

Do innovation and proactiveness impact the business performance of women-owned small and medium-scale enterprises in Vietnam? A study using the PLS-SEM approach

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ABSTRACT

Purpose: This study aims to identify and evaluate the relationship between factors and the business performance of women-owned small and medium enterprises (SMEs) in Vietnam focusing on the dimensions of entrepreneurial orientation factors such as innovation, risk-taking and proactiveness.

Design/Methodology/Approach: Data were obtained from 350 female entrepreneurs of SMEs in Vietnam using a structured questionnaire. The partial least squares structural equation modeling method (PLS-SEM) was applied to find the cause-and-effect relationship between exogenous and endogenous variables.

Findings: The results show that the business capacity of business owners, the quality of human resources, access to finance, social capital, entrepreneurial orientation and government policies positively impact the enterprise's business performance. The relationship between the three dimensions of entrepreneurial orientation and business performance is examined. In detail, proactiveness and innovation have a positive relationship while risk-taking negatively affects the business performance of women-owned SMEs.

Conclusion: The study has shown the factors affecting the business performance of women-owned small and medium-sized enterprises in Vietnam and at the same time proved that EO is a multidimensional concept when the dimensions of EO tend to have different effects on business performance.

Research Limitations and Implications: The research may lack a comparison in the field of SMEs to deeply understand the cause-and-effect relationship between exogenous and endogenous variables. Therefore, researchers are encouraged to test the proposed propositions further.

Practical Implications: Research results provide insight for businesses, state management agencies, credit institutions and associations on policy-making and appropriate solutions to support and develop the enterprise.

Contribution to Literature: The important impact of proactiveness and innovation on SMEs' business performance opens a new door to more research in business orientation.

Keywords: *Business performance, Entrepreneurial orientation, Impact, Innovation, Proactiveness, Women-owned SMEs.*

1. INTRODUCTION

Women-owned businesses have made an outstanding contribution to the development of each country. Recent studies show that women-owned enterprises tend to increase in number faster than men-owned enterprises (Mwale & Phiri, 2022). Women entrepreneurs account for about 43% of all entrepreneurs globally and about 36% of businesses are led by women (Indah, 2022). Women-owned enterprises make outstanding contributions to

economic growth and poverty reduction. Enhancing women's economic empowerment leads to and promotes women's active economic participation which drives sustainable and inclusive development.

In Vietnam, women-owned enterprises are increasingly affirming their essential role in the SME community and contributing to the country's economic development. Women-owned SMEs account for 26.5% of the total number of enterprises operating in Vietnam (GSO, 2020). These SMEs play an essential role in accelerating the achievement of socio-economic goals and the objectives of the national strategy on gender equality for 2020-2030 (VCCI, 2021). However, women-owned SMEs have disadvantages compared to men-owned SMEs such as limited access to resources, low human resources, knowledge, skills in Information Technology and Communication (ICT) and gender stereotypes related to family and business (UN Women, 2020) which may reduce their contribution to the general development of the country (Thuy, 2022; VCCI, 2019). Many studies show that although the number of businesses is increasing significantly over the years, business performance still needs to be commensurate with their potential. These businesses are often smaller and their losses and closing are higher than those owned by men (VCCI, 2019, 2021). However, it is still due to the low governance efficiency of these enterprises, not taking full advantage of the government's supportive policies and several barriers since gender stereotypes still exist for women-owned enterprises (VCCI, 2021). Therefore, more measures are needed to promote the development of women-owned enterprises through a comprehensive study of the influencing factors especially the entrepreneurial orientation of women business owners.

The research objectives of this study are as follows:

- a) To examine the relationship among factors affecting the business performance of women-owned SMEs in Vietnam.
- b) To determine the impact of innovation, risk-taking and proactiveness on the business performance of women-owned SMEs in Vietnam.
- c) To analyze the mediating role of Innovation, risk-taking and proactiveness in the business performance of women-owned SMEs in Vietnam.

This paper is organized as follows: The second section presents the literature review and research hypotheses. The third section describes the research method. The fourth section presents the findings of this study. The fifth section aims to discuss the research results. The last section presents (a) the managerial policy implications, (b) the limitations and (c) the conclusion.

2. AN OVERVIEW OF THE THEORETICAL BASIS AND RESEARCH HYPOTHESIS

2.1. Business Performance (PB)

Business performance has many definitions and measurements (Dess & Robinson, 1984). According to Chandler and Hanks (1993), business results are financial benefits such as revenue, market share and profit while Walker and Brown (2004) define business performance as non-financial benefits such as customer satisfaction, retention, entrepreneur satisfaction, business reputation and goodwill, employee satisfaction and a good working or relationship environment. These factors are often used to measure the success of the end business results. Kaplan and Norton (1993) believe that business activities are identified by four primary components including finance, customers, internal processes and learning development. It built a basis for converting business strategy content into implementation conditions. This study uses this definition because it is highly synthesized and ensures the balance between operational aspects, short-term goals and long-term strategies between relevant partners Anandan and Gupta (2022). In summary, business performance will include related financial factors such as revenue, sales, market share and profit indicators as well as non-financial factors such as employee satisfaction, customer satisfaction, reputation and prestige.

2.2. The Relationship between Entrepreneurial Orientation and the Business Performance of Enterprises

Entrepreneurial orientation (EO) is one of the techniques for developing business thinking through strategic planning to provide businesses with a foundation on which to make business decisions and take action to gain a competitive advantage (Khan et al., 2021). Entrepreneurial orientations are the business behaviors and attitudes of business owners which are affected by many factors such as awareness, the capacity of business owners and the availability of internal and external resources (Nuong, 2022). EO is based on innovation, being proactive and risk-taking (Mahmood & Hanafi, 2013). According to studies, entrepreneurial orientation is reflected in how men and women operate businesses. However, it affects the business's performance at different levels (Lim & Envick,

2013). Enterprises with higher EO often encourage employees to propose innovations actively, take risks with due consideration and take proactiveness (Mahmood & Hanafi, 2013). To better clarify the relationship between entrepreneurial orientation and the business performance of enterprises (Md Isa Yusuff, Ab Wahab, Khadri, Sidek, & Hasbolah, 2022), it is necessary to consider the relationship between each dimension of EO including innovation, proactiveness, risk-taking and business performance.

2.2.1. Innovation (INO)

According to Lukiastuti and Kusuma (2021), innovation is the degree to which an individual or organization adopts new ideas earlier than other members and individuals in the same system. Luecke and Katz (2003) define innovation as "creating a new product or method, incorporating knowledge into a new product, process or service in a valuable and relevant way. Palmberg (2004) defines innovation as a technologically new or significantly improved product compared to a previously commercialized product in the company's market. Dalia, Salah, and Elrayyes (2011) define innovation as "the introduction of a new product, service or process through a business model into the market" by commercializing or using activities and products to contribute to the company's competitiveness. By synthesizing 60 different definitions of innovation in scientific articles, Anahita, Jennifer, Sally, and Daffyd (2012) gave a general definition of innovation activity. Accordingly, "Innovation is a multi-stage process in which organizations transform ideas into new products, services or processes that promote competition and differentiate themselves to help them succeed in the marketplace." Sidek, Mohamad, and Nasir (2016) argue that innovation is necessary to differentiate a company gain a competitive advantage and make finding opportunities in different markets more efficient. Thus, it can be seen that innovation has a positive relationship with the business results of enterprises (Dadzie, Agyapong, & Suglo, 2021).

2.2.2. Risk-Taking

Accepting risks is the trend of performing practical actions that managers consider risks and are willing to invest the necessary resources to exploit opportunities or lead behaviors with uncertain results (Keh, Mai, & Ping, 2007). Several researchers have combined different research methods and obtained results that support a positive relationship between risk and performance (Gilley, Walters, & Olson, 2002). Gupta and Govindarajan (1984) have shown that the tendency to take risks has a positive and significant impact on the effectiveness of strategy implementation. Civelek (2021) and Khan et al. (2021) examined the impact of managers' governance on organizational performance. The results show a positive relationship between assessing the level of governance risk and the organization's performance. Risk-reward relationship is related and interacts with each other. If enterprises want to make a quick profit, they must also clearly identify risk pressure. These are two critical factors for businesses to evaluate when making investment and business decisions.

Most studies show that women tend to take fewer risks than men especially in business (Tien & Trang, 2018). There are many reasons for this: they need more confidence in their capacity, have limited resources and depend heavily on the family. However, many women are successful today. Many studies have proven the positive relationship between accepting risks and business results (Aidoo, Agyapong, & Mensah, 2020; Dadzie et al., 2021).

2.2.3. Proactiveness

According to Lumpkin and Dess (1996), proactiveness refers to the timely response of companies not only to existing market needs but also to create market opportunities. Highly proactive firms can anticipate changes that may occur in the business environment or may even affect the business environment in their favor (Lumpkin & Dess, 2001). Similarly, Blesa and Ripollés (2003) argue that a solid, proactive mindset allows businesses to anticipate customer needs and competitors' reactions in the market. Proactive companies also focus on developing capabilities to influence policymakers and shape markets to their advantage regarding market share or position (Arabeche et al., 2022). Furthermore, proactive activities allow businesses to keep pace with technological changes and regularly strive to create and integrate resources to match technological advancements (Hao & Song, 2016). This further confirms the view of Lumpkin and Dess (1996) that if a firm maintains a highly proactive mindset, it can anticipate the desires of emerging markets and pool resources to meet them better than competitors. Proactivity helps businesses take advantage of first-mover advantages and gain benefits that latecomers never get such as reaching more customers and building a better image in their customers' minds (Aidoo et al., 2020; Khan et

al., 2021). This fact is a solid argument to show a positive association between proactiveness and the business performance of enterprises (Aidoo et al., 2020; Civelek, 2021).

Thus, considering that each dimension of entrepreneurial orientation including proactiveness, creativity and risk-taking, all have positive effects on the PB of enterprises; the author proposes the following hypotheses:

Hypothesis H₁: Entrepreneurial orientation has a positive impact on the PB of enterprises.

Hypothesis H_{1a}: Innovation has a positive impact on the PB of enterprises.

Hypothesis H_{1b}: Proactiveness has a positive effect on the PB of enterprises.

Hypothesis H_{1c}: Risk-taking has a positive impact on the PB of enterprises.

2.3. The Relationship between Entrepreneurial Competencies of the Business Owner and PB

Entrepreneurs are business owners who directly lead and manage the production and business activities of the enterprise in order to target profit. They always face risks and uncertainties in the startup process to achieve growth and mobilize necessary resources and at the same time, they must also be associated with the creation and innovation processes to succeed based on their perception of valuable business opportunities. Therefore, the capacity of entrepreneurs plays a significant role in the business activities of the business.

Entrepreneurial competencies of entrepreneurs are the unity between knowledge, skills, behavior, attitudes and other personal characteristics of entrepreneurs to meet the requirements of business activities, thereby helping them to achieve and maintain business success (Alhnaity, Almuala, & Elmasri, 2018).

According to resource-based theory (RBT), business capacity is a valuable and rare resource that the opponent can hardly copy or imitate, so it will contribute to the advantage of the edge (Gupta & Mirchandani, 2018; Mandawa, Sanghavi, & Mostto, 2014; Roy, Tripathy, & Tripathy, 2017). According to Man, Lau, and Chan (2002), entrepreneurs have the orientation and actions to lead business activities. Personal characteristics, knowledge, skills, and abilities influence their business decisions. Therefore, entrepreneurs must have diverse knowledge and skills to fulfill their complex roles in business (Carranza, Dhakal, & Love, 2018). In the study of Wickramaratne, Kiminami, and Yagi (2014), entrepreneurs of SMEs must simultaneously take on three fundamental roles: business, managers and experts. Therefore, the proper and comprehensive development of business competence groups constitutes the general business capacity of businessmen and will contribute to improve business results. Based on the results of previous research, the relationship between research variables is proposed as follows:

Hypothesis H₂: The business capacity of business owners positively impacts enterprises' PB.

2.4. The Relationship between Social Capital and PB of Enterprises

Social capital is the tangible or intangible resources accumulated by an individual or group owning a sustainable network of institutionalized relationships with more or less acquaintance and recognition of each other (Bourdieu, 1986). The concept of Bourdieu's social capital is based on the acknowledgment that capital is not only economic and social exchange. It allows a person to promote strength for groups or individuals to mobilize resources. In contrast, Putnam (1995) considered social capital a public commodity, potential, involvement, citizen orientation and faith in others available in cities, states or nations. This is contrary to Bourdieu's theory of social capital. In Putnam's social ideas, social capital is raised from a feature of individuals into a feature of a large population. Social capital has become a collective feature that operates at a general level. Putnam has argued that social capital is the amount of trust available and is the leading stock typical of the political culture of modern societies. For Putnam (1995), social capital refers to the characteristics of social organizations, such as networks, standards and beliefs that facilitate action and cooperation that are mutually beneficial. Putnam (1995) and Coleman (2007) believe that social capital is a quality that promotes cooperation between individuals. From Putnam's point of view, such a feature can be considered a synthetic feature that can automatically compare cities, regions and even countries. In this article, the author is based on Putnam's perspective which is the network, standards and social beliefs that create conditions for coordination and cooperation for the common benefit of modern society.

The social capital theory focuses on knowledge, information sources and resources achieved through social links. These factors can help business owners recognize opportunities in production and business (Dharmaratne, 2013; Miri Lerner & Almor, 2002). Social capital only appears when there is a link between individuals, groups and organizations (Santarelli & Tran, 2013). The greater the social capital, the higher the ability to access the information of customers, suppliers, rivals and the law of the business and that is also the potential for the performance of that business (Hasan & Almubarak, 2016; Loan, 2018).

In the context of research in Vietnam, it was found that network relationships significantly influence enterprises' operations and business performance. According to a report by [VCCI \(2021\)](#), some of the top difficulties women-owned businesses face are finding customers, loans and suppliers. This can be due to many reasons such as female entrepreneurs still need to build a business network. A social network connecting with stakeholders lead to more favorable performance and growth for the company especially when the institutional context in Vietnam continues to grow. Therefore, the author proposes the following hypothesis:

Hypothesis H₃: Social capital has a positive impact on the PB of enterprises.

2.5. The Relationship between Human Resource Quality and PB

Resource-based theory (RBT) indicates that a firm's sustainable competitive advantage stems from its valuable, rare, inimitable and irreplaceable resources ([Barney, 2001](#)). Human resources, including education level, experience, intelligence, judgment ability, knowledge and skills are considered to be the factors that have the most differences and uniqueness creating an advantage for enterprises.

In addition to the owner's competencies, the quality of employees in the firm also plays an essential role in the development of the enterprise ([Aruna & Sunil, 2020](#)). A meta-analysis by [Crook, Todd, Combs, Woehr, and Ketchen \(2011\)](#) demonstrates that the workforce's knowledge, skills and attitudes (KSA) can lead to competitive advantage. An enterprise has many advantages in capital resources, modern machinery and technology, without qualified people capable of exploiting these resources; it is unlikely to achieve development desired. Among resources, human resources with the characteristics of intelligence and gray matter have the advantage of not being exhausted if they know how to nurture, exploit and use them rationally. In contrast, other resources are limited factors and can only be effective when there is a good combination with human resources. Therefore, the labor force and the quality of the workforce are criteria to evaluate the strength of the enterprise ([Loan, 2018](#)). Assessing the quality of human resources is often based on employees' knowledge and skills and the workforce's attitude which accounts for a large part of their work efficiency. Suppose an enterprise has a skilled and well-trained workforce with a progressive and hardworking attitude, it will be more able to learn and innovate, thereby creating higher business efficiency.

From the above observations, the author hypothesizes:

Hypothesis H₄: The Quality of human resources in the enterprise positively impacts the enterprise's PB.

2.6. Relationship between Financial Access and PB

Working capital is a prerequisite for businesses' production and business activities. Without capital, there would be no production and business activity. Business capital is the basis for enterprises to calculate and plan business strategies and plans ([Aruna & Sunil, 2020](#); [Ongachi & Bwisa, 2013](#)). For all businesses, it is necessary to have the minimum amount of capital required by state regulations also known as legal capital regardless of economic sector. This amount of capital depends on the type of enterprise.

Working capital helps businesses be productive. In production and business activities, the business capital of an enterprise is constantly increased in proportion to the growth of the production scale, ensuring that the production process is conducted continuously. According to [Alene \(2020\)](#), if the business lacks business capital, it will cause losses such as production stagnation, failure to ensure the implementation of signed contracts with customers and insufficient money to suppliers in time, leading to a loss of trust in the sale and purchase relationship and therefore not keeping customers. Those difficulties will inevitably lead to losses and the bankruptcy of the business.

Working capital creates favorable conditions for competition. Business capital is a prerequisite for enterprises to assert their position and a favorable condition for creating competition for enterprises in the market mechanism. In the market mechanism, under the influence of the law of competition and the desire for profit, enterprises must constantly develop their business capital, so the need for business capital is huge ([Aruna & Sunil, 2020](#); [Gupta & Mirchandani, 2018](#)). In order to ensure victory in the competition and the existence and development of enterprises, enterprises must actively capture market demand, invest in renewing machinery and equipment and improve technology, product diversification and cost reduction. That requires businesses to have a lot of capital. Capital has become a driving force and an urgent requirement for all businesses. Capital can help enterprises invest in modernizing production, survive in a competitive environment and maximize profits ([Aruna & Sunil, 2020](#)). The need for capital to ensure production and business activities for developing new industries has become

an urgent requirement for all businesses as well as commercial enterprises. Thus, business capital plays an important role, a prerequisite in enterprises' investment and development processes, creating competitive advantages and standing firmly in the market economy (Loan, 2018; Radzi, Nazri, & Nor, 2017).

Most businesses need a huge source of capital to support their production and business activities but these capital sources are mainly borrowed from outside. However, women-owned enterprises often need help accessing external loans compared to men-owned enterprises. There are many reasons for this, but the leading causes include more diminutive size, lower business efficiency, a lack of collateral, a lack of transparency in corporate financial information and limited established relationships with commercial banks and credit institutions (Ongachi & Bwisa, 2013; Ramli & Razali, 2019). In Vietnam, access to credit is one of the most significant barriers for businesses in general and women-owned SMEs in particular. According to the report of VCCI (2021), up to 34.1% of women-owned enterprises face difficulties accessing loans. This leads to women-owned enterprises often having lower business results than men-owned enterprises. However, if there is enough capital, a women-owned enterprise can have business results equal to those of a men-owned enterprise.

Hypothesis H5: Access to finance has a positive impact on the business performance of enterprises.

2.7. Relationship between Government Policies and PB

There is only one real model of a society functioning without government intervention. The most extreme liberal economists accept that there should be some state protection of property rights and defense spending (Anselah, Moeljadi, & Yuniarsa, 2015). Institutions are man-made "rules of the game" in a society, intended to limit behavior that may be detrimental to society. The essential function of the institutional framework is to reduce transaction costs by reducing opportunism and providing stable expectations for actors in the community by reducing risk and uncertainty. As an integral part of formal institutions, government policies reduce tension and risk, ultimately leading businesses to do what the policies support and encourage (Kamunge, Njeru, & Tirimba, 2014).

Zahra and Wright (2011) argue that by strengthening the knowledge base of entrepreneurs through the implementation of public policies (with government intervention), the relationship between entrepreneurship and economic development can be reinforced. Similarly, research by Ibrahim and Muritala (2015) finds that government interested in promoting small businesses should consider the impact of government policies and programs on small businesses. Alhnaity et al. (2018) also observe that government regulations on wages, taxes, licensing and other regulations are one of the critical reasons why informal sector business is developing. Government policies can crush the small business sector in any economy without careful attention.

Government policies should encourage and promote the development of local technologies. Emphasis should be placed on promoting the local tool industry to reduce import dependence. Small and medium enterprises face the "responsibility of being small" (Ismanu & Kusmintarti, 2020). Due to their size and resource limitations, they cannot develop new technologies or significantly change existing ones. However, there is evidence that SMEs have the potential to initiate small technological innovations to suit their circumstances. However, for SMEs to grow and utilize this potential, they need specific policy measures to ensure the delivery of technology and infrastructure services (Ibrahim & Muritala, 2015). Policy initiators in SME sub-sector revitalization should not be formulated solely by the government, all stakeholders in the development sector should be on the front lines.

In order to promote the development of the business system in general and women-owned enterprises in particular, the Vietnamese government has also introduced many policies to support businesses (for example, the Law on Enterprise Support 2020; Information Circular 06/2022/TT-BKHĐT on guiding a number of articles of the government's Decree No. 80/2021/ND-CP dated August 26, 2021, detailing and guiding the implementation of the law on financial support for small and medium enterprises). In fact, with the government's support, businesses also have access to more information and resources, reaching more customers. However, the number of businesses (especially women-owned SMEs) that have access to government policies is limited. There are some fundamental reasons leading to this situation such as entrepreneurs themselves do not have time to research policies. In contrast, some policies are complicated and the procedure to receive policy support is relatively cumbersome while the benefits are not great (VCCI, 2021).

Therefore, this study suggests that government policies are issued to support and develop businesses sustainably. If enterprises can access government policies, the Vietnamese business system and women-owned SMEs will become stronger. The author proposes the following research hypothesis:

Hypothesis H6: Government support policy has a positive impact on the business performance of enterprises.

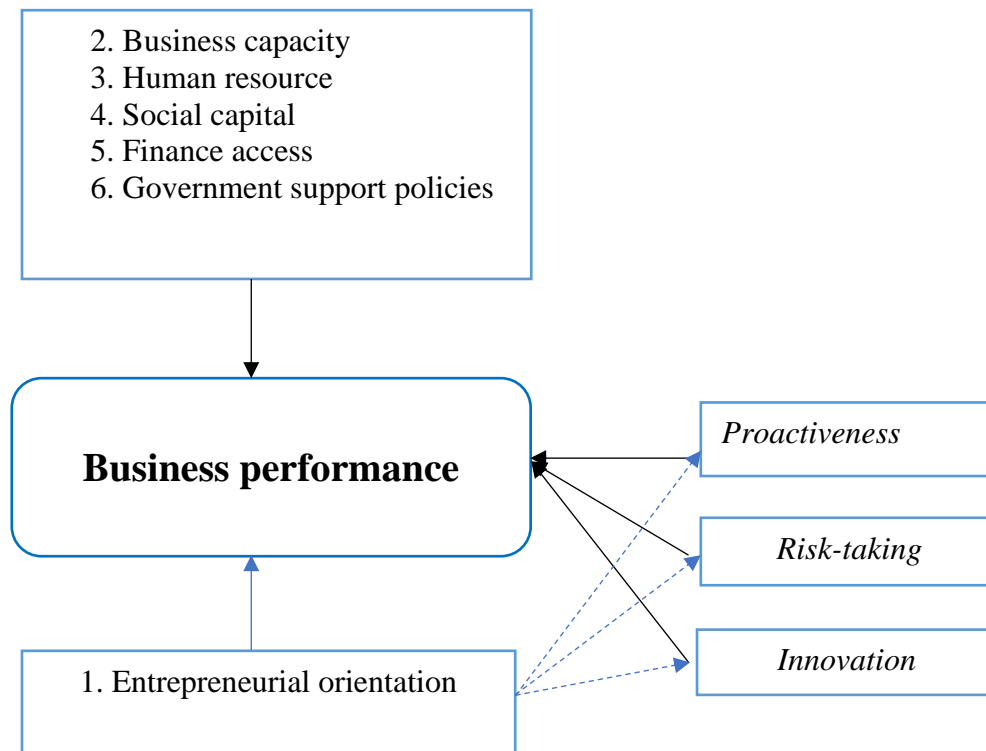


Figure 1. Proposed research model.

3. RESEARCH METHOD

3.1. Scale Design

The authors evaluated the proposed research model (see Figure 1) with the help of a single-respondent cross-sectional survey design (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). The questionnaire was formulated based on previous studies. The questionnaire has been grouped into three parts: Part 1 (demographic information), part 2 (information on factors affecting the business performance of enterprises) and part 3 (business performance of small and medium-sized enterprises). A five-point Likert scale was used to evaluate the scale where expected responses differ between strongly disagree = 1 and strongly agree = 5. The authors used subjective measurement because it is a common and widely accepted form in business research (Le, Le, & Nguyen, 2022). The authors pre-tested the questionnaire with the help of 15 industry experts and two academics and asked them about the questionnaire's structure, readability, completeness, validity and ambiguity to ensure validity. The pre-test Cronbach's alpha value for all variables was 0.896.

3.2. Sampling and Data Collection

The survey subjects of this study are female directors of SMEs in Vietnam. In this study, the author uses the sample size of Hair, Black, Babin, and Anderson (2010) : $n = 5 * m$ (where m is the total number of independent variables). This study's number of independent variables is 50, so the minimum number of samples is $n = 5 * 50 = 250$. Usually, in surveys, the results range from 70-80%. Therefore, to ensure the minimum number of valid receipts is 250, the author has distributed 400 survey questionnaires. Instead, this study used a two-step process to evaluate and report results through smart PLS-SEM as Henseler, Ringle, and Sinkovics (2009) recommended. The collected data were analyzed through SEM-PLS. The results obtained were 368 and the number of helpful votes for analysis was 350.

The sample's complete demographic profile and business information are given in Table 1. The typical age group of entrepreneurs is 35-55 followed by 24-35 with the corresponding proportions being 61.4% and 27.4%, respectively. Most entrepreneurs have university degrees (accounting for 56.9%) and up to 81% are married. Regarding business management experience, most entrepreneurs have 3-5 years of experience (38%).

Table 1. Characteristics of enterprise directors and enterprises in the survey sample.

Criteria	Percentage	Criteria	Percentage
Age		Education level	
Under 18	0.0%	High school or lower	7.1%
From 18 to 23	1.7%	Intermediate/ college	22.0%
From 24 to 35	27.4%	Bachelor	56.9%
From 35 to 55	61.4%	Master	13.1%
Over 55	9.4%	Doctor	0.9%
Marital status		Management experience	
Single	11.4%	Under 5 years	24.9%
Married	80.9%	From 3 to 5 years	38.0%
Other	8.0%	From 5 to 10 years	20.6%
		From 10 years	16.6%
Employee		Capital	
Under 10 people	58.8%	Under 3 billion	58.8%
From 10 - 49 people	20.48%	From 3 - 20 billion	29.03%
From 50 - 99 people	11.59%	From 21 – 50 billion	10.47%
From 100-199 people	7.00%	From 51-100 billion	1.70%
From 200- 300 people	2.13%	Over 100 billion	0
Business sectors		Profit	
Trade	50.1%	Profit over 10 billion	3.13%
Production	2.7%	Profit from 1-10 billion	35.3%
Tourism service	19.3%	Break-even	27.80%
Construction	14.0%	Losses under 10 billion	29.7%
Agriculture	10.3%	Losses of over 10 billion	4.07%
Other	3.6%		
Type of business		Operating time	
Limited company 1 member	6.6%	Below 3 years	26.43%
Limited company with 2 or more members	46.8%	From 3- 5 years	35.86%
Joint Stock Company	36.1%	From 5- under 10 years	21.28%
Private enterprise	8.2%	From 10 years and over	16.43%
Others	2.2%		

Regarding enterprises, the majority of surveyed enterprises are micro-enterprises with fewer than ten employees and a business capital of less than 3 billion Vietnam Dong (VND) (accounting for 58.8%). The number of enterprises decreases as their size increases. Enterprises operating in commerce accounted for the most significant proportion (50.1%) followed by enterprises operating in tourism services (19.3%). The annual profit of enterprises with profits ranging from 1 to 10 billion dong accounts for 35.3%, while enterprises doing business with losses also account for the same proportion. The loss of less than 10 billion dong accounts for 29.7%. Most enterprises are limited companies with two or more members (accounting for 48.5%) and have operated for 3-5 years (accounting for 36.86%).

4. RESEARCH RESULTS

4.1. Measurement Model Evaluation Results

4.1.1. Internal Consistency and Reliability

Internal consistency and reliability are evaluated through 2 indicators: Cronbach's Alpha and Composite Reliability (CR). Cronbach's Alpha and the CR index indicate that the variables in the scale converge to a single latent structure. If Cronbach's Alpha > 0.7, the scale ensures reliability. The analysis results show in [Table 2](#) that all the above factors satisfy the above conditions of 0.7. The results are shown in [Table 2](#), which indicates that the requirement of discriminant validity for all constructs is satisfied. Referring to [Henseler et al. \(2009\)](#), we also

checked the cross-factor loading values and the Heterotrait-monotrait ratio (HTMT) criterion and the results were also similar. Thus, the discriminant validity of the constructs is assured.

Table 2. Reliability and convergence value evaluation results.

Code	Cronbach's alpha	CR	(AVE)	BP	EC	EO	FC	GP	HR	INO	PRO	RISK	SC
BP (Business performance)	0.952	0.955	0.716	0.846									
EC (Entrepreneurial competencies)	0.920	0.927	0.697	0.512	0.835								
EO (Entrepreneurial orientation)	0.849	0.854	0.386	0.467	0.164	0.621							
FC (Financial capital)	0.868	0.872	0.624	0.588	0.322	0.318	0.790						
GP (Government policies)	0.890	0.892	0.618	0.406	0.291	0.221	0.298	0.786					
HR (Human resource)	0.934	0.936	0.667	0.571	0.381	0.397	0.488	0.208	0.817				
INO (Innovation)	0.855	0.855	0.663	0.461	0.165	0.948	0.288	0.226	0.378	0.814			
PRO (Proactiveness)	0.865	0.867	0.682	0.540	0.300	0.894	0.426	0.237	0.447	0.500	0.826		
RISK (Risk-taking)	0.911	0.919	0.776	-0.008	-0.135	0.765	-0.043	0.008	0.021	0.402	0.297	0.880	
SC (Social capital)	0.954	0.955	0.775	0.576	0.418	0.319	0.399	0.310	0.505	0.330	0.331	0.020	0.880

4.2. Convergent Validity

According to [Fornell and Larcker \(1981\)](#), the total average variance extracted (AVE) must be equal to or above 0.5 to be satisfactory; the latent variable can explain more than half of its variance with the mean. If AVE is less than 0.5, that latent factor or variable is usually considered to be removed from the research model. The data processing results in [Table 2](#) have shown that the AVE index of all scales is greater than the minimum level of 0.5. Therefore, all 9 research variables have high convergence.

In addition, the external load coefficients of the observed variables and the average extracted variance are considered to evaluate the convergence value. The external load coefficient of the observed variables must be statistically significant and be 0.708 or more. This explains that the outcome variables will measure the same concept collectively known as the observed variable's reliability.

The results in [Table 3](#) show that the external load coefficient of the observed variables must be statistically significant and be 0.708 or more. Therefore, the variables in the model satisfy the convergence value criteria.

4.3. Evaluation of the Structural Model PLS-SEM

According to [Hair et al. \(2010\)](#) study, the criteria considered to evaluate the reference structure model. The evaluation of the measurement model includes the following contents: (1) Assessing the fit of the model, (2) measuring the R2 coefficient and (3) testing the research hypothesis by the path coefficient and T-value. The thesis tests of consistent PLS-SEM bootstrapping sample size of N = 5000. The proposed hypotheses' p-values < 1%, 5%, and 10% are considered statistically significant at 99%, 95% and 90% confidence.

From the estimation results, the evaluation results of the PLS-SEM structural model are as follows:

4.3.1. Evaluate Collinearity in the Structural Model

[Table 4](#) shows all predictors' VIF (Variance Inflation Factor) values (Outer VIF Values) below threshold 5. Therefore, collinearity between predictors is acceptable in the structural model and can be continued.

4.3.2. Model Fit Assessment

The Standard root mean square residual (SRMR) and RMS theta index (RMS) are considered to measure the model's fit and the SRMR index is the Goodness of Fit (GoF) index of the PLS-SEM model that can be used to avoid information bias in the model. The SRMR index must be less than 0.08 or 0.1. The results of [Table 5](#) show that the SRMR values are almost less than or equal to 0.1 showing that the structural model is suitable for the data set.

Table 3. External load coefficients of observed variables.

Items	BP	EC	FC	GP	HR	INO	PRO	RISK	SC
BP1	0.731								
BP2	0.774								
BP3	0.879								
BP4	0.886								
BP5	0.847								
BP6	0.941								
BP7	0.836								
BP8	0.859								
EC1		0.717							
EC2		0.849							
EC3		0.942							
EC4		0.892							
EC5		0.753							
FC1			0.730						
FC2			0.752						
FC3			0.825						
FC4			0.846						
GP1				0.774					
GP2				0.761					
GP3				0.737					
GP4				0.826					
GP5				0.830					
HR1					0.720				
HR2					0.862				
HR3					0.828				
HR4					0.895				
HR5					0.838				
HR6					0.845				
HR7					0.709				
INO1						0.817			
INO2						0.812			
INO3						0.814			
PRO1							0.853		
PRO2							0.845		
PRO3							0.776		
RISK1								0.816	
RISK2								0.846	
RISK3								0.973	
SC2									0.836
SC3									0.897
SC4									0.838
SC5									0.959
SC6									0.873
SC7									0.873

4.3.3. Test the Predictive Level of the Structural Model (R2)

The results in [Table 6](#) show that the explanatory level of the adjusted R2 is quite strong ([Hair et al., 2010](#)). The explanatory level of factors affecting business performance (BP) is 63.5 (corresponding to an adjusted R2 of 62.5).

Thus, to sum up, the independent variables that explain 62.5% of the research dependent variable is the business performance of enterprises. This result is considered quite well.

Table 4. Results of the VIF index of the model's predictors.

Observed variables	VIF	Observed variables	VIF	Observed variables	VIF
BP1	2.124	FC3	2.513	INO2	2.224
BP2	2.743	FC4	2.317	INO3	2.268
BP3	3.244	GP1	2.234	PRO1	2.095
BP4	4.163	GP2	1.977	PRO2	2.671
BP5	3.762	GP3	2.433	PRO3	2.417
BP6	4.665	GP4	1.999	RISK1	2.938
BP7	3.864	GP5	2.867	RISK2	3.405
BP8	4.024	HR1	2.659	RISK3	3.531
EC1	3.192	HR2	2.523	SC2	3.879
EC2	3.649	HR3	2.94	SC3	3.658
EC3	2.556	HR4	3.649	SC4	4.355
EC4	3.143	HR5	2.589	SC5	4.290
EC5	2.098	HR6	2.95	SC6	4.541
FC1	1.858	HR7	2.397	SC7	3.801
FC2	1.911	INO1	2.15	-	-

Table 5. Evaluation of model fit.

Fit summary	Saturated model	Estimated model
SRMR	0.089	0.100
d_ ULS	11,453	14,999
d_ G	n/a	n/a
Chi-square	n/a	Infinite
NFI	n/a	n/a

Table 6. Coefficient of determination values R2.

Index	R- square	R-squared correction
BP	0.635	0.625

To see the impact of the independent variables on the dependent variable in the model, we consider the path coefficient and the coefficient f^2 . As described in chapter 3, the coefficient f^2 indicates the degree of influence of the variable when removed from the model. If $f^2 > 0$, the independent variable has a potentially suitable prediction for the dependent variable. Corresponding to a coefficient f equal to 0.02 is the low probability, 0.15 is the medium probability and 0.35 is the high probability. The influence coefficient f^2 is shown in Table 7 indicating that the explanatory level of the independent variables for the dependent variable is relatively low.

4.4. Results of Testing the Research Hypothesis

Hypothesis H1, H1a, H1b, H1c, H2, H3, H4, H5 and H6 are accepted (value of $p < 0.05$), i.e., variables EO, INO, PRO, EC, SC, HR, FC, GP and EO all have a positive impact on the business performance of enterprises except risk which has a negative impact on the business performance of enterprises.

Table 7 and Figure 2 show that the research hypotheses from H1 to H6 are accepted (p value < 0.05), i.e., variables EC, SC, HR, FC, GP and EO all have a positive impact on the business performance of enterprises. The three dimensions of EO (including innovation, proactiveness and risk) all showed an association with BP. However, innovation and proactiveness showed a positive association while risk showed a negative association. This result also shows that instead of considering EO as a unidimensional concept, this study has demonstrated that EO is a multidimensional concept.

Table 7. Results of model hypothesis testing.

Hypothesis	Relation	Impact coefficient	P values	t values	f ² coefficient	Conclusion	Order of impact
H2	EC -> BP	0.177	0.001	3.313	0.062	Supported	3
H1	EO -> BP	0.089	0.000	4.290	0.026	Supported	9
H3	FC -> BP	0.223	0.001	3.331	0.089	Supported	1
H6	GP -> BP	0.118	0.026	2.228	0.032	Supported	8
H4	HR -> BP	0.126	0.047	1.988	0.025	Supported	7
H1a	INO -> BP	0.132	0.015	2.431	0.097	Supported	6
H1b	PRO -> BP	0.139	0.020	2.323	0.086	Supported	5
H1c	RISK -> BP	-0.145	0.007	2.709	0.070	Supported	4
H5	SC -> BP	0.198	0.003	2.986	0.068	Supported	2

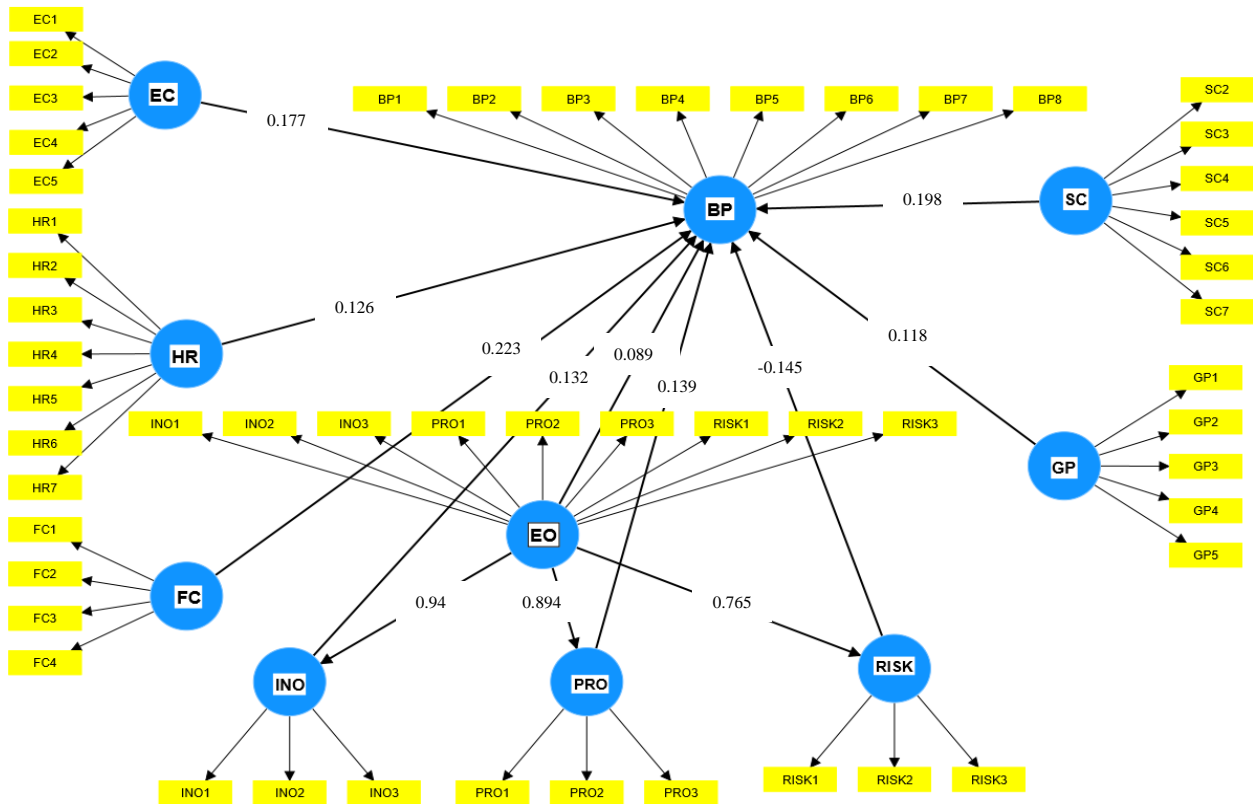


Figure 2. SEM-PLS linear structure model results.

5. DISCUSSING RESEARCH RESULTS

First, access to finance has the most significant influence on the business performance of women-owned SMEs. This result is similar to the studies of Nuong and Anh (2017); Aruna and Sunil (2020) and Smitha and Mendon (2019). Capital is a significant factor for businesses because no business is without capital (Wiklund & Shepherd, 2005). However, most businesses need to mobilize capital from outside to invest in technology, machinery, equipment and training activities. Therefore, financial institutions and the government need timely support to help businesses access capital for business activities.

Capital is the most critical factor affecting the business performance of enterprises and reality shows that access to capital is one of the biggest obstacles for women-owned businesses. Some other reasons from the business side lead to difficulty accessing finance: Firstly, women-owned SMEs also have difficulty meeting conditions related to collateral assets according to the general regulations of the commercial banking system. Second, women-owned SMEs still need more information on accessing bank loans and the capacity to prepare loan documents, loan

processes and loan procedures for commercial banks. Thirdly, women-owned SMEs often need to be updated and information needs to be more transparent. This leads to difficulties in appraising loan documents for women-owned SMEs at commercial banks.

Next, the entrepreneurial competencies of owners have the second most positive impact on business performance. The study's results indicate that the ability to recognize and take advantage of business opportunities also plays a significant role for entrepreneurs. This finding is consistent with the research results of [Shane and Venkataraman \(2012\)](#) that recognizing and pursuing business opportunities is the most basic competence of business people. Accordingly, an entrepreneur's ability to recognize opportunities is reflected in the fact that he or she can accurately recognize potential customers and the problems that customers need to be solved. Next, research shows that hard work and determination significantly impact business performance. This finding once again confirms that more than the innate capacity of entrepreneurs is needed; entrepreneurs need to have high effort and determination to successfully manage a business ([Roy et al., 2017](#)).

Social capital has the third strongest impact on business performance of enterprises. In this study, the importance of entrepreneurial networking has been confirmed in previous qualitative research. This result is similar to [Tam \(2021\)](#) and [Lerner and Hisrich \(1997\)](#) research results. Research results also show that networking has helped businesses access helpful information such as market information, financial sources, suppliers and customers. However, women entrepreneurs also admit that compared to their men counterparts, they still need to work on building networks because most of the existing ones are dominated by men. If women entrepreneurs are welcome in these networks, they are less likely to participate in group and network activities since most networking occurs after regular business hours. The research results are similar to the study of [Ukwueze \(2022\)](#) which shows that women are more disadvantaged than men in business activities because they have to take on more housework; Specifically, the study showed that up to 33.1% of women admitted to being in charge of the housework while this figure for men was only 2.4%.

Furthermore, most women business owners still view their companies as discrete entities and seek advantages gained through competitive rather than cooperative behavior. Several studies describe women as more effective at networking. They like to network with people they feel comfortable with and trust ([Farr-Wharton & Brunetto, 2007](#)). A necessary explanation could be cultural influences. Based on the cultural aspects of [Hofstede \(2001\)](#), Vietnamese culture is collectivist, so they see loyalty to family and work organizations as the foundation for social acceptance. Business people in such a society will greatly benefit from building strong relationships with their families and other stakeholders involved in the operation of the business.

The quality of human resources has a positive impact on the business performance of enterprises. This result is similar to the research results of [Anh et al. \(2021\)](#); [Duy and Hung \(2017\)](#); [Nuong and Anh \(2017\)](#); [Tiep and Huong \(2019\)](#) and [Aruna and Sunil \(2020\)](#). This result shows that in addition to the business owner's capacity, any business needs a high-quality workforce to support the business owner in implementing the policies and the organizations activities. Businesses that have a workforce with good knowledge, skills and attitudes will have high job quality. The more skilled and experienced workers who work hard to learn and share in their work, the enterprise's business performance will be higher because the school equips learners with basic knowledge about the career field that workers will pursue later, especially since the school equips learners with the ability to learn for life. Therefore, when working in the enterprise, the knowledge learned at school only meets a part of the job; the employees must be retrained and self-study through exchanges with other members. That is how other company members can greatly contribute to the business. Quantitative research results show that the quality of human resources in women-owned SMEs in Vietnam is low. This reflects the fact that current workers have a high level of education but need more practical knowledge and capacity. There are many reasons but one important reason is the current higher education and vocational training institutions. However, they have balanced the curricula to ensure that learning goes hand in hand with practice for students; in fact, they still tend to impart knowledge with little practical application.

Government policy has a significant influence on the business performance of enterprises. The results of this study are similar to those of [Nuong and Anh \(2017\)](#); [Lerner and Hisrich \(1997\)](#) and [Alene \(2020\)](#). Government policy impacts business performance with a coefficient $\beta = 0.156$. Thus, it can be seen that government policies impact enterprises' business performance but the degree of influence is not great. Many reasons can explain this problem; firstly, policies are issued but accessing support from those policies requires a lot of cumbersome, time-consuming procedures that benefit the most. Many businesses are discouraged and do not carry out the necessary

procedures to enjoy the government's support policies; secondly, many businesses have not fully updated the policies of the government and local authorities that benefit themselves.

Entrepreneurial orientation affects the business performance of enterprises. This result is similar to the research results of [Alam et al. \(2022\)](#); [Mahmood and Hanafi \(2013\)](#) and [Wiklund and Shepherd \(2005\)](#). This finding agrees with the point that businesses that exhibit a higher entrepreneurial orientation help businesses identify opportunities, thereby bringing competitive advantages and helping them to differentiate in the market ([Wiklund & Shepherd, 2005](#)). In the present study, entrepreneurial orientation had little impact on business performance. This can be partly explained by the fact that EO is often a resource-intensive activity as it involves making substantial resource commitments while the firms in this study also have certain limitations in accessing resources (especially financial resources as analyzed above), so the exploitation of opportunities is still limited. In addition, according to previous studies, entrepreneurial orientation often has a significant positive impact on the business performance of long-established enterprises (8 years or more, as studied by [Su, Xie, and Li \(2011\)](#) because it takes a long time to realize entrepreneurial orientation). The enterprises in the survey of this study are mostly less than ten years old, so the results are insignificant.

The relationship between the dimensions of the individual entrepreneurial orientation and the operating structure of the enterprise can also explain the present study results. [Hughes and Morgan \(2007\)](#) asserted that not all aspects of EO are equally correlated with firm performance. The correlation between each aspect of EO and corporate structure shows that initiative and innovation positively impact business results while risk-taking has the opposite relationship. The most exciting part of this study was finding an inverse relationship between risk-taking and business performance. The explanation for this may be due to factors related to gender and social beliefs. Women's traditional role as family caregivers can mean putting family resources at risk making them more afraid to take risks. Besides, the explanation for the negative in the case of this study is that the owner tries to keep control of his business with family funds as well as through the participation of family members, so the risk here is negligible ([Nuong, 2022](#)).

Furthermore, according to [Alam et al. \(2022\)](#), taking risks is considered destructive. The female entrepreneurs in the research area of this thesis are mostly those who come up from small businesses, often using instinct to make emotional decisions without specific processes. This means they need systems to evaluate risky investments scientifically and professionally before making a final decision.

Theoretically, this study supports the proposition that EO is a multidimensional structure; therefore, treating EO as a unidimensional structure may lead to a false hypothesis claiming that all dimensions of EO benefit business operations regardless of environmental factors according to the context and stage of development of enterprises. Therefore, women-owned SMEs should focus on the dimensions of EO that better help them achieve their goals rather than embracing all dimensions of EO in the future.

6. MANAGERIAL POLICY IMPLICATIONS

From the research results, some policy implications are proposed for state agencies. It is necessary to develop programs, initiatives and policies to support and improve the management capacity of female directors' especially preferential policies on access to capital, education and the market. Banks and credit institutions can apply a trust policy based on positive business results and the reputation of women-owned businesses to encourage directors to invest boldly in expansion. Educational institutions need to be more flexible in organizing training programs for business leaders with the characteristics of working while studying.

Besides, the curriculum should focus more on practical applications than theory. For organizations and business support associations, it is necessary to promote the role of gathering and support in connecting, sharing opportunities, knowledge and experiences for members, thereby forming a solid female entrepreneur community.

7. CONCLUSION AND RECOMMENDATIONS

From theoretical research and based on fundamental theories, the authors propose a research model consisting of 9 factors (of which three are considered dimensions of entrepreneurial orientation) for the business performance of SMEs due to women in charge. Research results have shown the main factors affecting the business performance of women-owned SMEs in Vietnam. Specifically, the influencing factors are as follows: access to finance for enterprises, business capacity of business owners, social capital, quality of human resources in enterprises, government policy and entrepreneurial orientation. In addition, the present study has proved that

entrepreneurial orientation is a multidimensional concept when evaluating the relationship of each dimension of entrepreneurial orientation to the business performance of enterprises. The results show that innovation and proactiveness positively impact business performance while risk-taking negatively impacts the business performance of women-owned SMEs in Vietnam.

The survey results show that the business performance of women-owned SMEs in Vietnam needs to be improved. The main reason is that the factors affecting the enterprise's business performance are still being assessed at a low level. Therefore, in the coming years, businesses will need to focus on improving these factors. Specifically, enterprises need to improve access to finance by making accounting information transparent, seeking information about loan documents and connecting with financial institutions. Business owners must actively improve their capacity by taking courses and searching for information on media and social networks. Enterprises need to actively build networks and spend much time building relationships with organizations and individuals related to their operations; at the same time, they spend a part of the budget on employee training activities to improve the enterprise's human resources quality. Businesses need to actively seek information about government support policies and have a strategy to access those policies. In addition, business owners need to build a proactive, innovative and creative corporate culture to promote innovation and proactiveness in the business; they need to build a methodical business plan and avoid blindly accepting risky projects.

For state agencies, financial institutions and business associations, it is necessary to have specific activities, policies and guidelines to promote the development of the enterprise system in general and women-owned SMEs in particular.

8. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study despite its contributions has research limitations. Firstly, because the study is sampled from several similar localities, the application to other ones with economic, cultural and political differences may need to be revised. Further research may be conducted in a more extensive and diverse area.

Second, cross-sectional data were used in this study. The limitation here concerns the argument in the literature that business-oriented strategies have a lasting effect on the performance of the business. This suggests that a cross-sectional design may not fully explain the relationship between the two structures and thus a longitudinal approach may be preferred.

The research may lack a comparison in the field of SMEs understanding of the cause-and-effect relationship between exogenous and endogenous variables. Therefore, researchers are encouraged to assess the proposed propositions further.

FUNDING

This study received no specific financial support.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

ARTICLE HISTORY

Received: 4 April 2023/ Revised: 12 May 2023/ Accepted: 30 May 2023/ Published: 8 June 2023

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study.

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REFERENCES

- Aidoo, S. O., Agyapong, A., & Mensah, H. K. (2020). Social capital and performance of SMEs: The role of entrepreneurial orientation and managerial capability. *Africa Journal of Management*, 6(4), 377-406. <https://doi.org/10.1080/23322373.2020.1830698>
- Alam, S. S., Md Salleh, M. F., Masukujjaman, M., Al-Shaikh, M. E., Makmor, N., & Makhbul, Z. K. M. (2022). Relationship between entrepreneurial orientation and business performance among malay-owned SMEs in Malaysia: A PLS analysis. *Sustainability*, 14(10), 1-16. <https://doi.org/10.3390/su14106308>

- Alene, E. T. (2020). Determinants that influence the performance of women entrepreneurs in micro and small enterprises in Ethiopia. *Journal of Innovation and Entrepreneurship*, 9(1), 1–20. <https://doi.org/10.1186/s13731-020-00132-6>
- Alhnaity, H., Almuala, A., & Elmasri, A. K. (2018). The role of government intervention as a moderating variable in the relationship between entrepreneurial networks and business owners' performance in Jordan. *Asian Journal of Economics and Empirical Research*, 5(1), 93-98. <https://doi.org/10.20448/journal.501.2018.51.93.98>
- Anahita, B., Jennifer, R., Sally, S., & Daffyd, D. (2012). Innovation in food sector SMEs. *Journal of Small Business and Enterprise Development*, 19(2), 300-321. <https://doi.org/10.1108/14626001211223919>
- Anandan, T., & Gupta, K. P. (2022). Trends in small business performance measurement research: A review of 25 years literature. *International Journal of Business Performance Management*, 23(4), 422-459. <https://doi.org/10.1504/ijbpm.2022.10050337>
- Anh, N. T. L., Ha, D. T., Linh, N. V., Hung, D. N., Hang, T. T., Kien, N. H., . . . Minh, T. T. (2021). Research on factors affecting business performance in terms of finance in enterprises in Nam Dinh province. *Journal of Banking Science and Training*, 232, 46–58.
- Anselah, S., Moeljadi, S., & Yuniarsa, S. O. (2015). The effect of government as a moderating variable in the relationship between orientation entrepreneurship, innovation, and market orientation on business performance case study: Tutul Village, Jember, East Java. *International Journal of Business, Economics and Law*, 7(2), 33–39.
- Arabeche, Z., Soudani, A., Brahmi, M., Aldieri, L., Vinci, C. P., & Abdelli, M. E. A. (2022). Entrepreneurial orientation, organizational culture and business performance in smes: Evidence from emerging economy. *Sustainability Switzerland*, 14(9), 1–20. <https://doi.org/10.3390/su14095160>
- Aruna, P., & Sunil, D. (2020). Factors affecting the competitive capability of small and medium women entrepreneurs. *International Journal of Advanced Science and Technology*, 29(5), 574-584.
- Barney, J. B. (2001). Is the resource-based “view” a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26(1), 41-56. <https://doi.org/https://doi.org/10.2307/259393>
- Blesa, A., & Ripollés, M. (2003). The role of market orientation in the relationship between entrepreneurial proactiveness and performance. *The Journal of Entrepreneurship*, 12(1), 1-19. <https://doi.org/10.1177/097135570301200101>
- Bourdieu, P. (1986). The forms of capital. In: Richardson, J., Handbook of Theory and Research for the Sociology of Education. In (pp. 241–258). Westport, CT: Greenwood Press.
- Carranza, E., Dhakal, C., & Love, I. (2018). *Female entrepreneurs: How and why are they different?* Jobs Working Paper (20). World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.
- Chandler, G. N., & Hanks, S. H. (1993). Measuring the performance of emerging businesses: A validation study. *Journal of Business Venturing*, 8(5), 391-408.
- Civelek, M. (2021). The mediating role of SMES' performance in the relationship between entrepreneurial orientation and access to finance. *Brazilian Administration Review*, 18(4), 1-25. <https://doi.org/10.1590/1807-7692BAR2021210045>
- Coleman, S. (2007). The role of human and financial capital in the profitability and growth of women-owned small firms. *Journal of Small Business Management*, 45(3), 303–319. <https://doi.org/10.1111/j.1540-627X.2007.00214.x>
- Crook, T. R., Todd, S. Y., Combs, J. G., Woehr, D. J., & Ketchen, D. J. (2011). Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *Journal of Applied Psychology*, 96(3), 443–456. <https://doi.org/10.1037/a0022147>
- Dadzie, Z., Agyapong, A., & Suglo, A. (2021). The role of internationalization in entrepreneurial orientation-performance link: Empirical study of SMEs in a developing nation perspective. *Review of International Business and Strategy*, 31(2), 257-280. <https://doi.org/https://doi.org/10.1108/RIBS-09-2019-0126>
- Dalia, G., Salah, T., & Elrayyes, N. (2011). *How to measure organization innovativeness? An overview of Innovation measurement frameworks and innovation Audit/Management tools*. Cairo, Egypt: Egypt Innovate: Technology Innovation and Entrepreneurship Center.
- Dess, G. G., & Robinson, R. B. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5(3), 265–273. <https://doi.org/10.1002/smj.4250050306>
- Dharmaratne, K. (2013). Impact of individual factors on the business performance of women entrepreneurs in Sri Lanka. *Sabaragamuwa University Journal*, 11(1), 139-165.
- Duy, N. V., & Hung, P. V. (2017). Analyzing the impact of factors on production and business activities of small and medium enterprises in Hai Duong province. *Vietnam Science and Technology Journal*, 15(2), 262–269.
- Farr-Wharton, R., & Brunetto, Y. (2007). Women entrepreneurs, opportunity recognition and government-sponsored business networks: A social capital perspective. *Women in Management Review*, 22(3), 187-207. <https://doi.org/10.1108/09649420710743653>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gilley, M., Walters, B., & Olson, B. (2002). Top management team risk taking propensities and firm performance: Direct and moderating effects. *Journal of Business Strategies*, 19(2), 95-114. <https://doi.org/10.54155/jbs.19.2.95-114>

- GSO. (2020). *White Paper, Small and medium enterprises in Vietnam, ministry of planning and investment - agency for enterprises*. Hanoi, Vietnam: Statistics Publishing House.
- Gupta, A. K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27(1), 25-41. <https://doi.org/https://doi.org/10.2307/255955>
- Gupta, N., & Mirchandani, A. (2018). Investigating entrepreneurial success factors of women-owned SMEs in UAE. *Management Decision*, 56(1), 219–232. <https://doi.org/10.1108/MD-04-2017-0411>
- Hair, J. F., Black, W. C., Babin, B., & Anderson, R. (2010). *Multivariate data analysis* (7th ed.). New York: Prentice Hall.
- Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. (2014). Partial least squares structural equation modeling: An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hao, S., & Song, M. (2016). Technology-driven strategy and firm performance: Are strategic capabilities missing links? *Journal of Business Research*, 69(2), 751-759. <https://doi.org/10.1016/j.jbusres.2015.07.043>
- Hasan, F. S., & Almubarak, M. M., Saeed. (2016). Factors influencing women entrepreneurs' performance in SMEs. *World Journal of Entrepreneurship, Management and Sustainable Development*, 12(2), 82-101. <https://doi.org/doi:10.1108/wjemsd-09-2015-0037>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20, 277–319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Hofstede, G. (2001). *Culture's consequences* (2nd ed.). London: Sage.
- Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Marketing Management*, 36(5), 651–661. <https://doi.org/10.1016/j.indmarman.2006.04.003>
- Ibrahim, T. M., & Muritala, T. A. (2015). Does government policies improve business performance? evidence from Nigeria. *Journal of Studies in Social Sciences*, 11(2), 143-159.
- Indah, K. (2022). *Women entrepreneurs statistics. U.S., U.K, & worldwide earthweb*. Retrieved from: <https://earthweb.com/women-entrepreneurs-statistics/>.
- Ismanu, S., & Kusmintarti, A. (2020). Government policies and firm size as a moderating effect of innovation on business performance. *Advances in Economics, Business and Management Research*, 136, 123–128. <https://doi.org/10.2991/aebmr.k.200415.024>
- Kamunge, M. S., Njeru, A., & Tirimba, O. I. (2014). Factors affecting the performance of small and medium enterprises in the Jua Kali sector in Nakuru town, Kenya. *International Journal of Scientific and Research Publications*, 4(12), 80–93. <https://doi.org/10.9790/487x-16148093>
- Kaplan, S., & Norton, D. (1933). Putting the balanced scorecard to work. *Harvard Business Review*, 71, 315–324. <https://doi.org/10.1016/b978-0-7506-7009-8.50023-9>
- Keh, H. T., Mai, N. T. T., & Ping, N. H. (2007). The effects of entrepreneurial orientation and marketing information on the performance of SMEs. *Journal of Business Venturing*, 22, 952–611. <https://doi.org/https://doi.org/10.1016/j.jbusvent.2006.05.003>
- Khan, M. A., Zubair, S. S., Rathore, K., Ijaz, M., Khalil, S., & Khalil, M. (2021). Impact of entrepreneurial orientation dimensions on performance of small enterprises: Do entrepreneurial competencies matter? *Management*, 8(1), 1-18. <https://doi.org/10.1080/23311975.2021.1943241>
- Le, T. N., Le, Q. H., & Nguyen, T. L. (2022). Factors affecting business performance of women-owned small and medium enterprises in Vietnam: A quantitative study. *Journal of Asian Finance Economics and Business*, 9(7), 123–133. <https://doi.org/10.13106/jafeb.2022.vol9.no7.0123>
- Lerner, M., & Almor, T. (2002). Relationships among strategic capabilities and the performance of women-owned small ventures. *Journal of Small Business Management*, 40(2), 109-125. <https://doi.org/10.1111/1540-627x.00044>
- Lerner, M., & Hisrich, R. (1997). Israeli women entrepreneurs. *Journal of Business Venturing*, 12(4), 315-339. [https://doi.org/10.1016/s0883-9026\(96\)00061-4](https://doi.org/10.1016/s0883-9026(96)00061-4)
- Lim, S., & Envic, B. R. (2013). Gender and entrepreneurial orientation: A multi-country study. *International Entrepreneurship and Management Journal*, 3(9), 465-482. <https://doi.org/10.1007/s11365-011-0183-2>
- Loan, N. T. (2018). The effect of internal and external factors on the business success of agri-based exporting small and medium scale enterprises in Thanh Hoa Province, Vietnam. *Journal of Finance and Economics*, 6(3), 87–95. <https://doi.org/10.12691/jfe-6-3-2>
- Luecke, R., & Katz, R. (2003). *Managing creativity and innovation*. Boston: Harvard Business School Press.
- Lukiastuti, F., & Kusuma, A. H. (2021). *The moderating role of access to financing on the relationship between entrepreneurial orientation and performance of Batik Smes*. Paper presented at the Proceedings of the 3rd International Conference on Banking, Accounting, Management and Economics.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135-172.

- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429-451. [https://doi.org/https://doi.org/10.1016/S0883-9026\(00\)00048-3](https://doi.org/https://doi.org/10.1016/S0883-9026(00)00048-3)
- Mahmood, R., & Hanafi, N. (2013). Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia: Competitive advantage as a mediator. *International Journal of Business and Social Science*, 4(1), 82–90. <https://doi.org/10.1177/0266242612455034>
- Man, T. W., Lau, T., & Chan, K. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17(2), 123-142. [https://doi.org/10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6)
- Mandawa, B., Sanghavi, N., & Mostto, C. (2014). *Enhancing the performance of women-owned small and medium-sized enterprises in developing countries - a study of Zambia Manchester*. Paper presented at the British Academy of Management Annual Conference Processing: The Role of the Business School in Supporting Economic and Social Development Processing. Belfast, United Kingdom.
- Md Isa Yusuff, Y. Z., Ab Wahab, N. Y., Khadri, N. A. M., Sidek, S., & Hasbolah, H. (2022). Entrepreneurial competencies and women's business performance in Malaysia. In *Lecture Notes in Networks and Systems*, 486(1), 585-595. https://doi.org/10.1007/978-3-031-08087-6_42
- Mwale, A., & Phiri, J. (2022). Examining the factors that affect business success of women owned small and medium enterprises in Lusaka. *Open Journal of Business and Management*, 10(4), 1695-1723. <https://doi.org/10.4236/ojbm.2022.104087>
- Nuong, L. N., & Anh, V. T. Q. (2017). Research on factors affecting the development of small and medium enterprises in the industrial sector in Thai Nguyen province. *Journal of Economics and Forecasting*, 60–63.
- Nuong, L. T. (2022). Influence of entrepreneurial orientation on the business performance: Evidence from women owned SMEs in Thanh Hoa Province , Vietnam. *Journal of Finance and Economics*, 10(2), 37–42.
- Ongachi, R. N., & Bwisa, P. H. M. (2013). Factors influencing growth of women owned micro and small enterprises: A survey of Kitale Municipality. *International Journal of Academic Research in Business and Social Sciences*, 3(10), 182–196. <https://doi.org/10.6007/ijarbss/v3-i10/289>
- Palmberg, C. (2004). The sources of innovations—looking beyond technological opportunities. *Economics of Innovation and New Technology*, 13(2), 183-197. <https://doi.org/10.1080/10438590410001628143>
- Putnam, R. D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political Science and Politics*, 28(4), 664-683. <https://doi.org/10.2307/420517>
- Radzi, K. M., Nazri, M., & Nor, M. (2017). The impact of internal factors on small business success: A case of small enterprises under the FELDA scheme. *Asian Academy of Management Journal*, 22(1), 27–55. <https://doi.org/https://doi.org/10.21315/aamj2017.22.1.2>
- Ramli, A., & Razali, Z. (2019). Women's micro-enterprises: Factors influencing business performance. *Archives of Business Research*, 7(9), 272-286. <https://doi.org/10.14738/abr.79.7161>
- Roy, S., Tripathy, P., & Tripathy, P. (2017). Assessment of factors affecting the performance of women entrepreneurs in MSE in polosara district of Ganjam, Odisha. *British Journal of Economics, Management & Trade*, 17(3), 1-11. <https://doi.org/10.9734/bjemt/2017/32298>
- Santarelli, E., & Tran, H. T. (2013). The interplay of human and social capital in shaping entrepreneurial performance: The case of Vietnam. *Small Business Economics*, 40(2), 435–458. <https://doi.org/10.1007/s11187-012-9427-y>
- Shane, S., & Venkataraman, S. (2012). Note as the promise of entrepreneurship. *The Academy of Management Review*, 25(1), 217-226.
- Sidek, S., Mohamad, M. R., & Nasir, W. (2016). Entrepreneurial orientation, access to finance and business performance: A preliminary analysis. *International Journal of Academic Research in Business and Social Sciences*, 6(11), 692-707. <https://doi.org/10.6007/ijarbss/v6-i11/2452>
- Smitha, N., & Mendon, S. (2019). Antecedents of business success among women owned MSMEs: Perspectives from an emerging economy. *International Journal of Business & Applied Sciences*, 8(3), 2471–8858.
- Su, Z., Xie, E., & Li, Y. (2011). Entrepreneurial orientation and firm performance in new ventures and established firms. *Journal of Small Business Management*, 49(4), 558-577. <https://doi.org/10.1111/j.1540-627x.2011.00336.x>
- Tam, V. H. (2021). *Research on factors affecting the performance of enterprises in Da Nang city*. Vietnam: University of Economics - University of Danang.
- Thuy, D. M. (2022). *Improve management capacity of directors of small and medium-sized enterprises in Thanh Hoa province*. Business Management PHD Thesis. Thuong Mai University. Ha Noi. Vietnam.
- Tien, T. Q., & Trang, P. T. Q. (2018). *Gender diversity in business leadership and vietnamese firm performance*. Paper presented at the Conference: 2018 International Conference Proceedings: Women Entrepreneurs in the Industrial Revolution 4.0, 7292(November 2018).
- Tiep, P. M., & Huong, V. T. B. (2019). Factors affecting business performance of SMEs in Ben Tre city. *Online Finance Magazine*.
- Ukwueze, E. R. (2022). Women and entrepreneurship in Nigeria : What role does social inclusion play? *Journal of International Women's Studies*, 23(5), 41–62.

- UN Women. (2020). *A review of the implementation of small and medium building needs and training services for women-owned SMEs and women entrepreneurs in Viet Nam*. Study report is Conducted under the Program "Promoting Economic Empowerment of Women at Work in Asia" (WeEmpower Asia). UN Women in Vietnam.
- VCCI. (2019). *Access to business support services for female enterprises in Vietnam*. Retrieved from http://st.aus4reform.org.vn/staticFile/Subject/2019/03/12/bao-cao-tiep-can-dich-vu-ho-tro-kinh-doanh-doi-voi-cac-doanh-nghiep-nu-tai-vn_121155245.pdf
- VCCI. (2021). *Business environment report in Vietnam: Perspectives of women-owned businesses*. Retrieved from http://vibonline.com.vn/wp-content/uploads/2021/05/21.04.29-VCCI-Comp4_Bao-cao-MTKD_DN-nu-2020_FINAL-1.pdf
- Walker, E., & Brown, A. (2004). What success factors are important to small business owners? *International Small Business Journal*, 22(6), 577-594. <https://doi.org/10.1177/0266242604047411>
- Wickramaratne, A., Kiminami, A., & Yagi, H. (2014). Entrepreneurial competencies and entrepreneurial orientation of tea manufacturing firms in Sri Lanka. *Asian Social Science*, 10(18), 50–62. <https://doi.org/10.5539/ass.v10n18p50>
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91. <https://doi.org/10.1016/j.jbusvent.2004.01.001>
- Zahra, S. A., & Wright, M. (2011). Entrepreneurship's next act. *Academy of Management Perspectives*, 25(4), 67-83. <https://doi.org/doi:10.5465/amp.2010.0149>