DETERMINANTS OF FINANCIAL RESOURCE ACCESSIBILITY FOR SUPPORTING INDUSTRY ENTERPRISES: EMPIRICAL EVIDENCE FROM HO CHI MINH CITY

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Abstract. This study investigates the determinants of financial resource accessibility for Supporting Industry Enterprises (SIEs) in Ho Chi Minh City, challenging traditional SME financing paradigms. Utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) on a purposive sample of 70 specialized SIEs, the empirical results reveal a critical theoretical shift. Contrary to classical credit rationing literature, physical collateral and historical bank-enterprise relationships exert no significant impact on credit access. Instead, financial resource accessibility is profoundly driven by the owner's qualifications, enterprise competence, and financial transparency. These findings suggest that due to the high "asset specificity" and illiquidity of SIE machinery, institutional lenders prioritize human capital and standardized hard data over physical assets. This study contributes to Information Asymmetry Theory by demonstrating that the efficacy of collateral is highly industry-contingent, urging policymakers to transition from asset-based lending to cash-flow and supply-chain financing.

Keywords. Financial Resource Accessibility, Supporting Industry, Human Capital, Financial Transparency, Information Asymmetry, PLS-SEM.

1 INTRODUCTION

The supporting industry (SI) serves as the backbone of the manufacturing sector, playing a pivotal role in enhancing national industrial competitiveness and facilitating integration into Global Value Chains (GVCs) (World Bank, 2022). In the context of emerging economies like Vietnam, and specifically within Ho Chi Minh City (HCMC)—the country's primary industrial hub—the development of SI is prioritized to reduce reliance on imported components and increase domestic value-added. However, despite favorable government policies, SI enterprises continue to grapple with a persistent bottleneck: restricted access to financial resources. Unlike general Small and Medium Enterprises (SMEs), SI firms are characterized by high capital intensity, lengthy R&D cycles, and specialized asset requirements, which often exacerbate their vulnerability to credit constraints (Nguyen & Nguyen, 2023).

Extant literature has extensively documented the determinants of financial resource accessibility for SMEs, highlighting factors such as collateral, firm age, and financial transparency (Stiglitz & Weiss, 1981; Beck et al., 2005). Nevertheless, a significant "theoretical gap" remains regarding the specific financial dynamics of SI enterprises in a rapidly evolving digital and post-pandemic economy. Most prior studies treat manufacturing firms as a homogenous group, failing to account for the unique operational risks and technical barriers inherent in the supporting industry. Furthermore, while HCMC represents a dynamic environment with a concentrated banking system and high-tech parks, the empirical evidence on how institutional quality and digital financial integration influence SI firm-level financing remains fragmented and outdated. Although recent studies on Tech-SMEs have indicated a decline in the role of collateral, how banks in transitional economies (such as Vietnam) respond to this risk has not been extensively studied. This paper goes further by demonstrating a Substitution Effect: when high "Asset Specificity" invalidates Collateral, banks do not loosen their standards; instead, they shift to using "Financial Statement Quality" and "Owner's Qualifications" as alternative risk assessment tools. Consistent with the recent findings of Le et al. (2024), in emerging market contexts like Vietnam, where tangible assets lose liquidity, credit institutions are increasingly overvaluing intangible assets such as the business owner's capacity to provide funding.

This study aims to address these gaps by investigating the multidimensional determinants of financial resource accessibility for SI enterprises in HCMC. Drawing upon the Information Asymmetry Theory and the Credit Rationing Theory (Stiglitz & Weiss, 1981), we develop a comprehensive framework that

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incorporates both firm-specific attributes (e.g., credit history, technological capability) and external environmental factors (e.g., banking relationships, regional institutional quality).

This research contributes to the literature in two significant ways. First, it provides a specialized analysis of the SI sector, offering a more nuanced understanding than general SME studies. Second, the empirical findings offer actionable insights for policymakers in HCMC to refine credit guarantee schemes and institutional support mechanisms tailored to the high-tech nature of supporting industries.

The remainder of this paper is organized as follows: Section 2 reviews the theoretical background and develops hypotheses; Section 3 describes the methodology and data collection; Section 4 presents the empirical results; and Section 5 concludes with policy implications and limitations.

2 THEORY AND HYPOTHESES DEVELOPMENT

2.1 Supporting Industry Enterprises (SIEs) and Asset Specificity

Unlike generic trading or retail SMEs, Supporting Industry Enterprises (SIEs) are highly specialized manufacturers embedded in global supply chains. A defining characteristic of SIEs is "asset specificity" (Zhou & Li, 2023), their investments are heavily concentrated in customized machinery, molds, and specific technological infrastructure. Because these assets possess low liquidation or salvage value outside their specific production networks, they often fail to serve as traditional risk mitigation tools for commercial lenders. Consequently, the mechanisms driving financial resource accessibility for SIEs may fundamentally diverge from classical SME financing paradigms, shifting the evaluative focus from tangible collateral to intangible human capital, operational competence, and transparency.

2.2 Hypotheses Development

H1:Business Plan Quality (BP) and Financial Resource Accessibility

The quality of business plans positively influences access to financial resources. While financial statements reflect historical performance, a comprehensive business plan serves as a forward-looking signaling mechanism that outlines the firm's strategic viability and risk mitigation strategies. For specialized SIEs, a robust business plan effectively communicates how customized machinery investments will be converted into future cash flows via integration into global supply chains, thereby reducing lenders' perceived risks and information asymmetry (Wasiuzzaman et al., 2020).

Hypothesis 1 (H1): The Quality of Business Plans (BP) has a significant positive impact on the Financial Resource Accessibility (ACC)

H2: Financial Statements and Transparency (BCTC) and Financial Resource Accessibility

Transparent financial statements positively impact financial resource accessibility for SIEs. Information asymmetry remains the primary driver of credit rationing. Standardized, audited, or highly transparent financial reporting provides objective "hard data" that significantly lowers the monitoring and screening costs for commercial banks. As transitioning financial ecosystems mature, institutional lenders inherently favor transaction-based lending anchored in structural financial transparency over opaque, informal evaluations (Cowling & Dvouletý, 2023; Lisboa et al., 2025).

Hypothesis 2 (H2): The level of transparency of financial information has a positive impact on the Financial Resource Accessibility (ACC)

H3: Enterprise Competence and Size (PER) and Financial Resource Accessibility

Enterprise competence, reflecting production capacity, technological readiness, and operational stability, positively affects credit accessibility (Islam et al., 2022). For manufacturing SIEs, loan repayment capacity is intrinsically tied to the ability to consistently fulfill stringent purchase orders from anchor FDI corporations. High enterprise competence functions as a direct signal of sustained cash flow generation capability, which modern banks evaluate as the primary source of debt servicing rather than asset liquidation (Nguyen et al., 2020; Wasiuzzaman et al., 2020).

Hypothesis 3 (H3): Enterprise Competence and Size (PER) has a significant positive impact on the Financial Resource Accessibility (ACC)

H4: Enterprise - Bank Relationship (RE) and Financial Resource Accessibility

Historical bank-enterprise relationships are traditionally theorized to enhance credit accessibility (Liberti & Petersen, 2019). Through repeated financial interactions, banks accumulate proprietary "soft information" regarding the borrower’s reliability, behavioral patterns, and ethical standing, which effectively mitigates information asymmetry over time (Petersen & Rajan, 1994; Sungu, 2013). This

accumulated relationship capital is theoretically expected to yield more favorable credit screening outcomes for otherwise opaque SMEs.

Hypothesis 4 (H4): Enterprise - Bank Relationship (RE) have a significant positive impact on the Financial Resource Accessibility (ACC).

H5:Collateral Quality (CO) and Financial Resource Accessibility

Classical credit rationing theory (Stiglitz & Weiss, 1981) posits that physical collateral serves as the ultimate safeguard against moral hazard. By pledging tangible assets, borrowers signal high project quality and absorb downside risks, thereby incentivizing banks to extend credit (Luck & Santos, 2024). While recent literature on technology-intensive SMEs questions its efficacy due to the aforementioned asset specificity, traditional banking models in emerging markets often still formally emphasize asset-based lending frameworks (Oshora et al., 2021). Therefore, we establish the following traditional baseline hypothesis to be empirically tested in the SIE context:

Hypothesis 5 (H5): Collateral has a positive impact on the Financial Resource Accessibility (ACC).

H6: Qualifications of the Business Owner (TD) and Financial Resource Accessibility

The technical qualifications and managerial experience of SIE owners positively influence their access to financial resources. In the context of highly specialized manufacturing, standard financial metrics frequently fail to capture a firm's latent technological capabilities or adaptability. Therefore, commercial lenders increasingly rely on the owner's human capital—such as industry-specific expertise and historical track record—as a credible "soft information" signal to mitigate adverse selection (Khaliq et al., 2022; Le et al., 2024; Masnila et al., 2024). When physical assets are illiquid, specialized human capital acts as a vital substitution mechanism for risk assessment

Hypothesis 6 (H6): Qualifications of the Business Owner (TD) have a significant positive impact on the Financial Resource Accessibility (ACC).

2.3 Proposed Research Model

Based on the formulated hypotheses, the research model is expressed as:

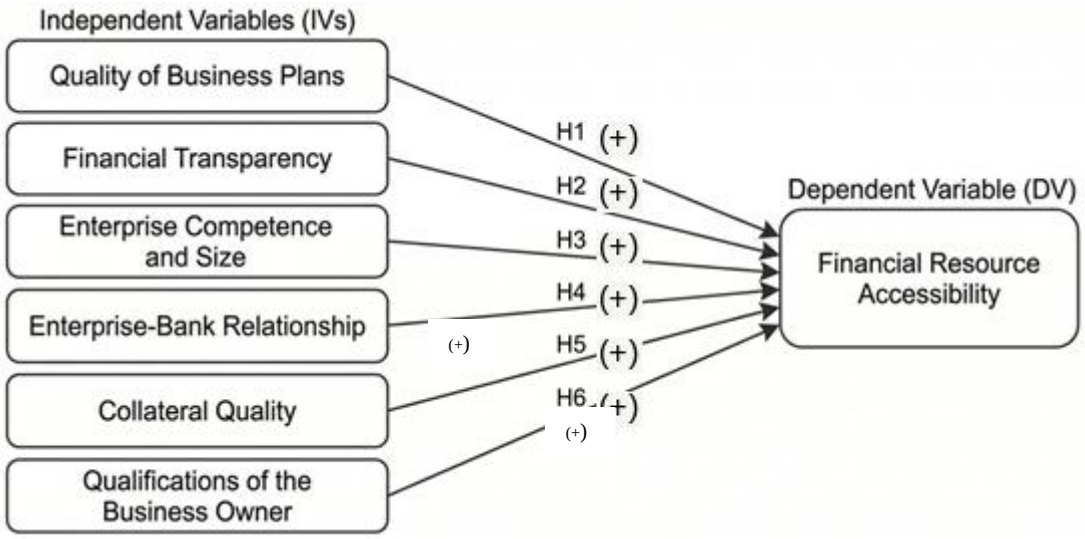


Figure 1: Proposed research model
(Source: The authors, 2026)

3 METHODS

This study employed a rigorous multi-stage research design encompassing both qualitative scale refinement and a quantitative cross-sectional survey. In the preliminary phase, measurement items for the constructs referenced from international studies (Berger & Udell, 2006; Fiordelisi et al., 2014; He et al., 2026; Kebede & Abera, 2014; Khaliq et al., 2022; Liberti & Petersen, 2019; Lisboa et al., 2025; Luck & Santos, 2024; Masnila et al., 2024; Mutegi et al., 2015; Nguyen et al., 2020; Oshora et al., 2021; Wasiuzzaman et al., 2020), were adapted from well-established literature to ensure foundational validity. To contextualize these scales for the supporting industry, in-depth qualitative interviews were conducted

with a panel of experts comprising industry practitioners and financial investors. The experts were purposively selected based on their extensive domain knowledge. Feedback from this phase was systematically analyzed to refine the semantic clarity, face validity, and contextual appropriateness of the measurement model (DeVellis & Thorpe, 2021).

The finalized survey instrument comprised 43 items structured on a 5-point Likert scale. The questionnaire was designed to measure the impact of six exogenous constructs: Quality of Business Plans, Financial Transparency, Enterprise Competence and Size, Enterprise-Bank Relationship, Collateral Quality, and Qualifications of the Business Owner to Financial Resource Accessibility.

In the quantitative phase, empirical data were collected from supporting industry enterprises in Ho Chi Minh City. Given the specific characteristics and finite population of the target sector, a purposive sampling technique was utilized. A final sample of 70 valid responses was retained for the empirical analysis. While the sample size is relatively compact, it satisfies the minimum threshold requirements for Partial Least Squares Structural Equation Modeling (PLS-SEM) based on the "10-times rule" and G*Power a priori power analysis for models with six structural paths directed at the dependent variable (Sarstedt et al., 2021). Specialized supporting industry enterprises (SIEs) in Ho Chi Minh City are not typical commercial SMEs. Their actual population is very narrow, dispersed, and extremely sensitive to financial data (hard-to-reach population). Therefore, N=70 is a high-quality sample and a good representative of this niche, despite its small absolute number.

To empirically test the proposed conceptual model (Figure 1) and hypotheses, this study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) utilizing SmartPLS 3 software (Ringle et al., 2015). PLS-SEM was deemed the most appropriate analytical technique due to its robustness in estimating complex models with multiple latent variables and its lack of strict assumptions regarding data normality (Hair et al., 2019). Furthermore, this variance-based approach is particularly well-suited for exploratory research aimed at theory development.

Following established methodological guidelines, a systematic two-stage analytical procedure was adopted. In the first stage, the measurement model was evaluated to establish reliability and validity. Indicator reliability was assessed via outer loadings, the constructs in our model are theoretically defined as reflective. Therefore, deleting items with low outer loadings (e.g., < 0.708) to improve internal consistency reliability and convergent validity (AVE > 0.5) does not alter the conceptual domain of the constructs (Hair et al., 2019), the retained variables most accurately reflect the specific characteristics of the Supporting Industries (SIEs). While internal consistency reliability was confirmed using Cronbach's alpha and Composite Reliability (CR). Convergent validity was established by examining the Average Variance Extracted (AVE). Subsequently, discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio of correlations (Henseler et al., 2015), which provides a more rigorous evaluation of construct distinctiveness compared to traditional metrics.

In the second stage, the structural model was assessed to test the proposed hypotheses. A nonparametric bootstrapping procedure with 5,000 subsamples was executed to evaluate the statistical significance of the path coefficients and to determine the model's explanatory power.

4 RESULTS AND DISCUSSION

4.1 Results

4.1.1 Descriptive statistics

Table 1 illustrates the demographic and operational profiles of the surveyed enterprises (N = 70). The respondent pool was predominantly male (70%) and highly educated, with 100% holding at least a college or university degree, including 40% possessing postgraduate qualifications. This high educational background ensures the respondents' capacity to accurately comprehend and evaluate the complex constructs within the survey. From an organizational perspective, Limited Liability Companies (LLCs) constituted the majority (64,3%), which aligns with the typical structural characteristics of the supporting industries in emerging markets. Importantly, a substantial 80% of the firms have been operating for over five years, with 45,7% possessing more than a decade of industry experience. This maturity indicates that the provided data is grounded in extensive operational resilience and market survival. Regarding sector distribution, mechanical engineering/manufacturing (57,1%) and electronics (35,7%) emerged as the most prominent fields, accurately reflecting the core pillars of the contemporary supporting industry landscape.

Table 1: Descriptive statistics

Variables	Categories	Frequency (n)	Percentage (%)
1. Respondent's gender	Male	49	70
	Female	21	30
2. Educational attainment	Undergraduate degree	42	60
	Postgraduate degree	28	40
3. Enterprise ownership type	Limited Liability Company (LLC)	45	64,3
	Joint Stock Company (JSC)	18	25,7
	Private Enterprise	7	10
4. Enterprise size (by total capital)	Under 3 billion VND	14	20
	3 to 20 billion VND	28	40
	20 to 100 billion VND	21	30
	Over 100 billion VND	7	10
5. Enterprise age	Under 5 years	14	20
	5 to 10 years	24	34,3
	Over 10 years	32	45,7
6. Industry sector	Mechanical engineering and manufacturing	40	57,1
	Electronics	25	35,7
	Supporting products for high-tech industries	20	28,6
	Automotive and motorcycle assembly	10	14,3
	Textiles and garments	6	8,6
	Footwear and leather	4	5,7

Source: Results of running Smart-PLS 3

4.1.2 Reliability of the variables

The quality of the measurement model was rigorously evaluated using several reliability and validity metrics, including outer loadings, Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Variance Inflation Factor (VIF). Following the guidelines of Hair et al. (2019), outer loadings should ideally exceed the 0,70 threshold to establish indicator reliability. Nevertheless, items with loadings between 0,40 and 0,70 may be retained if their removal does not lead to an increase in either CR or AVE above the threshold value. To confirm internal consistency reliability, both Cronbach's Alpha and CR must surpass 0,70; however, values within the 0,60–0,70 range are considered acceptable in exploratory contexts, whereas values falling below 0,60 necessitate item deletion or scale refinement. Furthermore, to establish convergent validity, the AVE must exceed 0,50, demonstrating that the latent construct accounts for more than half of the variance in its observed variables. An AVE below this threshold suggests inadequate precision, prompting the potential removal of low-loading indicators. Finally, the VIF is utilized to assess multicollinearity among the independent variables. A VIF value below 5 confirms the absence of critical collinearity issues, thereby securing the model's structural stability.

In this case, all indicators for ACC (0,738 to 0,886), RE (0,762 to 0,835), and BP (0,713 to 0,825) exceeded the 0,70 threshold, demonstrating strong indicator reliability. For the CO and BCTC constructs, most loadings were well-above the cut-off point, although a few items such as CO3 (0,630), CO5 (0,682), and BCTC2 (0,652) fell slightly below. These items were retained for further analysis to maintain the content validity of the scales, given that the respective AVEs remained above 0,50. However, significant concerns were noted for the PER and TD constructs. Specifically, PER5 (0,457), PER3 (0,587), and PER10 (0,596) exhibited weak loadings, contributing to the low AVE. Similarly, TD6 (0,660) and TD8 (0,679)

showed sub-optimal loadings. In the subsequent refinement of the structural model, indicators with loadings below 0,60 (e.g., PER5, PER3) should be considered for removal to enhance the overall convergent validity.

The Composite Reliability (CR) values ranged from 0,818 to 0.901, substantially exceeding the recommended threshold of 0,70. While most Cronbach's alpha values were above 0,70, the BCTC construct yielded an alpha of 0,697. Nevertheless, this value is considered acceptable as its CR (0,818) was well above the required limit, confirming the reliability of the scale. In terms of convergent validity, the Average Variance Extracted (AVE) was utilized as the primary metric. The AVE values for ACC (0,660), RE (0,641), BP (0,579), CO (0,544), and BCTC (0,530) were all above the 0,50, indicating that the constructs explain more than half of the variance of their respective indicators. However, the TD construct showed an AVE of 0,490, which is marginally below the threshold, and the PER construct reported a lower AVE of 0,436 (Hair et al., 2019). To enhance convergent validity, indicators with low outer loadings (specifically BCTC2, BCTC4, PER1, PER3, PER5, PER6, PER7, PER9, PER10, PER11, CO3, CO5, TD4, TD6 and TD8) were systematically removed. This refinement resulted in an improved measurement model where all constructs achieved adequate reliability and validity. The results presented in Table 2 show the factor loading coefficients after the second test.

Table 2. Reliability and convergent validity of constructs

Code	Variables	Outer_Loading	Cronbach Alpha	Composite Reliability (CR)	AVE
BP	**Business and Production Plan**		**0,819**	**0,886**	**0,663**
BP1	Ability to develop a feasible business and production plan.	0,707			
BP2	Ability to formulate a corporate debt repayment plan.	0,750			
BP3	The business and production plan incorporates strategies to respond to price fluctuations, market conditions, and other risks.	0,796			
BP4	The enterprise possesses a dedicated team for formulating loan proposals.	0,792			
BCTC	**Financial Statements**		**0,700**	**0,870**	**0,770**
BCTC1	Financial statements and accounting records are published annually in accordance with State standards.	0,878			
BCTC3	Financial statements submitted to banks are generally approved with ease.	0,878			
PER	**Enterprise Competence and Size**		**0,785**	**0,869**	**0,625**
PER2	The enterprise holds a substantial market share.	0,703			
PER4	Corporate revenue consistently increases annually.	0,835			
PER8	The enterprise's workforce increases annually.	0,844			
PER12	Corporate revenue increases annually.	0,773			
RE	**Enterprise - Bank Relationship**		**0,856**	**0,900**	**0,643**
RE1	The enterprise secures credit from preferential bank loan packages.	0,831			
RE2	The enterprise maintains frequent exchanges of credit information with banks.	0,810			
RE3	The enterprise repeatedly borrows from commercial banks within the province.	0,826			

RE4	The enterprise consistently receives positive credit ratings from banks.	0,760			
RE5	During the borrowing process, the enterprise receives thorough consultation and guidance from banks.	0,778			
CO	**Collateral**		**0,806**	**0,880**	**0,650**
CO1	The enterprise's assessed value of collateral is consistently higher than the bank's valuation.	0,867			
CO2	The enterprise easily completes legal procedures regarding collateral for submission to banks.	0,883			
CO4	The enterprise's collateral generally meets the bank's requirements.	0,704			
CO6	The enterprise possesses sufficient collateral to secure loans.	0,756			
TD	**Qualifications of the Business Owner**		**0,851**	**0,8945**	**0,6298**
TD1	The owner frequently participates in professional training courses relevant to the enterprise's operations.	0,790			
TD2	The owner regularly updates themselves on legal documents pertinent to the enterprise's operations.	0,796			
TD3	The owner applies knowledge synthesized from courses and legal regulations to the enterprise's business operations.	0,872			
TD5	The owner clearly grasps information regarding bank credit policies.	0,765			
TD7	The owner consistently shares information with employees.	0,739			
ACC	**Access to Capital**		**0,819**	**0,886**	**0,663**
ACC1	Access to diverse sources of capital.	0,701			
ACC2	Ability to maximize access to credit information.	0,831			
ACC3	Ease of completing loan procedures.	0,899			
ACC4	Maximized access to the volume of bank loans.	0,813			

Source: Results of running Smart-PLS 3

4.1.3 Results of HTMT testing

To rigorously assess the discriminant validity of the latent constructs within the measurement model, this study employed the Heterotrait-Monotrait (HTMT) ratio. Recent methodological advancements suggest that the HTMT criterion offers superior sensitivity and specificity in detecting a lack of distinctiveness compared to traditional approaches such as the Fornell-Larcker criterion or the assessment of cross-loadings (Hair et al., 2019). According to established psychometric standards, discriminant validity is confirmed when HTMT values remain below the conservative threshold of 0,85 (Hair et al., 2019) or, in the case of conceptually related constructs, do not exceed the 0,90 limit (Gold et al., 2001).

As illustrated in Table 3, the empirical results indicate that all HTMT ratios ranged from 0,4728 to 0,8394, strictly adhering to the most stringent criteria. Specifically, the highest correlation was observed between ACC and PER with a ratio of 0,8394, followed by PER and CO at 0,8310, both of which remain within the permissible 0,85 boundary. Furthermore, lower HTMT values associated with RE and BP underscore the strong conceptual independence of these variables. In summary, no HTMT values violated the predetermined thresholds, providing robust evidence that the constructs are empirically distinct. These

findings validate the unidimensionality of the measurement model, thereby ensuring a reliable foundation for subsequent structural model estimation and hypothesis testing.

Table 3. HTMT testing

Variables	ACC	RE	PER	BP	TD	BCTC	CO
ACC	-						
RE	0,4797	-					
PER	0,8394	0,6064	-				
BP	0,7463	0,5666	0,8221	-			
TD	0,8209	0,5804	0,8165	0,5931	-		
BCTC	0,7589	0,4885	0,8106	0,7569	0,5845	-	
CO	0,5211	0,4728	0,8310	0,5331	0,5102	0,8028	-

Source: Results of running Smart-PLS 3

4.1.4 Results of the research model

Upon validating the measurement model, the structural paths were examined to evaluate the determinants of *Access to Capital (ACC)*. The results, summarized in Table 4, provide empirical insights into the factors that significantly influence credit accessibility for enterprises.

The findings reveal that *Qualifications of the Business Owner (TD)* is the most potent predictor of access to capital ($\beta = 0,386$, $t = 3,326$, $p = 0.0015$), providing strong support for *H6*. This aligns with human capital theory, suggesting that lenders view the owner's expertise as a critical signal of loan repayment capacity. Additionally, *Enterprise Competence and Size (PER)* and the *quality of Financial Statements (BCTC)* significantly and positively impact capital access, supporting *H3* ($\beta = 0,330$, $p = 0,038$) and *H2* ($\beta = 0,228$, $p = 0,031$), respectively. These results highlight the importance of organizational maturity and transparent information disclosure in mitigating information asymmetry between firms and financial institutions.

Conversely, *Collateral (CO)***,** *Business and Production Plan (BP)***,** and the *Enterprise - Bank Relationship (RE)* did not yield statistically significant effects ($p > 0,05$), leading to the rejection of *H1***,** *H4*, and *H5*. The lack of significance for collateral suggests a shift toward cash-flow-based or character-based lending in the studied context, where soft information (owner qualifications) and hard financial data outweigh physical assets. Furthermore, the insignificance of relationship lending *(RE)* might indicate a highly formalized credit evaluation process where objective metrics supersede historical ties.

Table 4. Structural Model Results and Hypothesis Testing

Hypothesis	Path	Beta (β)	t-value	p-value	Decision
H1	BP → ACC	0,1456	1,3991	0,1667	Not Supported
H2	BCTC → ACC	0,2281	2,2051	0,0311	Supported
H3	PER → ACC	0,3299	2,1164	0,0383	Supported
H4	RE → ACC	-0,0432	-0,4812	0,6320	Not Supported
H5	CO → ACC	-0,1446	-1,2946	0,2002	Not Supported

H6	TD → ACC	0,3863	3,3260	0,0015	Supported

*Note: ACC refers to the Dependent Variable. Significance level: *p < 0.05; **p < 0.01; **p < 0.001.

Source: Results of running Smart-PLS 3

4.2 Discussion

The empirical findings of this study provide a nuanced perspective on the determinants of financial resource accessibility for Supporting Industry Enterprises (SIEs) in Ho Chi Minh City, revealing a significant departure from traditional SME financing paradigms.

4.2.1. The Primacy of Human Capital and Organizational Competence

The most striking result is the profound and positive impact of the Qualifications of the Business Owner (TD) on Financial Resoure Accessibility (β = 0,386, p = 0,0015). This validates Hypothesis H6 and aligns solidly with Human Capital Theory, emphasizing that in highly specialized and structurally opaque sectors like the supporting industry, the idiosyncratic competencies, legal literacy, and strategic acumen of the owner serve as the ultimate signals of creditworthiness. This finding corroborates the work of Mutegi et al. (2015) and Bruns et al. (2008), but extends their scope by demonstrating that in emerging high-tech ecosystems, human capital completely eclipses physical assets in mitigating adverse selection.

Similarly, Enterprise Competence and Size (PER) alongside Financial Statements (BCTC) significantly enhance capital access, supporting H3 (β = 0,330, p = 0,038) and H2 (β = 0,228, p = 0,031). Larger, operationally efficient enterprises consistently signal lower idiosyncratic default risks. The validation of financial transparency reinforces the argument by Lisboa et al. (2025) and Berger and Udell (2006) that formalized "hard information" systematically reduces agency costs. For SIEs, maintaining rigorous international accounting standards is not merely a compliance exercise but a strategic instrument to compress the risk premium imposed by institutional creditors.

4.2.2. The Diminishing Role of Traditional Credit Frictions

Contrary to the dominant theoretical expectations anchored in Credit Rationing Theory (Stiglitz & Weiss, 1981), this study finds that Collateral Quality (CO), Enterprise-Bank Relationships (RE), and Business Plan Quality (BP) exert no statistically significant influence on Financial Resource Accessibility, leading to the rejection of H1, H4, and H5. The commercial banking system in Vietnam is currently in the process of strictly complying with new risk management standards (such as Basel II, III). Therefore, "relationship lending" is being suppressed because current credit decisions are constrained by automated and transparent credit scoring processes, preventing subjective interference from credit officers. Besides, in the context of economic uncertainty following the COVID-19 pandemic, with tight capital flows, banks have become extremely cautious (highly risk-averse). This explains why "Business Plan Quality" is meaningless: a beautiful business plan on paper is not enough to convince banks during a crisis. Instead, they demand concrete evidence of current profitability and supply chain stability.

The insignificance of collateral represents a critical theoretical inflection point. While extant literature (e.g., (Luck & Santos, 2024; Oshora et al., 2021)) typically identifies collateral as an indispensable prerequisite for credit approval, our findings suggest a paradigm shift in the evaluation of SIEs. Because supporting industries require highly specialized, technologically specific machinery, these assets are often characterized by severe illiquidity and high asset specificity. Consequently, financial institutions in Ho Chi Minh City may struggle to value such assets or liquidate them in the event of default, rendering traditional collateral less effective as a risk-offsetting mechanism.

Furthermore, the lack of significance for relationship lending (RE) contradicts the classical postulates of Petersen and Rajan (1994). This deviation implies that the contemporary banking architecture in Ho Chi Minh City has become highly formalized and standardized. In a rapidly evolving digital economy, objective credit scoring models and hard financial data are superseding historical, trust-based ties. The unobservable "soft information" traditionally accumulated through enduring relationships is now heavily scrutinized, suggesting that systemic financial digitization may be displacing relationship lending for high-tech manufacturing cohorts.

This finding not only reaffirms the theory of Tech-SMEs in developed countries, but it also reflects the maturation of the institutional system in Ho Chi Minh City. The fact that Relationship Lending is no longer meaningful shows that banks are shifting from "Relationship-based lending" (based on relationships - characteristic of less developed markets) to "Transaction-based lending" (based on data and transparent

governance capabilities). This is an important theoretical contribution to the evolution of financial markets in emerging countries (Liu & Wang, 2023).

5 CONCLUSION AND IMPLICATIONS

5.1 Conclusion

This study set out to decode the determinative factors driving financial resource accessibility for Supporting Industry Enterprises (SIEs) in Ho Chi Minh City. Departing from conventional SME financing models, our empirical evidence unveils a critical paradigm shift: traditional lending frictions, notably physical collateral and historical bank-enterprise relationships, no longer dictate credit access for SIEs. Instead, access to external finance is profoundly governed by the firm's Human Capital (specifically, the owner's qualifications) and Information Transparency (the rigor of financial statements and enterprise competence). In essence, for highly specialized industrial cohorts, intellectual capital and formalized hard data have entirely superseded physical assets as the primary currencies of trust in the credit market.

5.2 Theoretical Implications

Theoretically, this research contributes a novel boundary condition to the Information Asymmetry Theory and Credit Rationing Theory (Stiglitz & Weiss, 1981). We posit that in technology-intensive ecosystems like the supporting industry, the "asset specificity" problem renders traditional collateral highly illiquid. Consequently, the theoretical mechanism for mitigating adverse selection shifts from *ex-post* asset liquidation (collateral) to *ex-ante* risk assessment based on human capital and standardized financial disclosures. This study enriches the literature by demonstrating that the efficacy of collateral is not universal but highly industry-contingent.

5.3. Practical Implications

For the Vietnamese Commercial Banks system:

Shift from "Asset-based lending" to "Supply-chain financing" (SCF). Instead of valuing CNC stamping/machining machinery (which is difficult to liquidate), banks should accept Purchase Orders/Accounts Receivable with large FDI partners (such as Samsung and Intel in the Ho Chi Minh City High-Tech Park) as collateral. Additionally, integrate the business owner's technical qualifications into automated credit scoring models.

For Local Government & Regulatory Agencies (HCMC Government & SBV)

Redesign the credit guarantee mechanism. Directly address existing institutions such as the Ho Chi Minh City SME Credit Guarantee Fund. Because the specialized machinery in the SI industry has such high "asset specificity" that commercial banks are hesitant, these state-run guarantee funds must act as ultimate risk-takers, issuing guarantees based on technological capabilities rather than real estate.

5.4. Limitations and Future Research Directions

While this study offers robust foundational insights, it is subject to certain limitations that pave the way for future inquiries. Primarily, the sample size (N=70) is relatively constrained, reflecting the purposive sampling necessary to target the highly specialized and narrow population of genuine SIEs in Ho Chi Minh City. This result can only be generalized to specialized manufacturing SMEs in urban economic centers and does NOT apply to agricultural or service-related SMEs. Consequently, the findings are exploratory and should be generalized with caution. Future research should leverage longitudinal panel data (Panel Data) across multiple economic hubs in Vietnam (e.g., Hanoi) to track these financial dynamics over time. Furthermore, exploring the mediating role of digitalization in the relationship between financial transparency and credit access would be a compelling avenue for subsequent studies.

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CÁC NHÂN TỐ ẢNH HƯỞNG ĐẾN KHẢ NĂNG TIẾP CẬN NGUỒN LỰC TÀI CHÍNH CỦA DOANH NGHIỆP CÔNG NGHIỆP HỖ TRỢ: BẰNG CHỨNG THỰC NGHIỆM TỪ THÀNH PHỐ HỒ CHÍ MINH

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Tóm tắt. Nghiên cứu này phân tích các yếu tố quyết định khả năng tiếp cận nguồn lực tài chính của các doanh nghiệp công nghiệp hỗ trợ (SIEs) tại Thành phố Hồ Chí Minh, qua đó thách thức các khuôn mẫu truyền thống về tài trợ cho doanh nghiệp nhỏ và vừa (SMEs). Bằng cách sử dụng phương pháp Mô hình phương trình cấu trúc bình phương tối thiểu từng phần (PLS-SEM) trên mẫu chọn có chủ đích gồm 70 doanh nghiệp SIEs chuyên biệt, kết quả thực nghiệm cho thấy một sự chuyển dịch quan trọng về mặt lý thuyết.

Trái với các nghiên cứu kinh điển về Lý thuyết hạn chế tín dụng, tài sản thế chấp hữu hình và mối quan hệ lịch sử giữa ngân hàng và doanh nghiệp không có tác động đáng kể đến khả năng tiếp cận tín dụng. Thay vào đó, khả năng tiếp cận tài chính chịu ảnh hưởng mạnh mẽ từ trình độ của chủ doanh nghiệp, năng lực doanh nghiệp và mức độ minh bạch tài chính.

Các phát hiện này cho thấy, do đặc tính "tính chuyên biệt tài sản" cao và tính thanh khoản thấp của máy móc trong ngành công nghiệp hỗ trợ, các tổ chức cho vay có xu hướng ưu tiên vốn nhân lực và dữ liệu tài chính chuẩn hóa hơn so với tài sản vật chất. Nghiên cứu này đóng góp vào Lý thuyết bất cân xứng thông tin khi chỉ ra rằng hiệu quả của tài sản thế chấp phụ thuộc đáng kể vào đặc thù ngành, từ đó khuyến nghị các nhà hoạch định chính sách chuyển từ mô hình cho vay dựa trên tài sản sang các hình thức tài trợ dựa trên dòng tiền và chuỗi cung ứng.

Ngày nhận bài: 30/03/2026

Ngày chấp nhận đăng: 04/05/2026