



## A quantitative evaluation of the financial capacity of the small and medium-sized enterprises in Hanoi, Vietnam

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### ABSTRACT

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#### JEL Classification

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This study examines the financial capacity of small and medium-sized enterprises in Hanoi City, Vietnam, using a quantitative set of financial indicators. The research develops a system of fifteen observed indicators grouped into liquidity, operational efficiency, profitability, and financial leverage, based on theory and expert views. Data were collected from 113 enterprises and processed through Cronbach's Alpha, exploratory factor analysis, and multiple linear regression. The results show that all four groups have a positive and statistically significant effect on financial capacity. Liquidity shows the strongest influence, followed by operational efficiency and profitability, while financial leverage has a smaller but still noticeable effect. These findings suggest that steady cash flow, better internal operations, and profit generation remain key elements supporting the financial condition of small and medium-sized enterprises in the current environment. The results also highlight areas that policymakers and business practitioners can consider when designing support programs or adjusting internal management practices. The study adds to the existing literature by applying a structured financial indicator system to evaluate the financial capacity of small and medium-sized enterprises in Hanoi, Vietnam, which has not been examined systematically before.

**Contribution/Originality:** Research findings indicate steady cash flow, better internal operations, and profit generation remain key elements supporting the financial condition of small and medium enterprises. The application of a structured financial indicator system to evaluate the financial capacity of small and medium enterprises has been systematically examined in this paper.

### 1. INTRODUCTION

The world economy has entered a period marked by frequent shocks and rising uncertainty. In such a setting, the financial capacity of small and medium-sized enterprises (SMEs) becomes more than a technical indicator. It reflects the ability of firms to sustain operations, adjust to unexpected changes, and preserve the conditions for long-term development. According to the World Bank (2024), SMEs represent roughly 90 percent of all enterprises worldwide and account for more than half of total employment. In developing economies, their contribution approaches 40 percent of gross domestic product. These figures illustrate not only the scale of the sector but also its structural role in national economies. The International Labour Organization (ILO) (2019) further notes that in low- and middle-income countries, SMEs have generated over 70 percent of new jobs in recent years. Yet, despite this

substantial presence, access to finance remains a persistent obstacle. The International Finance Corporation (IFC) (2023) estimates the global financing gap for SMEs at about 5.7 trillion US dollars annually, equivalent to nearly 19 percent of the world's gross domestic product. When this shortage persists, many firms are forced to limit expansion, operate below their potential, or even struggle to remain active as capital costs, interest rates, and credit conditions fluctuate strongly across markets.

In Vietnam, small and medium-sized enterprises (SMEs) take up most of the business landscape. The country has more than nine hundred and forty thousand firms, and almost all of them are SMEs. The Ministry of Planning and Investment (2024) notes that this group adds around 30 percent to gross domestic product and employs more than five and a half million workers. Hanoi shows a similar pattern, but the pace is different because of the urban setting. The city records about four hundred and six thousand enterprises. Most of them fall into the SME group, and reports from the Hanoi Department of Finance (2024) point out that these firms bring nearly 40 percent of the city's gross domestic product and more than half of local jobs. Even with such numbers, many SMEs do not have strong financial capacity. Survey data show that 52.3 percent deal with issues in liquidity, in how they use assets, and in keeping profits stable (Ministry of Planning and Investment, 2024). Some firms also find it hard to manage financial leverage. These problems add up and can make it difficult for SMEs in the capital to maintain their position or try to grow in a changing market.

To support the development of the SME sector, the Vietnamese Government has issued many important legal policies. Specifically, Decree No. 45/2024/ND-CP amends and supplements a number of articles of Decree No. 39/2019/ND-CP to improve the operating mechanism of the SME Development Fund, creating more favorable conditions for capital support, credit guarantees, and financial assistance. Decree No. 90/2025/ND-CP amends a number of regulations related to independent auditing, helping to enhance transparency and financial management capacity for enterprises. In addition, Resolution No. 198/2025/QH15 provides many preferential policies on taxes, land lease, and use of public assets to promote the private economic sector, including SMEs. However, in reality, many businesses said that they have not really benefited significantly from the policies, especially in terms of capital support, improving liquidity, reducing financial costs, or improving asset efficiency. Some policies are still formal and not suitable for the financial characteristics of SMEs, causing indicators such as profitability, payment ratio, or capital structure to not have positive changes.

Despite the broad attention given to SMEs, current studies do not capture the combined effects of financial pressures, market volatility, and policy changes now shaping the situation of enterprises in Hanoi. Existing work often looks at single aspects or uses older data, so the overall financial capacity of SMEs in this city remains unclear. This gap is the main reason for carrying out a quantitative assessment based on a full set of financial indicators to reflect the present conditions more accurately.

## 2. LITERATURE REVIEW

Over the years, financial capacity has been recognized as a core factor determining the ability to survive, develop, and enhance the competitiveness of SMEs in the global economy. Many studies worldwide have affirmed that the assessment of SMEs' financial capacity cannot be separated from a systematic, measurable system of financial indicators that reflect the reality of financial activities. Fundamental studies such as Altman (1968), Altman (2018), and Cheraghali and Molnár (2024) have emphasized the importance of using financial indicators as a "common language" to analyze liquidity, asset efficiency, profitability, and financial risk level. This approach has been further developed and applied in empirical research across different regions. Studies from Middle Eastern economies such as Jordan and Saudi Arabia provide evidence on the role of liquidity and other financial indicators in shaping the financial performance of SMEs (Airout, Alawaqleh, Almasria, Alduais, & Alawaqleh, 2023; Alsultan & Hussainey, 2025). Evidence from European transition and emerging economies, including Croatia and Albania, confirms that four main groups of financial indicators, liquidity, operating efficiency, profitability, and financial leverage, are effective in

capturing the financial capacity and managerial performance of SMEs under diverse institutional conditions (Kontuš & Mihanović, 2019; Vajjhala & Strang, 2024).

Many works have expanded the approach when considering the relationship between financial structure and operational efficiency of SMEs in the context of frequent economic fluctuations. Sabki, Wong, and Regupathi (2019) and Otoo (2024) emphasized that systematic financial management not only contributes to improving profitability but also helps businesses proactively prevent financial risks in the long term. From another perspective, Gallucci, Santulli, Modina, and Formisano (2023) developed a bankruptcy prediction model based on integrating management data and financial ratios using a Bayesian approach, showing the potential of quantitative analysis in establishing an early warning system for SMEs.

Cathcart, Dufour, Rossi, and Varotto (2020) pointed out the downside of financial leverage, when high usage can increase the risk of default, especially in small businesses that lack a solid equity foundation. Some recent studies have shifted their focus to internal efficiency. Rahmiyati, Wahidhani, Fitrianiingsih, and Rachmawati (2024) demonstrate that working capital management and operational efficiency are closely related to the financial sustainability of the enterprise, while Quintiliani (2019) shows that financial transparency is strongly associated with the value and financial performance of SMEs.

Adding a technological dimension, Vajjhala and Strang (2024) show that the application of data analytics and digitalization of business processes has helped SMEs in Albania increase productivity and improve profit margins significantly. Taken together, these results suggest that the assessment of financial capacity should be placed in a broader picture, including the quality of management, cash flow control, and technological readiness, rather than relying solely on traditional financial indicators.

However, most of the current empirical evidence is still mainly concentrated in developed or developing economies outside Southeast Asia. This shows the urgent need to build and adjust the financial indicators system to suit the specific context of SMEs in Southeast Asia in general and Vietnam in particular.

In Vietnam, studies on the financial capacity of SMEs are still scattered and mainly focus on some individual aspects such as operational efficiency, labor productivity, or access to finance. Some studies, such as Giang, Trung, Yoshida, Xuan, and Que (2019) and Pham, Le, Le, and Vo (2025), clarify the role of financial capital for productivity and innovation, while Nguyen, Mai, and Le (2023) approach from a strategic perspective to improve financial performance. More recently, Le, Nguyen, and Vo (2024) expanded the discussion by examining the impact of intangible assets on SMEs' access to external finance.

However, the majority of these studies have not developed a comprehensive analytical framework based on a structured system of financial indicators. In particular, there is a notable lack of in-depth quantitative research that systematically evaluates SMEs' financial capacity using standardized financial ratios, such as liquidity, operational efficiency, profitability, and financial leverage, within a specific economic context like that of Hanoi. Therefore, assessing the financial capacity of SMEs in Hanoi through a structured system of financial indicators holds both scientific relevance and strong practical implications, especially as Vietnam seeks to promote private sector development and enhance the financial resilience of SMEs in the long term.

Building upon prior domestic and international studies on the assessment of SMEs' financial capacity and incorporating expert consultations in the field of corporate finance, this study proposes a set of 15 financial indicators that comprehensively reflect the financial capacity of SMEs in Hanoi. These indicators are organized into four main categories. Table 1 and Table 2 detail.

**Table 1.** Comparison of international and Vietnamese studies on SMEs' financial capacity.

Aspect	International Studies	Vietnamese Studies	Remarks / Gap
Focus of analysis	Liquidity, operational efficiency, profitability, leverage; some use broader models such as bankruptcy prediction or working capital cycles (e.g., (Altman, 1968; Gallucci et al., 2023; Rahmiyati et al., 2024)).	Mainly examine access to finance, productivity, or strategic factors that influence performance (e.g., (Giang et al., 2019; Nguyen et al., 2023)).	Most domestic studies do not build a full financial indicator framework.
Method	Quantitative systems using structured financial ratios; some integrate Bayesian or data analytics approaches (Gallucci et al., 2023; Vajjhala & Strang, 2024).	Often uses survey-based analysis or partial indicators, with limited attention to combined financial ratios.	Lack of a consistent measurement system tailored to SMEs in Vietnam.
Context	Wide coverage: Middle East, Eastern Europe, South Asia, transition economies.	Mostly nationwide or sector-wide; few studies focus specifically on Hanoi SMEs.	Research for Hanoi is almost absent despite its large SME base.
Outcome	Shows that financial ratios help predict performance, risk, and sustainability.	Shows patterns in productivity, finance access, and strategic orientation.	No study provides an integrated and structured set of financial indicators to assess the overall financial capacity of SMEs, especially in the case of Hanoi.

**Table 2.** System of financial indicators for assessing the financial capacity of SMEs in Hanoi.

No.	Indicator	Code	Reference(s)
I	Liquidity	TK	
1	Current Ratio	CT1	Airout et al. (2023); Alsultan and Hussainey (2025); Sabki et al. (2019); Kontuš and Mihanović (2019)
2	Quick Ratio	CT2	Airout et al. (2023); Alsultan and Hussainey (2025); Sabki et al. (2019)
3	Operating Cash Flow Ratio	CT3	Kontuš and Mihanović (2019); Rahmiyati et al. (2024)
4	Days Sales Outstanding (DSO)	CT4	Rahmiyati et al. (2024); Sabki et al. (2019)
II	Operational Efficiency	HQ	
1	Inventory Turnover	CT5	Rahmiyati et al. (2024); Kontuš and Mihanović (2019); Sabki et al. (2019)
2	Receivables Turnover	CT6	Rahmiyati et al. (2024); Sabki et al. (2019)
3	Cash Conversion Cycle (CCC)	CT7	Rahmiyati et al. (2024); Kontuš and Mihanović (2019); Sabki et al. (2019)
4	Operating Expenses to Revenue Ratio	CT8	Nguyen et al. (2023); Le et al. (2024); Giang et al. (2019)
III	Profitability	LN	
1	Gross Profit Margin	CT9	Rahmiyati et al. (2024); Vajjhala and Strang (2024); Quintiliani (2019)
2	Net Profit Margin	CT10	Rahmiyati et al. (2024); Nguyen et al. (2023); Quintiliani (2019)
3	Return on Assets (ROA)	CT11	Altman (1968); Gallucci et al. (2023); Otoo (2024); Quintiliani (2019)
4	Return on Sales (ROS)	CT12	Nguyen et al. (2023); Vajjhala and Strang (2024); Rahmiyati et al. (2024); Rapposelli, Birindelli, and Modina (2024)
IV	Financial Leverage	ĐB	
1	Debt-to-Equity Ratio	CT13	Cathcart et al. (2020); Altman (1968); Gallucci et al. (2023); Rapposelli et al. (2024)
2	Debt-to-Total Assets Ratio	CT14	Cathcart et al. (2020); Altman (1968); Gallucci et al. (2023)
3	Interest Coverage Ratio	CT15	Cathcart et al. (2020); Altman (2018); Gallucci et al. (2023); Rapposelli et al. (2024)

### 3. RESEARCH METHODOLOGY

#### 3.1. Research Process

In this study, the research team employed a quantitative research approach combined with expert consultation to ensure the systematic nature, reliability, and practical relevance of the results. The research process was carried out through the following steps:

Step 1: Develop the theoretical framework and compile a system of financial indicators for assessing the financial capacity of small and medium-sized enterprises (SMEs), based on foundational studies both domestically and internationally. From this, 15 indicators were identified and categorized into four main groups: liquidity, operational efficiency, profitability, and financial leverage.

Step 2: Design the survey questionnaire based on the identified system of indicators. The questionnaire consists of two parts: (i) general information about the enterprise and (ii) assessment of the degree to which the financial indicators are represented. The research team employed a 5-point Likert scale to quantify respondents' evaluations.

Step 3: Consult 68 experts in the field of corporate finance to review the questionnaire content and ensure its suitability with the actual financial operations of SMEs in Hanoi.

Step 4: Conduct a pilot survey with 50 SMEs to test the clarity of the language, structure of the questionnaire, and to preliminarily assess the reliability of the scale. The pilot results were used to revise the questionnaire before conducting the official survey.

Step 5: Carry out the official survey through two methods: distributing electronic questionnaires and conducting direct interviews with financial managers at the enterprises.

Step 6: Data were processed and analyzed, including cleaning, coding, and inputting into SPSS software. The analytical procedures included descriptive statistics, reliability testing using Cronbach's Alpha, exploratory factor analysis (EFA), and multiple linear regression.

#### 3.2. Data Collection Method

In this study, the research team employed a questionnaire survey to collect primary data from SMEs operating in Hanoi. The questionnaire consists of two parts: the first part gathers basic information about the enterprises, such as business sector, size, and legal form; the second part measures the extent to which the financial indicators are represented across four main groups: liquidity, operational efficiency, profitability, financial leverage, and long-term solvency. The variables were quantified using a 5-point Likert scale, ranging from "No impact" to "Very high impact". Table 3 presents:

**Table 3.** Five-Point Likert Scale.

No impact	Low impact	Moderate impact	High impact	Very high impact
1	2	3	4	5

The data were collected using a combination of email distribution and direct interviews. The survey respondents included members of the Board of Directors, Chief Accountants, and Heads of Finance Departments, individuals with a clear understanding of the financial status and capital management practices of their enterprises.

The data collection was conducted continuously over five months, from February 2025 to June 2025.

According to the recommendation of Hair, Black, Babin, and Anderson (2009), the minimum sample size to ensure statistical reliability is five observations per analytical variable, corresponding to a 95% confidence level. In this study, the author identified 15 financial indicators as shown in Table 1; therefore, the minimum required sample size is  $5 \times 15 = 75$  responses. However, to ensure representativeness, enhance reliability, and improve the generalizability of the research findings, the research team applied the principle of "the larger the sample size, the better" and decided to survey 130 enterprises. After reviewing and cleaning the data, 113 valid responses were obtained, and all were used

for subsequent statistical analyses. To ensure the survey followed basic ethical requirements, the research team informed all participants about the purpose of the study and the way their answers would be used. Participation was voluntary, and respondents could stop at any point without any consequence. The information collected did not include personal identifiers, and all responses were handled confidentially. The study was reviewed internally by the research team to make sure the procedures were appropriate for business-related survey work in Vietnam.

#### 4. RESEARCH FINDINGS

##### 4.1. Analysis of Surveyed Enterprise Characteristics

- Legal Forms of Surveyed Enterprises

Detailed information on the legal forms of the surveyed enterprises is presented. Figure 1 illustrates the types of enterprises in the survey of this paper.

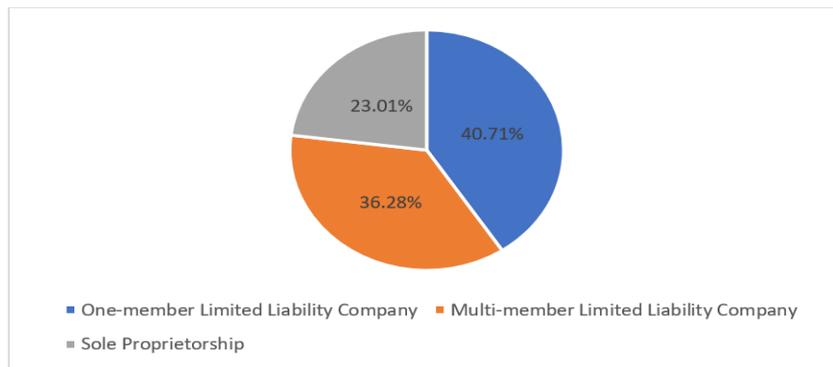


Figure 1. Types of surveyed enterprises.

Among the 113 SMEs surveyed in Hanoi, single-member limited liability companies accounted for the highest proportion at 40.71% (equivalent to 46 enterprises). They were followed by multi-member limited liability companies with 36.28% (41 enterprises), and finally, private enterprises with 23.01% (26 enterprises). This distribution structure closely reflects the actual landscape of the small and medium-sized enterprise sector in Vietnam, where limited liability companies are the most common type due to their flexible management, appropriate capital scale, and strong adaptability to the business environment. The selection of these three types of enterprises for the survey not only ensures the necessary diversity of the data sample but also maintains consistency with the legal classification criteria for enterprises.

- Business Sectors of the Surveyed Enterprises

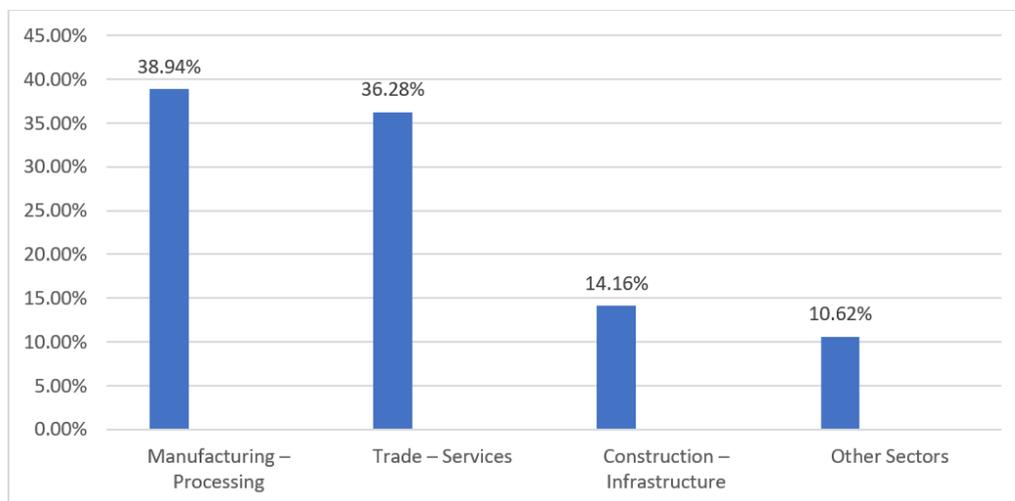


Figure 2. Business sectors of surveyed enterprises.

Figure 2 shows the business sectors of surveyed enterprises. Among the 113 SMEs surveyed, the manufacturing – processing sector accounted for the highest proportion at 38.94%, reflecting the typical characteristics of the light industry and small-scale manufacturing segment in Hanoi, where strong financial management is crucial to maintaining operational efficiency and competitiveness. Enterprises operating in the trade – services sector represented 36.28%, underscoring the essential role of this area in the urban economy, characterized by fast cash flows and a high demand for flexibility in short-term financial management. The construction – infrastructure sector accounted for 14.16%, consisting mainly of small-scale civil construction firms that often face pressure in terms of medium-term capital flows and financial costs. Finally, the “other sectors” group made up 10.62%, contributing to the diversity of the survey sample and thereby providing a more comprehensive picture of the financial models present within the SME community in Hanoi.

#### 4.2. Reliability Testing Using Cronbach's Alpha

To test the reliability of the scale, the study used the Cronbach's Alpha coefficient – an index reflecting the level of internal consistency between observed variables in the same concept. According to Hair et al. (2009), a Cronbach's Alpha coefficient of 0.7 or higher is considered to meet the reliability requirements. The test results showed that the Cronbach's Alpha coefficient reached 0.721, exceeding the threshold of 0.7, indicating that the scale has high reliability and can be used for subsequent exploratory factor analysis (EFA). Table 4 presents:

**Table 4.** Reliability statistics.

Cronbach's Alpha	N of items
0.721	15

Table 5 shows that all observed variables have a corrected item-total correlation coefficient higher than 0.3, reflecting a reasonable level of association between observed variables and the overall scale. This result shows that observed variables all contribute positively to the scale, and no variable was excluded from the analysis. At the same time, no observed variable would significantly increase the Cronbach's Alpha coefficient if removed, because all “Cronbach's Alpha if Item Deleted” values are lower than the overall Cronbach's Alpha coefficient (0.721). Therefore, all 15 observed variables were retained for the next factor analysis step.

**Table 5.** Item-total statistics.

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
CT1	45.41	16.547	0.314	0.707
CT2	45.36	16.215	0.366	0.702
CT3	45.33	16.580	0.316	0.720
CT4	45.25	15.831	0.444	0.693
CT5	45.35	16.121	0.361	0.702
CT6	45.36	16.144	0.358	0.702
CT7	45.37	16.361	0.306	0.708
CT8	45.50	16.449	0.344	0.704
CT9	45.52	16.56	0.317	0.715
CT10	45.60	16.117	0.338	0.705
CT11	45.58	16.61	0.321	0.711
CT12	45.66	16.386	0.354	0.703
CT13	45.84	16.492	0.325	0.706
CT14	45.82	16.165	0.327	0.706
CT15	45.90	16.62	0.319	0.712

#### 4.3. Results of Exploratory Factor Analysis (EFA)

Before conducting exploratory factor analysis (EFA), the study tested the suitability of the data through the KMO coefficient and Bartlett's Test of Sphericity. This is a necessary step to assess the correlation between the indicators (observed variables) and determine whether the data is suitable for factor analysis or not. Table 6 presents:

Table 6. KMO and Bartlett's Test.

<b>Kaiser-Meyer-Olkin measure of sampling adequacy.</b>		<b>0.723</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	716.748
	df	105
	Sig.	0.000

Kaiser (1970), at the same time, the Bartlett test with sig. = 0.000 shows that the correlation matrix between variables is statistically significant, ensuring the conditions for conducting EFA.

Factor analysis uses the Principal Component extraction method and Varimax rotation. The results show that there are 4 factors with an eigenvalue > 1, with the total extracted variance reaching 69.927%, demonstrating the ability to explain well the variability of the data set. Table 7 explains:

Table 7. Total variance explained.

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	3.181	21.204	21.204	3.181	21.204	21.204	2.829	18.858	18.858
2	3.051	20.338	41.541	3.051	20.338	41.541	2.775	18.499	37.357
3	2.285	15.236	56.777	2.285	15.236	56.777	2.663	17.756	55.112
4	1.973	13.150	69.927	1.973	13.150	69.927	2.222	14.815	69.927
5	0.669	4.459	74.387						
6	0.576	3.840	78.226						
7	0.554	3.696	81.923						
8	0.474	3.157	85.080						
9	0.424	2.829	87.909						
10	0.411	2.739	90.648						
11	0.393	2.622	93.270						
12	0.302	2.017	95.287						
13	0.265	1.768	97.054						
14	0.248	1.656	98.710						
15	0.193	1.290	100.000						

Extraction method: Principal component analysis.

To determine the factor structure between observed variables, the study used the Varimax rotation method to simplify the loading structure and facilitate interpretation. Table 8 presents the factor matrix after rotation, showing the loading coefficients of each observed variable on the extracted factors.

**Table 8. Rotated Component Matrix<sup>a</sup>.**

	Component			
	1	2	3	4
CT11	0.836			
CT10	0.816			
CT9	0.815			
CT12	0.802			
CT6		0.855		
CT7		0.834		
CT5		0.825		
CT8		0.786		
CT2			0.823	
CT1			0.810	
CT3			0.803	
CT4			0.779	
CT15				0.898
CT14				0.850
CT13				0.810

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.

**Note:** a. Rotation converged in 5 iterations.

The results of the exploratory factor analysis (EFA) using Varimax rotation extracted four meaningful factors that clearly reflect the underlying structure of the research dataset. All observed variables had high factor loadings (> 0.7), indicating strong convergence and a close relationship between the variables and the factors they represent. The factor structure is well-defined with no cross-loadings, and the total explained variance reached 69.927%, confirming a high level of model fit for the measurement framework. The extracted factors represent key dimensions in assessing the financial capacity of SMEs, including: Liquidity, Operational Efficiency, Profitability, and Financial Leverage.

On that basis, these four factors were used as independent variables in the subsequent multiple linear regression model to determine the extent to which each financial aspect influences business performance or the overall financial capacity of the enterprise.

#### 4.4. Multiple Linear Regression Analysis Results

After confirming the reliability and structure of the financial indicator groups through Exploratory Factor Analysis (EFA), the research team proceeded with multiple linear regression analysis to assess how each group of indicators influences the enterprise's overall financial capacity (denoted as the dependent variable TC). The independent variables in the model include TK (liquidity), HQ (operating efficiency), LN (profitability), and DB (financial leverage) – aggregated variables representing each group of financial indicators derived from the EFA. The results are presented in detail. Table 9 shows:

**Table 9. Model summary<sup>b</sup>.**

Model	R	R Square	Adjusted R-squared	Std. error of the estimate	Durbin-Watson
1	0.876 <sup>a</sup>	0.767	0.759	0.430	1.862

**Note:** a. Predictors: (Constant), DB, TK, HQ, LN.  
b. Dependent Variable: TC.

Regression analysis shows that the model has a high fit, with a correlation coefficient  $R = 0.876$  – a level that indicates a close relationship between financial indicators and total financial capacity (TC). In other words, changes in financial indicators can explain most of the variation in the financial capacity of the enterprise. The value of  $R^2 = 0.767$  shows that about 76.7% of the variation in the dependent variable is explained by four groups of independent variables. This is quite convincing in research on SMEs, which are often strongly affected by random factors. When adjusted for the number of independent variables, the adjusted  $R^2$  reaches 0.759 – this value further strengthens the reliability of the model, showing that the internal deviation is almost negligible. Additionally, the Durbin–Watson coefficient = 1.862 is within the acceptable threshold, implying that the residuals do not have autocorrelation, meeting the basic assumption of multiple linear regression. Overall, the model not only meets the requirements of suitability but also ensures stability, qualifying for further examination of the specific impact of each group of financial indicators on corporate financial capacity.

To further consolidate this result, the authors performed ANOVA testing to determine the overall statistical significance of the model. Following the guidance of Hair et al. (2009), ANOVA was used to test whether the set of independent variables is capable of predicting the dependent variable at a statistically significant level. The specific results are presented. Table 10 shows:

**Table 10. ANOVA<sup>a</sup>.**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.031	4	16.508	89.121	0.000 <sup>b</sup>
	Residual	20.005	108	0.185		
	Total	86.035	112			

**Note:** a. Dependent Variable: TC.  
b. Predictors: (Constant), ĐB, TK, HQ, LN.

The ANOVA test results show that the regression model is statistically significant, with  $F = 89.121$  and a significance level of  $\text{Sig.} = 0.000 < 0.05$ . This shows that the set of independent variables included in the model has an overall effect on the dependent variable (TC) at the 95% significance level. In other words, the model is capable of explaining the variation in aggregate financial capacity, instead of the model being constructed randomly or being meaningless. The small Mean Square value of the residual (0.185) compared to the Mean Square of the regression part (16.508) also reflects that most of the variance in the data is explained by the model, not by random error. This is consistent with the result of  $R^2 = 0.767$  in Table 8, confirming that the constructed regression model is appropriate and reliable in the context of this study.

**Table 11. Coefficients<sup>a</sup>.**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.483	0.152		3.178	0.002		
	TK	0.991	0.081	0.573	12.174	0.000	0.973	1.028
	HQ	0.762	0.078	0.461	9.789	0.000	0.970	1.031
	LN	0.541	0.080	0.319	6.755	0.000	0.965	1.036
	ĐB	0.241	0.075	0.152	3.214	0.002	0.964	1.038

**Note:** a. Dependent Variable: TC.

The regression analysis results presented in Table 11 show that all Variance Inflation Factor (VIF) values are below 2, indicating no multicollinearity among the independent variables (Hair et al., 2009). All four groups of financial indicators have a positive and statistically significant impact on the overall financial capacity (FC) of enterprises, with Sig. values  $< 0.05$  for all variables. Among them, liquidity (LIQ) is the most influential factor with a standardized regression coefficient  $\text{Beta} = 0.573$ , followed by operational efficiency (EFF) with  $\text{Beta} = 0.461$ , and

profitability (PROF) with Beta = 0.319. Although financial leverage (LEV) has a lower coefficient (Beta = 0.152), it is still statistically significant (Sig. = 0.002), indicating that this factor still plays a supporting role in strengthening the financial capacity of enterprises.

## 5. DISCUSSIONS OF RESEARCH FINDINGS

Based on the standardized regression coefficients (Beta) in the analytical model, the research team ranked the level of influence of the financial indicator groups on the overall financial capacity (FC) of the enterprises. The results are presented. Table 12 shows:

**Table 12.** Ranking of the influence levels of financial indicator groups.

No.	Financial indicator group	Code	Standardized beta coefficient	Rank
1	Liquidity	LIQ	0.573	1
2	Operational efficiency	EFF	0.461	2
3	Profitability	PROF	0.319	3
4	Financial leverage	LEV	0.152	4

The results of Table 12 show that the liquidity index group has the strongest impact on the financial capacity of SMEs, with a standardized Beta coefficient of 0.573. This mainly reflects how short-term payment ability becomes the first pressure point for firms that run with limited working capital and depend heavily on operating cash flow. Many SMEs still deal with slow collections or uneven cash cycles, so liquidity shifts appear earlier than changes in profitability or leverage. A similar situation is noted in studies from Jordan and Saudi Arabia, where liquidity also stands out as the main driver of financial outcomes for SMEs (Airout et al., 2023; Alsultan & Hussainey, 2025; Kontuš & Mihanović, 2019), reporting the same pattern for Croatian SMEs with weak cash buffers. With that in mind, firms need tighter cash-flow planning and clearer control of receivables and inventories, while banks could offer more flexible short-term credit solutions that better match the operating rhythm of SMEs.

The operational efficiency indicator group stands in second place with a standardized Beta coefficient of 0.461, and this result is not really surprising because many SMEs still use their resources in a way that is not very tight or consistent. When production cycles drag on, or costs rise in places they should not, the financial side weakens quite fast since these problems accumulate over time. In the case of Hanoi firms, this is still common, and asset turnover tends to stay low even when sales look stable on the surface. Studies from Indonesia, such as Rahmiyati et al. (2024), describe a similar situation, and the work of Vajjhala and Strang (2024) on Albanian SMEs also shows that slow internal processes usually hold back financial strength before other indicators change. For improvement, SMEs often need to start with simple steps like getting their internal processes to move a bit cleaner and reviewing cost items more carefully, and only later think about bigger management changes or technology upgrades. It is not something that shifts quickly, but small adjustments tend to show the first effects.

The profitability indicator group shows a moderate level of influence on the financial capacity of SMEs, with a standardized Beta coefficient of 0.319. This level makes some sense because many SMEs focus more on keeping cash flow steady and making sure they can meet short-term obligations, so profit ratios do not always move first, even though profit is still the long-term goal. In many cases, the ability to turn assets and capital into profit gives firms the base they need to build reserves and expand later, but a number of SMEs still work with pricing practices or cost structures that are not very balanced, which leads to low margins. The pattern is not far from what Quintiliani (2019) observed, where profitability tended to stay modest when firms lacked financial transparency, and Rahmiyati et al. (2024) also noted that operational issues often weigh on profits before anything else. A related finding in Vajjhala and Strang (2024) showed that SMEs in Albania improved profit outcomes only after they adjusted internal processes and used data more consistently, while Nguyen et al. (2023) pointed out that strategic orientation also shapes profit performance in Vietnamese firms. For Hanoi SMEs, this suggests that profit growth usually comes after small

corrections in internal management, cost control, and product structure, and it is something that shifts gradually rather than quickly.

The financial leverage indicator group shows the lowest standardized Beta coefficient at 0.152, which fits the situation of many SMEs that still rely heavily on bank loans or short-term borrowing because their equity base is usually thin. Leverage can support expansion when it stays at a level the firm can manage, but it also creates pressure quickly when interest costs rise or when cash flow is not steady enough to cover payments. Several SMEs in Hanoi do not yet have a clear approach to leverage, so they depend on borrowed funds that shift with market conditions, making financial balance less stable. Cathcart et al. (2020) reported something similar for smaller firms that faced a higher default risk when leverage increased, and Gallucci et al. (2023) also found that leverage contributed to financial fragility in European SMEs using bank-linked data. Findings in Rapposelli et al. (2024) showed that firms with weak internal efficiency do not gain much from using more debt, while Altman's early work indicated that leverage is often the first factor to worsen risk scores when conditions change. For SMEs in Hanoi, this means leverage should be used with more planning and closer monitoring of interest costs and the debt-equity mix, so firms can avoid a situation where borrowed capital becomes a source of instability rather than support for growth.

## 6. CONCLUSION AND RECOMMENDATIONS

This study examined how four financial indicator groups relate to the financial capacity of small and medium-sized enterprises in Hanoi. The results show that liquidity contributes the most to overall financial capacity, while operational efficiency and profitability follow with smaller but still noticeable effects. Financial leverage has the weakest influence, although it still adds some weight when firms manage it in a careful way. These patterns suggest that the basic ability to keep cash moving, to control the internal workflow, and to maintain profit margins plays a larger role for SMEs than the use of additional debt. This seems consistent with the situation of many small firms in Hanoi that operate with thin capital and often face delays in payments or uneven production cycles.

From these findings, several recommendations can be drawn for SMEs. Firms need to look more closely at their cash flow and prepare short-term plans that help them avoid sudden shortages. Paying attention to receivables and the timing of payments will support liquidity in a more direct way than larger structural changes. Improving the way assets and costs are managed is also important, even if the improvement at the beginning seems small. Some firms can benefit from simpler digital tools for recording expenses and sales, not as a full system but as a step toward clearer information. Over time, better transparency helps them see how profit moves and where it gets stuck.

For credit institutions, the findings underline the need for lending practices that reflect the actual condition of SMEs. Banks can consider using liquidity and operational indicators more consistently when they evaluate short-term repayment ability, because these indicators show stress earlier than profit figures. Shorter appraisal times and more suitable short-term credit lines may support firms that have clear financial records but still struggle with seasonal or temporary cash flow gaps. The idea is not to loosen standards, but to make them fit better with the operating rhythm of smaller Vietnamese firms.

For state management agencies, strengthening the financial capacity of SMEs should come with measures that raise the basic level of financial understanding among small firms. Programs that support simple financial reporting, bookkeeping, and accounting digitization can help SMEs prepare information that lenders and investors can trust. Policies that ease administrative steps in accessing guaranteed credit or local advisory services may also help, especially for firms that operate in districts where formal guidance is still limited. These policies need to match the way SMEs actually work rather than follow a one-size model, since financial conditions vary between sectors and even between districts inside Hanoi.

A brief note on future research is also needed. Future studies could follow SMEs over a longer period to see how these financial indicators change when firms adjust their practices or when the market moves. Another direction is to examine specific sectors because the pattern of liquidity or efficiency may differ between manufacturing, retail, or

services. A deeper combination of survey data with financial ratios could provide more context on how management behavior interacts with the indicators used in this study. Such work would offer a more complete picture of how SMEs build financial capacity in the long run.

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