

INVESTMENT STRATEGY AND FUTURE PERFORMANCE: THE MODERATING EFFECT OF OWNERSHIP

Idil Rakhmat SUSANTO ^{1, 2}, Noorlailie SOEWARNNO ¹✉, Bambang TJAHJADI ¹

¹Faculty of Economics and Business, Universitas Airlangga, Surabaya, Indonesia

²Faculty of Economics and Business, Universitas Muhammadiyah Makassar, Makassar, Indonesia

Article History:

- received 12 February 2023
- accepted 29 November 2023

Abstract. This study aims to investigate the Role of ownership structure on the Effect of investment strategy on future performance. The research focuses on ownership that compares foreign and domestic ownership structures. The research sample is a non-financial company in ASEAN countries. Multiple regression was performed to test the hypothesis using a financial dataset from 795 firm years of observation of non-financial companies in ASEAN. Our results show that foreign and domestic owners negatively affect the relationship between investment strategy and the future performance. The study's results indicate that foreign and domestic ownership have no significant difference as a supporting factor for implementing the investment strategy in improving the company's future performance. Our findings confirm the IO theory about implementing an investment strategy that affects future performance even though it impacts decreasing financial performance because companies need more time to see the impact of an investment strategy.

Keywords: investment strategy, ownership, future performance, industrial organization.

JEL Classification: M41, L1, L2.

✉Corresponding author. E-mail: noorlailie-s@feb.unair.ac.id

1. Introduction

This study aims to provide insight into the Role of foreign and domestic ownership in supporting the implementation of the investment strategy for future performance. Research on the Role of investment strategy in the future performance of companies has always been an essential issue because, on the one hand, investment strategy focuses on developing technological capabilities for companies (Alam et al., 2020). But on the other hand, the investment strategy is not always a driving force for superior future performance and products that are constantly being developed are not always able to meet market demand which can harm future performance (Park & Lee, 2019; Ruiqi et al., 2017).

Various empirical results show that the relationship between investment strategy and future performance depends on environmental contextual aspects (Ruiqi et al., 2017). Contextual aspects such as the institutional environment can influence a company's strategic choices and decision-making (Peng, 2002). Institutional factors such as ownership structure have attracted research attention on

aspects of technology and innovation. Companies in developing countries such as ASEAN have various types of ownership, including much foreign ownership, especially from developed countries such as America, China and Japan (Association of Southeast Asian Nations, 2022). This, in turn, can support technological knowledge and innovation that can affect company performance. This motivates researchers to raise a research question: can the ownership structure moderate the Effect of investment strategy on the company's future performance?

One of the essential things to support the investment strategy is to consider external factors such as foreign ownership (Vithessonthi & Racela, 2015). Foreign ownership can be an external control for a company and support increasing knowledge, development and innovation. A previous study has conducted tests related to the Role of foreign ownership. For example, the use of interaction variables such as ownership structure in the investment relationship strategy to company performance. Ulku and Teoman (2015) found that foreign ownership and licensed technology can improve financial performance, export levels and productivity regarding the company's technological

capabilities in Turkey. Kwon and Park (2018) found that R&D intensity was positively related to foreign ownership whose parents came from developing countries. Vithessonthi and Racela (2015) found that internationalization could moderate the relationship between the intensity of R&D performing companies in America. Chen et al. (2016) found that a foreign acquisition can increase the productivity and investment of R&D companies in China. Bond and Guceri (2017) found that the existence of R&D can increase company productivity in the UK.

In contrast, Vithessonthi and Racela (2015) found that R&D investment harmed company performance. Wang and Wang (2015) showed no difference in the increase in productivity in companies in foreign acquisitions as well as domestic in China, even Likitwongkajon and Vithessonthi (2020) found that foreign investment negatively related to the performance of companies in Japan either the run short or long term. Foreign investment seems to reduce revenue growth and does not affect companies. Additionally, Curtis et al. (2020) found that R&D investment has reduced the future profitability of companies in America even though, in the short term, it can increase profitability stably but at a low level. The gap from the results of this study raises important questions related to the Role of R&D investment and ownership for the company's prospects. Due to this ground, further analysis is needed.

Therefore, this study examines the Role of institutional factors from foreign and domestic ownership structures in the investment strategy related to the company's future performance. The novelty of this research lies in the testing model, which compares the moderating effect of foreign and domestic ownership in the relationship between investment strategy and firm performance. The context of this research has never been explored by previous research, which is only limited to testing the ownership structure, investment strategy and performance, which are carried out separately. In addition, several previous studies linking investment strategy, ownership, and performance have shown inconsistent results (Chorna et al., 2019; Habtoor, 2019; Masum & Ahmed, 2019; Girma et al., 2015; Phung & Mishra, 2015; Chen et al., 2016; Molina-Sieir et al., 2023; Wang & Wang, 2015; Likitwongkajon & Vithessonthi, 2020; Horobet et al., 2023) so that this phenomenon has motivated researchers to conduct further analysis related to the role ownership on relations between investment strategy of future performance. In contrast to previous studies, this study uses both the foreign and domestic ownership structures simultaneously to compare the effects produced on the relationship between investment strategy and future performance.

This research is archival research with hypothesis testing using multiple regression with two moderation testing models, namely the model that tests the moderating Effect of foreign ownership on the Effect of investment strategy on future performance and the model that tests the moderating Effect of domestic ownership on the Effect of investment strategy on future performance. The research sample is financial data of companies in ASEAN

obtained from the OSIRIS dataset from 2003 to 2018. The results show that foreign and domestic ownership moderates the relationship between investment strategy and future performance. The study results show that foreign and domestic ownership structures have the same moderating Role, negatively influencing the relationship between investment strategy and future performance.

This research contributes to the literature on investment strategy in several ways. First, this research can provide insight into the debate regarding investment strategy's Role in future performance. Second, this research provides evidence about the Role of foreign and domestic ownership in supporting the influence of investment strategy on future performance. Third, the research results can be evidence for companies to consider the importance of foreign or domestic ownership in supporting investment strategy implementation to improve company performance.

The remainder of the article is organized in the following manner. In Section 2, we discuss the literature review and hypotheses development. The research methodology is in Section 3, the results and discussion are in Section 4, and the conclusions and limitations are described in Section 5.

2. Literature review and hypothesis development

2.1. Industrial organization (IO) theory

Viewed from the perspective of the Industrial Organization/IO (Porter, 1981) that the Industrial Organization (IO) paradigm is that a company can position itself in a marketplace with specific industrial characteristics where the company competes. IO is a theory that explains how a company's performance is influenced by internal and external factors essential to be balanced. IO is more focused on the condition of the competition-based economy, which means that all companies have similarities in the industry except in terms of the strategy implemented, where the strategy can be determined by external factors, one of them through foreign ownership.

Understanding how a strategy can be a source of excellence and company success can be challenging in practice (Chorna et al., 2019; Habtoor, 2019; Masum & Ahmed, 2019), because it cannot be measured only by internal factors alone (Ade et al., 2019; Mahmoud, 2019). Therefore, in implementing relationships and ways of investment strategy, the company's performance still needs to be analyzed more broadly. A company's success does not only rely on internal factors. Studying external factors, such as opening up foreign investment opportunities, is imperative to improve the company's ability to face competition.

Table 1 shows the results of previous literature mapping, used as essential elements in this study. The search results illustrate that research linking investment strategy (R&D), ownership structure, and company performance yields mixed findings.

Table 1. Matrix of previous study

No	Authors & Title	Purposes	Sample	Research Method	Results
1	Girma et al. (2015) Investment liberalization, technology take-off and export markets entry: Does foreign ownership structure matter?	Examine the Effect foreign ownership on export market opportunities and technological developments	More than 1.3 million observations from about 446.000 firms from 2001 to 2007.	Propensity-score weighted doubly-robust regression	Foreign acquisitions positively affect R&D investment and are more significant than non-foreign ownership.
3	Wang and Wang (2015) Benefits of Foreign Ownership: Evidence from Foreign Direct Investment in China	Comparing changes in the performance of companies acquired by foreigners and domestic ones	125.000 firm years observation from 2000 to 2007 in Chinese firms	Simple OLS regressions	There is no significant difference in productivity increase in companies acquired by foreign and domestic companies. Foreign ownership significantly improves Chinese companies' financial and export conditions compared to domestically acquired companies.
4	Vithessonthi and Racela (2015) Short and long-run effects of internationalization and R&D intensity on firm performance	The Effect of Internationalization and R&D Intensity on firm performance	18.679 firm years observation of non-financial firms in the US Stock exchange during 1990–2013	Panel OLS Regression, Moderating research analysis	R&D intensity harms the company's operational and financial performance. Internationalization can moderate the relationship between R&D intensity and company performance.
5	Phung and Mishra (2015) Ownership Structure And Firm Performance: Evidence From Vietnamese Listed Firms	The Effect Ownership Structure on firm performance	2.744 firm years observation of Vietnam firms from 2007 to 2012	Summary statistics	Foreign ownership has a more significant influence on company performance than companies owned by the Vietnamese government.
6	Chen et al. (2016) Effects of foreign acquisitions on financial constraints, productivity and investment in R&D of target firms in China	The Effect foreign acquisition on financial constrain, productivity, and R&D investment.	Foreign-acquired Chinese companies from 1994 to 2011	Multiple regression	Foreign acquisitions increase Chinese firms' productivity and R&D investment
8	Ruiqi et al. (2017) R&D expenditures, ultimate ownership and future performance: Evidence from China	The moderating Effect of ultimate ownership on the relation between R&D expenditures on future performance	772 Chinese listed firms from 2007 to 2012	Moderating research analysis	R&D expenditures have a positive effect on the future performance of Chinese companies. The future performance related to R&D for an ultimate owner from SOE companies is better than non-SOE.
9	Bentivogli and Miranda (2017) Foreign Ownership and Performance: Evidence from Italian Firms	The Effect foreign ownership on economic performance	4.987 firm years observation of Perusahaan Italia 2007–2013.	Cobb–Douglas production function, Propensity Score Matching	There is an increase in the size, profitability and financial health of companies with a higher level of foreign ownership
10	Yoo et al. (2019) The Effect of Firm Life Cycle on the Relationship between R&D Expenditures and Future Performance, Earnings Uncertainty, and Sustainable Growth	The Effect of firm life Cycle on the Relation Between R&D Expenditures on Future Performance, Earnings Uncertainty, and Sustainable Growth	Manufacturing industries listed on the Korea Stock Exchange (KRX) sample consists of 3,743 firm-year observations from 2000 to 2010	Multiple regression	R&D expenditures at the introductory stage negatively affect future performance and increase uncertainty, which harms growth. R&D expenditures at the mature stage have a positive effect on future performance.
11	Li and Huang (2019) The antecedents of innovation performance: the moderating Role of top management team diversity	Examines the Effect of R&D Investment and International Diversification on innovation performance, moderated by TMT diversity	283 Taiwanese manufacturing firms in the information technology industry	Moderating research analysis	Greater TMT tenure diversity leads to a stronger relationship between R&D investment and innovation performance. Greater TMT educational diversity enhances the relationship between international diversification and innovation performance.

End of Table 1

No	Authors & Title	Purposes	Sample	Research Method	Results
12	Alam et al. (2020) R&D investment, firm performance and the moderating Role of system and safeguard: Evidence from emerging markets	Examines the moderating Effect investor protection and country governance on the relationship between R&D investment and performance	The sample period of 2006–2013, 423 firms from 12 emerging country	Moderating research analysis	Safeguards tend to moderate the relationship between R&D and firm performance. In particular, managers may wish to strengthen investor protection to promote high R&D investment to improve firm performance.
13	Likitwongkajon and Vithessonthi (2020) Do foreign investments increase firm value and performance? Evidence from Japan	The Role of foreign investment on firm value and firm performance	45.617 firm years observation of firms in Japan from 1990 to 2016	Panel OLS Regression	Foreign investment is negatively related to firm value. Foreign investment is negatively related to company performance in the short and long term. Foreign investment reduces revenue growth and does not affect company efficiency. Foreign investment, especially in Japan, does not always positively impact a company's financial performance.
14	Wu et al. (2023) The effects of inward FDI communities on the research and development intensity of emerging market locally domiciled firms: Partial foreign ownership as a contingency	Examined how inward foreign direct investment (IFDI) concentration affects the research and development (R&D) strategies of locally domiciled firms operating in emerging markets	Panel data of 161,632 manufacturing firms across 525 four-digit-coded industries operating in China	Breusch-Pagan Lagrange multiplier test to decide whether a panel data method or a pool OLS approach	The R&D intensity of local firms responds positively to the presence of IFDI in competitive and symbiotic communities. In addition, the foreign ownership of such firms enhances the positive effects of IFDI on the level of R&D intensity of locally domiciled firms in competitive and symbiotic communities.
15	Horobet et al. (2023) foreign Versus Local Ownership and Performance in Eastern Versus Western EU: A Random Forest Application	Using machine learning Random Forest algorithm for classifying economic activity within the European Union, building on the relevance of a reduced set of variables alongside location and industry of origin for the differences in performance between foreign versus locally-owned companies	Companies from 27 industries and 9 NACE Rev.2 sectors, based on data availability that maximizes the geographical representation within the EU	Random forest methodology to analyze financial and non-financial data in this study.	There is no clear dominance between foreign and locally owned companies. Foreign-owned companies do not show better productivity than locally-owned companies. In addition, locally owned companies have advantages in terms of gross investment compared to foreign ownership.
16	Habtewold (2023) Impacts of internal R&D on firms' performance and energy consumption: Evidence from Ethiopian firms	This study explores the impact of R&D investment on the performance and energy consumption	476 firms in Ethiopia	Combination of fixed-effect, propensity score matching, and endogenous treatment effect estimation methods.	Investment in R&D positively influences both innovation and long-term financial performance but negatively impacts short-term financial performance and energy consumption.
17	Molina-Sieiro et al. (2023) Ownership types, institutions, and the internationalization of emerging economy new ventures: evidence from Africa	This study examines the internationalization of emerging economy new ventures.	The study compiled surveys collected in all African countries from 2006 to 2016. This initial dataset contained 13,468 cases	Ordinary least squares (OLS), with Huber-White robust standard errors	State and foreign ownership relate positively to emerging economies' new ventures' internationalization.

Girma et al. (2015), Phung and Mishra (2015), and Chen et al. (2016) explained that foreign acquisitions are a strategy that is sufficient to provide significant improvement for companies in terms of R&D so that various benefits related to innovation and development can be obtained to increase competitive capabilities. With the development of technological knowledge capabilities and innovation, companies can increase productivity to create products needed by the market so that companies can become pioneers in business competition. Molina-Sieiro et al. (2023) also explained that the Role of foreign ownership, especially in companies located in developing countries, provides benefits in terms of the transfer of technological knowledge and innovation to encourage rapid company progress. The results are supported by Bentivogli and Mirenda (2017), who found an increase in the size, profitability and financial health of companies with a higher level of foreign ownership.

However, other studies provide different findings. For example, Wang and Wang (2015) found no significant difference in productivity increase in companies acquired by foreign and domestic companies. Horobet et al. (2023) explain that there is no clear dominance between foreign and locally-owned companies. Foreign-owned companies do not show better productivity than locally-owned companies. In addition, locally owned companies have advantages in terms of gross investment compared to foreign ownership. Likitwongkajon and Vithessonthi (2020) explain that foreign investment is negatively related to firm value. Foreign investment is negatively related to company performance in the short and long term. Foreign investment

reduces revenue growth and does not affect company efficiency. Foreign investment, especially in Japan, does not always positively impact a company's financial performance. The findings indicate that research involving foreign and domestic ownership structures needs further exploration with a more specific mechanism context to explain their Role in the research model.

To strengthen the position of this research, we mapped previous literature in visual form with the help of the VOSviewer to make it easier to see the focus used in this study. Figure 1 is an Overlay visualization of the essential elements in this study. We use VOSviewer mapping with keyword analysis mode to see the research spectrum used as a reference in this study. In addition, we also display a range of years to see research trends from 2010 to 2023. The visualization results show that the research spectrum is found in essential keywords such as "Firm Performance", "Productivity", "Ownership", "R&D", "R&D Investment", and "R&D Intensity". This visualization illustrates that most of the research focuses that become references in this study discuss company performance, R&D investment/investment strategy, and ownership structure. In addition, the results of the research mapping visualization by year show that research on company performance, R&D investment/investment strategy, and ownership structure is research that is still popular today (green circle from 2020 to currently) (Likitwongkajon & Vithessonthi, 2020; Wu et al., 2023; Horobet et al., 2023; Habtewold, 2023; Molina-Sieiro et al., 2023).

However, from the mapping results, it has not been explicitly found regarding the use of specific ownership,

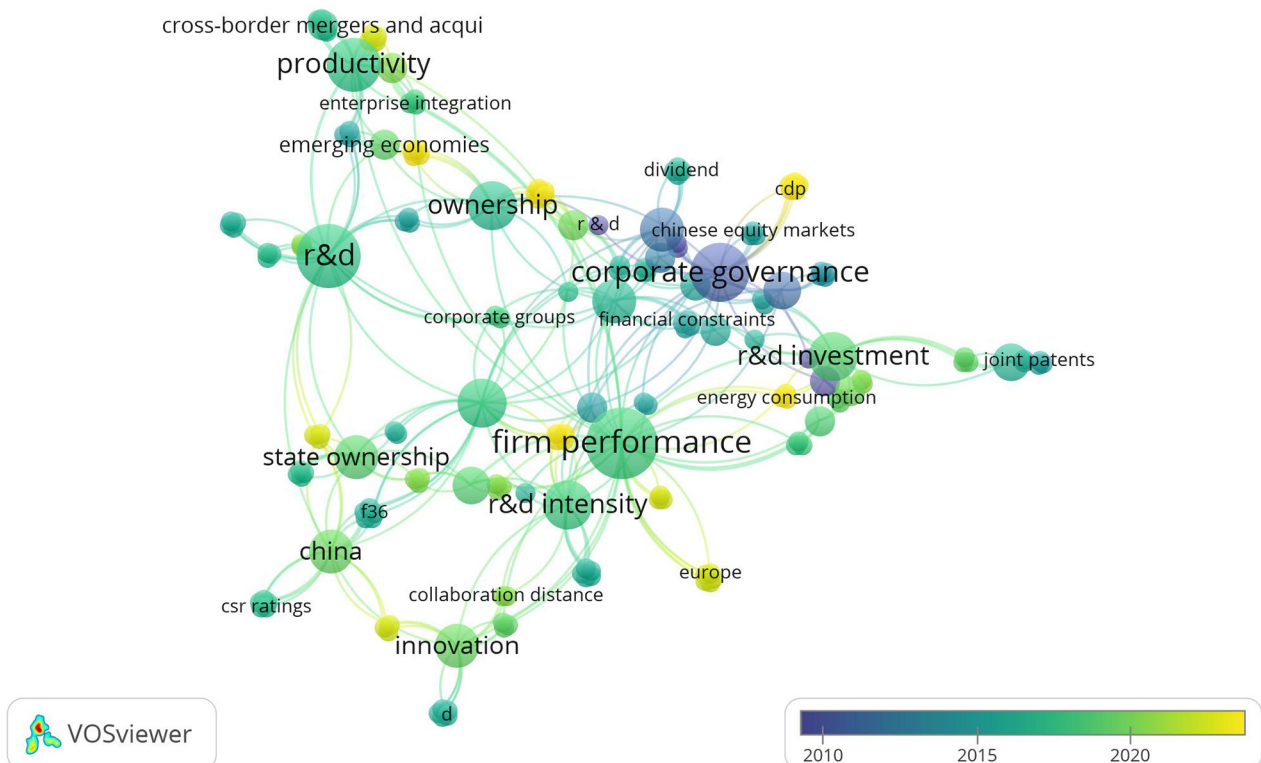


Figure 1. Overlay visualization of the essential elements in this study

such as foreign and domestic ownership in the research model, as well as the Role of investment strategy (R&D) in the company's future performance is still not visible. This illustrates that the research model that uses a specific ownership structure on foreign and domestic ownership, as well as the Role of investment strategy (R&D) on future performance in this study, is a research topic that can become a new insight for the literature on investment strategy (R&D), ownership, and future performance.

2.2. Investment strategy and firm performance

An investment strategy is one of the company's strategies that can increase competitive advantage because it involves innovation factors that support the company's performance in the long term (Ruiqi et al., 2017). Initially, investment strategies were mainly used by companies from developed countries and did not rule out that companies in developing countries could also implement them. The successful implementation of the investment strategy can be achieved by considering the Role of foreign investment (foreign investors) with better science and competence. Investment strategy generally uses the measurement of R&D investment (David et al., 2006), IT investment (Chae et al., 2018; Adel et al., 2019; Rizan et al., 2019), and sustainability investment (Tseng et al., 2019). Some studies that have examined the Role of investment strategies have been measured using R&D investment on performance, including Jaisinghani (2016), Ruiqi et al. (2017), Yoo et al. (2019), and Park and Lee (2019) where findings suggest that R&D investment can improve company performance.

It should be understood that the performance resulting from R&D investment as an investment strategy cannot be seen in the same period (Alam et al., 2019) but in the following period (Yoo et al., 2019). This is because the investment strategy process takes time to work. After all, it relates to the use of technology for development and innovation, so the results cannot be seen instantly. The investment strategy may not directly affect the company's performance because there are different views in assessing the use of R&D investment as an investment strategy. The agency perspective (Jensen, 1993) considers that the investment strategy may become a burden to the company because the economic sacrifices provided are large enough to potentially reduce the company's and investors' profits, including if this strategy fails. However, another view states that the investment strategy is believed to be successful because it has been well prepared, even though it is at risk of decreasing short-term profits but can provide positive effects in the long term (Pindado et al., 2015; Alam et al., 2020). It can be supported if the investment strategy is carried out effectively and efficiently and has strict control by parties who can know about the utilization of the investment strategy.

Research on the relationship between investment strategy and company performance has been undertaken and has given mixed results. Morbey and Reithner (1990) explains that there is a strong direct relationship between

R&D intensity, sales growth and future productivity. However, R&D intensity does not affect future profit margins. Jaisinghani (2016) states that investment in innovation through R&D Investments is associated with higher financial performance. Besides, there is a significant interaction effect between R&D investment and cost leadership strategy on operating performance. Ruiqi et al. (2017) state that R&D expenditures positively affect the future financial performance of companies in China. Future performance related to R&D for state-owned companies is better than non-state. Yoo et al. (2019) R&D expenditures at the mature stage positively affect future performance yet produce an insignificant effect on sustainable growth. Park and Lee (2019) find that Companies with consistent R&D investment show higher growth. Liu and Lin (2019) and Alam et al. (2019) find that companies implementing investment strategies can improve future performance and will be greater if the company has an international scale activity. This shows that investment strategy is related to future performance. Furthermore, the support of external factors will contribute a more significant impact.

2.3. Investment strategy, ownership, and firm performance

Based on Industrial Organization concept where external factors can influence the relationship between investment strategy and firm performance. This study uses ownership variables as external variables influencing the R&D investment relationship and company performance. Some studies that have discussed the interrelationships among these variables include David et al. (2006), which state that foreign ownership increases strategic investment (in R&D and capital intensity) to a greater level when the company has growth opportunities. Additionally, foreign ownership can encourage investment strategically following the conditions of competition. Phung and Mishra (2015) state that foreign ownership positively affects export market opportunities. Furthermore, foreign acquisitions positively affect R&D investment and are more significant than domestic ownership.

Lindemanis et al. (2019) stated that companies dominated by foreign ownership are affected by higher sales growth but lower profitability in the short run. In the long term, foreign ownership is positively related to productivity. Bentivogli and Mirenda (2017), and Roy and Narayanan (2019) found an increase in size, profitability, financial health, and the ability to distribute dividends to companies with higher levels of foreign ownership. Ulku and Teoman (2015) and Bond and Guceri (2017) found that foreign ownership and technology licenses can improve financial performance. Kwon and Park (2018), Chen et al. (2016), and Schiffbauer et al. (2017) found that foreign ownership is positively related to R&D intensity. Vithessonthi and Racela (2015) found that internationalization could moderate the relationship between the intensity of R&D and corporate performance. Foreign ownership strengthens the correlation between investment strategy and company performance because foreign ownership is considered

one of the external factors that support the escalation of capability and knowledge, mainly research and development of the company. Vithessonthi and Racela (2015) explained that R&D intensity negatively affects operating performance but positively influences when interacted with internationalization. Wang and Wang (2015) found no significant differences in productivity improvement in companies acquired by foreign and domestic companies. On the other hand, foreign ownership significantly improves the financial condition and exports of Chinese companies compared to companies acquired domestically.

The results of previous studies have shown that foreign ownership can be an external factor that supports the implementation of investment strategies to improve performance. Foreign ownership can provide knowledge for the company that does not necessarily own the company to carry out the established strategy. On the other hand, research on investment strategy, foreign ownership, and company performance looks like a puzzle. It is because the testing is still separate in each study and has not been seen with an explanation of the Role of ownership structure in influencing investment strategy's relationship to companies' performance. Therefore, the study is trying to develop hypotheses to accommodate testing of variables as a whole, so the hypothesis that is developed in this study is as follows:

H₁: Foreign ownership moderates the relationship between investment strategy and future performance.

The hypothesis testing method developed in this research is described using the following equation:

$$PERF_{it+1} = \alpha_1 + \beta_1 INVEST_{it} + \beta_2 FOREIGN_{it} + \sum_{j=3}^8 \beta_j Control_{it} + \varepsilon_{1it}; \tag{1}$$

$$PERF_{it+1} = \alpha_2 + \beta_9 INVEST_{it} + \beta_{10} FOREIGN_{it} + \beta_{11} FOREIGN_{it} \times INVEST_{it} + \sum_{j=12}^{17} \beta_j Control_{it} + \varepsilon_{2it}. \tag{2}$$

Foreign ownership is not the only one of ownership that may affect the relationship between investment strategy and performance. Several studies have proven that the ownership structure of both foreign and domestic precisely does not affect the relationship between R&D investment and firm performance (Vithessonthi & Racela, 2015). Lindemanis et al. (2019) found that in the short term, private company ownership changes in the UK positively affect sales growth yet lower profit margins on assets. Meanwhile, long-term changes in ownership are positively related to productivity, and Wang and Wang (2015) showed that there is no distinction in the increase of productivity of companies neither foreign acquisitions nor domestic, even Likitwongkajon and Vithessonthi (2020) and Roy and Narayanan (2019) found that foreign investment negatively related to the performance of companies in Japan either in the short and the long term.

In addition, foreign investment has an impact on the decline of the revenue growth of a company. Curtis et al. (2020) found that R&D investment has reduced long-term profitability despite a steady increase but at a low level. Based on the findings of these studies, the study is trying to include the moderating effect of domestic ownership to see how the comparison resulting from foreign ownership, so the development of the hypothesis further involves domestic ownership as follows:

H₂: Domestic ownership has a moderating effect on the relationship between investment strategy in improving future performance.

Here is an equation model to answer the hypothesis testing.

$$PERF_{it+1} = \alpha_3 + \beta_{18} INVEST_{it} + \beta_{19} DOMESTIC_{it} + \sum_{j=20}^{25} \beta_j Control_{it} + \varepsilon_{3it}; \tag{3}$$

$$PERF_{it+1} = \alpha_4 + \beta_{26} INVEST_{it} + \beta_{27} DOMESTIC_{it} + \beta_{28} DOMESTIC_{it} \times INVEST_{it} + \sum_{j=29}^{34} \beta_j Control_{it} + \varepsilon_{4it}. \tag{4}$$

3. Research methodology

3.1. Sample and variables design

The sample used in this study is a non-financial company in ASEAN countries. Firms in financial industries were excluded from the sample due to the requirement to adhere to stricter prevailing regulations and different accounting treatments and interpretations of financial reporting.

Table 2. Sample description (source: OSIRIS Database)

Sample Description	Total
The total sample of non-financial companies in ASEAN	4892
Companies that do not display R&D expense & asset	4572
Incomplete financial reports	197
The total sample of companies used in testing	123
Total sample firm years (unbalanced panel data) 2003–2018	795 Observation
Country	
Indonesia	23
Cambodia	1
Malaysia	52
Philippines	12
Singapore	29
Thailand	3
Vietnam	3

The dataset contains 795 firm-year observations from 2003–2018 from the OSIRIS database. Table 2 shows a sample description from company data in the OSIRIS database. The data obtained were from 4,892 non-financial companies, and 123 of them had investment strategy (R&D) data and completed financial data needed in the test. The sample companies are spread across ASEAN countries such as Indonesia, Cambodia, Malaysia, Philippines, Singapore, Thailand and Vietnam. The sample companies have various financial data from 2003 to 2018, and researchers use all available data even though the available periods differ from one company to another. Therefore the data model used in this study is unbalanced panel data obtained from 795 observations.

This study uses hypotheses testing using multiple linear regression analysis to execute the research model and establish the relationship between antecedent and consequence variables using the STATA Version 14.0. This study uses a moderating model to test the hypothesis. We refer to some literature relevant to this testing model, for example, Vithessonthi and Racela (2015), Ruiqi et al. (2017), Li and Huang (2019), and Alam et al. (2020) using archival research with the approach moderating research analysis (MRA) by involving moderating variables on the effect investment strategy (R&D) on company performance (Table 3). The investment strategy variable is used as the independent variable, future performance as the dependent variable, and foreign and domestic ownership as the moderating variable. The testing process examines the direct relationship between investment strategy and future performance (the base model in Equations (1) and (3)). Then it tests the moderation model by incorporating foreign and domestic ownership variables into the base model (Equations (2) and (4)).

Table 3. Reference research methods

Authors & Title	Variables	Research Method
Vithessonthi and Racela (2015) Short and long-run effects of internationalization and R&D intensity on firm performance	Dependent: Firm performance. Independent: R&D intensity. Independent/moderator: Internationalization.	<ul style="list-style-type: none"> Archival research, Panel OLS Regression, Moderating research analysis (MRA). Examines the moderating Effect internationalization on the relationship between R&D intensity on firm performance
Ruiqi et al. (2017) R&D expenditures, ultimate ownership and future performance: Evidence from China	Dependent: Future operation performance. Independent: R&D Expenditure. Independent/moderator: Ultimate Ownership.	<ul style="list-style-type: none"> Archival research, Moderating research analysis (MRA). Examines the moderating Effect ultimate ownership on the relationship between R&D expenditure on future operating performance.
Li and Huang (2019) The antecedents of innovation performance: The moderating Role of top management team diversity	Dependent: Innovation performance. Independent: R&D Investment and International Diversification. Independent/moderator: TMT diversity	<ul style="list-style-type: none"> Archival research, Moderating research analysis (MRA). Examines the moderating Effect of TMT diversity on the relationship between R&D Investment and International Diversification on Innovation performance.
Alam et al. (2020) R&D investment, firm performance and the moderating Role of system and safeguard: Evidence from emerging markets	Dependent: Financial performance. Independent: R&D intensity. Independent/moderator: Investor protection, Country governance	<ul style="list-style-type: none"> Archival research (MRA). Examines the moderating Effect of Investor protection and Country governance on the relationship between R&D intensity on Financial Performance.

Table 4. Variables measurement

Variables	Measurement
Dependent:	
Future Performance ($PERF_{it+1}$)	Return On Asset (ROA) $\frac{EBIT_{it+1}}{Total\ Assets_{it+1}}$
Independent:	
Investment Strategy ($INVEST_{it}$)	$\frac{R\ \&\ D\ Expense_{it} + R\ \&\ D\ Assets_{it}}{Total\ Assets_{it}}$
Foreign Ownership ($FOREIGN_{it}$)	Percentage of foreign ownership
Domestic Ownership ($DOMESTIC_{it}$)	Percentage of domestic ownership
Control Variabel:	
Age (AGE_{it})	Natural logarithm of the Number of years since firms established
Size ($SIZE_{it}$)	Natural logarithm of Total Assets _{it}
CFO (CFO_{it})	$\frac{CFO_{it}}{Total\ Assets_{it}}$
Leverage (LEV_{it})	$\frac{Debt_{it}}{Total\ Assets_{it}}$
Industry dummy ($INDUSTRY_{it}$)	Two digits of US SIC CODE

Table 4 shows that future performance ($PERF_{it+1}$) uses Return on Assets_{t+1} measurement. The key Independent variable used in this study is the investment strategy ($INVEST_{it}$) was measured using R&D expense_{it} plus R&D assets_{it} divided by total assets_{it}. Foreign ownership ($FOREIGN_{it}$) and domestic ownership ($DOMESTIC_{it}$) were

measured using the percentage of each ownership. The control variables using AGE_{it} is the natural logarithm of the Number of ages since the company was established until the end of the study period, $SIZE_{it}$ is the natural logarithm of total assets, CFO_{it} is the cashflow from operation activity to total assets_{it}, $Leverage_{it}$ is $debt_{it}$ to total assets_{it}, and $Industry\ dummy_{it}$ uses two digits of US SIC Code.

4. Results and discussion

4.1. Descriptive statistics and correlation

The descriptive statistics in Table 5 present the data distribution characteristics of each variable. The average future financial performance ($PERF_{it+1}$) is 0.05%, with a maximum value of 1.28% and a standard deviation of 0.18%. It shows that there are companies that have pretty high financial performance, but on average, all companies still have financial performance, which is relatively low.

The average investment strategy ($INVST_{it}$) of 0.01 by total assets with a minimum of 0.00 and a maximum of 0.61 (standard deviation 0.04) means that investments made by the company are still relatively low in research and development. The average foreign ownership of 27.51 with a standard deviation of 22.88 and domestic ownership of 72.49% with a standard deviation of 22.88 means that the companies sampled entirely are still dominated by domestic ownership.

Table 6 presents the Pearson correlation matrix to test the multicollinearity among independent variables. The correlation test determines whether there is no multicollinearity problem between the independent variables used

Table 5. Descriptive statistics

Variable	Obs	Min	Mean	Max	Std. Dev
PERF	795	-2.64	0.05	1.28	0.18
INVEST	795	0.00	0.01	0.61	0.04
FOREIGN	795	0.32	27.51	96.64	22.88
DOMESTIC	795	3.36	72.49	99.68	22.88
AGE	795	1	37.83	189	31.75
SIZE	795	7.85	12.80	17.39	2.00
CFO	795	-1.06	0.07	0.5	0.12
LEV	795	0.02	0.43	5.58	0.35
INDUSTRY	795	7	41.87	87	19.29

Table 6. Correlation matrix

Variables	Invest	Foreign	Domestic	Age	Size	CFO	LEV	Industry
Invest	1.0000							
Foreign	-0.0470	1.0000						
Domestic	-0.0943*	-1.0000	1.0000					
Age	-0.0943*	-0.0576	0.0576	1.0000				
Size	-0.2498*	0.0243	-0.0243	0.4877*	1.0000			
CFO	-0.3706*	0.0630	-0.0630	0.0615	0.1219*	1.0000		
LEV	0.4303*	-0.0587	0.0587	0.0588	0.0904*	-0.4314*	1.0000	
Industry	0.0306	-0.1317*	0.1317*	0.1422*	0.0257	-0.1255*	0.0033	1.0000

in the testing model. The slight correlate coefficient value indicates that each independent variable has no substantial relationship with other independent variables. The test results show that the correlation coefficient values obtained for all independent variables are smaller than 50% (<0.5). Variance inflation factors (VIFs) are calculated to test for significant multicollinearity between independent variables. No VIF exceeds 5.0, and all variables tested have an average VIF of 1.14. Therefore, the variables used in the test model do not experience multicollinearity problems in interpreting test results.

4.2. The moderating Effect of foreign ownership on the relationship between investment strategy and future performance

Table 7 shows the regression results to analyze the effect moderating foreign ownership on the relationship of an investment strategy with future performance (Models 1 and 2). Model 1 is a basic model that aims to see the Effect foreign ownership and investment strategy on future performance before testing interactions. The results show that the investment strategy does not affect future performance. It shows that the influence of the investment strategy cannot be seen in the following year's financial performance (t+1), and it will likely take longer to see the impact. Alam et al. (2020) explain that implementing an investment strategy can increase uncertainty about the company's economic benefit. It can occur if the company invests excessively in R&D or the investment strategy does not align with the expected economic benefits. Ruiqi et al. (2017) also explained that R&D implementation takes time to show a return on investment, giving the view that R&D intensity does not generate profits in a short time because R&D investment is long-term and takes time to affect company performance. It is hoped that R&D will have a positive impact on the future performance of the company.

Foreign ownership has a positive effect on future performance. This shows that foreign ownership significantly improves the company's future performance. Lindemanis et al. (2019), foreign ownership can support the growth of a company's financial performance. Roy and Narayanan (2019) explain that there has been an increase in financial health, profit levels, and the ability to distribute dividends for companies dominated by foreign ownership.

Table 7. Regression models (Moderating effect of foreign ownership)

Variables	Model 1	Model 2
Const	.7112	.6949
INVEST	-1.0834	-1.1081
FOREIGN	.0001**	.0002***
FOREIGN*INVEST	–	-.0128**
AGE	-.0025	-.0016
SIZE	-.0484**	-.0495**
CFO	.1682**	.1661**
LEV	.1135**	.1151**
INDUSTRY	0 (omitted)	0 (omitted)
R ²	0.0023	0.0010
F-statistic	5,122	6,122

Notes: Using equations 1 and 2, the Number of observation = 795; ***significant at 1%; **significant at 5%; *significant at 10%. INDUSTRY omitted because of collinearity.

Model 2 in Tabel 7 is a test to answer hypothesis 1. The test results show that foreign ownership moderates the Effect investment strategy on future performance. However, this moderating Role has a negative effect on future performance. The results do not support Hypothesis 1, which shows that foreign ownership decreases the effect investment strategy and future performance (significantly at the level of 5% with a negative coefficient -0.0128). It means that foreign investment can decrease the application of investment strategy to company performance. These results illustrate that although foreign ownership supports or dominates the company, it is not enough to improve its future performance ($t+1$). Companies may have the support of domination of foreign ownership, which can provide benefits in terms of knowledge, technology and other developments. However, it still takes a long time if it involves implementing an investment strategy that uses R&D has a reasonably long process which ultimately impacts future performance.

4.3. The moderating Effect of domestic ownership on investment strategy and future performance.

Table 8 tests the effect domestic ownership moderation on the relationship between investment strategy and future performance (Models 3 and 4). Model 3 is the basic model, which aims to see the Effect domestic ownership and investment strategy on future performance before testing the interaction. The test results show no effect of the investment strategy on future performance, the same as the previous results (Model 1). Domestic ownership has a negative effect on future performance (-0.0001 sig at 1%). The results align with Douma et al. (2006), which explain that domestic ownership does not influence company performance and can even negatively impact it. Douma et al. (2006) consider that in this case, it can happen because domestic ownership has weak control (e.g., government ownership or financial institutions), is bureaucratic and lacks professional expertise in controlling companies.

Table 8. Regression models (moderating effect of domestic ownership)

Variables	Model 3	Model 4
Const	.7235	.7311
INVEST	-1.0834	-1.1140
DOMESTIC	-.0001**	-.0001***
DOMESTIC*INVEST	–	-.0020***
AGE	-.0025	-.0025
SIZE	-.0484**	-.0485**
CFO	.1682**	.1636**
LEV	.1135**	.1147**
INDUSTRY	0 (omitted)	0 (omitted)
R ²	0.0023	0.0026
F-statistic	5,122	6,122

Notes: Using equations 3 and 4, the Number of observation = 795; ***significant at 1%; **significant at 5%; *significant at 10%. INDUSTRY omitted because of collinearity.

Model 4 in Table 8 is a test to answer hypothesis 2. The test results show that domestic ownership moderates the Effect investment strategy on future performance. However, domestic ownership moderates the investment strategy and future performance by weakening the relationship (-0.0020 sig at 1%). This could happen because the possibility of domestic ownership does not consider investment strategy as the company's primary strategy. Therefore, when it is improved, it will impact decreasing financial performance. It can be concluded that these results do not support hypothesis 2.

This study is in line with previous studies, e.g., Khanna and Palepu (2000), Vithessonthi and Racela (2015), Wang and Wang (2015), and Curtis et al. (2020) found that R&D investment had a negative effect on companies performance. Showed no difference effect in productivity in companies in foreign acquisitions as well as domestic, even that investment strategy has reduced the future profitability of companies even though in the short term it can increase profitability stably but at a low level. These findings illustrate that domestic ownership and investment strategy interaction cannot positively impact future performance (using Return on Assets $t+1$). The negative impact of interaction variables is inseparable from implementing the investment strategy (using R&D investment), which requires a relatively long process. Hence, the effectiveness of the investment strategy implementation also requires a relatively long time (long-term performance).

The negative effect of the interaction variables (investment strategy and ownership) on future performance illustrates that the company is not yet sufficiently aware of the impact of future financial performance in the following year (Return on Assets $t+1$). It is because the investment used for research and development is relatively significant and requires a longer time. Hence, the impact of financial benefits seen in the next year is likely to experience a loss. Still, in the following years, there may be a gradual increase in financial performance. This is due

to the implementation of the investment strategy already underway (Douma et al., 2006; Khanna & Palepu, 2000; Ruiqi et al., 2017).

5. Conclusions and recommendation

Our results prove that foreign and domestic ownership moderates the relationship between investment strategy and future performance. Both foreign and domestic ownership moderates by weakening the influence of investment strategy and future performance, proving that both ownership of companies in ASEAN has no different performance impact. These findings indicate that, in this case, the company does not need to worry about controlling company ownership, both foreign and domestic, to see the impact of the investment strategy on future performance. However, instead focuses on implementing a more efficient and effective investment strategy so that the value invested for development is right on target but does not burden the company's activities.

The limitation of this study is, first, this study only classifies block ownership in foreign and domestic, which may not be able to explain the function of each ownership structure specifically. It is necessary to test the following research by grouping foreign and domestic ownership specifically on institutional, government, individual ownership, or concentrated ownership. Second, because this is used due to sampling limitations, this study measures future performance using t+1 financial performance. As Ruiqi et al. (2017) recommended, using financial performance data at t+3 or t+5 is preferable to represent the company's future performance better.

This study has several implications. First, our findings confirm the IO theory about implementing investment strategies that influence future performance despite the impact of reducing short-term financial performance. It is because the company needs more time to see the impact of the investment strategy. Second, practical contributions provide new insights to companies not to worry whether the company must be controlled by foreign or domestic to get development support. Still, maximum results can be achieved if the investment strategy is carried out according to ability, is right on target and does not burden the company.

References

- Adel, A., Elsalam, A., Mostafa, A. E., & Naem, A. (2019). The impact of strategic information system and strategic design on organization's competitiveness: A field study. *Academy of Strategic Management Journal*, 18(1), 1–12.
- Alam, A., Uddin, M., Yazdifar, H., Shafique, S., & Lartey, T. (2020). R&D investment, firm performance and the moderating role of system and safeguard: Evidence from emerging markets. *Journal of Business Research*, 106(November 2018), 94–105. <https://doi.org/10.1016/j.jbusres.2019.09.018>
- Alam, M. S., Atif, M., Chien-Chi, C., & Soytaş, U. (2019). Does corporate R&D investment affect firm environmental performance? Evidence from G-6 countries. *Energy Economics*, 78, 401–411. <https://doi.org/10.1016/j.eneco.2018.11.031>
- Association of Southeast Asian Nations. (2022). *ASEAN investment Report 2022*. <https://asean.org/book/asean-investment-report-2022/>
- Bentivogli, C., & Mirenda, L. (2017). Foreign ownership and performance: Evidence from Italian firms. *International Journal of the Economics of Business*, 24(3), 251–273. <https://doi.org/10.1080/13571516.2017.1343542>
- Bond, S. R., & Guceri, I. (2017). R&D and productivity: Evidence from large UK establishments with substantial R&D activities. *Economics of Innovation and New Technology*, 26(October), 108–120. <https://doi.org/10.1080/10438599.2016.1203525>
- Chae, H., Koh, C. E., & Park, K. O. (2018). Information & management Information technology capability and firm performance: Industry's role. *Information & Management*, 55(5), 525–546. <https://doi.org/10.1016/j.im.2017.10.001>
- Chen, Y., Hua, X., & Boateng, A. (2016). Effects of foreign acquisitions on financial constraints, productivity and investment in R&D of target firms in China. *International Business Review*, 26(4), 640–651. <https://doi.org/10.1016/j.ibusrev.2016.12.005>
- Chorna, M., Nord, G., Bezghinova, L., Melushova, I., & Diadin, A. (2019). Company development strategy choice on the grounds of innovative potential assessment. *Academy of Strategic Management Journal*, 18(1), 1–7.
- Curtis, A., McVay, S., & Toynbee, S. (2020). The changing implications of research and development expenditures for future profitability. *Review of Accounting Studies*, 25, 405–437. <https://doi.org/10.1007/s11142-019-09528-6>
- David, P., Yoshikawa, T., Chari, M. D. R., & Rasheed, A. A. (2006). Strategic investments in Japanese corporations: Do foreign portfolio owners foster underinvestment or appropriate investment? *Strategic Management Journal*, 27(6), 591–600. <https://doi.org/10.1002/smj.523>
- Douma, S., George, R., & Kabir, R. (2006). Foreign and domestic ownership, business groups, and firm performance: Evidence from a large emerging market. *Strategic Management Journal*, 27(7), 637–657. <https://doi.org/10.1002/smj.535>
- Girma, S., Gong, Y., Görg, H., & Lancheros, S. (2015). Investment liberalization, technology take-off and export markets entry: Does foreign ownership structure matter? *Journal of Economic Behavior and Organization*, 116, 254–269. <https://doi.org/10.1016/j.jebo.2015.04.008>
- Habtewold, T. M. (2023). Impacts of internal R&D on firms' performance and energy consumption: Evidence from Ethiopian firms. *International Journal of Innovation Studies*, 7(1), 47–67. <https://doi.org/10.1016/j.ijis.2022.09.001>
- Habtoor, A. S. (2019). Do competitive strategies moderate the relationship between learning organizations and the performance of Higher education institutions? *Academy of Strategic Management Journal*, 18(2), 1–11.
- Horobet, A., Popovici, O. C., Bulai, V., Belascu, L., & Rosca, E. (2023). Foreign versus local ownership and performance in Eastern Versus Western EU: A random forest application. *Inzinerine Ekonomika-Engineering Economics*, 34(2), 123–138. <https://doi.org/10.5755/j01.ee.34.2.29499>
- Jaisinghani, D. (2016). Impact of R&D on profitability in the pharma sector: An empirical study from India. *Journal of Asia Business Studies*, 10(2), 194–210. <https://doi.org/10.1108/JABS-03-2015-0031>
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>

- Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *Journal of Finance*, 55(2), 867–891. <https://doi.org/10.1111/0022-1082.00229>
- Kwon, H. U., & Park, J. (2018). R&D, foreign ownership, and corporate groups: Evidence from Japanese firms. *Research Policy*, 47(2), 428–439. <https://doi.org/10.1016/j.respol.2017.11.010>
- Li, P. Y., & Huang, K. F. (2019). The antecedents of innovation performance: The moderating Role of top management team diversity. *Baltic Journal of Management*, 14(2), 291–311. <https://doi.org/10.1108/BJM-07-2017-0202>
- Likitwongkajon, N., & Vithessonthi, C. (2020). Do foreign investments increase firm value and firm performance? Evidence from Japan. *Research in International Business and Finance*, 51(August 2018), Article 101099. <https://doi.org/10.1016/j.ribaf.2019.101099>
- Lindemanis, M., Loze, A., & Pajuste, A. (2019). The effect of domestic to foreign ownership change on firm performance in Europe. *International Review of Financial Analysis*, 81, Article 101341. <https://doi.org/10.1016/j.irfa.2019.04.004>
- Liu, K., & Lin, B. (2019). Research on influencing factors of environmental pollution in China: A spatial econometric analysis. *Journal of Cleaner Production*, 206, 356–364. <https://doi.org/10.1016/j.jclepro.2018.09.194>
- Mahmoud, D. M. (2019). The relationship between human resource management strategies and regulatory restraint: Evidence from Iraq. *Academy of Strategic Management Journal*, 18(3), 1–16.
- Masum, M. H., & Ahmed, H. (2019). Corporate social responsibility disclosures and corporate performance: Evidence from the listed companies in Bangladesh. *Academy of Strategic Management Journal*, 18(2), 1–16.
- Molina-Sieiro, G., Galdino, K. M., & Holmes, R. M. (2023). Ownership types, institutions, and the internationalization of emerging economy new ventures: Evidence from Africa. *Small Business Economics*, 60(3), 1121–1145. <https://doi.org/10.1007/s11187-022-00650-5>
- Morbey, G. K., & Reithner, R. M. (1990). How R&D affects sales growth, productivity and profitability. *Research-Technology Management*, 33(3), 11–14. <https://doi.org/10.1080/08956308.1990.11670656>
- Park, H., & Lee, J. (2019). R&D dynamics and firm growth: The importance of R&D persistency in the economic crisis. *International Journal of Innovation Management*, 23(5), 1–24. <https://doi.org/10.1142/S136391961950049X>
- Peng, M. W. (2002). Towards an institution-based view of business strategy. *Asia Pacific Journal of Management*, 19, 251–267. <https://doi.org/10.1023/A:1016291702714>
- Phung, D. N., & Mishra, A. V. (2015). 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>
- Pindado, J., de Queiroz, V., & de la Torre, C. (2015). How do country-level governance characteristics impact the relationship between R&D and firm value? *R&D Management*, 45(5), 515–526. <https://doi.org/10.1111/radm.12115>
- Porter, M. E. (1981). The contributions of industrial organization to strategic management. *Academy of Management Review*, 6(4), 609–620. <https://doi.org/10.5465/amr.1981.4285706>
- Rizan, M., Balfas, F., & Purwohedhi, U. (2019). The influence of strategic orientation, organizational innovation capabilities and strategic planning on the performance of technology-based firms. *Academy of Strategic Management Journal*, 18(3), 1–11.
- Roy, I., & Narayanan, K. (2019). Outward FDI from India and its impact on the performance of firms in the home country. *Journal of Asia Business Studies*, 13(1), 1–32. <https://doi.org/10.1108/JABS-05-2017-0063>
- Ruiqi, W., Wang, F., Xu, L., & Yuan, C. (2017). R&D expenditures, ultimate ownership and future performance: Evidence from China. *Journal of Business Research*, 71, 47–54. <https://doi.org/10.1016/j.jbusres.2016.10.018>
- Schiffbauer, M., Siedschlag, I., & Ruane, F. (2017). Do foreign mergers and acquisitions boost firm productivity? *International Business Review*, 26(6), 1124–1140. <https://doi.org/10.1016/j.ibusrev.2017.04.003>
- Tseng, M., Tan, P. A., Jeng, S., Lin, C. R., Negash, Y. T., Darsono, S. N. A. C. (2019). Sustainable investment: Interrelated among corporate governance, economic performance and market risks using investor preference approach. *Sustainability*, 11(7), Article 2108. <https://doi.org/10.3390/su11072108>
- Ulku, H., & Teoman, M. (2015). The impact of R&D and knowledge diffusion on the productivity of manufacturing firms in Turkey. *Journal of Productivity Analysis*, 44(1), 79–95. <https://doi.org/10.1007/s11123-015-0447-x>
- Vithessonthi, C., & Racela, O. C. (2015). Short- and long-run effects of internationalization and R&D intensity on firm performance. *Journal of Multinational Financial Management*, 34, 28–45. <https://doi.org/10.1016/j.mulfin.2015.12.001>
- Wang, X., & Wang, J. (2015). Benefits of foreign ownership: Evidence from foreign direct investment in China. *Journal of International Economics*, 97(2), 325–338. <https://doi.org/10.1016/j.jinteco.2015.07.006>
- Wu, J., Zahoor, N., Khan, Z., & Meyer, M. (2023). The effects of inward FDI communities on the research and development intensity of emerging market locally domiciled firms: Partial foreign ownership as a contingency. *Journal of Business Research*, 156(December 2022), Article 113487. <https://doi.org/10.1016/j.jbusres.2022.113487>
- Yoo, J., Lee, S., & Park, S. (2019). The effect of firm life cycle on the relationship between R&D expenditures and future performance, earnings uncertainty, and sustainable growth. *Sustainability*, 11(8), Article 2371. <https://doi.org/10.3390/su11082371>