

To cite this article: Ngo Van Dong¹, Vu Thi Ngoc Anh², Nguyen Van Cuong³, Nguyen Minh Nhat⁴ and Tran Thi Anh Thu⁵ (2026). Factors Affecting Fintech Adoption In Listed Securities Companies In Vietnam. International Journal of Education, Business and Economics Research (IJEBER) 6 (5): 232-247

FACTORS AFFECTING FINTECH ADOPTION IN LISTED SECURITIES COMPANIES IN VIETNAM

Ngo Van Dong¹, Vu Thi Ngoc Anh², Nguyen Van Cuong³,
Nguyen Minh Nhat⁴ and Tran Thi Anh Thu⁵

^{1,2,3,4,5}Faculty of Banking and Finance,
Thuongmai University,
Hanoi, Vietnam

<https://doi.org/10.59822/IJEBER.2026.6514>

ABSTRACT

Amid the rapid digital transformation of the financial sector, financial technology (FinTech) has increasingly played a pivotal role in enhancing operational efficiency, service quality, and customer experience. In Vietnam, listed securities companies have progressively accelerated the adoption of FinTech; however, the extent of adoption remains uneven across firms and is influenced by various factors. This study aims to identify and analyze the factors affecting the level of FinTech adoption among listed securities companies in Vietnam. A quantitative research approach was employed, using survey data collected from three stakeholder groups, including managers, employees, and customers/investors, resulting in 350 valid responses. The data were analyzed using Cronbach's Alpha reliability testing, Exploratory Factor Analysis (EFA), Pearson correlation analysis, and multiple regression analysis. The findings indicate that factors associated with leadership, employees, and customers all have positive and statistically significant effects on the level of FinTech adoption. Among these factors, leadership commitment and support, employees' readiness to adopt FinTech, and customers' perceived security emerged as the most influential determinants within their respective stakeholder groups. The findings suggest that securities companies should strengthen leadership commitment and strategic support, invest in relevant resources, enhance employees' digital capabilities, and improve the security and ease of use of FinTech-integrated securities services.

KEYWORDS: FinTech adoption; listed securities companies; digital transformation; perceived security; leadership commitment; Vietnamese securities market.

© The Authors 2026
Published Online: October
2026

Published by International Journal of Education, Business and Economics Research (IJEBER) (<https://ijeber.com/>) This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licenses/by/4.0/legalcode>

1.0 INTRODUCTION

Amid the rapid digital transformation, financial technology (FinTech) is driving significant changes in the operations of financial institutions (Gomber et al., 2018; Arner et al., 2016). In the securities sector, FinTech is applied to online trading, eKYC, asset management, and data analytics, contributing to improved operational efficiency and service quality (IOSCO, 2020). In Vietnam, this process creates substantial development opportunities for listed securities companies; however, the level of adoption varies due to constraints in resources, technological infrastructure, and risk management.

Previous studies show that FinTech adoption is influenced by various factors, notably leadership commitment, organizational resources, human-resource capabilities, information security, and user acceptance (Banna et al., 2023; Cheng & Qu, 2023; Kumar et al., 2024). However, research in Vietnam has primarily focused on the banking sector or examined individual factors separately. In particular, there remains a lack of empirical studies that simultaneously integrate the perspectives of organizations and leadership, employees, and customers/investors in listed securities companies. Against this background, this study aims to identify and measure the effects of three groups of factors—organization and leadership, human resources, and customers and investors—on the level of FinTech adoption in listed securities companies in Vietnam. The findings provide empirical evidence and managerial implications for promoting effective and sustainable FinTech adoption.

2.0 LITERATURE REVIEW AND RESEARCH HYPOTHESES

2.1. Literature Review

Financial technology (FinTech) refers to the application of new technologies to innovate, optimize, and automate financial services (Arner et al., 2015; Gomber et al., 2018). In the securities sector, FinTech is applied to eKYC, online trading, algorithmic trading, robo-advisory, and big-data analytics (Phạm Tiến Mạnh et al., 2022; IOSCO, 2020). Previous studies indicate that FinTech adoption is primarily influenced by three groups of factors: organization and leadership, human resources, and customers and investors.

First, organizational and leadership factors reflect the firm's readiness and ability to support new technologies. According to the TOE framework, leadership commitment, financial resources, and managerial capabilities are important conditions that promote technology adoption (Tornatzky & Fleischer, 1990). Leaders play a role in directing innovation, allocating resources, and investing in technological infrastructure; at the same time, firms need risk-management capabilities and information-security measures to maintain stable FinTech operations (Banna et al., 2023; BIS, 2021).

Second, human-resource factors focus on employees' ability to adopt and utilize technology. Employees with digital skills, technological capabilities, and positive attitudes are better positioned to operate FinTech solutions, thereby improving operational efficiency and promoting digitalization. In addition, according to TAM and UTAUT, perceived usefulness and technological competence have significant effects on attitudes toward and acceptance of technology (Davis, 1989; Venkatesh et al., 2003).

Third, customer and investor factors relate to the acceptance and use of FinTech services. Perceived security, practical value, and ease of use are particularly important. Safety and security strengthen trust, while cost savings, faster transactions, and support for investment activities increase perceived value. At the same time, user-friendly interfaces and simple procedures can improve satisfaction and continuance intention (Pavlou, 2003; Zeithaml, 1988; Belanche et al., 2023).

Overall, previous studies show that FinTech adoption results from a combination of organizational and leadership capabilities, employees' ability to adopt technology, and customers' and investors' acceptance. This provides the basis for identifying the factors affecting FinTech adoption in listed securities companies in Vietnam.

2.2. Theoretical Framework

This study integrates the foundational theories of the Technology Acceptance Model (TAM) (Davis, 1989), the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), and the Technology–Organization–Environment (TOE) framework (Tornatzky & Fleischer, 1990) to develop a multidimensional analytical framework. The model identifies the level of FinTech adoption in listed securities companies (dependent variable Y) as being directly affected by eight factors belonging to three groups of stakeholders (independent variables):

1. Leadership / Management:

- Top management commitment and support (L1)
- Financial resource readiness (L2)
- FinTech risk-management capability (L3)

2. Operational Employees:

- Employee digital skills (NV4)
- FinTech effectiveness and reliability (NV5)

3. Customers / Investors:

- Perceived security when using securities applications integrated with FinTech (KH6)
- Practical value received from the application (KH7)
- Ease of use of the application (KH8)

2.3. HYPOTHESES

Based on the theoretical foundations and proposed analytical framework, eight research hypotheses are formulated as follows:

- H1: Top management commitment and support positively affect the level of FinTech adoption in listed securities companies in Vietnam.
- H2: Financial resource readiness positively affects the level of FinTech adoption in listed securities companies in Vietnam.
- H3: FinTech risk-management capability positively affects the level of FinTech adoption in listed securities companies in Vietnam.
- H4: Employee digital skills positively affect the level of FinTech adoption in listed securities companies in Vietnam.
- H5: FinTech effectiveness and reliability positively affect the level of FinTech adoption in listed securities companies in Vietnam.

- H6: Perceived security when using securities applications integrated with FinTech positively affects the level of FinTech adoption in listed securities companies in Vietnam.
- H7: Practical value received from securities applications integrated with FinTech positively affects the level of FinTech adoption in listed securities companies in Vietnam.
- H8: Ease of use of securities applications integrated with FinTech positively affects the level of FinTech adoption in listed securities companies in Vietnam.

3.0 RESEARCH METHODOLOGY

3.1. RESEARCH DESIGN

This study employed a quantitative research approach to examine the factors affecting FinTech adoption in listed securities companies in Vietnam. The research process included literature review, development of the research model and hypotheses, measurement scale and questionnaire design, data collection, data analysis, and discussion of the findings. The measurement scales were adapted from previous studies and adjusted to fit the context of listed securities companies in Vietnam.

Primary data were collected through a structured questionnaire using a five-point Likert scale. The survey targeted three groups directly related to FinTech adoption: managers, employees, and customers/investors using securities platforms integrated with FinTech.

3.2. Sample

The study targeted three groups of respondents directly involved in or exposed to FinTech applications in securities companies: (i) managers and senior management, (ii) employees of securities companies, and (iii) customers/investors using securities services integrated with FinTech. This multi-perspective approach was adopted to capture organizational, operational, and user-related aspects of FinTech adoption.

Due to limitations in accessing the complete population of relevant respondents, the study employed non-probability sampling, combining convenience and purposive sampling. The questionnaire initially contained 56 observed variables across nine constructs. Based on the recommended sample size of 5–10 observations per observed variable, the minimum required sample ranged from 280 to 560 observations. The study obtained 350 valid responses, which was considered adequate for the subsequent quantitative analyses.

3.3. Measurement Scale

The measurement scales were adapted from previous studies and adjusted to the research context. The final questionnaire consisted of 56 measurement items across nine constructs. All items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Table 1. Measurement Scales

Construct	Code	No. of items	Main sources
FinTech Adoption	Y	3	Zhu et al. (2006); Oliveira & Martins (2011); DeLone & McLean (2003); Venkatesh et al. (2003); Ajzen (1991)

Top Management Support	L1	6	Tornatzky & Fleischer (1990); Thong (1999); Zhu et al. (2006); World Bank (2020)
Financial Resource Readiness	L2	5	Tornatzky & Fleischer (1990); Oliveira & Martins (2011); BIS (2019)
Risk Management Capability	L3	6	COSO (2017); BIS (2021); OECD (2020)
Employee Digital Skills	NV4	10	Venkatesh et al. (2003); Calvino et al. (2018); OECD (2019)
FinTech Effectiveness and Reliability	NV5	10	Previous FinTech and information-system studies
Perceived Security and Trust	KH6	6	Pavlou (2003); Gefen et al. (2003); BIS (2021)
Perceived Value	KH7	5	Zeithaml (1988); Kim et al. (2007); World Bank (2020)
Perceived Ease of Use	KH8	5	Davis (1989); Venkatesh et al. (2003)
Total		56	

3.4. Data Processing And Analysis Methods

Primary data collected from the field survey were cleaned, coded, and processed using SPSS software through a five-step quantitative analysis procedure:

3.4.1. Descriptive Statistics

Descriptive statistics were used to summarize the demographic and operational characteristics of the survey sample (Executives, Staff, and Investors) using absolute frequencies (n) and relative percentages (%). Concurrently, the Mean and Standard Deviation (SD) were computed to evaluate the general level of perception regarding the underlying factors and FinTech adoption.

3.4.2. Scale Reliability Test (Cronbach's Alpha)

Cronbach's Alpha coefficient was employed to assess the internal consistency of the measurement scales. Observed variables with a Corrected Item-Total Correlation of ≤ 0.30 or those whose deletion significantly improved the overall Cronbach's Alpha were removed. A scale was deemed acceptable for exploratory research if Cronbach's Alpha reached ≥ 0.60 , and was considered good if ≥ 0.70 .

3.4.3. Exploratory Factor Analysis (Efa)

EFA was conducted to reduce data dimensions and identify representative underlying factors. The analytical conditions required:

- Kaiser-Meyer-Olkin (KMO) measure: $0.5 \leq KMO \leq 1.0$; Bartlett's Test of Sphericity being statistically significant (Sig. < 0.05).
- Eigenvalue criterion: Eigenvalues ≥ 1.0 ; Cumulative Variance Explained (CVE) $\geq 50\%$.

- Factor Loadings: Factor loadings ≥ 0.50 , with a cross-loading difference between factors > 0.30 to ensure discriminant validity.

3.4.4. Pearson Correlation Analysis

Pearson correlation analysis was executed to examine linear relationships between independent variables and the dependent variable, as well as potential inter-correlations among independent variables. A correlation coefficient (r) exceeding 0.80 between independent variables served as an early indicator of potential multicollinearity.

3.4.5. Multiple Linear Regression (Ols) and Hypothesis Testing

Ordinary Least Squares (OLS) regression analysis was conducted to estimate the impact of independent factors on the dependent variable. The regression model satisfied diagnostic tests under the following conditions:

- Overall model fit: Reasonable Adjusted R^2 and F -test statistical significance (Sig. < 0.05).
- Absence of multicollinearity: Variance Inflation Factor (VIF) < 2.0 (acceptable if < 5.0).
- Absence of autocorrelation: Durbin-Watson statistic ranging between 1.5 and 2.5.
- Normality of residuals: Confirmed via Histogram and Normal P-P Plot inspections.
- Hypothesis acceptance: Regression coefficients achieving statistical significance (Sig. < 0.05).

4.0 RESULTS

4.1. Sample Description

4.1.1. Overview of General Sample Characteristics

The field survey collected $N = 350$ valid responses across three primary stakeholder groups in Vietnam's listed stock market. The dataset is geographically balanced among Ha Noi (33.7%), Ho Chi Minh City (32.6%), and other provinces (33.7%), effectively eliminating regional bias and capturing nationwide digital transformation trends in the securities sector.

Demographically, gender is evenly distributed (50.9% female, 49.1% male). Most respondents belong to mature workforce cohorts aged 30 to 49 (55.7%), specifically 30 to 39 (28.0%) and 40 to 49 (27.7%), while those under 30 and over 50 represent 25.7% and 18.6%, respectively. Additionally, the sample is highly educated, with 59.4% holding a bachelor's degree or higher (Bachelor's: 19.1%; Master's: 22.9%; Doctorate: 17.4%) and demonstrating strong foreign language proficiency (75.2% intermediate or above). This solid educational background ensures respondents possessed the necessary cognitive capacity to objectively evaluate complex FinTech platforms.

4.1.2. Sub-Group Analysis By Stakeholder Category

To comprehensively evaluate perspectives across the ecosystem, the research sample was disaggregated into three primary stakeholder groups: Executives/Managers ($n = 90$), Operational Staff ($n = 118$), and Customers/Investors ($n = 142$).

Table 2: Summary of FinTech Assessment Metrics and Key Characteristics Across Stakeholder Groups

Stakeholder Group	Sample Size (n)	Key Experience/ Structural Characteristic	Perceived Safety (Mean)	Perceived Ease of Use (Mean)	Perceived Time-saving (Mean)
Executives	90	78,9% with >10 years experience; 55,5% at brokerage firms with charter capital > 1,000 billion VND	3.93	3.48	3.59
Staff	118	61.9% with 3-10 years experience; 73.1% in Accounting, IT, and Brokerage departments	3.85	2.95	2.59
Customers	142	58.5% with income >15 millions VND/month; 77.5% transacting via App/Web	3.74	3.11	2.78

(Source: Compiled from SPSS 26 data processing results)

Executives (n = 90): Comprising senior decision-makers (78.89% with over 10 years of experience) at medium-to-large securities firms (55.56% with charter capital over 1,000 billion VND). Management expressed the strongest confidence in FinTech security (Mean = 3.93/5), alongside positive evaluations for time-saving (Mean = 3.59) and ease of use (Mean = 3.48). While 91.11% engage with FinTech on a daily or weekly basis and 47.78% reported widespread corporate deployment, 37.78% acknowledged asynchronous adoption, pointing to persistent IT infrastructure and system interoperability challenges.

Securities Company Staff (n = 118): Representing frontline operational personnel primarily in Finance/Accounting (27.97%), IT (25.42%), and Brokerage (23.73%), with 61.87% possessing 3 to 10 years of tenure. Staff demonstrated the highest routine operational utilization (Mean = 3.96/5), heavily leveraging automated risk management (55.9%) and AI data analytics (55.1%). Although security was rated favorably (Mean = 3.85), metrics for ease of use (Mean = 2.95) and time-saving

(Mean = 2.59) were noticeably lower, reflecting operational friction caused by back-office UI limitations and workflow inefficiencies.

Individual Investors (n = 142): Consisting of financially capable clients (58.45% earning over 15 million VND/month) with solid financial literacy (72.4%). Digital execution has established dominant market share, with 77.46% transacting via web, mobile apps, or multi-channel platforms. Investors maintained high interaction frequency (76.05% daily/weekly) and strong trust in platform security (Mean = 3.74). However, ease of use (Mean = 3.11) and time-saving efficiency (Mean = 2.78) scored only moderately, highlighting user friction driven by peak-hour system latency and complex authentication procedures.

4.2. Reliability Test

The internal consistency of the measurement scales was assessed using Cronbach's alpha and the corrected item-total correlation coefficients. According to established statistical thresholds, a scale is deemed reliable when Cronbach's Alpha ≥ 0.60 (for exploratory research) and the corrected item-total correlation for each observed variable ≥ 0.30 (Hair et al., 2014).

Table 3: Scale Reliability Test Results

Target Group	Factor	Observed Variable	Corrected Item-Total Correlation	Cronbach's Alpha
Leadership / Executives	Top management commitment	L1	0.541 - 0.676	0.844
	Financial resource readiness	L2	0.286 - 0.470	0.621
	FinTech risk management	L3	0.363 - 0.544	0.725
Employees	Employee digital skills	NV4	0.429 - 0.618	0.832
	FinTech efficiency and reliability	NV5	0.381 - 0.600	0.831
Customers	Perceived security	KH6	0.478 - 0.680	0.823
	Perceived practical value	KH7	0.255 - 0.619	0.682
	Perceived ease of use	KH8	0.337 - 0.473	0.668
Dependent Variable	Level of FinTech adoption	Y	0.566 - 0.593	0.750

The results indicated that all nine measurement scales satisfied the statistical reliability criteria, with Cronbach's alpha values ranging from 0.621 to 0.844. No items were excluded, thereby satisfying the prerequisites for exploratory factor analysis (EFA).

4.3. Exploratory Factor Analysis Efa

EFA was performed using Principal Component Analysis with Varimax rotation separately for each surveyed sample group.

- Dependent Variable (Level of FinTech Adoption): The statistical tests demonstrated a high degree of sampling adequacy across all three respondent groups: the executive sample (KMO = 0.637; Bartlett's Sig. < 0.001; Total Variance Explained = 58.34%; Eigenvalue = 1.750), the

employee sample (KMO = 0.671; Bartlett's Sig. < 0.001; Total Variance Explained = 63.37%; Eigenvalue = 1.901), and the customer sample (KMO = 0.708; Bartlett's Sig. < 0.001; Total Variance Explained = 74.55%; Eigenvalue = 2.236). Cả ba biến (Y1, Y2, Y3) For all groups, the three observed items (Y1, Y2, Y3) converged into a single factor with factor loadings exceeding 0.70.

- Independent Variables: Following item refinement and the removal of substandard items (those with factor loadings < 0.50 or substantial cross-loadings), the final factor extraction results across all three sample groups satisfied the requirements for convergent and discriminant validity.

Table 4: Rotated Component Matrix for Independent Variables

Observed Variable	Executive Sample			Employee Sample		Customer Sample		
	F1 (L1)	F2 (L3)	F3 (L2)	F1 (NV4)	F2 (NV5)	F1 (KH6)	F2 (KH8)	F3 (KH7)
L1_6	0.797							
L1_5	0.782							
L1_2	0.768							
L1_3	0.767							
L1_1	0.716							
L1_4	0.669							
L3_2		0.743						
L3_6		0.701						
L3_4		0.698						
L3_1		0.662						
L2_5			0.741					
L2_4			0.723					
L2_3			0.710					
NV4_8				0.765				
NV4_6				0.742				
NV4_5				0.741				
NV4_10				0.714				
NV4_3				0.608				

NV4_2				0.543				
NV5_5					0.787			
NV5_8					0.773			
NV5_2					0.628			
KH6_1						0.850		
KH6_4						0.782		
KH6_3						0.754		
KH6_5						0.680		
KH8_3							0.750	
KH8_5							0.680	
KH8_2							0.657	
KH8_1							0.614	
KH7_2								0.795
KH7_4								0.693
KH7_6								0.686
KMO	0.740			0.798		0.711		
Bartlett's Sig.	0.000			0.000		0.000		
Stationary Eigenvalues	1.798			1.512		1.346		
Total Variance Explained (%)	56.17%			52.87%		58.46%		
Items excluded during EFA	L2_1, L2_2, L3_3, L3_5			NV4_1, NV4_4, NV4_7, NV4_9, NV5_1, NV5_3, NV5_4, NV5_6, NV5_7, NV5_9, NV5_10		KH6_2, KH6_6, KH7_1, KH7_3, KH7_5, KH8_4		

4.4. Regression Analysis

Three Ordinary Least Squares (OLS) regression models corresponding to the three stakeholder groups were estimated to assess the determinants of FinTech adoption.

Prior to interpreting the regression coefficients, diagnostic tests were systematically conducted to evaluate model specification and underlying assumptions:

- Multicollinearity: The Variance Inflation Factor (VIF) values for all explanatory variables across the three models ranged from 1.004 to 1.197 (all well below the threshold of 2.0), confirming the absence of multicollinearity.
- Autocorrelation: The Durbin–Watson statistics were 1.846 for the executive model, 1.892 for the employee model, and 2.251 for the customer model. Because these values fluctuated closely around the benchmark of 2.0, the residuals exhibited no first-order autocorrelation.
- Normality and Homoscedasticity: An examination of the frequency histograms and Normal P-P plots of the standardized residuals confirmed that the error terms were approximately normally distributed. Furthermore, scatterplots of the standardized residuals against the standardized predicted values displayed a random, even dispersion around the zero horizontal axis, satisfying the assumption of homoscedasticity.

Table 5: Summary of Regression Analysis Results

Variable / Statistical Metric	Model 1: Executives			Model 2: Employees			Model 3: Customers		
	β	t	Sig.	β	t	Sig.	β	t	Sig.
Constant	—	0.653	0.515	—	3.014	0.003	—	1.745	0.083
L1 (Top management commitment)	0.573	9.154	0.000						
L2 (Financial resources)	0.479	7.652	0.000						
L3 (Risk management)	0.236	3.768	0.000						
NV4 (Digital skills)				0.421	6.300	0.000			
NV5 (Efficiency)				0.483	7.218	0.000			

and reliability)									
KH6 (Perceived security)							0.536	9.358	0.000
KH7 (Perceived practical value)							0.222	3.938	0.000
KH8 (Perceived ease of use)							0.280	4.990	0.000
R^2	0.664	—	—	0.528	—	—	0.622	—	—
Adjusted R^2	0.653	—	—	0.520	—	—	0.614	—	—
F-statistic (ANOVA)	56.767	—	—	64.450	—	—	75.709	—	—
Durbin–Watson statistic	1.846	—	—	1.892	—	—	2.251	—	—
Maximum VIF	1.006	—	—	1.091	—	—	1.197	—	—
Sample size (N)	90	—	—	118	—	—	142	—	—

4.5. Hypothesis Testing

Based on the regression results presented in Table 3, all eight proposed research hypotheses (H1–H8) achieved high statistical significance (H1 - H8) achieved high statistical significance ($p < 0.001$) with positive regression coefficients ($\beta > 0$).

Table 6: Hypothesis Testing Results

Hypothesis	Hypothesized Path / Content	Stakeholder Group	Coefficient β	t-value	Significance Level (p)	Conclusion
H1	Top management commitment has a positive effect on	Executives	0.573	9.154	< 0.001	Supported

	FinTech adoption					
H2	Financial resource readiness has a positive effect on FinTech adoption	Executives	0.479	7.652	< 0.001	Supported
H3	Risk management capability has a positive effect on FinTech adoption	Executives	0.236	3.768	< 0.001	Supported
H4	Employee digital skills have a positive effect on FinTech adoption	Employees	0.421	6.300	< 0.001	Supported
H5	FinTech efficiency and reliability have a positive effect on FinTech adoption	Employees	0.483	7.218	< 0.001	Supported
H6	Perceived security has a positive effect on FinTech adoption	Customers	0.536	9.358	< 0.001	Supported
H7	Perceived practical value has a positive effect on FinTech adoption	Customers	0.222	3.938	< 0.001	Supported
H8	Perceived ease of use has a positive effect on FinTech adoption	Customers	0.280	4.990	< 0.001	Supported

5.0 DISCUSSIONS AND CONCLUSIONS

Through the empirical analysis, the study finds that the application of FinTech in listed securities companies in Vietnam is influenced by factors from three main perspectives, including senior management, employees, and customers/investors. The findings indicate that FinTech adoption is not determined solely by technological investment but is associated with the strategic commitment of management, organizational resources, employees' readiness to embrace technology, and customers' perceptions of security, usability, and practical value. This finding suggests that FinTech application in securities companies is a comprehensive transformation process that requires coordination among management, employees, technology systems, and users.

When considering the management perspective, the results indicate that the commitment and support of senior management play an important role in promoting FinTech application. This can be explained by the fact that FinTech implementation requires not only investment in technology but also changes in business processes, organizational structures, and risk management practices. Therefore, when senior managers have a clear strategic orientation and actively support technological transformation, securities companies are more likely to allocate sufficient financial resources, develop appropriate infrastructure, and create an organizational environment that encourages innovation. In addition, financial resources and risk management capabilities also contribute to the implementation process, indicating that technology investment needs to be accompanied by appropriate risk control and long-term resource planning.

From the employee perspective, the findings demonstrate that human resources remain an important condition for the successful implementation of FinTech. Technology systems can only generate their expected benefits when employees have sufficient digital capabilities and are willing to adapt to new working methods. In particular, employees' awareness and willingness to accept FinTech indicate that digital transformation is not simply a technological issue but also an organizational and human-resource issue. Therefore, securities companies need to combine technological investment with continuous employee training, digital skill development, and the creation of a working environment that encourages employees to participate in the digital transformation process.

From the customer perspective, the findings highlight the importance of trust and user experience in the application of FinTech. Customers are more likely to use securities applications when they perceive that their information and transactions are adequately protected, while ease of use and practical value further enhance their willingness to adopt digital services. The particularly important role of perceived security can be explained by the nature of securities services, which are directly associated with investors' financial assets and personal information. Therefore, securities companies should not focus only on adding technological features but also ensure system reliability, information security, simple interfaces, and clear practical benefits for investors. This interpretation is consistent with previous research emphasizing the roles of perceived usefulness, perceived ease of use, user experience, and trust in digital financial service adoption.

Overall, the findings provide evidence that FinTech application in Vietnamese listed securities companies should be viewed from a comprehensive perspective. Management creates strategic direction and provides resources, employees determine the ability to operate and adapt to new technologies, while customers influence the sustainability of FinTech adoption through their trust and perceived value. Therefore, securities companies need to move beyond the traditional approach of simply investing in technological systems and instead develop an integrated FinTech strategy that simultaneously addresses organizational readiness, human resources, risk management, security, and customer experience.

Through the study of the factors affecting FinTech application in listed securities companies in Vietnam, this research has clarified the main organizational, employee-related, and customer-related conditions associated with FinTech adoption. The study contributes to the existing literature by examining FinTech application in the specific context of Vietnamese securities companies, an

area that has received less attention than banking and other financial services. The research also provides practical implications for securities companies in developing appropriate strategies to improve the effectiveness and sustainability of FinTech implementation.

In general, the research findings suggest that the successful application of FinTech requires a balance between technological capability and organizational capability. Investment in modern technology alone may not be sufficient if management lacks strategic commitment, employees are not prepared for technological change, or customers do not trust the security and usefulness of digital services. Therefore, the long-term development of FinTech in the securities sector should be associated with strategic leadership, adequate resources, employee development, effective risk management, and continuous improvement of customer experience.

However, the study still has several limitations. First, the research uses a non-probability sampling method, combining convenience sampling and purposive sampling. Therefore, although the study obtained 350 valid responses, the sample may not fully represent the population of all listed securities companies and their stakeholders in Vietnam. Second, the primary data were collected within a relatively limited period, while FinTech is a rapidly changing field that can be affected by technological development, regulatory changes, and market conditions. Third, the research focuses on three main groups of factors related to management, employees, and customers; therefore, other factors such as competitive pressure, regulatory environment, partnerships with FinTech companies, organizational digital maturity, and market conditions may not be fully captured in the current model. Finally, the study mainly evaluates the factors affecting the level of FinTech application rather than directly measuring the financial and operational efficiency generated by each specific FinTech solution.

These limitations also provide directions for further research. Future studies could increase the sample size and apply probability sampling methods to improve the generalizability of the findings. Researchers could also conduct longitudinal studies to examine how the factors affecting FinTech application change over time as technology and regulations develop. In addition, future research could expand the current model by incorporating factors such as competitive pressure, regulatory environment, technological partnerships, organizational digital maturity, and innovation capability. Further studies may also examine the impact of FinTech application on specific outcomes, such as operational efficiency, service quality, customer satisfaction, customer loyalty, and business performance. Such extensions would provide a more comprehensive understanding of not only why securities companies adopt FinTech, but also how FinTech contributes to their sustainable development and competitiveness.

REFERENCES

- [1] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211, 1991.
- [2] D. W. Arner, J. N. Barberis, and R. P. Buckley, "The evolution of FinTech: A new post-crisis paradigm," *Georgetown Journal of International Law*, vol. 47, no. 4, pp. 1271–1319, 2015.

- [3] Bank for International Settlements, "Sound practices: Implications of fintech developments for banks and bank supervisors," *Basel Committee on Banking Supervision*, 2018.
- [4] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989.
- [5] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User acceptance of computer technology: A comparison of two theoretical models," *Management Science*, vol. 35, no. 8, pp. 982–1003, 1989.
- [6] P. Gomber, J.-A. Koch, and M. Siering, "Digital finance and FinTech: Current research and future research directions," *Journal of Business Economics*, vol. 87, pp. 537–580, 2017.
- [7] I. Lee and Y. J. Shin, "FinTech: Ecosystem, business models, investment decisions, and challenges," *Business Horizons*, vol. 61, no. 1, pp. 35–46, 2018.
- [8] E. Z. Milian, M. de M. Spinola, and M. M. Carvalho, "FinTechs: A literature review and research agenda," *Electronic Commerce Research and Applications*, vol. 34, p. 100833, 2019.
- [9] OECD, "Digital disruption in banking and its impact on financial stability," *OECD Publishing*, 2020.
- [10] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," *MIS Quarterly*, vol. 27, no. 3, pp. 425–478, 2003.
- [11] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology," *MIS Quarterly*, vol. 36, no. 1, pp. 157–178, 2012.
- [12] World Bank, "The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19," *World Bank*, 2022.
- [13] L. Zavolokina, M. Dolata, and G. Schwabe, "FinTech—What's in a name?," in *Proceedings of the 37th International Conference on Information Systems (ICIS 2016)*, 2016.