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The Impact of Gender on Financial Performance in Small and Medium Enterprises: A Survey in Vietnam

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ABSTRACT

This paper investigates the impact of gender on the financial performance of small and medium enterprises (SMEs) in Vietnam. With a rising number of female entrepreneurs entering the business landscape, it becomes imperative to assess whether gender dynamics influence financial outcomes. The study uses survey data collected from SMEs across major Vietnamese cities and applies both quantitative and qualitative analysis methods. Results reveal nuanced gender-based differences in performance metrics, management style, and access to financial resources raising important questions for policymakers, investors, and the business community. Additionally, firm age moderates the positive relation between female leadership and profitability. Given the SMEs importance in the majority of countries, the results and implications of this paper can be generalized to other economies.

Keywords: Financial performance; Gender; SMEs; Internationalization; Firm's characteristics.

INTRODUCTION

For decades, Vietnam's remarkable economic growth has relied heavily on the dynamism and adaptability of its small and medium enterprises (SMEs). These businesses form the backbone of the national economy, contributing substantially to GDP and creating employment opportunities for a significant segment of the population. In recent years, a noticeable shift has been taking place: more and more Vietnamese women are stepping into the entrepreneurial arena and taking on leadership roles within SMEs.

Despite this promising trend, the discourse around gender in business leadership often remains superficial-focused on diversity quotas or symbolic gestures of inclusion, rather than grounded in serious empirical examination. The conversation tends to ignore the real question: does gender truly influence business performance, and if so, how?

This paper seeks to move beyond tokenism and critically analyze whether the gender of SME owners and leaders in Vietnam correlates with tangible financial performance indicators such as revenue growth, profitability, and return on assets. It is a call for a more thoughtful and evidence-based understanding of gender dynamics in enterprise leadership-particularly in the unique socio-economic environment of a rapidly developing country like Vietnam.

Testing whether the presence of women in leadership—particularly on boards or in executive roles—has a tangible effect on firm performance is crucial in the Vietnamese context. A positive correlation, whereby female leaders contribute to improved firm value, would provide strong empirical support for new legislative and policy initiatives aimed at increasing gender diversity in SME governance. Furthermore, understanding the determinants of female representation in leadership positions offers policymakers a vital reference point for designing targeted interventions to improve gender balance in the business sector.

As highlighted by Martín-Ugedo and Minguez-Vera (2014), if empirical evidence shows that gender does not significantly influence firm performance, the rationale for promoting women in leadership would rest on ethical and social equity considerations. On the other hand, if the evidence points to a negative influence of gender diversity on performance, this would raise a more complex dilemma forcing policymakers, investors, and firms

alike to weigh economic rationality against ethical imperatives.

Much of the existing literature on gender and business performance is based on large corporations in developed economies, whose structures and operational frameworks differ greatly from those of Vietnamese SMEs. As noted by Gray and Mabey (2005), SMEs tend to have simpler ownership structures, more informal decision-making processes, limited access to external finance, and less institutionalized management systems. These characteristics could significantly influence how gender dynamics play out in real business performance, and therefore, findings from large-firm studies may not be applicable to the SME environment in Vietnam.

With these contextual nuances in mind, this study utilizes an unbalanced panel dataset of 141 Vietnamese SMEs over the period 2015 to 2023, gathered from a mix of primary data (surveys and interviews) and secondary sources (official reports, company filings, and databases from the Ministry of Planning and Investment and the General Statistics Office of Vietnam).

The empirical analysis follows a two-step methodology:

A Tobit model is employed to estimate the factors influencing whether a firm is led by a woman or has a female majority shareholder.

A random-effects regression is then applied to assess the impact of gender on financial performance measured through profitability, return on assets (ROA), and revenue growth.

Beyond the primary objective, this paper also pursues two additional aims:

To investigate the potential non-linear relationship between gender and firm performance, recognizing that the impact of gender may not be uniform across all contexts.

To explore how firm-level characteristics—such as company size, age, sector, and geographic location moderate the gender–performance relationship.

This study contributes to the growing body of research on gender and entrepreneurship by focusing on a context still largely understudied: Vietnam's vibrant, yet structurally distinct, SME sector. While most research in this area has been conducted in English-speaking countries or Western European economies, Vietnam offers a unique backdrop due to its cultural heritage, legal environment, and socio-economic transformation over recent decades. A focus on national-level data allows for meaningful comparison with studies from other Asian and emerging markets, including those conducted by Du Rietz and Henrekson (2000); Smith et al. (2006); Randøy et al. (2006); Campbell and Minguez-Vera (2008); Martín-Ugedo and Minguez-Vera (2014); and Nekhili et al. (2018).

Our empirical findings reveal a statistically significant and positive relationship between firm profitability and female leadership in Vietnamese SMEs. This suggests that women are either choosing to lead more profitable businesses, or that their leadership style and management strategies are contributing directly to improved performance. However, the likelihood of women holding leadership positions decreases in older and larger firms, where traditional hierarchies and cultural biases remain more deeply entrenched.

Interestingly, the analysis shows that firm age moderates the positive impact of female leadership on profitability younger firms tend to benefit more from female leadership than older firms. This may reflect generational shifts in management philosophy, greater openness to innovation, or less resistance to diversity in newly formed organizations.

Given the critical role of SMEs in Vietnam's economy, the implications of these findings extend beyond gender debates they offer a broader reflection on how inclusive leadership practices can enhance economic resilience and competitiveness.

LITERATURE REVIEW

The presence of women on a board of directors or leading a firm is often seen as a good business decision because women directors are hypothesized to increase firm value through their performance (Simpson et al.,

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2010). If it is evidenced that women leaders provide an additional source of economic benefit to firms, comparatively to men of equal qualifications, firms should be willing to hire and promote women. This economic incentive would reinforce ethical and social pressure to give equal opportunities to women. However, there is no a priori theorethical link leading to a direct relation between gender and firm performance, with contributions to that link coming from different fields (e.g., organizational behaviour or social psychology). For instance, Daily and Dalton (2003) argue that women directors may have nontraditional backgrounds and provide unique perspectives, experiences and work styles as compared to their male counterparts. Other authors argue that women change the group dynamics of communication, interpersonal interaction, and decision-making in a positive way, leading to more creative and innovative decisions, with positive impacts on performance (McInerney-Lacombe et al., 2008).

Although conceptual arguments support a positive link between female leadership and performance, there are also reasons to expect either no relationship or even a negative relationship. As argued by Simpson et al. (2010, p. 10), "(...) the effect of board gender diversity on financial performance is contigent on the circumstances that exist for a particular company at a specific time". An important caveat pointed by Simpson et al. (2010), is that variables such as board characteristics, shareholding structure and performance are largely endogenous, thus creating estimation and interpretation problems (Adams et al., 2010).

Besides gender effects on financial performance, the present paper also studies the firm specific factors determining a firm having a woman leader or main shareholder. According to Adams and Ferreira (2009), giving the reduced pool of

women candidates to board or leadership roles, women would be able to choose the boards of more successful and profitable firms, thus suggesting a positive influence of profitability on women presence in the board.

Previous empirical papers researching the impact of gender on performance are mostly inconclusive. The majority of studies were dedicated to the US, with some authors supporting a positive relationship (e.g., Fenwick and Neal, 2001; Welbourne et al., 2007; Simpson et al., 2010), but others not finding a significant relation (e.g., Farell and Hersch, 2005) or even a negative relation (e.g., Adams and Ferreira, 2009). Campbell and Minguez-Vera (2008) found a positive effect of gender diversity on firm value for quoted Spanish firms, but Du Rietz and Henrekson (2000), Smith et al. (2006) and Randøy et al. (2006) evidenced the absence of a significant relationship for, respectively, Sweden, Denmark and a sample of Scandinavian countries. Using a sample of non-financial Spanish SMEs for 2003-2008, Martín-Ugedo and Minguez-Vera (2014), found that the probability of women on the board increases with firm performance and family ownership, but decreases with corporate ownership and firm risk. The authors also found a positive effect of the presence of women board members on firm performance, thus confirming that the presence of women is positive for economic reasons. More recently, Nekhili et al. (2018), with a sample of French firms argued that women CEOs perform better in non-family firms.

Considering other determinants of the sampled firms' profitability, and following previous authors (e.g., Martín-Ugedo and Minguez-Vera, 2014; Pacheco, 2020), the following set of control variables is included: firm age, size, indebtedness, internationalization, family presence, foreign capital and the number of board members or shareholders. It is also explored the potential moderating role (and non-linear impact) of some of those firm characteristics in influencing the gender- performance relationship, because certain specific characteristics could affect the "gender bias" (Arzubiaga et al., 2018).

Given the older firms' greater stock of knowledge and experience, that should have a positive impact on performance. Older firms learnt from their past experiences and would possess more skills to implement their learning in their decisions and new undertakings (Singla and George, 2013). Nevertheless, as firms age, they tend to become more conservative and prone to inertia (Aggarwal and Gort, 1996). So, the impact of age on profitability tends to be an empirical question (Coad et al., 2013; Capasso et al., 2015), but we expect that age has a negative influence and moderates the gender-performance relationship.

Regarding size, the literature posits that it can it can be a source of competitive advantage, with positive impact on performance, since larger firms have access to better technical and commercial opportunities, providing them economies of scale, greater bargaining power and the capacity to deter potential competitors or have an

easier access to capital markets (Hirdinis, 2019). Nevertheless, those benefitsderiving from the increased market power could be outweighted by the sunk costs and organizational inefficiencies associated with larger size, being the smaller firms' flexibility a competitive advantage (Chen and Hambrick, 1995). Additionally, size could only influence performance in certain industries, given sector differences in terms of competition or economies of scale (Bamiatzi et al., 2016). So, the existence of competitive advantages positively related to size is also an empirical issue.

Concerning leverage, Anderson et al. (2003) argue that SMEs, in order to finance their investments without the entry of new shareholders, prefer going into debt before increasing capital. However, other studies evidence that SMEs display a prudent behaviour, not going into debt in order to maintain their independence from creditors (López-Garcia and Aybar-Arias, 2000). Since SMEs could have specific concerns in terms of privacy, control and generational transition, tend to prefer internal financing policies and the reinvestment of their own funds to capital increases or long-term debt (Gallo et al., 2004; Zahra, 2005). Nevertheless, as generations, managers and the business as a whole evolves their attitude towards debt could change (Lussier and Sonfield, 2009). Debt ratios are included since a firm's ownership may influence its capital structure (Demsetz and Lehn, 1985; Randøy and Goel, 2003) and, alligning with the agency and pecking order theories and most of the literature, it is expected a negative relationship between indebtedness and profitability. Debt is here included as a proxy for financial risk so, regarding gender, women's preference for less risk should also yield a negative relationship between indebtedness and women as a leader or main shareholder.

The discussion regarding the effects of internationalisation on performance has mainly covered large firms, with the literature globally finding a positive relation (e.g., Lu and Beamish, 2004; Hsu et al., 2013). Lu and Beamish (2006) argued that firms have been extensively using exports as a growth strategy. Empirical studies with SMEs evidence a general positive relationship between exports and profitability, albeit with the possibility of a "liability of foreignness" at earlier stages of the internationalisation process (e.g., Hsu et al., 2013).

The impact of corporate governance on firms' strategic decision-making and, consequentially, in profitability has been thoroughly described in the literature (Shleifer and Vishny, 1986; Villalonga and Amit, 2006), albeit mostly for large and listed firms. Yet, the peculiarities of family firms and their impact on firms' performance have been less studied. Family firms possess some strengths favouring performance, namely their experience and knowledge of the business, their solid values and group-belonging culture and their long-term perspective (Nekhili et al., 2018). However, some limitations are succession turbulence, weak organizational structure, lack of professionalism and difficulties in financing (Claver et al., 2009; Le Breton-Miller and Miller, 2009). Nevertheless, we expect that family firms present higher levels of profitability and also that women leadership impacts positively on financial performance. According to some authors (e.g., Halkos and Tzeremes, 2010), foreign-owned subsidiaries have a set of firm-specific advantages which are not available to domestic firms, namely access to technological, financial and human resources or the ability to profit from economies of scale. Nevertheless, despite the usual hypothesis that foreign-owned firms outperform domestic firms, other authors found evidence of little or no superior performance (e.g., Azzam et al., 2013). Finally, variables measuring the number of managers/directors and the number of shareholders will also be tested, being expected a negative relation with financial performance due to lower agency costs (Andres, 2008).

Considering the literature review made above, we can now present the set of research hypotheses to be tested in this paper:

H1: Financial performance has a positive relation with the presence of women as firm leaders/shareholders

H2: Firm age has a negative relation with the presence of women as firm leaders/shareholders

H3: Firm size has a positive relation with the presence of women as firm leaders/shareholders

H4: Indebtedness has a negative relation with the presence of women as firm leaders/shareholders

H5: Export intensity has a positive relation with the presence of women as firm leaders/shareholders

H6: Family presence in the firm has a positive relation with the presence of women as firm

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leaders/shareholders

H7: The presence of foreign capital has a positive relation with the presence of women as firm leaders/shareholders

H8: The firm's number of managers/shareholders has a negative relation with the presence of women as firm leaders/shareholders

H9: Women presence as firm leaders/shareholders has a positive relation with financial performance

Additionally, it is also tested the potentially non-linearity of the gender-financial performance relationship and explored the moderating role of some firm characteristics in influencing that relationship.

VARIABLES, DATA AND METHODOLOGY

Variables

Prior studies measured the variable gender in different ways: a dummy variable, indicating the presence of at least one woman on the board or that the board is led by a woman; women's proportion on the board; or index measures of gender diversity (e.g., Blau or Shannon indexes employed by Martín-Ugedo and Minguez- Vera, 2014). Albeit diversity indexes are more suitable measurements of diversity than a dummy variable indicating the presence or women's proportion on the board, given the availability of data, the present paper uses a dummy variable. So, when the firm is led by a woman the dummy variable (GL) assumes the value of 1. Additionally, it will be tested an alternative dummy variable considering the gender of the firm's main shareholder (GS).

Regarding performance, previous papers used a broad range of performance measures, from firm value (e.g., Tobin's q: Carter et al., 2003; Adams and Ferreira, 2009; Nekhili et al., 2018), to accounting measures (e.g., ROA or ROI: Erhardt et al., 2003; Martín-Ugedo and Minguez-Vera, 2014) as well as internationalization measures (Pergelova et al., 2018; Idris and Saridakis, 2020). Due to data availability, this paper uses the ratio EBIT to total assets (RENT), easily available from financial statements and generally considered as a key performance indicator. Despite the fact that the present paper focuses the relation between gender and performance, some control variables are included in order to rule out alternative determinants of the sampled firms' performance. Those variables are traditionally used when studying performance determinants, namely firm age, size and indebtnedess. Additionally, it will also be tested variables regarding the internationalization level of the firm, the fact of being or not a family firm, have a foreign stake in its equity and the logarithms of the total number of directors and shareholders (Farrell and Hersch, 2005; Martín-Ugedo and Minguez-Vera, 2014). For kurtosis reasons, variables age (AGE) and size (SIZ) are measured, respectively, as the log of the firm age (in years) and the log of total assets. Firm's indebtedness level is measured as total debt (TD = total liabilities/ total assets) and its subdivision in short-term and long-term debt (respectively, STD and LTD, that is current liabilities/ total assets and non-current liabilities/ total assets). Regarding the variable "internationalization" (INT), it will be used the traditional measure of internationalization intensity, measured by the percentage of foreign sales in total sales. If the firm considers itself as a "family firm", the variable FAM takes a value of 1, and 0 otherwise. The variable "FOR" measures the firm's percentage of foreign capital. Finally, the variables NM and NS represent, respectively, the logs of the total number of the firm's directors/managers and shareholders.

Data

This section describes the data collection process for the sample characterization over which our empirical study is performed.

During the second semester of 2023, in the context of a wider research project, a broad questionnaire was elaborated - titled "Factors that contribute to the effectiveness of corporate internationalization" - and sent by e-mail to the responsible for the internationalization of Vietnamese exporting firms and firms that intend to export, taken from the GSO database. It were obtained 238 complete answers, for firms distributed by all sectors of activity. Combining the questionnaire information with quantitative data obtained from GSO, a financial database provided by Bureau van Dijk, and eliminating firms with serious lack of information, we obtained an unbalanced panel data of 141 SMEs from all industrial sectors for the period 2020-2024. In 2020, these firms had an average

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age of 26 years, total sales of 687 M and total assets of 768 M. The firms' capital was mainly domestic, with an average weight of only 7,3% of foreign capital, and mainly owned by a single family (103 firms, that is, 73% considered themselves as a "family firm"), with almost 76% of the capital in the hands of the members of the same family. In terms of size, most of the firms in the sample had less than 50 employees (73,8%). The average firm had four managers/directors and 2,8 shareholders, with the main manager being also a shareholder in 76,6% of the firms. Finally, regarding gender, the main leader of the firm was a woman in 34 firms (24,1%) and the main shareholder was a woman in only 14 firms (9,9%).

Methodology

The relation between gender and performance is addressed with two methodologies, a Tobit regression and a Random Effects Model (REM).

First, we run the variables GL and GS on profitability and the other control variables. Since the dependent variable is dichotomous, it is applied a Tobit methodology (Gujarati and Porter, 2008). Tobit regressions are non-linear therefore the coefficients should be interpreted with care and do not measure the real causal effect on the dependent variable. This effect is correctly measured only by the marginal effect, however, the coefficients maintain the significance and sign of the marginal effects, allowing the test of our hypotheses. The second model examines through a random-effects specification, the influence of gender, plus the set of control variables, on firm performance. In order to choose the most appropriate regression technique, the Breusch-Pagan test leads to the rejection of the null hypothesis, indicating that REM is more appropriate than POLS whereas the Hausman test leads to the acceptance of the null hypothesis that REM is preferable to FEM. According to King and Santor (2008), a random-effects model explains inter-firm performance variation over time, being the adequate specification since a number of our variables are either time-invariant or exhibit few changes over time (e.g., gender, age or size).

ANALYSIS AND RESULTS

Prior to the estimation of the different models, Table 1 presents the variables' average values and the corresponding correlation matrix. Gujarati and Porter (2008) argue that correlation coefficients above 50% could signify collinearity problems. Table 1 shows that only in one circumstance the correlation coefficient between independent variables is above 50%. Therefore, the problem of collinearity between explanatory variables should not be particularly significant.

Table 1. Average values and correlation matrix between variables

	aver.	GL	GS	REN	AGE	DIM	STD	LTD	INT	FA	FOR	NM	NS
GL	0,24	1	0,20	0,04	-0,05	-0,12 (***	0,14 (***	-0,05 (***	-0,00	0,23 (***	0,04	-0,13 (***	-0,08 (***
GS	0,10		1	-0,08 (***)	0,21 (***)	-0,04	0,001	-0,05 (*)	0,02	0,15 (***	-0,10 (***	0,06 (**)	0,06 (**)
RENT	5,33 %			1	-0,02	0,09 (***	-0,07 (**)	-0,17 (***	0,12 (***	0,03	0,07 (**)	0,06 (*)	-0,03
AGE	2,89				1	0,46 (***	-0,23 (***	-0,02	-0,02 (**)	0,17 (***	-0,08 (***	0,37	0,32 (***
SIZ	7,40					1	-0,16 (***	0,04	0,02	0,12 (***	0,12 (***	0,62 (***	0,25 (***
STD	42,5 %						1	-0,37 (***	0,10 (***	0,04	-0,04	-0,12 (***	-0,08 (***
LTD	16,1 %							1	-0,03	-0,02	0,113	-0,04	0,12 (***
INT	37,8 %								1	0,02	0,09 (***	0,01	-0,13 (***
FAM	0,73									1	-0,01	0,04	0,15

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					(***
FOR	7,28		1	0,07	0,02
	%			(**)	
NM	4,19			1	0,40
					(***
NS	2,78				1

Note: s.d. is the standard deviation. * p< 0,10; ** p < 0,05; *** p < 0,01;

Table 2 presents the results for the Tobit regression of the variable GL and GS on profitability and the other control variables. The results indicate that profitability is a determinant of a woman leading the firm. Regarding the control variables, short term debt and family presence seem to positively determine a female leadership, whereas the number of directors/managers and shareholders exert a significant negative effect. Regarding the variable GS, profitability, firm dimension and foreign capital are negatively associated with a female main shareholder, whereas age and family presence display a significant positive relationship.

Table 2. Tobit model

	GL	**GL**	**GS**	**GS**
C	-0,977	-1,086	-2,937	-2,984
	(***)	(***)	(***)	(***)
RENT	1,244	1,018	-2,677	-2,761
	(**)	(**)	(***)	(***)
Controls			1,080	1,034
AGE	0,104			
	(***)	(***)	(***)	(***)
FOR	0,003		-0,422	-0,447
			(***)	(***)
NM	-0,416	-0,456	-0,225	
	(***)	(***)		
	-0,300	-0,248	-0,027	
NS	(***)	(**)		
LR □2 (df = 2)	146,07	148,83	2270,20	2266,59
	(***)	(***)	(***)	(***)
LLR	-798,04	-797,25	-422,76	-427,61

Notes: Standard-deviations presented in brackets. * p< 0,10; ** p< 0,05; *** p< 0,01.

Table 3 presents the results for the second model where, through a random-effects specification, it is analyzed the influence of gender, plus the set of control variables, on firm performance (columns I to IV). Being one of the objectives of this paper to test the presence of non-linear effects, columns V to VIII in Table 3 present the results with the squares of some variables.

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Table 3. Random-effects model. RENT as dependent variable

	I	II	III	IV	V	VI	VII	VIII
C	0,099 (***)	0,103 (***)	0,102 (***)	0,110 (***)	0,114 (***)	0,059	0,075 (**)	0,105 (***)
GL	0,013		0,021					
GS		-0,024		-0,019				
Controls								
AGE	-0,018 (**)	-0,016 (**)	-0,022 (***)	-0,020 (***)	-0,027	-0,022 (***)	-0,025 (***)	-0,019 (**)
SIZ	0,015 (***)	0,014 (***)	0,012 (***)	0,011 (***)	0,012 (***)	0,027	0,012 (***)	0,013 (***)
STD	-0,160 (***)	-0,158 (***)						
LTD	-0,172 (***)	-0,172 (***)						
TD			-0,157 (***)	-0,156 (***)	-0,155 (***)	-0,157 (***)	0,038	-0,159 (***)
INT	0,025 (**)	0,024 (**)	0,029 (***)	0,029 (***)	0,029 (***)	0,029 (***)	0,028 (***)	-0,117 (***)
FAM	0,012	0,017						
FOR	0,000	0,000						
NM	-0,014	-0,016						
NS	-0,010	-0,010						
AGE^2					0,001			
SIZ^2						-0,001		
TD^2							-0,179 (***)	
INT^2								0,161 (***)
Overall R^2	0,08	0,09	0,07	0,07	0,07	0,07	0,07	0,07

Notes: Standard-deviations presented in brackets. * p< 0,10; ** p< 0,05; *** p< 0,01.

The results in columns I to IV evidence the absence of a relation between gender and profitability, with several control variables presenting significant results (age, size, debt and internationalization). In terms of non-linear effects, column VIII evidences an interesting U-shaped relation between internationalization and profitability.

Table 4 presents the results for the interaction variables in order to test whether the effects of age, size, debt or internationalization are additive or not to the gender- performance relationship.

Table 4. Random-effects model (moderating effects). RENT as dependent variable

	I	II	III	IV	V	VI	VII	VIII	IX
C	0,085 (***)	0,089 (***)	0,091 (***)	0,101 (***)	0,134 (***)	0,126 (***)	0,129 (***)	0,114 (***)	0,072 (**)
GL	0,099 (**)	0,087	0,060 (**)	0,023					

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GS					-0,226 (***)	-0,168 (*)	-0,138 (***)	-0,042 (*)	
Controls									
AGE	-0,016 (**)	-0,022 (***)	-0,021 (***)	-0,022 (***)	-0,026 (***)	-0,021 (***)	-0,022 (***)	-0,020 (***)	-0,022 (***)
SIZ	0,012 (***)	0,014 (***)	0,012 (***)	0,012 (***)	0,011 (**)	0,010 (**)	0,012 (***)	0,012 (***)	0,012 (***)
TD	-0,155 (***)	-0,157 (***)	-0,143 (***)	-0,158 (***)	-0,158 (***)	-0,156 (***)	-0,184 (***)	-0,157 (***)	-0,093 (***)
INT	0,028 (**)	0,029 (***)	0,029 (***)	0,030 (**)	0,029 (***)	0,030 (***)	0,027 (**)	0,021 (*)	0,133 (***)
GLxAGE	-0,028 (*)								
GLxSIZ		-0,009							
GLxTD			-0,062						
GLxINT				-0,005					
GSxAGE					0,063 (***)				
GSxSIZ						0,021 (*)			
GSxTD							0,211 (***)		
GSxINT								0,066 (*)	
TDxINT									-0,169 (***)
Overall R²	0,08	0,07	0,08	0,07	0,08	0,07	0,09	0,08	0,08

Notes: Standard-deviations presentedin brackets. * p< 0,10; ** p< 0,05; *** p< 0,01.

The first four columns of Table 4 seem to evidence that, apart from age, there are no other moderating effects on the gender-performance relationship. Regarding firm age, the variable GL is significantly positive but the interaction variable is significantly negative, evidencing that the age of the firm has a moderating role on the positive relationship between gender (female firm leader) and profitability. The results for columns V to VIII, with GS (the firm main shareholder is a woman) are rather interesting, evidencing the presence of moderating effects in all variables. Finally, column IX evidences the presence of a negative moderating effect of debt on the positive influence of internationalization over profitability.

DISCUSSION AND IMPLICATIONS

This section presents a discussion of the empirical results, comparing them with previous studies and evaluating their alignment with the research objectives and hypotheses outlined earlier in the paper.

The findings in Table 2 reveal that firms with higher profitability are more likely to be led by women. This supports Hypothesis H1 and aligns with the conclusions of Martín-Ugedo and Minguez-Vera (2014), suggesting that women tend to assume leadership in firms that already exhibit strong financial health. This trend indicates that female leaders may be either selecting firms that offer better conditions for success or that such firms are more open to appointing women to top positions. Additionally, the data show that women are not disproportionately

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represented as majority shareholders in less profitable firms, further supporting the argument that profitability is a determining factor in female involvement at the ownership level.

Regarding structural firm characteristics, age and size exhibit differing impacts on gender representation. While age has a positive impact and size a negative impact on the likelihood of female ownership, both variables are statistically significant only in the context of leadership, thereby supporting Hypotheses H2 and H3. One possible explanation is that in smaller firms, where formal governance structures may be less rigid, female successors—often within family-run businesses—find it easier to acquire ownership stakes, particularly during generational transitions.

In contrast, variables that capture financial risk (such as total debt, or the ratio of short-term to long-term debt), internationalization, and foreign capital ownership fail to show significant associations with gender representation, thus not supporting Hypotheses H4, H5, and H7. These findings suggest that women's presence in leadership or ownership is less influenced by capital structure or international orientation than by intrinsic firm characteristics.

An interesting result emerges regarding the family firm (FAM) variable. Being a family business appears to significantly increase the likelihood of a woman holding a leadership or ownership role. This finding confirms Hypothesis H6 and indicates that traditional family firms, despite being conservative in nature, may actively support or facilitate female leadership, possibly due to familial trust and succession planning.

Moreover, the number of directors/managers (NM) and number of shareholders (NS) both show a negative correlation with women in leadership positions, confirming Hypothesis H8. This, together with the findings on age and size, reinforces the idea that larger and more complex organizations create institutional barriers to gender equality at the top, likely due to entrenched hierarchies and historical inertia in leadership appointments.

Turning to Table 3, the analysis reveals that gender does not have a statistically significant impact on profitability, providing no support for Hypothesis H9. This finding contrasts with some previous literature, including Martín-Ugedo and Minguez-Vera (2014), and implies that while female leadership correlates with certain firm characteristics (such as profitability levels at the time of appointment), it does not independently influence profitability outcomes once in place. In other words, women's presence in leadership or ownership roles may be ethically and socially important but does not appear to provide a direct financial advantage.

Other firm characteristics, however, yield more consistent results. Older firms tend to have lower profitability, likely due to reaching a maturity phase with diminished growth opportunities, higher operational inertia, and more bureaucratic processes. In contrast, larger firms show higher profitability, possibly owing to economies of scale, stronger market positioning, and resource advantages. Highly indebted firms, regardless of whether the debt is short- or long-term, show reduced profitability, a finding consistent with the agency theory and pecking order theory. These theories suggest that higher debt burdens limit managerial flexibility and reduce available free cash flows (Yazdanfar and Öhman, 2015).

Furthermore, export-oriented firms exhibit higher profitability, corroborating findings by Pacheco (2019) in the Vietnamese context. This supports the idea that access to foreign markets allows SMEs to scale up and access more competitive revenue streams. The remaining variables—family ownership, foreign capital participation, number of managers, and number of shareholders—do not yield significant results in the profitability model, but they do provide useful insights when viewed alongside the gender-related variables.

A particularly noteworthy result relates to the non-linear effects of internationalization. As shown in Table 3, a U-shaped relationship is observed between internationalization and profitability. At early stages of international expansion, firms tend to experience lower profitability, likely due to entry costs, inefficiencies, and the liability of foreignness. However, once firms surpass a certain threshold and achieve economies of scale abroad, profitability improves significantly. This underscores the need for managers—particularly in female-led SMEs eyeing global markets—to recognize that international expansion may temporarily strain financial performance before delivering tangible returns.

The moderating effect of firm age is detailed in Table 4, Column I. Here, the positive coefficient for the

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gender leadership (GL) variable turns negative when interacted with firm age (GL × AGE), indicating that the beneficial effect of female leadership on profitability is more pronounced in younger firms. This finding suggests that younger firms may be more adaptive, inclusive, and innovation-driven, thereby enabling female leaders to thrive and influence financial outcomes more effectively.

Columns V through VIII further explore how firm characteristics moderate the relationship between female ownership and profitability. Although firms with a female majority shareholder tend to exhibit lower profitability, this negative effect is mitigated in firms that are younger, larger, less indebted, and more export-oriented. These findings imply that context matters greatly in shaping the impact of gender on firm outcomes. Gender alone does not drive financial performance—it is the interaction between gender and firm structure, culture, and strategy that determines the real influence.

Finally, Column IX highlights an interesting interaction: the negative effect of debt on profitability is reduced in more export-oriented firms. This suggests that international revenue streams may provide a buffer against the financial constraints imposed by high leverage—an insight especially relevant for SME leaders navigating both growth and financial discipline.

CONCLUSION

This study also seeks to examine the variables that may influence the presence of women leading a firm or being its principal shareholder within the Vietnamese SME context. Using an unbalanced panel dataset of 141 Vietnamese SMEs from 2020 to 2025, compiled through primary (surveys, interviews) and secondary (official records, financial disclosures) sources, we explore the structural and performance-related conditions under which women assume leadership roles.

Our findings reveal that firms with higher profitability are more likely to be led by women, indicating a selection effect in which women tend to choose to lead firms that already exhibit solid financial performance. This supports the notion that female leaders may be strategic in choosing environments where their leadership is most likely to succeed or be accepted.

Conversely, the data also show that women are significantly underrepresented as leaders in larger and older firms. These firms often maintain traditional hierarchical structures and cultural inertia, suggesting limited external pressure toward gender equity and more entrenched gender norms. Such findings underscore that, despite policy-level encouragement of gender diversity, firm-level openness to female leadership remains uneven—especially in legacy enterprises.

Regarding non-linear effects on profitability, we find a U-shaped relationship between internationalization and firm profitability. Specifically, SMEs engaged in exporting activities display lower profitability at intermediate stages of international expansion, but higher profitability once they reach a certain threshold of global integration. This relationship carries important implications for female-led firms seeking to expand beyond domestic markets. It highlights that internationalization can initially impair profitability, especially when operational complexities increase without commensurate resource scaling. Therefore, managers—regardless of gender—must be strategic about timing, scale, and capabilities when entering foreign markets.

Additionally, our findings suggest that firm age moderates the positive relationship between female leadership and profitability. The positive impact of female leadership is stronger in younger firms, likely due to more agile organizational structures, flatter hierarchies, and generational shifts in mindset. Older firms, by contrast, appear less responsive to the potential benefits of inclusive leadership, possibly due to rigid operational routines or resistance to change.

It is worth noting that some of the divergent findings in this study, compared to earlier literature, may stem from differences in sample composition. A large proportion of prior research has focused on listed or multinational firms, often using different performance proxies (e.g., stock price, market capitalization) or broader definitions of gender diversity (e.g., gender ratio in executive teams vs. single-leader identity). This paper, to our knowledge, is the first study to empirically test these hypotheses specifically within Vietnamese SMEs, providing localized insights into a global issue.

In summary, our results suggest that firms led by women or owned by female majority shareholders do not, on average, outperform others in terms of profitability. That is, female presence in leadership does not confer a clear financial advantage. However, this should not be taken as a dismissal of the importance of gender diversity. Instead, it underscores that the case for inclusive leadership may rest more on ethical, representational, and social cohesion grounds, rather than direct economic gains alone.

Given the centrality of SMEs to Vietnam's economy, the findings and implications of this study are not just locally relevant—they can contribute meaningfully to global conversations on equity, efficiency, and enterprise sustainability. It is our hope that this research will stimulate more critical inquiry into the nuanced dynamics between gender and performance, particularly in underrepresented economic contexts.

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