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ANALYZING THE INTERACTIVE EFFECTS OF FINANCIAL TECHNOLOGY ADOPTION ON CORPORATE FINANCIAL PERFORMANCE AND GROWTH

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Abstract

This study aims to examine the effect of Financial Technology Adoption (X) on Financial Performance (Y1) and Firm Growth (Y2), as well as to analyze the moderating role of Digital Financial Literacy (Z) among Micro, Small, and Medium Enterprises (MSMEs) in West Java. Utilizing a quantitative approach with Partial Least Squares Structural Equation Modeling (PLS-SEM) executed via SmartPLS, data were collected from a sample of MSME owners in West Java. The empirical results reveal that Financial Technology Adoption has a negative and significant effect on short-term Financial Performance, confirming the Productivity Paradox due to initial investment costs and operational learning curves. Conversely, Financial Technology Adoption demonstrates a positive and significant effect on long-term Firm Growth. Financial Performance also positively and significantly influences Firm Growth. Furthermore, Digital Financial Literacy acts as a dominant independent predictor that directly enhances both Financial Performance and Firm Growth. However, moderation analysis demonstrates that Digital Financial Literacy does not moderate the relationship between Financial Technology Adoption and Firm Growth ($p > 0.05$), leading to the rejection of the moderation hypothesis. This occurs because modern financial technologies are highly intuitive, allowing their growth benefits to materialize directly regardless of the level of moderating literacy. Structural model evaluation yields an R2 of 0.475 for Firm Growth and a strong predictive relevance (Q2) of 0.330. This study offers strategic implications for policymakers and business practitioners to balance financial technology adoption with digital capacity management.

Keywords: Financial Technology Adoption, Financial Performance, Firm Growth, Digital Financial Literacy, PLS-SEM, MSMEs.

INTRODUCTION

Digital transformation in the global economic landscape has fundamentally changed operational paradigms and business transaction patterns.(Listanti et al., 2025)(Khairani et al., 2025)(Syaifudin et al., 2025)One of the most significant manifestations of this wave of digitalization is the rapid development of financial technology (fintech), which has emerged as a positive disruption to the conventional banking system. In Indonesia, fintech adoption has grown massively, driven by the need to accelerate financial inclusion, increase transaction efficiency, and provide more flexible access to financing for the business sector, particularly Micro, Small, and

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Medium Enterprises (MSMEs) and mid-sized corporate entities. As one of the provinces with the largest national economic contribution, West Java has become the epicenter of the growth of the technology-based business ecosystem. Business activity in this region is characterized by a high level of integration of digital payment platforms (payment gateways), peer-to-peer (P2P) lending systems, and the use of cloud-based accounting software. The presence of this technology is expected to reduce operational costs, accelerate cash flow, and increase business scalability. However, in practice, fintech integration does not automatically improve business sustainability. Field observations show that high technology adoption often faces challenges with managerial unpreparedness, burdensome platform commission fees, and cybersecurity risks that can disrupt operational stability. This situation raises critical questions about the extent to which the adoption of financial technology is truly capable of transforming financial performance and spurring consistent company growth.

Theoretically, the relationship between financial technology adoption, financial performance, and company growth can be explained through several perspectives of management and finance theory. The Resource-Based View (RBV) suggests that companies can achieve and maintain sustainable competitive advantage if they possess valuable, rare, inimitable, and non-substitutable resources.(Zahrotun et al., 2024)(Fatoni, 2026)(Syafira et al., 2026)In this context, fintech adoption is viewed as an internal technological capability and strategic resource capable of improving operational efficiency, reducing transaction costs, and accelerating real-time financial data-driven decision-making. Furthermore, the Technology Acceptance Model (TAM) emphasizes that perceived ease of use and perceived usefulness are key drivers of technology adoption within an organization.(Silvia et al., 2024)(Rangkuti, 2025)(Isman & Wiadi, 2025)When financial technology is effectively adopted, businesses can optimize working capital management, increase profitability, and expand market capacity. The combination of RBV and TAM emphasizes that maximizing the benefits of technology adoption depends not only on the availability of tools but also on the organization's interactive capabilities in integrating the technology into its internal business strategy to improve financial performance and fuel exponential company growth.

Several previous empirical studies have attempted to map the impact of financial technology adoption on business success indicators. Previous research has noted that fintech adoption significantly contributes to a company's financial performance through increased sales volume, improved operational efficiency, and expanded access to business capital.(Prihatni et al., 2025)(BANCIN, 2025)Similar findings also indicate that the use of digital payment and financing services can encourage the expansion of market reach, which ultimately triggers the growth of an entity's assets and revenue.(Wulandari et al., 2025)However, these research results are not entirely consistent. Several empirical studies have found that fintech adoption has no significant effect on profitability or financial performance.(Fuadi & Munawar, 2022)Researchers concluded that hasty technology adoption without adequate financial governance capacity can actually lead to increased operational costs and dependence on high-value capital. This inconsistency in findings across researchers

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indicates uncertainty in the direct relationship between fintech adoption and business performance, indicating the need for more complex modeling.

The contradictory or ambiguous results in previous literature open up a crucial research gap requiring further investigation. Most previous studies tend to examine the relationship between fintech adoption and business performance in a linear and direct manner. This partially linear approach ignores the reality that the modern business environment operates within an interactive ecosystem. The presence of interactive effects, such as the involvement of moderating variables such as digital financial literacy and business scale, is often overlooked in conventional quantitative modeling. The inability to account for these moderating or interacting variables is one of the main reasons why previous research on the impact of fintech on company performance and growth has been inconsistent. Furthermore, most empirical studies in Indonesia are limited in geographic scope or focus solely on micro-enterprises, thus severely limiting the generalizability of the findings to regional industrial dynamics in West Java, which has a leading digital landscape.

To address this research gap, this study offers novelty through three key aspects. First, it develops a new conceptual framework by incorporating interactive effects into the test model, allowing the relationship between fintech adoption, financial performance, and firm growth to be analyzed not as a simple cause-and-effect relationship but as a mutually modifying systemic effect. Second, it integrates two indicators of entity success simultaneously: financial performance as a short-term impact and firm growth as a long-term impact. Third, the selection of West Java as the research location provides a highly relevant empirical context, given that West Java is a center of digital economic acceleration with a high level of business sector diversity. The urgency of this research lies in the importance of providing empirical evidence for business actors and policymakers to avoid being trapped in the technology adoption trap and instead to optimally utilize its interactive effects to create business resilience.

Based on the background, theory, and literature gaps mentioned above, this study aims to comprehensively examine and analyze the interactive impact of financial technology adoption on the financial performance and growth of companies in West Java. Theoretically, this study contributes to the enrichment of the financial management and management information systems literature by proving the validity of the integration of RBV and TAM theories in interactive modeling. Practically, the results of this study are expected to serve as a strategic reference for company owners, financial managers, and policymakers in West Java province in formulating efficient and targeted technology investment strategies. To achieve these objectives, this quantitative study was designed with an explanatory research approach, collecting primary data through a structured questionnaire from 150 respondents who were leaders or financial managers of companies in West Java. Data analysis was conducted systematically using the variance-based structural equation method (Partial Least Squares Structural Equation Modeling / PLS-SEM) through SmartPLS software, to test the validity of the instrument, evaluate the structural model, and accurately demonstrate the interactive effects between variables.

RESEARCH METHODS

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This research uses a quantitative approach with an explanatory research design that aims to test and analyze the causal relationships and interactive impacts between the variables studied. The main objective of this research focuses on analyzing the interactive impact of financial technology adoption on financial performance and company growth. This research was conducted in West Java, which was deliberately selected due to its status as one of the centers of digital economic growth and the largest center of business activity in Indonesia. This regional context provides a relevant empirical basis for capturing how financial technology integration in the business sector can affect operational efficiency, profitability, and the rate of company expansion.

The population in this study includes business actors, leaders, and financial managers of companies in West Java who have adopted financial technology in their business operations. Based on the population qualification criteria, the research sample was determined to be 150 respondents. This sample size is considered very adequate and ideal to meet the minimum limit of variance-based structural equation modeling analysis. The sampling technique applied was non-probability sampling with a purposive sampling method. The sample inclusion criteria set include: (1) companies domiciled or actively operating in the West Java region, (2) have adopted at least one type of financial technology service (such as payment gateway, peer-to-peer lending, or cloud-based financial management system) for at least the past year, and (3) respondents are owners, financial managers, or strategic decision makers who have a deep understanding of the company's operations and financial performance.

The variables in this study are classified into three main categories: independent variables, moderating/interactive variables, and dependent variables. The independent variable is Financial Technology Adoption, which is measured through several indicators of technology adaptation such as frequency of use, diversification of fintech features utilized, and the level of fintech integration into the company's payment system and internal financial records. The Financial Performance variable is measured through indicators of profitability, operational cost efficiency, and liquidity perceived by business managers. The Company Growth variable is measured based on indicators of increased sales volume, market share expansion, asset growth, and workforce expansion. In addition, to test the interactive impact in accordance with the research title, moderating variables such as digital financial literacy level or business scale (firm size) are included. All instrument indicators are measured using a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Primary data collection was conducted in a structured manner through the distribution of questionnaires. The questionnaires were systematically designed and distributed in a hybrid manner, both through an online platform (Google Forms) and a field survey to company owners and managers in West Java. Before the questionnaire was widely distributed to 150 target respondents, it underwent a pilot test to ensure each question was relevant, clear, and understandable to potential respondents without creating interpretation bias.

Data analysis in this study used the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with the help of SmartPLS software. The selection of SmartPLS was based on its advantages in handling complex research models with the involvement of interactive or moderating variables, and does not require strict

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multivariate normal distribution assumptions on a sample of 150. The data analysis procedure with SmartPLS was carried out through two main stages, namely evaluation of the measurement model (outer model) and evaluation of the structural model (inner model).

The first stage is the evaluation of the outer model to test the validity and reliability of the instrument. This evaluation includes: (1) Convergent Validity, which is assessed from the outer loading value of each indicator (must be greater than 0.70) and the Average Variance Extracted (AVE) value which must exceed 0.50; (2) Discriminant Validity, which is tested using the Fornell-Larcker criteria and the Heterotrait-Monotrait Ratio (HTMT) value which must be below the limit value of 0.90; and (3) Reliability Test, which is measured through the Composite Reliability and Cronbach's Alpha values with a minimum limit of 0.70 to ensure the internal consistency of the instrument.(Sarstedt et al., 2021)(Hair & Alamer, 2022).

The second stage is an evaluation of the inner model to test the hypotheses and the inter-variable influences, including their interactive effects. This evaluation is conducted by observing the Coefficient of Determination (R2) value to measure the extent to which the independent and interactive variables are able to explain the variance of the dependent variable. Next, an Effect Size (f2) analysis is performed to determine the relative contribution of each variable, as well as a Predictive Relevance (Q2) test using a blindfolding procedure. To test the interaction effect (moderating effect), a two-stage approach or product indicator approach is used, available in SmartPLS.

Hypothesis testing was conducted through a bootstrapping process with 5,000 resamplings. The decision to accept or reject the hypothesis was based on test statistics, where the hypothesis was declared statistically significant if the t-statistic was greater than 1.96 and the p-value was less than 0.05 (at the 5% significance level). Through this comprehensive testing procedure, the direct impact of financial technology adoption on company performance and growth, as well as the interactive impacts that moderate it, can be empirically and accurately demonstrated.

RESEARCH RESULT

1. Evaluation of Measurement Model (Outer Model).

a. Outer Loading

Table 1. Outer Loading Test Results

	Adoption of Financial Technology (X)	Financial Performance (Y1)	Digital Financial Literacy (Z)	Moderating Effect 1	Company Growth (Y2)
ATK1	0.870				
ATK2	0.854				
ATK3	0.820				
ATK4	0.851				
ATK5	0.846				
ATK6	0.862				

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Financial Technology Adoption (X) * Digital Financial Literacy (Z)			0.919	
KK1	0.858			
KK2	0.856			
KK3	0.849			
KK4	0.846			
KK5	0.801			
KK6	0.859			
LDK3		0.830		
LDK4		0.865		
PP2				0.770
PP3				0.869
PP4				0.877
PP5				0.866
PP6				0.884

Source: SmartPLS 3 Test Results

The outer model evaluation test was conducted to ensure that each indicator was able to accurately measure its latent variable through the outer loading value in the Outer Loadings table. Based on Hair et al.'s rule of thumb, an indicator is declared to meet the requirements for good convergent validity if it has a loading factor value greater than 0.70. The results of data processing indicate that all indicators that form the main variable and interaction construct have perfectly met these criteria with a value range of 0.770 to 0.919. In the Financial Technology Adoption variable (X), the six indicators (ATK1–ATK6) have a loading value range of 0.820 to 0.870, where the ATK1 indicator is the strongest measure (0.870). The Financial Performance variable (Y1) measured through six indicators (KK1–KK6) recorded a very stable loading value in the range of 0.801 to 0.859, with KK6 as the most dominant indicator reflection (0.859). Meanwhile, the Digital Financial Literacy (Z) variable reflects high validity through the LDK3 (0.830) and LDK4 (0.865) indicators. For the Corporate Growth (Y2) variable, all five indicators (PP2–PP6) are proven to be convergently valid with loading values ranging from 0.770 to 0.884, with PP6 contributing the largest variable formation contribution (0.884). Specifically, the formation of the interaction indicator Financial Technology Adoption (X) * Digital Financial Literacy (Z) on the Moderating Effect 1 variable produces a loading value of 0.919. The high loading value in the multiplication of these latent variables proves that the multiplication of these interaction indicators is very solid and valid as a representation of the moderating variables in the model. Thus, all indicators in this table are declared valid, precise, and meet the convergent validity standards to proceed to the hypothesis testing and inner model evaluation stages.

b. Construct Evaluation (Reliability and Convergent Validity)

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Table 2 Results of the Construct Reliability Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Adoption of Financial Technology (X)	0.924	0.925	0.940	0.723
Financial Performance (Y1)	0.920	0.923	0.937	0.714
Digital Financial Literacy (Z)	0.610	0.615	0.837	0.719
Moderating Effect 1	1,000	1,000	1,000	1,000
Company Growth (Y2)	0.907	0.907	0.931	0.729

Source: SmartPLS 3 Processing Results

Construct Reliability and Validity Evaluation was conducted to ensure that all latent variables in the research model have a consistent level of reliability and adequate measurement accuracy (convergent validity). This test is measured through four main criteria, namely Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). Based on PLS-SEM standards (Hair et al.), a construct is declared reliable if the Composite Reliability and Cronbach's Alpha values exceed 0.700, and is declared convergently valid if the AVE value is above 0.500. The results of the statistical analysis in the table show that the variables Adoption of Financial Technology (X), Financial Performance (Y1), and Company Growth (Y2) have very high and perfect levels of reliability and validity. The Financial Technology Adoption construct (X) recorded a Cronbach's Alpha value of 0.924, rho_A of 0.925, Composite Reliability of 0.940, and an AVE value of 0.723. A similar thing was shown by the Financial Performance variable (Y1) with a Cronbach's Alpha of 0.920, rho_A of 0.923, Composite Reliability of 0.937, and AVE of 0.714, as well as the Company Growth variable (Y2) which obtained a Cronbach's Alpha value of 0.907, rho_A of 0.907, Composite Reliability of 0.931, and AVE of 0.729. AVE values above 0.700 for these three variables indicate that the latent construct is able to explain more than 70% of the variance of its constituent indicators. Meanwhile, the Digital Financial Literacy (Z) variable recorded a Cronbach's Alpha value of 0.610 and a rho_A of 0.615. Although the Cronbach's Alpha value is below 0.700, a figure in the range of 0.600–0.700 is still categorized as acceptable in the context of PLS-SEM modeling, especially when the main reliability estimate measured through Composite Reliability yielded excellent results, namely 0.837 (> 0.700). In addition, the convergent validity level of the Digital Financial Literacy (Z) variable proved very strong with an AVE value of 0.719, which far exceeds the minimum threshold of 0.500. On the other hand, the Moderating Effect 1 variable showed a perfect value of 1.000 for all parameters

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because it is a single-item artificial interaction variable built into the SmartPLS system. Overall, all variables in this study were proven valid, reliable, and met the outer model evaluation criteria for use in the next stage of hypothesis testing.

c. Discriminant Validity Evaluation (Fornell-Larcker Criterion)

Table 3. Results of the Fornell-Lecker criterion discriminant validity test

	Adoption of Financial Technology (X)	Financial Performance (Y1)	Digital Financial Literacy (Z)	Moderating Effect 1	Company Growth (Y2)
Adoption of Financial Technology (X)	0.851				
Financial Performance (Y1)	0.087	0.845			
Digital Financial Literacy (Z)	0.536	0.460	0.848		
Moderating Effect 1	0.048	-0.101	-0.090	1,000	
Company Growth (Y2)	0.477	0.443	0.636	-0.019	0.854

Source: SmartPLS 3 Processing Results

Table 4. Results of the Heterotrait-Monotrait Ratio of Correlations (HTMT) value matrix

	Adoption of Financial Technology (X)	Financial Performance (Y1)	Digital Financial Literacy (Z)	Moderating Effect 1	Company Growth (Y2)
Adoption of Financial Technology (X)					
Financial Performance (Y1)	0.101				
Digital Financial Literacy (Z)	0.716	0.607			
Moderating Effect 1	0.049	0.123	0.111		
Company Growth (Y2)	0.517	0.482	0.846	0.082	

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Source: SmartPLS 3 Processing Results

Discriminant validity testing aims to ensure that each latent construct is empirically distinct and measures a unique phenomenon compared to other variables in the structural model. This evaluation is conducted using two main approaches, namely the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio. Based on PLS-SEM standards (Hair et al. and Henseler et al.), discriminant validity is met if the square root of AVE (AVE) value for each variable is greater than the inter-construct correlation value in the Fornell-Larcker criterion, and all HTMT ratios between the main variables are below the threshold of 0.850 or 0.900. Based on the results of the Fornell-Larcker criterion test in the first figure, the square root of AVE values located on the main diagonal consistently show higher numbers compared to the correlation of that variable with other latent variables. The Financial Technology Adoption variable (X) has a square root AVE value of 0.851, which is higher than its correlation with Financial Performance (0.087), Digital Financial Literacy (0.536), and Company Growth (0.477). A similar thing is seen in the Financial Performance variable (Y1) with a value of 0.845, Digital Financial Literacy (Z) of 0.848, and Company Growth (Y2) of 0.854. All of these main diagonal values clearly indicate that each variable has the highest correlation with itself compared to other variables in the model. This result is supported by the evaluation of the HTMT ratio in the second figure which explicitly shows that all pairs of main latent variables have met very strict discriminant criteria (<0.850). The smallest HTMT ratio is recorded by the relationship between Financial Technology Adoption (X) and Financial Performance (Y1) at 0.101. The relationship between Digital Financial Literacy (Z) and Financial Technology Adoption (X) recorded a value of 0.716 and with Financial Performance (Y1) of 0.607. The highest HTMT value between the main constructs was found in the relationship between Digital Financial Literacy (Z) and Company Growth (Y2) at 0.846, which remains below the critical threshold of 0.850. The HTMT value in the Moderating Effect 1 row is very low (0.049 to 0.123), which proves that this interaction variable is truly independent of the main latent construct. Thus, all variables in this research model are proven to have perfect discriminant validity and are free from multicollinearity or measurement overlap problems.

B. Structural Model Evaluation

1. Path Diagram

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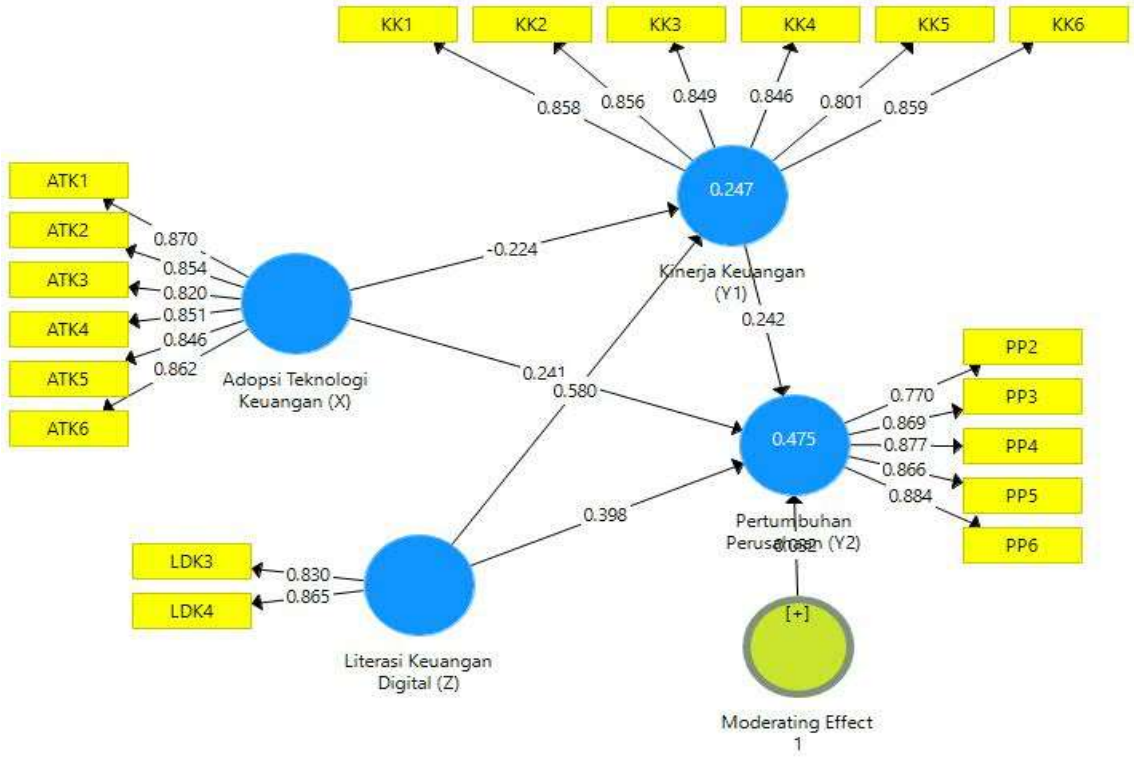


Figure 1. Path Diagram

The PLS-SEM Final Empirical Model diagram presents a comprehensive visualization of the evaluation of the outer model (measurement model) and inner model (structural model). In the outer model test, all reflexive indicators were proven to meet the criteria for excellent convergent validity, where each indicator has a loading factor value far exceeding the standard of 0.700. The Financial Technology Adoption indicator (X) represented by ATK1–ATK6 produced loading values ranging from 0.820 to 0.870, the Financial Performance variable (Y1) through the KK1–KK6 indicators recorded loadings of 0.801 to 0.859, the Digital Financial Literacy variable (Z) in the LDK3–LDK4 indicators obtained values of 0.830 and 0.865, and the Company Growth variable (Y2) in the PP2–PP6 indicators recorded values of 0.770 to 0.884. This confirms that all manifest variables are precisely and validly able to measure their respective latent constructs. In the inner model evaluation, the magnitude of the influence between variables is indicated by the path coefficient value listed on each connecting arrow line. Adoption of Financial Technology (X) has a negative effect on Financial Performance (Y1) with a coefficient of -0.224, but a positive effect on Company Growth (Y2) with a coefficient of 0.241. Financial Performance (Y1) is proven to have a positive contribution to Company Growth (Y2) with a path coefficient of 0.242. Meanwhile, Digital Financial Literacy (Z) acts as a very strong predictor, both on Financial Performance (Y1) with a coefficient of 0.580 and on Company Growth (Y2) with a coefficient of 0.398. The presence of the interaction construct Moderating Effect 1 at the bottom of the model completes the structural framework to test the moderating effect of Z on the X → Y2 relationship. The predictive power of the structural model is reflected by the value of the coefficient of determination (R2) which is within the circle of endogenous variables. The Financial

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Performance variable (Y1) obtained an R2 value of 0.247, indicating that 24.7% of the variance in financial performance can be explained by the adoption of technology and digital financial literacy. On the other hand, the Corporate Growth variable (Y2) recorded an R2 value of 0.475, which is classified as moderate to strong. This finding proves that the combination of Financial Technology Adoption (X), Financial Performance (Y1), Digital Financial Literacy (Z), and their moderating effects collectively can explain 47.5% of the variance in Corporate Growth (Y2).

2. Coefficient of Determination (R2)

Table 5. Results of the R2 Determination Coefficient Test

	R Square	R Square Adjusted
Financial Performance (Y1)	0.247	0.237
Company Growth (Y2)	0.475	0.460

Source: SmartPLS 3 Processing Results

The inner model evaluation is carried out by measuring the coefficient of determination (R2) to measure how much the predictor variables are able to explain the variance of the endogenous (dependent) variable. Based on the PLS-SEM modeling criteria according to Hair et al., R2 values of 0.75, 0.50, and 0.25 indicate strong (substantial), moderate (moderate), and weak (weak) model criteria, respectively. The Adjusted R2 value is also presented to provide an overview of the predictive accuracy that has been adjusted for the number of independent variables in the model. The results of data processing in the table show that the Financial Performance variable (Y1) obtained an R2 value of 0.247 and an Adjusted R2 of 0.237. This indicates that the variance of Financial Performance (Y1) can be explained by the Adoption of Financial Technology (X) by 24.7%, while the remaining 75.3% is influenced by other factors outside the research model. Based on the statistical category, the model's predictive level for Financial Performance (Y1) is close to moderate. Meanwhile, the Company Growth variable (Y2) recorded an R2 value of 0.475 with an Adjusted R2 of 0.460. This figure indicates that the combination of the variables of Financial Technology Adoption (X), Financial Performance (Y1), Digital Financial Literacy (Z), and moderating interaction (Moderating Effect 1) together are able to explain the variance of Company Growth (Y2) by 47.5%. The remaining 52.5% is explained by other variables outside this modeling framework. This R2 value of 0.475 is classified as a fairly strong moderate category, indicating that the constructed structural model has good predictive power and is relevant in explaining the factors that drive MSME business growth.

2. Path Analysis and Hypothesis Testing (Bootstrapping)

Table 6. Results of Path Analysis and Hypothesis Testing (Bootstrapping)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Financial Technology	-0.224	-0.222	0.077	2,904	0.004

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Adoption (X) -> Financial Performance (Y1)					
Financial Technology Adoption (X) -> Company Growth (Y2)	0.241	0.246	0.068	3,532	0.000
Financial Performance (Y1) -> Company Growth (Y2)	0.242	0.237	0.061	3,992	0.000
Digital Financial Literacy (Z) -> Financial Performance (Y1)	0.580	0.581	0.067	8,711	0.000
Digital Financial Literacy (Z) -> Company Growth (Y2)	0.398	0.404	0.091	4,382	0.000
Moderating Effect 1 -> Company Growth (Y2)	0.032	0.036	0.073	0.435	0.664

Source: SmartPLS 3 Data Processing Results

Hypothesis testing through Path Coefficients is conducted to determine the level of significance and direction of the relationship between constructs in the structural model. The hypothesis is stated to be supported or has a statistically significant influence if the T-Statistic value exceeds 1.96 at a significance level of 5% ($\alpha = 0.05$) and the P-Value value is below 0.05. The results of the hypothesis test show that most of the direct relationship paths are proven to have a statistically significant effect. The relationship between Financial Technology Adoption (X) and Financial Performance (Y1) produces an Original Sample value of -0.224, a T-Statistic of 2.904, and a P-Value of 0.004 (<0.05). This indicates that Financial Technology Adoption (X) has a negative and significant effect on Financial Performance (Y1). On the other hand, Adoption of Financial Technology (X) is proven to have a positive and significant effect on Company Growth (Y2) with an Original Sample value of 0.241, T-Statistic 3.532, and P-Value 0.000 (<0.05). In addition, Financial Performance (Y1) also has a positive and significant effect on Company Growth (Y2) with a coefficient of 0.242, T-Statistic 3.992, and P-Value 0.000 (<0.05). On the other hand, Digital Financial Literacy (Z) records a very dominant role in both company performance and growth. The influence of

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Digital Financial Literacy (Z) on Financial Performance (Y1) produces the largest path coefficient of 0.580 with a T-Statistic of 8.711 and P-Value 0.000 (<0.05). The influence of Digital Financial Literacy (Z) on Company Growth (Y2) was also proven to be positive and significant with a coefficient of 0.398, a T-Statistic of 4.382, and a P-Value of 0.000 (<0.05). The testing of the moderation effect (Moderating Effect 1) produced a path coefficient of 0.032 with a T-Statistic of 0.435 and a P-Value of 0.664 (>0.05). This figure proves that Digital Financial Literacy (Z) is unable to moderate the relationship between Financial Technology Adoption (X) and Company Growth (Y2). Thus, all direct effect hypotheses are declared accepted, while the moderation hypothesis is declared rejected.

3. Predictive Relevance Evaluation (Q2)

Table 7. Predictive Relevance Evaluation (Q2)

	SSO	SSE	Q^2 (=1-SSE/SSO)
Adoption of Financial Technology (X)	900	900	
Financial Performance (Y1)	900	746,544	0.171
Digital Financial Literacy (Z)	300	300	
Moderating Effect 1	150	150	
Company Growth (Y2)	750	502.153	0.330

Source: SmartPLS 3 Data Processing Results

Predictive relevance evaluation was conducted through a blindfolding procedure to assess how well the observed values were reproduced by the model and its parameters. The main parameter used in this test is the Q2 (Construct Crossvalidated Redundancy) value, which is calculated based on the difference between the Sum of Squares Observations (SSO) and the Sum of Squares Prediction Errors (SSE) with the formula Q2 = 1 - SSE}/SSO. Based on the PLS-SEM modeling criteria according to Hair et al., a Q2 value greater than 0 (Q2 > 0) indicates that the structural model has good predictive relevance for certain endogenous variables, where values of 0.02, 0.15, and 0.35 indicate small, medium, and large predictive relevance, respectively. The results of the blindfolding analysis in the table show that all endogenous variables in this study recorded positive Q2 values (> 0), thus confirming the superiority of the overall model's predictive capacity. The Financial Performance variable (Y1) recorded an SSO value of 900 and an SSE of 746.544, resulting in a Q2 value of 0.171. This figure of 0.171 is above the threshold of 0.15, indicating that the variables of Financial Technology Adoption (X) and Digital Financial Literacy (Z) have a medium predictive relevance level in predicting Financial Performance (Y1). Meanwhile, the Company Growth variable (Y2) produced an SSO value of 750 and an SSE of 502.153, resulting in a Q2 value of 0.330. This Q2 value of 0.330 is classified as very high and approaches the category of strong/large predictive relevance. This finding proves that the combination of Financial Technology Adoption (X), Financial Performance (Y1), Digital Financial Literacy (Z), and their moderating interactions have a very precise and accurate ability to reconstruct and predict the level of Company Growth (Y2). Thus, the structural model

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built in this study is not only valid and reliable, but also proven to have excellent predictive accuracy for application in the context of business decision-making.

4. Testing f-square effect size (f2)

Table 8. Effect size test results

	SSO	SSE	Q^2 (=1-SSE/SSO)
Adoption of Financial Technology (X)	900	900	
Financial Performance (Y1)	900	746,544	0.171
Digital Financial Literacy (Z)	300	300	
Moderating Effect 1	150	150	
Company Growth (Y2)	750	502.153	0.330

Source: SmartPLS 3 Data Processing Results

The f-square (f2) or effect size test is conducted to measure the relative contribution of each predictor variable in influencing the endogenous (dependent) variable in the structural model. Based on the PLS-SEM statistical criteria according to Hair et al., f2 values of 0.02, 0.15, and 0.35 respectively indicate that the predictor variable has a small, medium, and large influence on the endogenous variable, while values below 0.02 indicate that the effect is classified as very small or practically insignificant. Based on the results of data processing in the table, the contribution of variables to Financial Performance (Y1) shows a significant difference in the magnitude of the effect. Adoption of Financial Technology (X) has an f2 value of 0.047 on Financial Performance (Y1), which is classified as a small effect category. On the other hand, Digital Financial Literacy (Z) recorded an f2 value of 0.318 on Financial Performance (Y1). This figure is close to the threshold of 0.35, indicating that Digital Financial Literacy (Z) provides a very large contribution (large effect) and plays a crucial role in driving improvements in the company's Financial Performance (Y1). Meanwhile, in the Company Growth variable (Y2), all main predictor variables show a small to medium effect contribution. Digital Financial Literacy (Z) provides the largest contribution to Company Growth (Y2) with an f2 value of 0.161 (medium effect category). The influence of Financial Performance (Y1) and Financial Technology Adoption (X) on Company Growth (Y2) recorded f2 values of 0.084 and 0.074, respectively, which are classified as small effects. Meanwhile, the Moderating Effect 1 variable only obtained an f2 value of 0.002 (<0.02), which practically confirms that the moderating role of Digital Financial Literacy (Z) in the relationship between Financial Technology Adoption (X) and Company Growth (Y2) has almost no impact (no effect) on the variance of the endogenous variable.

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DISCUSSION

The Impact of Financial Technology Adoption on Financial Performance

The findings of this study indicate that Financial Technology Adoption (X) has a negative and significant impact on Financial Performance (Y1) with a path coefficient of -0.224, a T-Statistic of 2.904, and a P-Value of 0.004 ($p < 0.05$). These results are interesting and provide a valuable empirical contribution, considering that most of the initial literature assumes that the implementation of financial technology automatically improves short-term financial performance. These findings confirm the Productivity Paradox phenomenon in the context of micro, small, and medium enterprises (MSMEs) in West Java. When business actors adopt financial technology, such as digital payment systems, cloud-based cashier platforms, or financial recording applications, they are faced with quite burdensome initial investment costs and a learning curve that requires time to adjust.

These short-term negative impacts arise from the diversion of financial resources allocated to application subscription fees, digital transaction fees (merchant discount rates), and investments in supporting devices, which are not yet balanced with the resulting operational efficiencies. MSMEs are often unable to effectively optimize all adopted financial technology features, resulting in adoption becoming an additional operational burden rather than a cost-saver. This finding aligns with the Resource-Based View (RBV), which emphasizes that the presence of valuable technological resources does not automatically result in competitive advantage or high financial performance if it is not supported by internal capabilities to manage and integrate the technology into daily business routines.(Rosyidha & Mardiana, 2026)(Ridwan et al., 2026)Therefore, adopting financial technology without adequate management capabilities can actually depress a company's profitability and short-term financial performance.

The Impact of Financial Technology Adoption on Company Growth

In contrast to its impact on short-term financial performance, Financial Technology Adoption (X) has been shown to have a positive and significant effect on Company Growth (Y2) with a path coefficient of 0.241, a T-Statistic of 3.532, and a P-Value of 0.000 ($p < 0.05$). These results demonstrate the strategic role of financial technology as a driver of long-term business scale. The integration of financial technologies such as QRIS, payment gateways, and access to digital financial services has successfully expanded market reach, accelerated cash flow turnover, and increased sales volume for businesses in West Java.

Theoretically, these findings support the Dynamic Capabilities Theory, where the adoption of financial technology acts as a dynamic capability that enables companies to adapt to changing consumer behavior as digitalization increases. While adopting this technology reduces net profit margins in the short term due to the burden of digital operating costs, its strategic benefits accumulate in the form of an expanded customer base, efficiency in daily transactions, and increased market confidence. The ease of digital transactions can attract consumers from a broader segment who prioritize payment convenience, thus driving sustainable sales growth and business scale.

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The Influence of Financial Performance on Company Growth

The analysis results show that Financial Performance (Y1) has a positive and significant effect on Company Growth (Y2) with a path coefficient of 0.242, a T-Statistic value of 3.992, and a P-Value of 0.000 ($p < 0.05$). This finding strengthens the classical company growth theory (Gibrat's Law and Pecking Order Theory) which states that the level of health and financial performance of an entity is the main foundation in financing business expansion and growth.

Solid financial performance, measured by profitability ratios and stable cash flow, provides financial flexibility for MSMEs in West Java to reinvest capital, expand production capacity, and diversify products. Healthy cash flow from internal financial performance minimizes dependence on high-cost external debt, giving companies greater resilience to pursue market growth opportunities. Thus, financial performance serves as an internal driver, transforming potential operational efficiencies into tangible and sustainable business growth.

The Impact of Digital Financial Literacy on Financial Performance and Company Growth

Digital Financial Literacy (Z) is proven to be the most dominant determinant factor in this modeling framework, with a positive and significant effect on both Financial Performance (Y1) and Company Growth (Y2). The relationship between Digital Financial Literacy (Z) and Financial Performance (Y1) produces the highest path coefficient in the model of 0.580, T-Statistic 8.711, and P-Value 0.000 ($p < 0.05$), with a large category effect size (f2) of 0.318. Meanwhile, its effect on Company Growth (Y2) obtains a path coefficient of 0.398, T-Statistic 4.382, and P-Value 0.000 ($p < 0.05$), with an effect size (f2) of 0.161.

These findings confirm that cognitive understanding and analytical skills in managing digital finance are key factors for business owners. MSMEs with high levels of digital financial literacy not only use Fintech instruments but are also able to leverage digital financial data for budget planning, investment risk analysis, separating personal and business cash, and precisely monitoring profit margins. This cognitive capability successfully mitigates the initial negative impact of technology adoption costs, thereby directly optimizing the company's financial performance. Furthermore, proficiency in navigating the digital financial ecosystem provides a strategic advantage in evaluating funding opportunities and capital efficiency, which directly accelerates business growth.

The Moderating Role of Digital Financial Literacy in the Relationship Between Financial Technology Adoption and Company Growth

The moderation effect test (Moderating Effect 1) yielded a path coefficient of 0.032, a T-Statistic of 0.435, and a P-Value of 0.664 ($p > 0.05$), with an effect size (f2) of 0.002 (< 0.02). These statistical results clearly prove that Digital Financial Literacy (Z) is not proven to moderate (neither strengthens nor weakens) the relationship between Financial Technology Adoption (X) and Company Growth (Y2). The moderation hypothesis in this study is rejected.

Academically and phenomenologically, the finding of the insignificant moderating role provides valuable insights into the characteristics of technology adoption in the West Java MSME sector. First, the adoption of modern financial

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technology (such as QRIS payment instruments or digital cashier applications) is designed with highly intuitive and user-friendly user interfaces. Consequently, the benefits of technology adoption in driving sales and business growth can be directly felt by business actors, regardless of whether they have a very high or moderate level of digital financial literacy. The use of financial technology for daily transactions has become a basic operational necessity, with a direct impact on growth.

Second, Digital Financial Literacy (Z) in this modeling has been empirically proven to act as an independent predictor (pure independent variable) and not as an interaction moderator. Digital financial literacy contributes independently and directly to financial performance and business growth, but does not alter the magnitude of the driving force of technology adoption on business growth. This finding confirms the importance of separating internal capability variables that have a direct impact from variables that act as moderators within the technology framework.

Evaluation of Predictive Ability and Structural Model

Overall, the structural modeling framework in this study demonstrates strong goodness of fit and predictive capabilities. The coefficient of determination analysis shows an R2 value for Financial Performance (Y1) of 0.247, indicating that 24.7% of the variance in financial performance is explained by technology adoption and digital financial literacy. Meanwhile, the R2 value for Corporate Growth (Y2) reached 0.475 (47.5%), which falls within the moderate to strong category.

This predictive quality is supported by blindfolding testing, which yielded Q2 values of 0.171 for Financial Performance (Y1) and 0.330 for Corporate Growth (Y2). All Q2 values > 0 confirm that the developed conceptual framework has accurate and high-precision predictive relevance. This finding demonstrates that the combination of financial technology adoption, financial performance, and digital financial literacy represents a relevant model for predicting the direction of MSME business growth in the era of digital transformation.

CONCLUSION

This study aims to analyze the effect of Financial Technology Adoption (X) on Financial Performance (Y1) and Company Growth (Y2), and to test the moderating role of Digital Financial Literacy (Z) in MSMEs in West Java through the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. Based on data analysis and hypothesis testing, several key empirical findings were obtained. First, Financial Technology Adoption has a negative and significant effect on short-term Financial Performance, confirming the existence of the Productivity Paradox phenomenon due to the emergence of initial investment costs, digital transaction costs, and the operational learning curve. Second, Financial Technology Adoption is proven to have a positive and significant effect on Company Growth, confirming the strategic role of financial technology in expanding market reach and long-term transaction efficiency. Third, Financial Performance has a positive and significant effect on Company Growth, validating that internal financial health is the main foundation in funding business expansion.

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The following findings indicate that Digital Financial Literacy acts as the most dominant pure predictor in the model. Digital Financial Literacy has a positive and significant effect on both Financial Performance and Company Growth, with a very strong effect size. However, testing for the moderation effect proves that Digital Financial Literacy does not moderate the relationship between Financial Technology Adoption and Company Growth, thus rejecting the moderation hypothesis. This is due to the highly intuitive and user-friendly nature of today's financial technology, so the benefits of its adoption on business growth can be directly felt by MSMEs regardless of their level of digital financial literacy.

Overall, the structural model developed in this study demonstrated high goodness of fit and predictive accuracy, with a coefficient of determination (R2) of 47.5% for the Corporate Growth variable and a solid level of predictive relevance (Q2). The practical implications of this study emphasize the importance of digital financial management assistance for MSMEs so that investments in financial technology adoption do not depress short-term profitability but can instead be directly optimized to accelerate sustainable business growth.

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