

The performance of small and medium-sized enterprises in Hai Phong City: Exploring the moderating role of manager gender

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ABSTRACT

This study investigates the factors influencing performance among small and medium-sized enterprises (SMEs) in Hai Phong City, with a particular focus on the moderating role of manager gender. Using survey data from 392 SMEs managers and employing multiple regression and moderation analyses, the research assesses the impact of risk-taking orientation, networking ability, access to finance, and leadership skills on performance. The results show that all four managerial factors significantly and positively improve performance, with leadership and networking capabilities having the strongest effects. Additionally, manager gender significantly moderates these relationships, indicating that female managers tend to utilize financial access and leadership skills more effectively. At the same time, higher levels of risk-taking have a more negative effect on male managers. These findings enhance the theoretical understanding of gendered managerial behaviors in emerging markets and offer practical insights for SMEs development and gender-inclusive management policies.

Keywords: manager gender, performance, SMEs, Hai Phong City..

1. INTRODUCTION

Small and medium-sized enterprises play a crucial role in driving economic growth and creating jobs in most emerging economies, including Vietnam. According to the World Bank (2022), small and medium-sized enterprises make up about 97% of all enterprises and contribute over 45% of Vietnam's GDP. In Hai Phong city, a key seaport hub in the North, these enterprises are vital for developing industry, logistics, services, and innovation in coastal urban areas. However, their performance varies significantly, reflecting differences in governance, leadership abilities, and demographic traits of the management teams. Among these factors, the gender of managers is increasingly seen as influential in governance effectiveness, decision-making, and business outcomes (Coleman, 2007; Jennings & Brush, 2013).

The role of manager gender has been examined through the Resource-Based View and Workforce Diversity Theory. Some studies suggest that female managers tend to be more cautious in financial management and decision-making, resulting in more stable business strategies (Faccio et al., 2016). Conversely, male managers often exhibit a higher level of risk tolerance, which can lead to faster growth but also greater volatility (Adams & Funk, 2012). While these findings offer an important theoretical foundation, the results vary across countries, sectors, and company sizes. This indicates that the gender effect in corporate governance is heavily shaped by cultural, institutional, and business environment factors.

In Vietnam, research on manager gender has mainly focused on start-ups or women-owned enterprises, while few studies have directly examined the impact of manager gender on the performance of small and medium-sized

enterprises (Hoang et al., 2021). More importantly, no comprehensive research has been carried out in Hai Phong, a location with a unique business structure, high urbanization levels, and a highly competitive business environment. The lack of empirical evidence in a specific economic hub like Hai Phong results in a significant research gap, both theoretically and practically. Therefore, a study on the moderate role of manager gender in the performance of small and medium-sized enterprises in Hai Phong city was conducted to address this gap. The study examines the relationship between manager gender and enterprise performance and contributes to refining the theory of corporate governance based on demographic characteristics. Practically, the results provide an important foundation for policymakers and local management agencies to promote gender equality, develop leadership capacity, and enhance the operational efficiency of small and medium-sized enterprises in Hai Phong city.

2. Literature Review

2.1. Analytical framework

The research model on the impact of manager gender on the performance of small and medium-sized enterprises is based on several important theoretical foundations in strategic management, organizational behavior, and corporate economics. First, the Resource-Based View (RBV) theory suggests that a business's competitive advantage and operational efficiency are shaped by internal resources and competencies, including the manager's management ability (Barney, 1991). Manager gender, with differences in leadership styles, decision-making abilities, and risk-taking tendencies, can be viewed as a distinct form of organizational competency that affects how enterprises utilize resources and execute strategies (Faccio et al., 2016). According to RBV, gender

diversity in leadership can generate unique competencies that help enterprises enhance operational efficiency.

Next, Behavioral Agency Theory plays a significant role in explaining gender differences in corporate governance. This theory asserts that manager demographic characteristics, including gender, directly influence risk tolerance, strategic orientation, and investment decisions (Wiseman & Gomez-Mejia, 1998). Empirical studies show that female managers tend to be more cautious in their investments and more conservative in their financial strategies, resulting in stable but slower growth patterns (Adams & Funk, 2012). Conversely, male managers tend to be more adventurous, serving as a driving force for rapid growth but also increasing volatility. This describes the behavioral mechanism behind the connection between leadership gender and business performance.

Furthermore, Organizational Diversity Theory provides a key foundation for understanding how manager gender impacts business performance. This theory states that gender diversity in leadership teams brings multiple perspectives, enhances decision-making, boosts

innovation, and improves organizational results (Herring, 2009). For small and medium-sized enterprises, where management is limited and reliance on leadership is high, the gender of the manager can greatly influence organizational culture, employee motivation, and the ability to adapt to the business environment. This is especially crucial in highly competitive areas like Hai Phong City.

Finally, the women entrepreneurship theory also contributes to developing the analytical framework. This theory highlights that women in business management or ownership often face institutional barriers, limited resources, gender-biased social structures, and restricted access to credit (Jennings & Brush, 2013). These barriers can hinder business efficiency because women are not sufficiently supported, despite their actual management capacity. Therefore, this theory helps explain the potential gap between the expected impact of manager gender and actual performance in practice. The study model is shown in Figure 1 below:

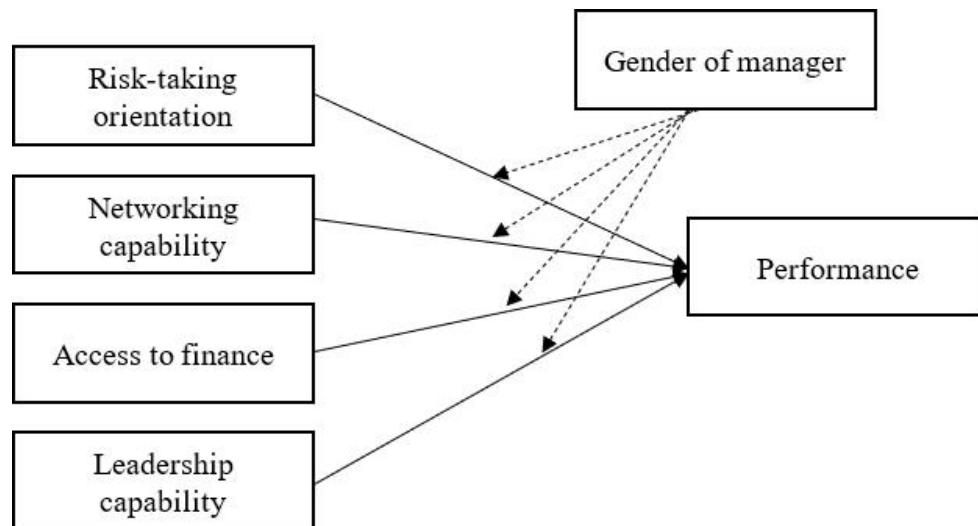


Figure 1: Research model

Source: Proposed by the author

2.2. Hypothesis development

Risk-taking orientation shows a manager's willingness to pursue venture capital opportunities, accepting volatility and uncertainty in business strategy (Lumpkin & Dess, 1996). According to Behavioral Agency Theory, a leader's tendency to take risks directly affects the decision-making structure and direction of business growth (Wiseman & Gomez-Mejia, 1998). Previous studies have indicated that a high level of risk tolerance often helps enterprises seize market opportunities more quickly, innovate more vigorously, and achieve higher revenue growth, especially in competitive environments (Wiklund & Shepherd, 2005). However, a low level of risk tolerance can lead to a cautious approach and stable but slower growth. Based on the above arguments, the research hypothesis is proposed as follows:

H1: Risk-taking orientation has a positive effect on performance.

Networking capability refers to the ability to build, maintain, and leverage relationships with customers, suppliers, business support organizations, and state regulators (Mitrega et al., 2012). According to Social Capital Theory, a strong network of relationships helps enterprises access resources, information, and market opportunities more effectively, thereby enhancing operational performance (Nahapiet & Ghoshal, 1998). For small and medium-sized enterprises, which often face limited resources, network capacity is a strategic asset that aids in expanding markets, improving supply chains, and lowering transaction costs (Zhou, 2007). Empirical studies indicate that enterprises with strong relationship networks tend to achieve better results and have a greater ability to innovate. Based on the above arguments, the research hypothesis is proposed as follows:

H2: Networking capability has a positive effect on performance.

Access to finance refers to the ability of enterprises to secure capital from banks, credit institutions, mutual funds, or informal financial channels (Beck & Demirguc-Kunt, 2006). Studies show that SMEs often encounter significant barriers to obtaining finance due to their small size, limited collateral, and restricted information transparency (Fatoki & Asah, 2011). Good access to capital enables enterprises to expand production, invest in technology, and enhance operational efficiency, thereby boosting the effectiveness of both financial and non-financial activities (Ayyagari et al., 2016). Based on the above arguments, the research hypothesis is proposed as follows:

H3: Access to finance has a positive effect on performance.

Leadership capability is defined as a manager's ability to set the vision, coordinate resources, inspire, and motivate employees to achieve the overall goals of the business (Bass & Avolio, 1994). In the context of small and medium-sized enterprises, where power is highly concentrated and heavily reliant on leaders, leadership is seen as a key factor in determining competitiveness and operational efficiency (Storey, 2016). Empirical studies show that strong leadership enhances decision-making, process optimization, and employee motivation, thereby improving business outcomes (Arham, 2014). Based on the above arguments, the research hypothesis is proposed as follows:

H4: Leadership capability has a positive effect on performance.

The gender of a manager is characterized by differences between male and female leaders, which has been shown to significantly impact leadership style, decision-making behavior, and business effectiveness (Adams & Funk, 2012). According to Women Entrepreneurship Theory, female leaders tend to be more financially cautious, better at risk management, and focus on partnerships, while male leaders often pursue fast-growth strategies and exhibit higher risk tolerance (Jennings & Brush, 2013; Faccio et al., 2016). Therefore, gender can influence the extent and direction of how management characteristics affect business performance. Based on the above arguments, the research hypothesis is proposed as follows:

H5: Gender of manager moderates the relationship between (a) risk-taking orientation, (b) networking capability, (c) access to finance, (d) leadership capability, and performance.

3. Methodology

3.1. Measurement scales

The variables in the research model are measured using multi-item scales, adapted from highly reliable international studies and tailored to the context of small and medium-sized enterprises in Vietnam. All scales are grounded in prior theoretical and empirical works, ensuring content validity and consistent measurement of research concepts (Hair et al., 2010).

The risk-taking orientation scale is adapted from Lumpkin and Dess (1996), which measures the willingness to pursue new opportunities despite risks, the level of acceptance of financial fluctuations, and the ability to make risky business decisions. This scale is especially suitable for small and medium-sized enterprises environments in dynamic cities, where enterprises often face competition and market fluctuations.

The networking capability scale originates from Mitrega et al. (2012) and Nahapiet and Ghoshal (1998). The scale measures how well a business maintains, develops, and leverages important relationships with customers, suppliers, business support organizations, and government agencies. The observed variables are designed to reflect the ability to use social capital to enhance operational efficiency and grow markets.

The access to finance scale is based on Beck and Demirguc-Kunt (2006) and Fatoki and Asah (2011), which measures how easy it is for enterprises to access loans, credit lines, financial support, and find new sources of funding. The scale is adapted to the Vietnamese context, where enterprises often face limited access to finance due to a lack of collateral or information transparency.

The leadership capability scale is based on Bass and Avolio (1994) and Arham (2014), reflecting a manager's ability to plan, inspire, and motivate employees. Observational variables include setting clear goals, encouraging innovation, empowering others, and maintaining the long-term vision of the business. The scale is adapted to suit small-scale organizations, where managerial influence is more direct and comprehensive.

The performance scale was created based on Venkatraman and Ramanujam (1986) and is commonly used in research on SMEs. This scale includes both financial performance metrics (such as revenue growth, profit, and cash flow) and non-financial efficiency indicators (like customer satisfaction, innovation capacity, and competitive position). Using a hybrid scale provides a more comprehensive view of operational efficiency, especially for small and medium-sized enterprises that may not always disclose official financial data.

The gender variable of manager is measured as an identifying variable (0 = male, 1 = female), in a way that is commonly used in gender and corporate governance studies (Adams & Funk, 2012). Although gender is a qualitative variable, it is considered an important factor because it relates to leadership style, risk tolerance, and access to resources.

3.2. Data collection

Data for the study were collected through a quantitative survey using a structured questionnaire to assess the impact of governance characteristics and manager gender roles on the performance of small and medium-sized enterprises in Hai Phong city. The survey method was chosen because of its ability to standardize data collection and suit the requirements of regression models while ensuring reliability when measuring latent structures (Hair et al., 2010).

The survey subjects are senior managers (directors, deputy directors, business owners) running small and medium-sized enterprises in Hai Phong city. The study employs purposive sampling combined with convenient sampling, where the selection criteria include: (i) enterprises classified as small or medium-sized according to the Government's regulations; (ii) respondents who are senior managers or business owners; and (iii) enterprises that have been operating for at least 3 years to ensure meaningful performance evaluation data. This approach aligns with research practices in the field of SMEs and business leadership (Beck et al., 2005; Jennings & Brush, 2013).

The questionnaire was distributed through two channels: an online survey via Google Forms and direct surveys at industrial parks, enterprise clusters, and enterprise associations in Hai Phong. Before the formal rollout, the study conducted a pilot test with 30 managers to evaluate the clarity of the questions, respondents' understanding, and the relevance of the scale in the local context. Based on feedback from the pilot survey, some measurement items were adjusted semantically and structurally to ensure accuracy and content value.

A total of 700 questionnaires were created, of which 570 were collected, and 360 valid responses were included in the analysis after excluding tables without information or inconsistent data. This sample size satisfies the minimum requirements for exploratory factor analysis (EFA) (Hair et al., 2010). The collected data were encoded and analyzed using SPSS 26 software, including descriptive statistics, Cronbach's Alpha, convergent and discriminant validity (EFA), and multivariate regression analysis to test the research hypothesis.

This study selected Hai Phong City to provide valuable practical insights because it has a diverse business structure, high competition levels, and a dynamic economic environment, creating ideal conditions to examine gender roles in small and medium enterprise governance.

4. Results and Discussion

4.1. Results

A total of 360 valid questionnaires were used for the analysis. Descriptive statistical results show that the sample includes a diverse range of manager demographics and business characteristics. Specifically, 58.2% of respondents are male, and 41.8% are female, accurately reflecting the gender distribution of management in small and medium-sized enterprises in Hai Phong. Regarding age, 31.4% are in the 30-40 age group, 45.1% are aged 41-50, and 23.5% are over 50, indicating that most managers have significant professional experience. In terms of enterprise characteristics, 52.8% operate in the service sector, 27.6% in industry and construction, and 19.6% in trade. The average workforce size is 35 employees, consistent with the Vietnamese definition of a business. The varied distribution across industries and sizes enhances the representativeness and reliability of the research data.

Table 1: Sample characteristics

Characteristics	Items	Ratio (%)
Gender	Male	58.2
	Female	41.8
Age	30-40 years old	31.4
	41-50 years old	45.1
	Over 50 years old	23.5
Field	Service	52.8
	Công nghiệp - xây dựng	27.6
	Thương mại	19.6
Size	Under 20 labors	36.0
	20-50 labors	41.6
	Over 50 labors	22.4

Source: Analysis results from SPSS 26

The scales are evaluated using Cronbach's Alpha to assess the internal consistency of the observed variables. The results indicated that all scales met the acceptance threshold, with Cronbach's Alpha values ranging from 0.803 to 0.865, surpassing the minimum requirement of 0.70 (Hair et al., 2010). Specifically, the risk-taking orientation scale achieved 0.865, networking capability reached 0.803, access to finance scored 0.840, leadership capability reached 0.845, and performance attained 0.812. No observational variables were discarded, suggesting that the scales have good reliability for further analysis (see Table 2).

Table 2: The results of Cronbach's Alpha

Scale	Sign	Items	Cronbach's Alpha
Risk-taking orientation (RISK)	RISK 1	My enterprise is usually willing to implement projects despite the high level of risk.	0.865
	RISK 2	Managers are willing to make decisions even when the outcome is uncertain.	
	RISK 3	My enterprise actively pursues new market opportunities,	

Scale	Sign	Items	Cronbach's Alpha	Scale	Sign	Items	Cronbach's Alpha
Networking capability (NET)		even though profits are uncertain.	0.803	Leadership capability (LEA)	ACC4	Enterprises have fewer obstacles when applying for credit or financial support.	0.845
		Managers accept the possibility of failure when testing new ideas.				Financial institutions believe in enterprises' ability to repay their debts.	
	NET1	Enterprises maintain close relationships with key customers.			LEA1	The manager of my business always inspires employees.	
		Enterprises have strong relationships with suppliers.				Managers provide a clear vision and strategic direction for the business.	
		Enterprises easily access important information through external relationships.			LEA3	Managers encourage employees to be innovative and creative.	
		The enterprise maintains strong cooperative relationships with business support organizations and industry associations.				Managers delegate authority and facilitate employee development	
		Enterprises can expand their markets thanks to existing relationships.			LEA5	The manager handles the work efficiently and professionally.	
Access to finance (ACC)	ACC1	Enterprises easily access loans from banks.	0.840	Performance (PER)	PER1	The enterprise's revenue has grown steadily over the last 3 years.	0.812
	ACC2	Enterprises have sufficient financial resources to implement expansion plans.				The enterprise's profit reached the expected level compared to competitors.	
	ACC3	Enterprises can access capital from many different sources (banks, funds, partners, etc.).			PER3	Enterprises have improved their competitiveness in recent years.	

Scale	Sign	Items	Cronbach's Alpha
	PER4	Customers of enterprises are increasingly satisfied with products/service s.	
	PER5	The enterprise's overall operational efficiency has improved markedly.	

Source: Analysis results from SPSS 26

The results of EFA of the independent variable shows a KMO of 0.841 (greater than 0.5), a significance level of 0.000 (less than 0.05), an Eigenvalue greater than 1, and factor loadings for the 19 observed variables greater than 0.5. These variables were extracted into 4 factors as originally proposed by the model. Additionally, the total variance explained reached 70.55%, which is greater than 50%, indicating that these 4 factors accounted for 70.55% of the variation in the data of the 16 observed variables participating in the EFA (see Table 3).

Table 3: The results of EFA of independent variables

Items	Components			
	1	2	3	4
LEA3	0.899			
LEA4	0.880			
LEA1	0.872			
LEA5	0.865			
LEA2	0.853			
RISK3		0.884		
RISK2		0.866		
RISK4		0.850		
RISK1		0.841		
NET3			0.895	
NET1			0.881	
NET5			0.876	
NET2			0.861	
NET4			0.852	
ACC3				0.892
ACC4				0.877
ACC5				0.863

Items	Components			
	1	2	3	4
ACC2				0.855
ACC1				0.849

Source: Analysis results from SPSS 26

The EFA results for the dependent variable show that the KMO value of 0.803 is above 0.5, and the significance of Bartlett's Test is 0.000, which is less than 0.05, indicating that the factor analysis is appropriate. One factor was extracted with an Eigenvalue of 2.371, which is greater than 1, and the cumulative explained variance is 68.33%, exceeding 50%. This factor accounts for 68.33% of the variance in the four observed variables involved in the EFA.

The results of the correlation analysis showed that the significance of the correlation between the independent and dependent variables was less than 0.05. Therefore, there is a linear relationship between all six independent and dependent variables.

The regression results in Table 4 show that the adjusted R^2 reached 0.701, indicating that the independent variables in the model could explain 70.1% of the customer satisfaction. Simultaneously, the analysis showed that the VIF was less than 5, indicating that the data did not violate the multicollinearity assumption. Additionally, the Durbin-Watson value of 1.905 falls within the range of 1.5 to 2.5, indicating no violation of the assumption of error independence. Furthermore, the t-values for the independent variables are less than 0.05, suggesting they are statistically significant. Thus, hypotheses from H1 to H4 are accepted.

Table 4: The results of regression model

Model	Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tole rance	VIF
1	Constant	1.028	0.054		2.361	0.004	
	RISK	0.232	0.055	0.294	2.827	0.021	0.792
	NET	0.324	0.058	0.398	2.922	0.006	0.777
	ACC	0.303	0.050	0.346	2.468	0.003	0.761

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	St. d. Error				Beta	Tolerance
LEA	0.345	0.057	0.400	2.212	0.004	0.763	2.192
Adjusted R ² = 0.701, Sig. F = 0.000, Durbin-Watson = 1.905							
Notes: RISK = Risk-taking orientation, NET = Networking capability, ACC = Access to finance, LEA = Leadership capability, PER = Performance							

Source: Analysis results from SPSS 26

The study examined the moderate influence of gender managers on the relationship between (a) risk-taking orientation, (b) networking ability, (c) access to finance, (d) leadership skills, and performance, using the bootstrap method in the Macro Process. The results are presented in Table 5 as follows:

Table 5: Results of moderate impact analysis of manager gender

Model				
	Coeff	se	t	p
Constant	0.722	0.452	2.391	0.005
RISK	-0.121	0.172	2.371	0.002

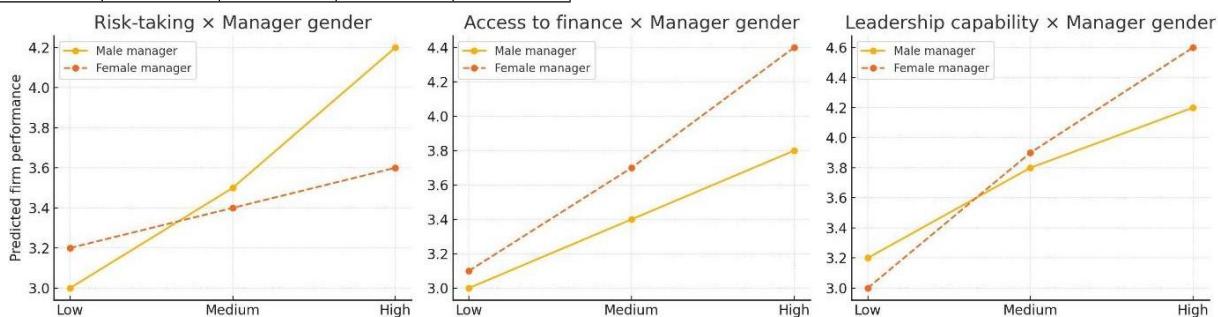


Figure 2: Interactive of the moderate role of manager gender

Source: Analysis results from SPSS 26

The graph shows that male managers have significantly steeper slopes than female managers. When risk-taking orientation increased from low to high, the business performance of the male group rose sharply (from 3.0 to 4.2), while in the female group the increase was more modest (from 3.2 to 3.6). This suggests that male managers convert risk-taking into more effective business outcomes, in line with studies highlighting men's tendency to take risks and seek growth. Conversely,

NET	0.045	0.056	1.271	0.121
ACC	0.148	0.167	2.391	0.003
LEA	0.156	0.150	2.921	0.001
Int_1	0.135	0.162	2.738	0.004

Notes: RISK = Risk-taking orientation, NET = Networking capability, ACC = Access to finance, LEA = Leadership capability

Source: Analysis results from SPSS 26

The results in Table 5 highlight notable differences in how governance factors influence the performance of small and medium-sized enterprises, confirming the significant regulatory role of manager gender. Firstly, risk-taking orientation (RISK) has a negative regression coefficient and is statistically significant ($\beta = -0.121$; $p = 0.002$), indicating that pursuing high-risk strategies does not yield positive benefits for enterprise performance in Hai Phong. This may reflect the sensitivity of small and medium-sized enterprises to market shocks and resource limitations, which make it difficult for them to absorb risks. Conversely, access to finance (ACC) and leadership capability (LEA) both have positive and statistically significant impacts ($\beta = 0.148$; $p = 0.003$; $\beta = 0.156$; $p = 0.001$), emphasizing the vital role of capital access and governance capacity in enhancing business performance. This aligns with previous research, which highlights that capital and leadership quality are essential factors for the sustainable growth of small and medium-sized enterprises. Meanwhile, networking capability (NET), although it shows a positive coefficient, is not statistically significant ($p = 0.121$), suggesting that the influence of relational networks may depend on the quality of relationships or require more time to produce measurable operational results. Therefore, the H5 hypothesis is only partially supported.

female managers tend to be more cautious, resulting in lower effective volatility as risk tendencies rise.

The second interactive graph indicates that as access to finance increased, both groups showed improvements in performance. However, the female management group experienced a significantly stronger increase (from 3.1 to 4.4) than male (from 3.0 to 3.8). This suggests that female leaders utilize capital more efficiently and prudently, turning financial capital into better business results. This

aligns with studies showing that women tend to adopt more disciplined capital strategies and have better control over financial risks.

The third graph shows that performance steadily rises as leadership ability improves in both genders. However, the rate of improvement for female managers was greater, especially at higher leadership levels (4.6 for female compared to 4.2 for male). This indicates that leadership has a stronger influence on business performance among women. Female leaders often adopt a management style that emphasizes empowerment, empathy, and encouraging innovation, which boosts productivity and employee engagement.

4.2. Discussion

The study's results provide crucial empirical evidence on the factors influencing the performance of small and medium-sized enterprises in Hai Phong city and confirm the significant regulatory role of manager gender in these relationships. First, the regression results indicate that all four factors, risk-taking orientation, networking capability, access to finance, and leadership capability, have a positive and statistically significant impact on performance. This aligns with the theory of small business governance, which highlights that manager dynamism, the scalability of business networks, the availability of capital, and leadership quality are key factors that drive performance (Lumpkin & Dess, 1996; Beck & Demirguc-Kunt, 2006). In Hai Phong, a rapidly growing industrial and logistics hub, these factors become even more critical because enterprises face intense competitive pressures, rapid market innovation, and the need to access business opportunities quickly.

Leadership capability ($\beta = 0.400$) and relationship network capacity ($\beta = 0.398$) are the two factors with the strongest impact on operational performance, highlighting the central role of leaders in setting the vision, coordinating resources, and building relationships that support the business's strategic goals. This aligns with the argument that small enterprises rely heavily on their leaders' competence, as they are the ones who make most decisions and serve as a bridge between the business and the external environment. Access to finance ($\beta = 0.346$) is also confirmed as a key factor, emphasizing the importance of capital flows in maintaining operations, innovating technology, and expanding markets. Although the tendency to take risks ($\beta = 0.294$) had a positive effect, its impact was lower than that of the other factors, indicating that small enterprises need the right level of risk rather than pursuing an overly risky strategy in an uncertain business environment.

Notably, the results of the moderate role analysis provide important evidence of the influence of manager gender. The variable that interacts between gender and management factors (Int_1) is statistically significant ($p = 0.004$), demonstrating that gender significantly influences how management factors impact business performance. This suggests that male and female managers differ not only in their management styles but also in how they translate management resources into specific performance outcomes. The risk-taking orientation has a negative coefficient in the moderate model ($\beta = -0.121$; $p = 0.002$),

indicating a strong negative impact on male managers, who tend to pursue riskier strategies. In contrast, the effect of risk on female-managed enterprises is more stable, aligning with the view that female are generally more cautious in strategic decision-making.

Additionally, access to finance and leadership ability continue to play a key role in the moderate model, with female managers turning these resources into improved performance. This is a significant finding, as it suggests that women tend to use capital more carefully and efficiently and demonstrate a collaborative, employee-driven leadership style, traits that have often proven highly effective in small and medium-sized enterprises.

5. Implication

The research provides several significant theoretical contributions to the field of small and medium enterprise governance. First, the results demonstrate that four factors, risk-taking orientation, networking capability, access to finance, and leadership capability, each positively influence business performance. This supports the fundamental theories of entrepreneurial orientation, social capital theory, and resource-based view, thereby confirming the significance of personal management in establishing a competitive advantage for small and medium-sized enterprises.

Second, the fact that manager gender significantly influences the relationship between governance and performance factors introduces a new approach to studying small business behavior. Unlike prior studies that often treated gender as just a control variable, this research shows that gender can alter how strongly management competencies impact performance outcomes. This highlights differences in leadership styles, risk tolerance, and resource utilization strategies between male and female, helping to expand gendered management perspectives.

Third, the study emphasizes that in the context of an emerging market like Vietnam, especially in rapidly growing industrial cities such as Hai Phong, the role of gender in SME governance may differ from that in developed countries. The finding that female managers more effectively utilize financial resources, leadership, and relationship networks suggests a combination of resource-based theory and organizational ecology theory to explain small business behavior.

The study's findings have several important implications for managers, enterprises, and policy-making agencies, including:

Firstly, small and medium-sized enterprises should focus on developing leadership and network capacity, as these are the two factors that most strongly influence performance. Management, mentoring, and coaching training programs should emphasize building vision, decision-making, and partnership skills.

Second, recognizing that financial accessibility is essential suggests that managers should actively diversify sources of capital, enhance creditworthiness, and leverage financial support programs for small and medium-sized enterprises. Policy agencies might consider expanding

preferential credit packages, innovation subsidies, and credit guarantees to support enterprises.

Third, the negative impact of risk-taking orientation in moderate models indicates that managers, especially males, need to improve their risk assessment skills and adopt a more conservative growth strategy. This is especially important because small enterprises often have limited resources and are vulnerable to market shocks.

Finally, the results indicated that female managers could convert management resources into improved leadership capability, especially in leadership and financial management. Therefore, enterprises and local governments should strengthen programs that promote gender equality in governance, support women in starting businesses, and encourage women to take on leadership roles in enterprises.

6. Conclusion

This study provides important empirical evidence on the factors affecting the performance of small and medium-sized enterprises in Hai Phong city and highlights the regulatory role of manager gender. The results show that leadership ability, network capacity, access to finance, and risk-taking orientation all contribute to better business performance, with leadership and networking having the most significant impact. Specifically, manager gender plays a moderate but meaningful role, with female managers demonstrating greater efficiency in utilizing financial resources and leadership skills. Meanwhile, male managers are more negatively affected when risk-taking orientation increases.

Although the study offers many important contributions, some limitations should be recognized to guide future research. This study was designed using cross-sectional data, so it cannot confirm a definitive causal relationship between the variables. Future research may utilize panel data or longitudinal designs to track changes in performance over time and better determine the influence of governance factors. Additionally, since the study was conducted in Hai Phong City, an industrial and logistics hub, the results may have limited generalizability to other regions with different socio-economic characteristics. Further studies should expand data collection to additional provinces for regional comparisons or conduct multinational research to enhance the overall applicability of the model.

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