consumer Behavior (X1) with interest in using a digital payment Method (e-wallet) (Y) is 0.648. This means that the relationship between Consumer Behavior (X2) with interest in using a digital payment Method (e-wallet) (Y) is strong because r ranges from 0.60 - 0.799.
- 2) The correlation coefficient of Financial Literacy (X2) with interest in using a digital payment Method (e-wallet) (Y) is 0.618. This means that the relationship between Financial Literacy (X1) and interest in using a digital payment Method (e-wallet) (Y) is strong because r ranges from 0.60 - 0.799.
- 3) The correlation coefficient of transaction security (X3) with interest in using a digital payment Method (e-wallet) (Y) is 0.687. This means that the relationship between price (X3) and interest in using a digital payment Method (e-wallet) (Y) is very strong because r ranges from 0.60 – 0.799.

5. Coefficient of Determination Test

Table 6
Coefficient of Determination Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.228	3.571		.064	.949		
	Consumer Behavior	.193	.096	.194	2.017	.047	.452	2.213
	Financial Literacy	.307	.092	.286	3.333	.001	.570	1.756
	Transaction Security	.519	.101	.428	5.123	.000	.600	1.667

$$Y = 0,228 + 0,193CB + 0,307FL + 0,519TS$$

- 1) The constant value (a) is 0.228, meaning that if the value of the independent variable (Financial Literacy, Consumer Behavior, Transaction Security) is equal to zero or constant, then the value of Interest in Using Digital Payment Methods (E-wallet) (Y) is 0.228.
- 2) The Consumer Behavior variable (X1) is 0.193, this can be interpreted as an increase in Consumer Behavior (X2), then the level of interest in using digital payment Methods (e-wallet) (Y) will also increase by 0.193.
- 3) The Financial Literacy variable (X2) is 0.307, this can be interpreted as an increase in Financial Literacy (X1), then the level of interest in using digital payment Methods (e-wallet) (Y) will also increase by 0.307.

- 4) The transaction security variable (X3) is 0.519. This can be interpreted that if the price (X3) increases, the level of interest in using a digital payment Method (e-wallet) (Y) will also increase by 0.519.

6. T Test

The **t-test** indicated that each of the three independent variables—Consumer Behavior, Financial Literacy, and Transaction Security—possesses a certain confidence level of 95% ($\alpha = 5\%$), to find out the t table value, the formula $t = \alpha / 2$; $n-k-1$ is used, so that when entered into the formula it becomes $t = 0.05 / 2$; $100-3-1 = 0.025$; 96. In this distribution, the Ttable df value is 96 and 0.025 is 1.984. So it can be concluded with the following explanation:

- 1) There is a significant influence of Consumer Behavior (X1) on the interest in using digital payment methods (e-wallets) (Y). This conclusion is drawn from a t-value of 2.017 (exceeding the t-table of 1.984) and a significance level of 0.047(below 0.05). Thus, H1 is accepted, demonstrating a partial significant effect of consumer behavior on e-wallet usage interest
- 2) There is a notable influence of Financial Literacy (X2) on the interest in using digital payment methods (e-wallets) (Y). This conclusion is drawn from a t-value of 3.333 (surpassing the t-table of 1.984) and a significance level of 0.001(below 0.05). Therefore, H2 is accepted, showing a partial significant effect of financial literacy on e-wallet usage interest..
- 3) There is a notable influence of Transaction Security (X3) on the interest in using digital payment methods (e-wallets) (Y). This conclusion is drawn from a t-value of 5.123 (surpassing the t-table of 1.984) and a significance level of 0.000 (below 0.05). Therefore, H3 is accepted, showing a partial significant effect of transaction security on e-wallet usage interest.

7. F Test

From the results of the simultaneous F Test for all variables, the F count value is $47.450 > 2.70$ with a significance level of $0.000 < 0.05$. To find out the F table value, the formula (k ; $n-k$) is used, it is known that the value of $n = 100$ $k = 3$ so that when entered into the formula it becomes 3 ; $100-3 = 3$; 97. In the distribution of the F table df value, it is 97 and 3 is 2.698. So H4 is accepted . It can be concluded that the hypothesis stating that the variables Financial Literacy, Consumer Behavior, and transaction security together have a significant influence on the interest in using digital payment methods (e-wallet).

CONCLUSION

1. Consumer behavior significantly and positively impacts the desire to use digital payment systems like e-wallets. The various features offered by e-wallets, such as budgeting and spending control tools, likely contribute to this.
2. Financial literacy positively and significantly affects the inclination to use e-wallets. A solid grasp of financial concepts, including money management and budgeting, helps individuals appreciate and utilize digital payment systems.
3. Transaction security exerts a significant and positive influence on the appeal of digital payment systems (e-wallets). This influence is bolstered by advancements in technology, leading to more robust e-wallet security features that enhance user confidence during transactions.
4. Collectively, financial literacy, consumer behavior, and transaction security significantly influence Gen Z's interest in utilizing digital payment systems (e-wallets). Promoting financial understanding, fostering beneficial consumer habits, and guaranteeing transaction safety can collectively boost this interest among Gen Z.

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