Factors Affecting The Intention to Use Artificial Intelligence (AI) In Personal Financial Services Of MoMo E-Wallet Among Gen Z Customers In Ho Chi Minh City

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ABSTRACT
The emergence of artificial intelligence (AI) in personal financial services has significantly transformed how customers interact with digital wallets such as MoMo. This study aims to identify the factors affecting Gen Z customers' intention to use AI in MoMo's personal financial services in Ho Chi Minh City. The proposed research model includes four factors: perceived usefulness, perceived ease of use, response quality, and performance expectancy. Inheriting the TAM and UTAUT theories, this study expects to provide practical evidence on AI adoption behavior among young, dynamic customers in Vietnam.

Keywords: *Artificial Intelligence, Personal Financial Services, MoMo E-wallet, Gen Z, Intention to Use*

1. INTRODUCTION

Artificial intelligence (AI) is deeply integrated into various personal financial services, ranging from financial consulting and lending to expense management. MoMo, one of Vietnam's leading e-wallets, is investing heavily in AI-based personal financial services to enhance customer experience. Gen Z, born between 1997 and 2012, is not only technologically savvy but also expects high levels of personalization, efficiency, and immediate responsiveness from services (Francis & Hoefel, 2018). Researching the factors influencing Gen Z's intention to use AI on MoMo's platform in Ho Chi Minh City will help financial enterprises better shape their product development strategies. Currently, there is limited research in Vietnam analyzing this behavior with a specific focus on performance expectancy, response quality, and AI user experience factors.

2. THEORETICAL BACKGROUND

2.1. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) developed by Davis (1989) is crucial in explaining technology adoption behavior. According to TAM, two key factors influence the intention to use technology: perceived usefulness (PU) and perceived ease of use (PEOU). PU refers to the belief that using technology will improve work performance, while PEOU pertains to the effortlessness of using the technology.

2.2. Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT model proposed by Venkatesh et al. (2003) consolidates previous technology acceptance theories. Performance expectancy, a core component of UTAUT, reflects the extent to which users believe technology helps achieve beneficial outcomes. The model also emphasizes the role of personalization and social influence in technology adoption.

2.3. Response Quality in AI Experience

Response quality refers to the ability to deliver information and services quickly, accurately, and personally (Shao et al., 2020). In AI-integrated financial service applications, response quality directly impacts customer satisfaction and continued usage behavior.

3. LITERATURE REVIEW

3.1. International Studies

Shin (2021) examined trust, safety, and privacy in AI-integrated social commerce services and emphasized the pivotal role of system response quality. Similarly, Kaur et al. (2020) analyzed AI technology consumption behavior in retail and found that performance expectancy and perceived usefulness strongly impact the intention to use AI technologies.

3.2. Domestic Studies

Nguyen and Pham (2022) surveyed factors affecting MoMo e-wallet usage in Ho Chi Minh City, finding that convenience, trust, and ease of use positively influence usage intention. However, they did not delve into new technology factors like AI or smart system responses. Meanwhile, Tran and Le (2023) studied factors affecting fintech application adoption in Vietnam, highlighting performance expectancy but without focusing specifically on AI's personalized response impact.

3.3. Research Gap Discussion

While international studies such as those by Kaur et al. (2020) and Shin (2021) underline the critical roles of perceived usefulness, performance expectancy, and response quality, these studies are primarily conducted in developed markets with high AI penetration. In Vietnam, research mainly addresses traditional fintech factors without in-depth analysis of AI-specific impacts. Moreover, Gen Z—a tech-native demographic with high expectations for personalization and responsiveness—has not been isolated for focused analysis. Thus, this study addresses the gap by examining four factors: perceived usefulness, perceived ease of use, response quality, and performance expectancy in influencing Gen Z's intention to use AI in MoMo's personal financial services.

3.4 Hypotheses and Proposed Research Model

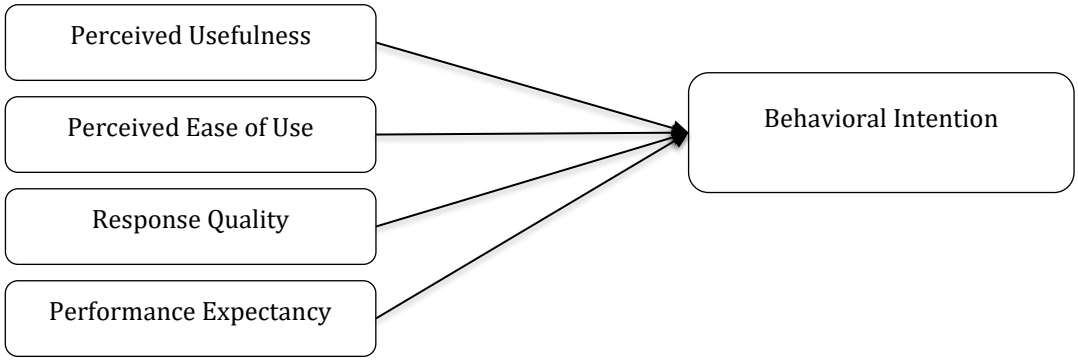

Figure 1. Research model

H1: Perceived usefulness (PU) positively influences the intention to use AI.

H2: Perceived ease of use (PEOU) positively influences the intention to use AI.

H3: Response quality (RQ) positively influences the intention to use AI.

H4: Performance expectancy (PE) positively influences the intention to use AI.

4. RESEARCH METHODS

4.1. Measurement Scale Development:

The study employed both qualitative and quantitative research methods:

- Qualitative method: Discussion with experts and inheriting previous research findings.
- Quantitative method: Data collection through an online survey via Google Forms, using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree."

4.2. Sample Selection

A random sampling method was used. Data were collected online via Google Forms.

4.3. Data Analysis Method

Collected data were analyzed using SPSS. Reliability was tested through Cronbach's Alpha, followed by Exploratory Factor Analysis (EFA) and linear regression analysis.

5. RESULTS AND DISCUSSIONS

A total of 250 valid survey responses were collected via email, Messenger, and other channels.

5.1. Reliability Testing Using Cronbach's Alpha

Table 1. Reliability Testing

Independent Variable	Scale	Cronbach's Alpha	Number of Items	Item-Total Correlation
Perceived Usefulness (PU)	PU	0.833	5	0.6344
Perceived Ease of Use (PEOU)	PEOU	0.826	5	0.623
Response Quality (RQ)	RQ	0.789	4	0.597
Performance Expectancy (PE)	PE	0.786	4	0.592
Behavioral Intention (BI)	BI	0.794	4	0.605

(Source: Calculated by the authors using SPSS software)

The test results show that the variables all meet the test requirements, whereby the total variable correlation coefficient is: 0.634; 0,623; 0,597; 0,592; 0.605 > 0.3. All variables have a value of "Cronbach's Alpha coefficient, If the variable type < Cronbach's Alpha coefficient, it means that the variables explain the study factor well. So, there is no need to delete any variables in this value table. The Cronbach's Alpha value of the "Usefulness", "Ease of Use", "Feedback Quality", and "Performance Expectations" groups all reached above 0.6, meeting the reliability requirements of the scale. This indicates that the scale is acceptable and has good reliability with a value in the range of [0.7, 0,9].

5.2. Exploratory Factor Analysis (EFA)

The results indicate that the KMO value is 0.796, which falls within the acceptable range (0.5 < KMO < 1), suggesting that the data is suitable for factor analysis. Bartlett's Test of Sphericity yielded a Chi-square value of 2165.625 with 153 degrees of freedom, and a significance level (p-value) of 0.000. Given that the significance level is less than 0.005, the null hypothesis (H0) is rejected, indicating that the observed variables are sufficiently correlated to warrant factor analysis. The total variance explained is 63.062%, exceeding the commonly accepted threshold of 50%. This result confirms that the factor model accounts for a substantial proportion of the variability in the dataset.

Table 2. Rotated Factor Matrix of Independent Variables

Variable	Factor 1	Factor 2	Factor 3	Factor 4
PU1	0.685			
PU2	0.831			
PU3	0.759			
PU4	0.664			
PU5	0.638			
PEOU1		0.736		
PEOU2		0.726		
PEOU3		0.583		
PEOU4		0.743		
PEOU5		0.756		
PE1			0.716	
PE2			0.778	

Variable	Factor 1	Factor 2	Factor 3	Factor 4
PE3			0.734	
PE4			0.725	
RQ1				0.717
RQ2				0.758
RQ3				0.733
RQ4				0.787

Source: Authors' computation using SPSS software.

As shown in Table 2, the observed variables load onto four distinct factors: Perceived Usefulness (PU), Response Quality (RQ), Performance Expectation (PE), and Perceived Ease of Use (PEOU). All factor loadings exceed 0.55, indicating strong correlations between the observed variables and their respective factors.

5.3. Linear Regression Analysis:

The coefficient of determination (R^2) is 0.678, suggesting that approximately 67.8% of the variance in the dependent variable is explained by the independent variables included in the model.

5.4 Testing of Regression Coefficients

Table 3. Results of Linear Regression Analysis

Variable	Unstandardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	t	Sig.
Constant	-0.094	0.177		-0.530	0.596
PU	0.323	0.040	0.336	8.013	0.000
PEOU	0.189	0.042	0.184	4.486	0.000
RQ	0.314	0.041	0.316	7.661	0.000
PE	0.296	0.043	0.291	6.940	0.000

Source: Authors' computation using SPSS software.

The PU (usefulness) variable has a positive correlation with BI (intent to use). Regression coefficient Beta = 0.323, indicating that usefulness affects active usage intent. The PEOU (ease of use perception) variable has a positive correlation with BI (intent to use). Regression Coefficient Beta = 0.189, indicating that the perception of ease of use affects positive usage intent. The RQ (response quality) variable has a positive correlation with BI (intent to use). Regression Coefficient Beta = 0.314, indicating that the quality of the response affects active usage intent. The PE (performance expectation) variable has a positive correlation with BI (intent to use). Regression Coefficient Beta = 0.296, indicating usefulness influencing positive usage intent

3. RESULTS AND DISCUSSIONS

3.1. Reliability and Validity

The reliability of the measurement scales was assessed using Cronbach's Alpha, with values greater than 0.7, indicating good internal consistency. The correlations between the variables were also significant, with values above 0.3, confirming their relevance in explaining the research model.

3.2. Exploratory Factor Analysis (EFA):

The KMO value of 0.796 indicates that the data is suitable for factor analysis, and Bartlett's Test of Sphericity was significant (p-value < 0.05), confirming that the variables are correlated and suitable for factor analysis. The cumulative variance explained by the extracted factors was 63.062%, suggesting a good fit for the model. The EFA revealed four factors: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Performance Expectation (PE), and Response Quality (RQ).

3.3. Multiple Regression Analysis

The regression model explains 67.8% of the variance in the intention to use AI ($R^2 = 0.678$). The ANOVA test showed that the model is statistically significant ($p < 0.05$). The regression coefficients indicated that all four factors have a positive impact on the intention to use AI, with perceived usefulness ($\beta = 0.323$) having the greatest influence.

4. CONCLUSION

The study concludes that all four factors—perceived usefulness, perceived ease of use, performance expectation, and response quality—significantly affect Gen Z's intention to use AI in MoMo. Among these, perceived usefulness has the strongest effect, followed by response quality, performance expectation, and perceived ease of use. These findings suggest that enhancing the perceived usefulness and response quality of AI features in MoMo can significantly increase adoption among Gen Z users.

5. MANAGERIAL IMPLICATIONS

Based on the research findings, several managerial implications are recommended for MoMo. First, regarding Perceived Usefulness (PU), MoMo should prioritize enhancing AI features that deliver tangible value to users, such as personalized financial advice, spending forecasts, and smart transaction reminders. Second, for Response Quality (RQ), improving AI's response speed, accuracy, and personalization will contribute to greater user satisfaction and encourage continued usage. Third, concerning Performance Expectation (PE), MoMo should highlight the effectiveness of AI in helping users achieve better financial outcomes, including optimizing spending and investment decisions. Finally, for Perceived Ease of Use (PEOU), developing a user-friendly interface is crucial to encourage adoption, particularly among tech-savvy Gen Z users. Simplifying AI interactions and providing clear user guidance can significantly enhance the overall user experience.

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