

Innovation and Ownership Structure as Drivers of Export Strategy: Evidence from Vietnamese Firms

Lai Nam Tuan¹

¹Faculty of Management, Ho Chi Minh City University of Law Ho Chi Minh City, Vietnam

Email: lnantuan@hcmulaw.edu.vn

Received: March 4, 2025

Revised: April 29, 2025

Accepted: May 3, 2025

Abstract

This study investigates the factors driving export decisions in Vietnam, a crucial aspect of the country's economic resilience in a volatile global landscape. Employing a pooled dataset of 3,045 firms observed over three years (2009, 2015, and 2023), the paper examines the influence of innovation and ownership structure on firm-level export performance. The result findings reveal that innovation is a significant driver of export success, particularly for firms operating in knowledge-intensive industries. Moreover, foreign ownership emerges as a key determinant of export strategy, as foreign firms often bring advanced technologies, management practices, and global market access. However, the impact of ownership structure may vary across different industries and market contexts. The findings offer valuable insights for policymakers and businesses in Vietnam. In the context of global economic instability, innovation emerges as a crucial resilience mechanism, enabling firms to adapt to changing market dynamics, mitigate risks, and seize new opportunities. Foreign-owned enterprises, with their access to global markets and advanced technologies, may be better positioned to navigate turbulent times. By understanding the interplay between innovation, ownership structure, and export performance, policymakers can formulate effective strategies to enhance the resilience of emerging economies in the face of global challenges.

Keywords: Firm-level export decision, Innovation, Ownership structure, Vietnam

Introduction

Export decisions are crucial for Vietnam's economic growth and stability, particularly in the context of increasing global economic uncertainty, including geopolitical tensions, supply chain disruptions, and fluctuating international demand. A robust body of empirical research supports the notion that innovation is a key driver of export performance (Xie & Li, 2018; Ayllón & Radicic, 2019; Edeh et al., 2020). Vietnamese firms that embrace innovation are better equipped to meet stringent international standards, cater to diverse consumer preferences, and mitigate risks associated with global market volatility. By diversifying their revenue streams and reducing reliance on the domestic market, exporting firms can contribute to the stabilization of the national economy, aligning with the government's strategic objectives.

While the literature on the innovation and export has predominantly focused on developed economies (Love & Roper, 2015; Azar & Ciabuschi, 2017; Aghion et al., 2018), where firms often possess strong innovative capabilities and established brand reputations, emerging markets present a unique context. Despite facing infrastructure deficits and institutional challenges, emerging market enterprises (EMEs) have demonstrated remarkable success in international markets (Choi, Lee, & Williams, 2011; Dong, Kokko, & Zhou, 2022). A key differentiating factor in emerging markets is the diverse ownership structure (Phung & Mishra, 2016; Som, 2022).

The role of state-owned enterprises (SOEs) and foreign-owned enterprises (FOEs) varies significantly across countries. SOEs, often driven by national development goals, may prioritize long-term objectives over immediate commercial returns, while FOEs, with their access to global markets and advanced technologies, may exhibit different innovation strategies. Many emerging market enterprises (EMEs) face significant infrastructure deficits, including transportation, energy, and communication systems, which hinder efficient production and distribution (Wu, Wei & Wang, 2021). This study investigates the interplay between innovation, ownership structure, and export decision in the context of Vietnam.

By analyzing a pooled dataset of 3,045 firms observed over three years (2009, 2015, and 2023), the paper aims to contribute to the understanding of how these factors influence firm-level export decisions. The empirical analysis employs various econometric techniques, including probit, logit, and instrumental variable (IV) probit models, to address potential endogeneity issues. The results demonstrate a significant positive relationship between innovation and export performance, aligning with previous research. Additionally, foreign ownership emerges as a key driver of export success, suggesting that foreign firms bring valuable resources and capabilities to the domestic market.

This study offers several contributions to the literature. First, it extends the understanding of the innovation-export nexus to the context of emerging markets, where institutional and market conditions may differ significantly from those in developed economies. Second, the paper highlights the importance of ownership structure in shaping firm-level export behavior. Third, the findings provide valuable insights for policymakers and businesses in Vietnam, emphasizing the need to foster innovation, attract foreign investment, and implement policies that support export-oriented growth. The rest of the article is organized as follows. Section 2 presents the theoretical framework and state the hypotheses. Section 3 discusses data and methodology. Section 4 presents the results and provides robustness checks. Section 5 discusses conclusions and policy implications

Theoretical Framework

The increasing globalization and economic integration of emerging markets have provided new opportunities for export-oriented firms. However, internationalization is a complex and challenging endeavor. Firms must navigate diverse cultural, regulatory, and competitive landscapes to successfully enter and operate in foreign markets (Goedhuys and Sleuwaegen, 2016). Theoretical frameworks such as the Transaction Cost Economics (TCE), Resource-Based View (RBV) and Dynamic Capabilities Theory (Wagner, 2016; Ramon et al., 2019; Hoque et al., 2021) provide valuable insights into the determinants of firm-level export decisions.

TCE emphasizes the importance of minimizing transaction costs through efficient governance mechanisms, while RBV highlights the role of firm-specific resources and capabilities in driving competitive advantage. Dynamic capabilities theory highlights the importance of firms' ability to adapt to changing market conditions and leverage their resources to create new opportunities. To overcome the challenges associated with internationalization, firms often leverage innovation as a strategic tool. By developing innovative products and services, firms can differentiate themselves from competitors, meet evolving consumer preferences, and adapt to changing market conditions.

In accordance with TCE, Gulbrandsen, Lambe, and Sandvik (2017) argue that innovative firms can minimize transaction costs and maximize the value of their resources and capabilities in international markets. Further, the resource-based view (RBV) offers a useful framework for understanding the role of firm-specific resources and capabilities in driving export strategy

(Rua, França, & Fernández Ortiz, 2018). According to this perspective, firms with strong innovative capabilities, such as R&D, product design, and brand building, are better positioned to compete in global markets (İpek, 2018; Ramon et al., 2019). These capabilities enable firms to adapt to diverse market conditions, develop niche products, and overcome barriers to entry. Based on these theoretical insights, the paper proposes the first hypothesis:

Hypothesis 1 (H1): Innovative Firms are More Likely to Engage in Export Activities.

Dynamic capabilities theory further suggests that firms with strong innovative capabilities are better equipped to adapt to changing market conditions and technological advancements (Teece and Leih, 2016). By continuously innovating and upgrading their capabilities, firms can maintain a competitive edge and sustain their export performance over time. A culture of innovation, characterized by a willingness to experiment, embrace risk, and learn from failure, is crucial for fostering dynamic capabilities. By fostering such a culture, organizations can position themselves as leaders in their industries and effectively respond to the evolving challenges and opportunities of the global market.

In addition to innovation, firm ownership structure can also influence export behavior. Foreign ownership, in particular, can provide firms with access to global markets, advanced technologies, and managerial expertise (Bircan, 2019; Ramon et al., 2019). This can enhance their competitiveness and facilitate entry into international markets. On the other hand, state-owned enterprises (SOEs) exhibit a more complex relationship with export performance because their objectives may be influenced by national development goals and political considerations. While they may benefit from government support and policy advantages, bureaucratic inefficiencies and a lack of market incentives can hinder their export capabilities (Bircan, 2019).

The resource-based view (RBV) highlights the importance of firm-specific resources and capabilities in driving export performance. Foreign-owned firms, with their access to global networks and resources, often possess a competitive advantage. However, the impact of domestic ownership on export performance can vary. While domestic firms may benefit from strong local market knowledge and cultural understanding, they may face challenges in accessing international markets and securing adequate financing.

In addition to innovation, firm ownership structure can also influence export behavior. Theoretical frameworks, such as the Resource-Based View (RBV) and Dynamic Capabilities Theory, suggest that both ownership structure and innovation should influence export decisions. Ownership structure influences access to resources. For instance, Zhang et al. (2016) explore the factors driving the internationalization of Chinese enterprises. They highlight the role of foreign ownership in enhancing access to international networks and market knowledge, facilitating internationalization.

On the other hand, the impact of state-owned enterprises (SOEs) on export performance is more complex, as their objectives may be influenced by national development goals and political considerations. While they may benefit from government support and policy advantages, bureaucratic inefficiencies and a lack of market incentives can hinder their export capabilities. Phung & Mishra (2016) argue that Vietnamese SOEs often benefit from government subsidies and preferential treatment, which may artificially enhance their export activities. Domestically-owned firms, while often benefiting from a deep understanding of local markets, may face challenges in accessing international markets and competing with foreign firms. The impact of ownership structure on export performance is complex and can vary across different contexts and industries. Therefore, the interplay between innovation, ownership structure, and export performance is influenced by various factors, including institutional context, market

conditions, and firm-specific characteristics. To further investigate the impact of ownership structure on export decisions, the following hypothesis is proposed:

Hypothesis 2 (H2): Firms with a Higher Proportion of Foreign Ownership are More Likely to Engage in Export Activities.

According to network theory, foreign ownership can provide firms with a range of advantages, including access to global markets, advanced technologies, and managerial expertise (Yiu, Lau, & Bruton, 2007; Gaur & Delios, 2015). Foreign investors can bring valuable insights into foreign market dynamics, such as regulatory environments, cultural preferences, and business practices. This knowledge can empower emerging market firms to compete effectively in the global marketplace.

Methods

Model Specifications

The paper tests the hypotheses by using the following regression specification.

$$Y_i = \alpha + \beta_1 \text{Inno}_i + \beta_3 \text{Ownership}_i + \gamma X_i + \mu_r + \nu_t + \varepsilon_i \quad (1)$$

The variable Y_i is a binary indicator for export status, equaling one if firm i exports and zero otherwise. The key independent variable, Inno_i , is a binary indicator for innovation activity. The ownership structure of firm i , Ownership_i , is captured by three variables: Foreign Ownership, State Ownership and Domestic Ownership. These ownerships represent the percentage shares held by each type of owner. The control variables, denoted by X_i , include firm-level characteristics such as size, age, and growth rate. The model also incorporates industry-specific fixed effects, μ_r and time fixed effects, ν_t , to control for unobserved time-invariant and time-varying factors that may influence export decisions. The coefficient of Inno_i and Ownership_i captures the direct effect of innovation and ownership structure on export decision and to test the two hypotheses.

The paper examines the role of industry characteristics in shaping export behavior, according to the insights of Freund and Pierola (2015). They highlight that certain industries, such as those in the agriculture, forestry, fishing, and hunting sectors, construction, manufacturing, wholesale and retail trade, finance and insurance, and healthcare and social assistance, may have specific characteristics that influence their export potential. These industries are more likely to export based on specific factors such as productivity, economies of scale, and industry characteristics. This paper employs the pooled probit model to estimate Equation (1), while controlling for industry and time effects. These fixed effects can help control for unobserved time-invariant characteristics of firms that might confound the relationship. To address potential endogeneity biases, including reverse causality and omitted variable bias, the study employs some methodological approaches.

While traditional approaches like lagging variables are often used (Aitken & Harrison, 1999), data limitations necessitated the application of this method. In this study, the paper leverages a combination of probit and logit models to assess the robustness of the findings (Rainey & McCaskey, 2021). Additionally, to address endogeneity concerns, the paper implements an instrumental variable (IV) probit model (Lin & Wooldridge, 2019). Because the theoretical foundation for a direct causal relationship between export status and ownership structure is less well-established. While theories such as the Resource-Based View (RBV) and Transaction Cost Economics (TCE) primarily focus on how ownership structure influences strategic decisions, including export behavior (Pore, 2018; Chung, Ding, & Ma, 2019), some studies suggest that exporting can stimulate innovation as firms strive to meet international standards and adapt to diverse market demands (Vicente, M., Abrantes, J. L., & Teixeira, 2015).

Operating in diverse international markets exposes firms to new customer needs and competitive pressures, which can further stimulate innovation (Gulbrandsen, Lambe, and Sandvik, 2017). Thus, the industry-level average innovation rate is employed as an instrumental variable. This instrument is correlated with firm-level innovation but less likely to be directly influenced by the firm's export decision. By combining these methodological approaches, the study aims to mitigate the impact of endogeneity and provide a more reliable and robust analysis of the relationship between innovation, ownership structure, and export decision.

Variables for the Regression Analysis

The dependent variable, export status, is a binary indicator that equals 1 if the firm engages in direct or indirect export activities and 0 otherwise. The key explanatory variable, firm innovation, is also a binary indicator that equals 1 if the firm has introduced new or significantly improved products, services, or processes in the past three years. Consistent with the findings of Edeh et al. (2020), innovation plays a crucial role in enhancing a firm's international competitiveness, particularly for firms operating in developing markets that face resource constraints and external pressures. To examine the impact of ownership structure, the study employs three measures: state ownership, foreign ownership, and domestic ownership, represented as the percentage of shares held by each type of owner. The research builds upon the insights of Bircan (2019) and Phung & Mishra (2016), who explored the effects of ownership structures, including foreign, state, and concentrated ownership, on firm productivity and export capabilities.

Firms with foreign ownership often benefit from technological advancements, knowledge transfer, and superior managerial practices, leading to higher productivity levels. Ownership structure can significantly influence a firm's export performance. Foreign ownership, with its associated advantages, tends to facilitate exports. State ownership's impact on exports is more nuanced and can vary depending on government policies and sectoral priorities. Concentrated ownership can either promote or hinder exports, contingent on factors such as governance quality and risk appetite. To mitigate potential endogeneity bias and unobserved firm-level heterogeneity, the analysis controls for several relevant variables. As highlighted by Ha et al. (2020), differences in size may influence export incentive. Larger firms often possess economies of scale, enabling them to compete effectively in international markets. Second, firm age, measured by the number of years since establishment, is also considered.

Because it reflects accumulated experience, resources, and capabilities necessary for global operations (Coad et al., 2018), firm age significantly influences a firm's ability to engage in exporting activities. Third, productivity is other crucial factor influencing export decisions. As demonstrated by Love & Roper (2015), more productive firms are better equipped to cover export costs and maintain profitability. High-growth firms, particularly those in emerging markets, are likely to pursue export strategies to access larger markets, diversify revenue streams, and achieve economies of scale. The study also accounts for industry-specific factors. Zarach & Parteka (2023) emphasize the complex relationship between resource-intensive industries and export performance. While natural resource abundance can create export opportunities, it can also lead to challenges such as Dutch disease and dependence on commodity prices. Countries like Norway and Australia have successfully leveraged their resource wealth through strong governance and reinvestment policies, while others, such as Venezuela and Nigeria, have experienced negative consequences.

Data

Vietnam has emerged as a leading Southeast Asian economy in recent decades. Its diverse ownership structure provides an ideal setting to examine the relationship between ownership, innovation, and exports. The dataset is collected from Vietnamese World Bank Enterprise Survey for three periods (2009, 2015 and 2023). It includes 3,045 firm-level observations and focuses on manufacturing firms, which constitute 70% of the sample. These firms are more likely to engage in export activities and generate measurable innovation outputs, such as patents and new products. Table 1 presents descriptive statistics for the sample firms. While export-oriented growth has been a significant driver of Vietnam's economic development, the data reveals that only 31.7% of the sample firms are exporters. This suggests that a substantial portion of the domestic market remains unexplored, indicating potential opportunities for future growth.

Regarding innovation, approximately 60% of the firms in the sample have engaged in product or process innovation. This highlights the importance of innovation as a key driver of firm performance and competitiveness. The ownership structure of the sample firms is predominantly domestic (with the average share of 88.80% and a standard deviation of 28.86). The average foreign ownership share is 8.56% with standard deviation of 26.99. It indicates that foreign investors usually hold a relatively low level of foreign ownership. Given that the average state ownership share is 2.181 percent, with a standard level of 10.40. It implies that, on average, the share of ownership held by state entities in these firms is relatively low. While many firms have low level of foreign and state ownership, some may have very high level of these ownership percentages. While foreign ownership can contribute to technological transfer and market access, its limited presence in the sample may constrain the potential for internationalization and innovation (Ramon et al., 2019).

Domestic ownership, on the other hand, can foster a deeper understanding of local market dynamics and consumer preferences, enabling firms to develop innovative products and services tailored to domestic needs. For other firm characteristics, the average firm size is 1.94 standard deviation of 0.80. It indicates that the sample skews slightly towards medium-sized firms but includes a substantial number of small firms as well. The average growth rate of firms is 35.8%, with a standard deviation of 0.776. The high average growth rate suggests robust expansion, but the variation indicates that not all firms experience similar growth. The average firm in the sample has been in operation for 23.49 years, with a standard deviation of 10.48 years. This indicates that the sample includes both relatively young firms and well-established ones, spanning a broad range of operational histories. About 60% of the sample firms belong to resource-intensive industries, with a standard deviation of 0.49.

This binary variable suggests a moderately uneven distribution, as a significant portion of the sample operates in industries dependent on natural resources. The sample comprises a diverse range of firms, varying in size, growth rate, age, and industry association. While the average firm size is relatively small, with a mean of 1.94 and a standard deviation of 0.80, the sample includes a mix of small, medium, and large enterprises. The high average growth rate of 35.8% indicates a dynamic and rapidly evolving business environment, with significant variation across firms. The average firm age of 23.49 years suggests a balance between established and emerging firms. Regarding industry association, approximately 60% of the sample firms operate in resource-intensive sectors. This concentration in resource-based industries may influence the firms' innovation strategies and export intention, particularly in the context of global commodity price fluctuations and environmental sustainability concerns (İpek, 2018).

Table 1. Descriptive statistics of Export Status, Ownership Structure and Innovation Incentive

Variables	N	Mean	Sd	Min	Max
-----------	---	------	----	-----	-----

Export	3,045	0.317	0.465	0	1.00
Innovation	3,043	0.599	0.490	0	1
Foreign Ownership Percentage	3,040	8.562	26.99	0	100
State Ownership Percentage	3,043	2.181	10.40	0	99
Domestic Ownership Percentage	3,041	88.80	28.86	0	100
Size	3,031	1.940	0.800	1	3.00
Firm Growth Rate	3,045	0.358	0.776	-2	2.00
Age	3,033	23.49	10.48	10.0	122.0
Resource-Intensive Sector (Rii)	3,045	0.600	0.490	0	1.00

Source: Author's calculation

Results and Discussion

Main Results

Table 2 presents the estimation results for Equation (1). Columns (1) and (2) report the marginal effects from the probit and logit models, respectively. Columns (3) and (4) provide robustness checks using an instrumental variable (IV) probit model, which is discussed in detail in Section 4.2. To address potential endogeneity bias, industry-level innovation intensity is employed as an instrumental variable. Both the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) suggest that the probit model provides a slightly better fit to the data compared to the logit model. The probit model has lower AIC and BIC values (2629.8 and 2697.3, respectively) than the logit model (2630.7 and 2698.3). Lower values for these information criteria indicate a better trade-off between model complexity and fit to the data. This study investigates the determinants of firm-level export decisions, focusing on the roles of innovation and ownership structure.

The dependent variable, export status, is a binary indicator that equals one if the firm exports and zero otherwise. Key independent variables include a dummy variable for firm innovation and measures of ownership structure, such as foreign ownership, state ownership, and domestic ownership. Control variables encompass firm growth, age, size, industry type, and year fixed effects. Both probit and logit model estimates consistently demonstrate a significant positive relationship between innovation and export decisions. The coefficient estimates, ranging from 0.236 to 0.412 across models, indicate that innovative firms are more likely to engage in export activities. These findings support the conclusions of Edeh et al. (2020), who highlight the crucial role of innovation in enhancing export incentives, especially in developing markets.

By developing innovative products and processes, firms can overcome trade barriers, differentiate themselves from competitors, and cater to the demands of international markets. This empirical evidence supports Hypothesis 1, suggesting that a firm's innovative capacity has a significant positive impact on its propensity to export. Regarding ownership structure, only foreign ownership exhibits a consistently significant and positive impact on export decisions across all models. This finding suggests that firms with foreign ownership are more likely to engage in exporting. In line with Resource-Based View (RBV) theory, Ramon et al. (2019) argue that foreign-owned firms often possess superior access to resources such as capital, technology, and managerial expertise, which are crucial for navigating the complexities of international markets.

The consistent positive and significant coefficients for foreign ownership support Hypothesis 2. These results indicate that higher levels of foreign ownership facilitate firms' participation in global markets. The effect of State and Domestic ownership is less clear and not consistently significant across all models. State-owned firms may face bureaucratic constraints and may be less market-oriented, limiting their export activities unless they align with specific government policies and priorities (Vinh & Duong, 2020). Domestically-owned firms, particularly smaller firms, may lack the resources, networks, and scale necessary to compete effectively in international markets, especially without significant innovation or government support. Several control variables exhibit significant effects on export decisions. Firm growth is positively and significantly associated with export propensity, suggesting that faster-growing firms are more likely to engage in export activities (Love & Roper, 2015).

Similarly, firm age is positively and significantly related to export decisions, indicating that older firms, with their accumulated experience, networks, and resources, are more export-oriented (Coad et al., 2018). The results also demonstrate that both medium-sized and large-sized firms are significantly more likely to export than small firms. Larger firms, in particular, possess greater capacity to scale production, absorb risks, and invest in export-related infrastructure, thereby enabling them to compete effectively in international markets (Ha et al., 2020). Finally, firms operating in resource-intensive industries exhibit a consistently significant negative relationship with export decisions.

This finding can be attributed to several factors, including lower value-added, trade barriers, and market prioritization. Resource-intensive industries often focus on primary production, which may not meet the quality standards or specialized demands of international markets. Additionally, these industries may face higher tariffs, non-tariff barriers, and other trade restrictions in global markets. Moreover, domestic market considerations, such as proximity, lower logistical costs, and government policies, may prioritize domestic consumption over exports. Despite analyzing data from three distinct years (2009, 2015, and 2023), the analysis does not reveal significant year-fixed effects, suggesting that the overall trends in firm-level export behavior have remained relatively stable over this period.

Table 2. Innovation and Ownership Structure affect Export Incentive

	Probit Model	Logit Model	Second Stage Regression For IV-Probit	First Stage Regression For IV-Probit
VARIABLES	Export	Export	Export	Innovation
Innovation	0.236*** (0.0697)	0.412*** (0.121)	0.31 (0.252)	
Foreign Ownership Percentage	0.0215*** (0.00707)	0.0353*** (0.0120)	0.0213*** (0.00676)	0.000418 (0.00192)
State Ownership Percentage	0.0111 (0.00736)	0.0176 (0.0124)	0.0117* (0.00709)	0.00124 (0.00201)
Domestic Ownership Percentage	0.0106 (0.00701)	0.0172 (0.0119)	0.0107 (0.00669)	0.000674 (0.00190)
Firm Growth Rate	0.0856** (0.0372)	0.157** (0.0633)	0.120*** (0.0397)	0.0573*** (0.0108)
Age Of Firm (Log)	0.194** (0.0891)	0.325** (0.149)	0.270*** (0.0933)	0.123*** (0.0284)
Medium Size	0.318***	0.560***	0.343***	0.0548***

	(0.0720)	(0.127)	(0.0717)	(0.0206)
Large Size	0.964***	1.623***	0.993***	0.0933***
	(0.0787)	(0.135)	(0.0781)	(0.0228)
Resource-Intensive Industries	-0.257***	-0.446***	-0.228***	0.0476***
	(0.0577)	(0.0984)	(0.0590)	(0.0168)
Fixed Year Effect	No	No	No	No
Industry-Level Innovation Intensity				0.607***
				(0.0412)
Athrho2_1				0.237**
				(0.108)
Lnsigma ²				-0.905***
				(0.0113)
Constant	-2.742***	-4.558***	-2.580***	-0.133
	(0.775)	(1.318)	(0.754)	(0.216)
Observations	2,435	2,435	2,435	2,435
Robust Standard Errors In Parentheses *** P<0.01, ** P<0.05, * P<0.1				

Source: Author's calculation

Endogeneity Test

Columns (3) and (4) of Table 2 present the results of the instrumental variable (IV) probit model, which addresses potential endogeneity issues arising from the simultaneous relationship between innovation, ownership structure, and export decisions. Column (4) reports the first-stage regression, demonstrating a significant and positive relationship between the instrumental variable, industry-level innovation intensity, and firm-level innovation. Column (3) presents the second-stage regression results. While the coefficient on innovation is no longer statistically significant, the overall findings from the probit and logit models remain the same. The IV-Probit estimates generally support the findings from the Probit and Logit models, suggesting that the initial results are robust.

Athrho and Lnsigma are the parameters in the IV-Probit model. They indicate that there is significant correction for endogeneity. This confirms the robustness of the relationship between innovation and export decisions when correcting for potential biases in the data. The paper conducted extensive analyses to explore potential moderating effects of ownership structure on the relationship between innovation and export performance. However, the results did not yield significant evidence supporting such a relationship. This suggests that ownership type, regardless of whether it is foreign, state, or domestic, does not meaningfully influence how innovation impacts a firm's ability to export. Innovation appears to have a strong and direct influence on export performance, independent of ownership structure. Firms that innovate, regardless of their ownership type, are better positioned to compete in international markets by improving product quality, differentiation, or operational efficiency

Conclusion

The study highlights the importance of innovation and foreign ownership in driving export decisions in Vietnam, with 3045 firm-level observation for three year, 2009, 2015 and 2023. The results strongly suggest that innovation is a key driver of export decisions. Foreign ownership also plays a positive role. Other firms characteris like firm age firm growth and firm size play critical role for exporting decision. However, resource-intensive industries

exhibit a significantly lower propensity to export, highlighting the importance of industry-specific factors in international trade. These insights are essential for shaping policies to support exports, particularly in fostering innovation, reducing barriers for domestically-owned firms, and enhancing value-added production in resource-intensive sectors. The findings of this study have several implications for policymakers and business leaders in emerging markets. Firstly, the strong positive relationship between innovation and export performance underscores the importance of fostering innovation through policies that promote research and development, provide financial incentives, and facilitate the adoption of new technologies.

Secondly, the lack of a significant moderating effect of ownership structure suggests that innovation can benefit firms of all ownership types, highlighting the need for a supportive environment for innovation across the board. Thirdly, the positive impact of foreign direct investment (FDI) emphasizes the importance of attracting foreign investment to enhance export capabilities. Finally, the study highlights the need for targeted policies to support innovation and export activities in resource-intensive industries, which may require specific measures to address challenges related to value addition, market access, and diversification. While this study provides valuable insights into the relationship between ownership structure, innovation, and export performance, it is subject to certain limitations. The relatively short time span of the dataset, covering only three years (2009, 2015, and 2023), limits the ability to capture long-term trends and variations in the examined relationships. Furthermore, the study primarily focuses on ownership effects, potentially neglecting other institutional factors that may influence firms' capacity to leverage innovation for export success. For instance, the impact of state ownership may vary across regions with different levels of market development and institutional quality. Although the study addresses endogeneity concerns through the use of instrumental variables and robustness checks, the complex interplay between firms' resources, past experiences, and strategic decisions remains challenging to fully clarify.

Suggestion

Future research could delve deeper into the mechanisms underlying the negative relationship between resource-intensive industries and exporting. This could involve examining factors such as high production costs, limited value-added, or global competition, which may disproportionately affect these industries. Additionally, future studies could investigate the interaction between firm-specific characteristics, such as leadership, technological capacity, and market orientation, with macroeconomic variables, such as exchange rates, trade policies, and infrastructure development, to influence export decisions. A more nuanced understanding of these dynamics could provide valuable insights into the barriers and enablers of exporting in resource-intensive sectors.

References

- Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American economic review*, 89(3), 605-618. <https://doi.org/10.1257/aer.89.3.605>
- Bircan, Ç. (2019). Ownership structure and productivity of multinationals. *Journal of International Economics*, 116, 125-143. <https://doi.org/10.1016/j.jinteco.2018.11.005>
- Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics*, 28, 1-11. <https://doi.org/10.1007/s00191-017-0532-6>

- Edeh, J. N., Obodoechi, D. N., & Ramos-Hidalgo, E. (2020). Effects of innovation strategies on export performance: New empirical evidence from developing market firms. *Technological Forecasting and Social Change*, 158, 120167. <https://doi.org/10.1016/j.techfore.2020.120167>
- Ha, V. T., Holmes, M. J., & Le, T. M. (2020). Firms and export performance: does size matter?. *Journal of Economic Studies*, 47(5), 985-999. <https://doi.org/10.1108/jes-12-2018-0451>
- İpek, İ. (2018). The resource-based view within the export context: An integrative review of empirical studies. *Journal of Global Marketing*, 31(3), 157-179. <https://doi.org/10.1080/08911762.2017.1328630>
- Lin, W., & Wooldridge, J. M. (2019). Testing and correcting for endogeneity in nonlinear unobserved effects models. In *Panel data econometrics* (pp. 21-43). Academic Press. <https://doi.org/10.1016/b978-0-12-814367-4.00002-2>
- Love, J. H., & Roper, S. (2015). SME innovation, exporting and growth: A review of existing evidence. *International small business journal*, 33(1), 28-48. <https://doi.org/10.1177/0266242614550190>
- Phung, D. N., & Mishra, A. V. (2016). Ownership structure and firm performance: Evidence from Vietnamese listed firms. *Australian Economic Papers*, 55(1), 63-98. <https://doi.org/10.1111/1467-8454.12056>
- Rainey, C., & McCaskey, K. (2021). Estimating logit models with small samples. *Political Science Research and Methods*, 9(3), 549-564. <https://doi.org/10.1017/psrm.2021.9>
- Ramon-Jeronimo, J. M., Florez-Lopez, R., & Araujo-Pinzon, P. (2019). Resource-based view and SMEs performance exporting through foreign intermediaries: The mediating effect of management controls. *Sustainability*, 11(12), 3241. <https://doi.org/10.1017/psrm.2021.9>
- Vinh, N. T. T., & Duong, T. T. T. (2020). FIRM EXPORT AND THE IMPACT OF FOREIGN OWNERSHIP IN VIETNAM: A MICRO-DATA ANALYSIS. *Journal of Economic Development*, 45(1). <https://doi.org/10.2139/ssrn.1777214>
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press. <https://doi.org/10.1007/s00712-003-0589-6>
- Zarach, Z. H., & Parteka, A. (2023). Export diversification and dependence on natural resources. *Economic Modelling*, 126, 106436. <https://doi.org/10.1016/j.econmod.2023.106436>