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Foreign Direct Investment (FDI) and Southeast Asian Manufacturing Firm Exports: A Tobit Regression Model

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Abstract

Purpose: The paper aims to examine the impact of foreign direct investment (FDI), firm characteristics, and country characteristics on the export performance of manufacturing firms in Southeast Asia. Specifically, the study focuses on five countries: Indonesia, the Philippines, Thailand, Malaysia, and Vietnam. The study also examines the interaction effects of political instability and trade regulations on the relationship between proportion of foreign ownership and export performance.

Design/methodology/approach: The study analyses firm-level data from the World Bank Enterprise Survey (WBES), which includes a total of 3,125 manufacturing firms across the five countries: Malaysia (504 firms), Thailand (581 firms), Indonesia (911 firms), Vietnam (485 firms), and the Philippines (644 firms). A Tobit regression model was established to estimate these relationships.

Findings: The study finds a negative link between FDI and export performance of manufacturing firms in Southeast Asia. However, foreign ownership positively impacts export performance in all five countries. Firm age boosts export performance in Indonesia, Thailand, and Vietnam, but not in Malaysia and the Philippines. Labour productivity improves export performance in Indonesia, Thailand, and the Philippines, but harms it in Malaysia and Vietnam. Export performance rises with lower political instability in the Philippines, with no significant effects from political instability or trade regulations in other countries.

Originality/value: This study addresses research gap by investigating the relationship between FDI inflow and export performance of Southeast Asia manufacturing firms and provide empirical evidence to reinforce the literature.

Keywords: Foreign direct investment, Export performance, Tobit, World Bank Enterprise Survey, Firm characteristics

Classification: Research paper

Introduction

Exports generate income, contribute to gross domestic product (GDP), and drive a nation's economic growth (Hong et al., 2020). However, the question remains: how can a country promote its export activities? Answering this is not straightforward due to the dynamic and uncertain nature of the economy, which means that export performance can be influenced by numerous factors. Existing literature suggests a positive relationship between foreign direct investment (FDI) and the export performance of a host country (Arslan et al., 2018; King & Du, 2023), and enhanced domestic sales and improved export performance in various industries (Sun and Anwar, 2015).

FDI and exports can coexist and correlate, but they may substitute for each other, with FDI sometimes complementing exports by stimulating intermediate goods exports for overseas affiliates. Knowledge and technology transfer from FDI becomes ineffective when the host country's workforce is not involved in key operational or decision-making activities (Corsi, et al., 2021). Local companies suffer further competition against superior foreign firms, making FDI harmful to the host country.

Therefore, the purpose of this paper is to investigate the impact of foreign direct investment (FDI), firm characteristics, and country characteristics on the export performance of manufacturing firms in Southeast Asia. Firstly, it addresses the gap in knowledge by studying the relationship between FDI inflow and export performance among Southeast Asian manufacturing firms, providing empirical evidence to support existing literature. Secondly, it identifies the type of spillover occurring in Southeast Asian countries, aiding governments in evaluating the effectiveness of current FDI policies and guiding them in formulating better policies to maximize the benefits of FDI. Additionally, the study also examines how firm characteristics, including proportion of foreign ownership, age, and labour productivity, influence export performance.

The study explores how country-specific characteristics affect export performance, particularly in Southeast Asian nations such as Thailand and Malaysia, which have seen a significant decline in FDI recently (AseanStats, 2021). This decline is attributed to factors like political instability, bureaucratic inefficiencies, high wages, and elevated taxes. Building on Dunning's Eclectic Paradigm, which emphasizes the ownership, location, and internalization (OLI) framework, the study investigates how locational advantages influence investment decisions. Firms assess various factors, including the political climate, local government policies, business environment, resource availability, transportation logistics, and proximity to their home country, when choosing investment locations. Despite existing research, there is a notable gap in understanding the interaction effects of country characteristics on export performance. This study aims to address this gap by examining how political instability and trade regulations interact with foreign

ownership levels to impact the export performance of manufacturing firms in Southeast Asia. Insights gained from this research could help governments design favourable business environments and policies to attract foreign investors and boost export performance.

Literature Review

Underpinning Theories

The Eclectic Paradigm of Dunning

The eclectic paradigm, introduced by John Dunning in 1976, uses three factors to determine if a foreign direct investment (FDI) will be beneficial: ownership (O), location (L), and internalisation (I). Ownership advantages come from intangible assets like patents, trademarks, copyrights, and technology, which give a competitive edge. However, setting up operations in a foreign market can be costly, so it's crucial to transfer these advantages to the host firm efficiently. This reduces costs and increases profitability. Location is a crucial factor in determining where FDI activity should take place. Companies choose to invest in foreign countries when their intermediary products, produced in their home country, are best combined with other immobile factors or specific intermediate products from the foreign nation (Dunning, 1988). Internalization factors (I) determines when it is more beneficial for an organization to handle a transaction internally rather than outsourcing to an external party. Internalization occurs when a firm decides to conduct production internally within a foreign country through FDI instead of licensing to foreign firms, as it can potentially yield greater benefits such as cost-effectiveness and better-quality control.

Agency Theory

Agency theory addresses conflicts between principals and agents, where agents (e.g., managers) are hired to act on behalf of principals (e.g., shareholders) but may have differing interests. This can lead to the principal-agent problem, where agents make decisions that do not align with the principals' goals. For instance, managers might avoid risky but profitable activities like exporting, which is detrimental to shareholders' interests. To mitigate this issue, ownership concentration can enhance corporate governance.

Calabrò and Mussolino (2011) found that external directors can encourage family SMEs to engage in exporting by offering valuable guidance. Filatotchev et al. (2008) demonstrated that foreign investors can motivate managers to take risks and pursue internationalization. Lu et al. (2009) expanded this by exploring conflicts between controlling and minority owners in Chinese firms. They discovered that moderate ownership concentration, with low principal-principal conflict, supports export strategies, whereas high ownership concentration can be detrimental. Therefore, sufficient foreign ownership concentration is essential for fostering export activities.

Empirical Review and Hypotheses Development

According to the OECD (2008), foreign direct investment (FDI) involves a long-term interest by an entity from one economy in a business in another economy, with a minimum of 10% voting power. The IMF (2009) adds that FDI involves significant influence or control over the foreign

enterprise. FDI investors can be individuals, enterprises, or government bodies. FDI can occur through acquiring control in a foreign firm, setting up a subsidiary, or forming mergers/joint ventures. Key to FDI is the investor's control or significant influence over the firm's decisions, distinguishing it from mere share purchases.

FDI impacts host countries directly by injecting capital and technology transfer, improving firm performance, and worker expertise (Nordin & Samsudin, 2023). Indirect (spillover) effects include increased industry competitiveness and supply chain improvements. The relationship between FDI and exports shows mixed results. Some studies find FDI boosts exports and GDP in developing countries, while others indicate negative spillovers where domestic firms do not benefit. Issues arise when foreign investors use local labour for low-skilled jobs or when cheap resources are exploited, necessitating restrictive policies to protect national interests.

Further research is needed, especially on export spillovers in countries like Malaysia, Thailand, the Philippines, Vietnam, and Indonesia, to understand FDI's impact on export intensity. Thus, we formulate the following hypothesis:

H1: Foreign direct investment (FDI) positively influences the export performance (EXP) of Southeast Asian countries manufacturing firms

According to Dunning's Eclectic Paradigm, foreign-owned enterprises benefit from the advantages transferred from the foreign firm (O), providing an edge over domestic firms. These benefits include technology spillovers, improved productivity, enhanced workforce competency, additional capital injection, and more, leading to increased output and export growth.

Lall and Mohammad (1983) find a positive correlation between foreign ownership and export performance. However, they noted that further improvements could be achieved by changing the country's policy framework. Wang and Wang (2015) find that foreign ownership significantly boosted export performance, output, employment, and wages. However, these improvements were due to better financial conditions, not higher productivity. Carney et al. (2018) state that foreign ownership only improves export performance in countries with state-led, collabourative, or hierarchically-coordinated systems. In countries with fragmented systems, the effect is minimal, highlighting the importance of location advantage from the OLI framework.

Rasiah (2003) reveals a significant link between foreign ownership and exports. Project et al. (2004) compared the export propensity of foreign and domestic firms in Estonia and Slovenia. They found that foreign-owned firms had higher export propensity due to better productivity and resource utilization. Hence, we hypothesise that:

H2a: Proportion of foreign ownership (PFO) positively influences the export performance (EXP) of Southeast Asian countries manufacturing firms.

Frm's characteristics are crucial as it affects opportunities, challenges, knowledge, capabilities, and strategies for survival and growth (Revindo et al., 2024). Younger firms typically export less as they need time to grow before entering international markets, though some are "born global" and start exporting immediately (Gkypali et al., 2015). Love et al. (2016) highlight confusion between a firm's age and its experience. Age often correlates positively with export performance when seen as experience. However, older firms may face reduced adaptability, increased inertia, and rigid

routines. Sorensen and Stuart (2000) suggest aging firms may experience high turnover, diluting institutional memory and hindering necessary experience acquisition. Older firms also struggle to align capabilities with environmental demands, widening the gap between their innovative capabilities and the technological frontier. Love et al. (2016) found firm age negatively impacts international activities due to aging liabilities.

Conversely, Ramaiah & Roy (2021) found that older firms in India's agro-processing sector were more likely to export, as they develop the necessary experience and competence over time. Based on the idea that older firms possess better maturity, capabilities, and know-how, we formulate the following hypothesis:

H2b: Older firms have a higher likelihood of engaging in export activities.

Labour productivity is the ratio of total output volume produced per unit of labour. The World Bank (2017) defines it as the ratio of sales to the number of full-time permanent workers. Numerous studies highlight that FDI can enhance labour productivity through technology spillovers and improved management efficiency.

Boghean and State (2015) found a direct relationship between FDI inflow and average labour productivity in 10 European countries. However, research specifically on the direct effect of labour productivity on export performance is limited. Most studies focus on how exports affect labour productivity instead. This paper aims to explore how labour productivity influences a firm's export performance.

Wagner (2002) argued that exporting firms tend to be more productive than non-exporters due to economies of scale and competition from foreign markets, which drive improvements. He notes that this relationship is bidirectional: higher productivity leads to greater export intensity, as firms seek to recoup operational costs.

Antonelli & Feder (2021) found that firms with better productivity, often through innovation, are more likely to export and capture a larger share of the international market. Interaction with advanced competitors, suppliers, and customers, along with knowledge spillovers, fosters further innovation, creating a virtuous cycle of productivity and export performance. Based on these insights, we formulate the following hypothesis:

H2c: Higher labour productivity positively impacts a firm's export performance.

According to Hany (2019), while much of the research on foreign direct investment (FDI) has traditionally concentrated on economic factors, there is a growing acknowledgment of the critical role political factors play. Political instability, often perceived as a risk, can significantly impede FDI flows. Asongu et al. (2021) argue that political instability can lead to capital losses, reduced domestic investment, and brain drain, all of which negatively impact trade. Investors are generally drawn to countries with stable and favourable political environments, as these conditions offer greater sustainability and growth prospects.

Hany (2019) found that improvements in political quality positively affected FDI and GDP growth, with a positive shock increasing both by 0.1%. This indicates that better institutional quality enhances FDI and economic growth. Conversely, the study also highlighted the adverse effects of

political shocks, such as those experienced during the Arab Spring, which resulted in decreased FDI flows in the Middle East and North Africa. Political instability generates economic turbulence and undermines investor confidence, further demonstrating its detrimental impact on FDI (Goh, et a., 2021). Nonetheless, Asongu et al. (2021) found no significant link between political stability and merchandise trade in Sub-Saharan Africa. Zureiqat (2005) suggests that leaders who prioritize personal gain over production can hinder trade volume. Political stability affects both exporting and importing countries. While Bilgin et al. (2017) found that bureaucratic inefficiencies, corruption, and political instability, act as hidden barriers, raise transaction costs and reducing trade volume in Turky.

The analysis reveals that the volume of Turkey's exports is positively related to the government stability of the importing countries. A 1% increases in the trading partner's government stability index leads to a 15.3% rise in Turkey's export performance. The stability of the trading partner is crucial in generating demand for Turkey's exports. Government collapse in the trading partner country results in political turbulence and a drop in demand, leading to reduced exports by Turkey. This highlights the importance of political stability for both the exporting country and the trading partner in determining export performance. The literature suggests that political instability can potentially moderate the export performance of a nation. Hence, we hypothesise that:
H3a: Political instability weaken the relationship between proportion of foreign ownership and export performance.

According to Contractor et al. (2021), emerging countries have been transitioning from a state-centralised approach to a market-based policy to attract foreign investment. However, each country's approach differs due to a lack of clarity on which specific policy amendments would attract investors. Companies seeking foreign investment compare institutional environments and regulations between countries to ensure a good match with their business strategy. Firms also seeks government financial assistance to improve export performance (Tuah, et al., 2024). Contractor et al. (2021) revealed that nations with efficient start-up regulations, better protection for minority investors, and superior infrastructure for international trade are more attractive for FDI, providing guidance for governments seeking policy amendments.

Hye and Lau (2015) found that India's policy reforms successfully increased exports of goods and services (% of GDP) in the long run. However, imports increased at a larger rate compared to exports after the reforms in 2004-2009, indicating that the reforms had a significant impact on boosting imports rather than exports. This highlights the importance of making the right reforms and resource allocations to boost a country's export performance. Hence, we hypothesise that:
H3b: Trade regulations weaken the relationship between proportion of foreign ownership and export performance.

Method

The study uses secondary data from the World Bank Microdata Library for empirical analysis. The data is compiled from the World Bank Enterprise Survey (WBES), which is a comprehensive survey of firms in different economies. The survey questionnaires are mainly addressed to business owners and top managers to ensure accurate responses. The sample size varies depending on the

economy's size, with larger economies having 1200-1800 interviews, medium-sized economies having 360 interviews, and smaller economies having 150 interviews. The WBES uses stratified random sampling, where all members of the population have an equal chance of being selected.

For FDI figures, the study uses panel data from the World Bank database, which provides annual data by country. For firm-level data, cross-sectional data from the WBES is used, where the dependent and independent variables are observed at a single point in time. The most recent available survey data is used for each country to ensure the analysis represents the latest relationship between the variables. The sampling year and number of observations for each country are summarized in Table 1.

Since the survey data was collected in different years and countries, pooled data regression is used in the study. This method allows for the combination of data from different countries and times to conduct an overall analysis and obtain a relationship between the variables, even though the World Bank survey was conducted in different years.

It could be argued that using panel data for FDI, along with cross-sectional data for firm level variables, may make them incompatible for analysis. However, limitations arise as the firm-level data from WBES does not provide the specific amount of foreign investment per firm. Therefore, this method is being explored to establish a mathematical relationship that could potentially explain the connection between FDI and export performance.

Table 1: Summary of sampling year of data from WBES and number of observations

Country	Sample Year	Number of Observations	Proportion %
Indonesia	2015	911	29.15
Philippines	2015	644	20.61
Thailand	2016	581	18.59
Malaysia	2015	504	16.13
Vietnam	2015	485	15.52
Total		3125	100

Table 2 summarises the variables from the World Bank Enterprise Survey database to be used for the purpose of this study, matched with the respective independent and dependent variables in this study. It also details the survey questionnaire that was utilised by WBES in collecting the said data in the first place.

Table 2: Summary of variables

Variables	Indicator from WBES	WBES Survey Questionnaire
Export Intensity (DV)	Proportion of total sales that are exported directly (%)	In fiscal year [insert last complete fiscal year], what percentage of this establishment's sales were direct exports
FDI (inflow) (IV)	FDI net inflow (BoP, current US$)	Data taken from World Bank Development Indicator (no survey required).

Proportion of foreign ownership in a firm (IV)	Proportion of private foreign ownership in a firm (%)	What percent of this firm is owned by private foreign individuals, companies or organizations
Age of establishment of the firm (IV)	Age (years)	In what year did this establishment begin operations in this country?
Labour productivity (ratio of sales to the number of full-time permanent workers) (IV)	Total annual sales in last fiscal year ($)	In fiscal year [insert last complete fiscal year], what were this establishment's total annual sales for ALL products and services?
	Number of permanent, full-time employees at end of last fiscal year	At the end of fiscal year [insert last complete fiscal year], how many permanent, full-time individuals worked in this establishment? Please include all employees and managers (Permanent, full-time employees are defined as all paid employees that are contracted for a term of one or more fiscal years and/or have a guaranteed renewal of their employment contract and that work a full shift)
Political instability (Moderator)	Percent of firms identifying political instability as a major obstacle	Using the response options on the card; To what degree is/are political instability an obstacle to the current operations of this establishment? Survey uses five (5) point Likert scale. Political instability deemed to be: • High (*POLHI*) when "severe" or "major" are selected as response to the questionnaire. • Moderate (*POLMDT*) when "moderate" is selected. • Low (*POLLOW*) when "minor" or "no obstacle" are selected.
Trade regulations (Moderator)	Percent of firms identifying customs and trade regulations as a major obstacle	Using the response options on the card; To what degree is customs and trade regulation an obstacle to the current operations of this establishment? Survey uses five (5) point Likert scale. Trade regulations deemed to be: • High (*TRGHI*) when "severe" or "major" are selected as response to the questionnaire. • Moderate (*TRGMDT*) when "moderate" is selected. • Low (*TRGLOW*) when "minor" or "no obstacle" are selected

The Tobit regression model, also known as the censored normal regression model, is employed for estimation purposes. As noted by Apostolov (2017), the Tobit model is favored for its stability and effectiveness in situations where censoring of the dependent variable is required. This study encompasses two types of analysis: an overall analysis and a country-specific analysis. The overall analysis integrates data from all five countries to explore the relationship between the independent and dependent variables on a broader scale. Conversely, the country-specific analysis constructs individual mathematical models for each country to gain a more nuanced understanding of how the variables interact within each context. Additionally, the study investigates the interaction effects of political instability and trade regulations on the proportion of foreign ownership and its impact on export performance.

The coefficients obtained from the Tobit model are used to express the export performance in terms of the independent variables as follows:

Overall Analysis

Direct Effects

$$EXP = \beta_0 + \beta_1 FDI + \beta_2 PFO + \beta_3 AGE + \beta_4 LP + \delta_1 POLLOW + \delta_2 POLHI + \alpha_1 TRGLOW + \alpha_2 TRGHI + \theta_1 DUMMYINDO + \theta_2 DUMMYPHIL + \theta_3 DUMMYTHAI + \varepsilon_i$$

Interaction Effects

$$EXP = \beta_0 + \beta_1 FDI + \beta_2 PFO + \beta_3 AGE + \beta_4 LP + \delta_1 POLLOW + \delta_2 POLHI + \alpha_1 TRGLOW + \alpha_2 TRGHI + \theta_1 DUMMYINDO + \theta_2 DUMMYPHIL + \theta_3 DUMMYTHAI + \beta_5 PFOxPOLLOW + \beta_6 PFOxPOLHI + \beta_7 PFOxTRGLOW + \beta_8 PFOxTRGHI + \varepsilon_i$$

Country Level Analysis

Direct Effects

$$EXP = \beta_0 + \beta_1 PFO + \beta_2 AGE + \beta_3 LP + \delta_1 POLLOW + \delta_2 POLHI + \alpha_1 TRGLOW + \alpha_2 TRGHI + \beta_4 PFOxPOLLOW + \beta_5 PFOxPOLHI + \beta_6 PFOxTRGLOW + \beta_7 PFOxTRGHI + \varepsilon_i$$

Interaction Effects $EXP = \beta_0 + \beta_1 PFO + \beta_2 AGE + \beta_3 LP + \delta_1 POLLOW + \delta_2 POLHI + \alpha_1 TRGLOW + \alpha_2 TRGHI + \beta_4 PFOxPOLLOW + \beta_5 PFOxPOLHI + \beta_6 PFOxTRGLOW + \beta_7 PFOxTRGHI + \varepsilon_i$

Whereby:

EXP: Export performance
FDI: Logarithm of FDI inflow
PFO: Proportion of foreign ownership
AGE: Age of firm
LP: Logarithm of labour productivity
$POLHI$: Dummy variable for political instability, $\delta 1$=1 when severe or major, 0 otherwise
$POLMDT$: Dummy variable for political instability, $\delta 2$=1 when moderate, 0 otherwise
$POLLOW$: Dummy variable for political instability, $\delta 3$=1 when minor or no obstacle, 0 otherwise
$TRGHI$: Dummy variable for trade regulations, $\alpha 1$=1 when severe or major, 0 otherwise
$TRGMDT$: Dummy variable for trade regulations, $\alpha 2$=1 when moderate, 0 otherwise
$TRGLOW$: Dummy variable for trade regulations, $\alpha 3$=1 when minor or no obstacle, 0 otherwise
$DUMMYINDO$: Dummy variable for country, $\theta 1$=1 when Indonesia, 0 otherwise
$DUMMYPHIL$: Dummy variable for country, $\theta 2$=1 when Philippines, 0 otherwise
$DUMMYTHAI$: Dummy variable for country, $\theta 3$=1 when Thailand, 0 otherwise
βi: Coefficient for respective parameter
εi: Error term

Findings

Table 3 presents the descriptive statistics for the variables used in the overall analysis. The average proportion of exports to total sales is 14.512%, with a high standard deviation of 28.626%, indicating significant variability. This variability arises because some firms export all their sales (100%) while others do not export at all (0%). The average logarithm of FDI is 9.960, with a relatively low standard deviation of 0.277, reflecting limited variation due to the use of logarithms and similar FDI levels across countries. The average proportion of foreign ownership in firms is 10.170%, but this also exhibits considerable variation, with a standard deviation of 26.33%, indicating a range from 0% to 100% foreign ownership.

The average age of firms is 19.9 years, with ages ranging from 1 to 161 years. The average logarithm of labour productivity is 6.701, with a standard deviation of 1.721, achieved through logarithmic transformation to reduce heteroskedasticity. Political instability and trade regulations are measured on a binary scale (0 or 1). On average, 71.1% of firms regard political instability as a minor obstacle, while 12.4% consider it a major obstacle. Similarly, 73.7% view trade regulations as a minor obstacle, and 12.1% see them as a major obstacle.

Table 4 details statistics for each country. Indonesia, the Philippines, and Thailand have the highest number of firms, with 911, 644, and 581 firms, respectively. Vietnam has the highest export intensity at an average of 18.353%, followed closely by the Philippines at 18.289%. Indonesia exhibits the lowest export intensity at 8.209%. The standard deviation for export figures varies significantly, from 1.427 times the mean in Malaysia to 2.709 times the mean in Indonesia, reflecting differences in export activity among firms.

The Philippines had the highest proportion of foreign ownership, with an average of 21.120% held by foreign parties. This is significantly higher than the second-highest value of 11.128% in Vietnam. Thailand had the lowest proportion at only 4.954%. The standard deviation for these ownership figures also varied greatly, ranging from 1.809 times (the Philippines) to 3.560 times (Thailand) the respective means. In terms of firm age, the Philippines had the highest average of 22.700 years, followed by Indonesia at 21.436 years. Vietnam had the youngest firms, with an average age of 13.786 years. The oldest firm was in the Philippines, aged 161 years, while the youngest firms were in the Philippines and Vietnam, with only one year of operation.

For labour productivity, Vietnam had the highest average at 8.666, followed by Indonesia at 8.077. Malaysia had the lowest productivity with an average of 4.313. The standard deviation for all countries was relatively small due to the use of logarithmic figures.

In terms of political stability, Vietnam had the highest percentage of firms considering it a minor obstacle, at 83.3%. Malaysia had the lowest, with only 55% of firms viewing political stability as a minor issue. Conversely, Indonesia reported the highest percentage of firms (16.7%) considering political instability a major obstacle, while Vietnam had the lowest at 6.0%. Regarding trade regulations, most firms did not perceive them as a significant obstacle. Thailand had the highest percentage of firms (95.9%) considering trade regulations a minor obstacle, whereas Malaysia had the lowest percentage, with only 53.2% of firms seeing them as a minor hindrance. In the Philippines, trade regulations were viewed as a major obstacle by 18.8% of firms, the highest percentage among the surveyed countries. In contrast, Thailand had the lowest percentage, with only 1.5% of firms considering trade regulations a major impediment

Table 3: Descriptive statistics for overall data

Variables	EXP	FDI	PFO	AGE	LP	POLLOW	POLMDT	POLHI	TRGLOW	TRGMDT	TRGHI
Observation	3125	3125	3125	3125	3125	2223	515	387	2303	445	377
Average	14.512	9.960	10.170	19.912	6.701	0.711	0.165	0.124	0.737	0.142	0.121
Std Dev	28.626	0.277	26.325	12.122	1.721						
Max	100	10.296	100.000	161.000	11.617						
Min	0	9.542	0	1	1.367						

Table 4 contains the correlation matrices for the country-specific analysis. It reveals a significant positive relationship between export performance and proportion of foreign ownership in all five countries. However, there is no meaningful relationship between export performance and the other independent variables in any of the five countries.

Variables	Country	Observation	Avera	Std Dev	Maximum	Minimum
EXP	Indonesia	911	8.20	22.239	100.000	0.000
	Philippines	644	18.28	35.014	100.000	0.000
	Thailand	581	14.66	26.728	100.000	0.000
	Malaysia	504	17.21	24.556	100.000	0.000
	Vietnam	485	18.35	33.639	100.000	0.000
PFO	Indonesia	911	5.42	17.471	100.000	0.000
	Philippines	644	21.12	38.209	100.000	0.000
	Thailand	581	4.95	17.635	100.000	0.000
	Malaysia	504	9.84	20.160	100.000	0.000
	Vietnam	485	11.12	30.477	100.000	0.000
AGE	Indonesia	911	21.43	11.464	95.000	2.000
	Philippines	644	22.70	15.825	161.000	1.000
	Thailand	581	19.67	9.323	68.000	3.000
	Malaysia	504	19.76	9.492	76.000	3.000
	Vietnam	485	13.78	10.886	113.000	1.000
LP	Indonesia	911	8.07	0.981	11.617	4.695
	Philippines	644	6.08	0.712	8.963	3.347
	Thailand	581	5.65	0.668	8.047	3.766
	Malaysia	504	4.31	0.738	6.477	1.367
	Vietnam	485	8.66	0.593	10.359	6.000
POLLOW	Indonesia	631	0.69			
	Philippines	480	0.74			
	Thailand	431	0.74			
	Malaysia	277	0.55			
	Vietnam	404	0.83			
POLMDT	Indonesia	128	0.14			
	Philippines	81	0.12			
	Thailand	102	0.17			
	Malaysia	152	0.30			
	Vietnam	52	0.10			
POLHI	Indonesia	152	0.16			
	Philippines	83	0.12			
	Thailand	48	0.08			
	Malaysia	75	0.14			
	Vietnam	29	0.06			
TRGLOW	Indonesia	601	0.66			
	Philippines	444	0.68			
	Thailand	557	0.95			
	Malaysia	268	0.53			
	Vietnam	433	0.89			
TRGMDT	Indonesia	155	0.17			
	Philippines	79	0.12			
	Thailand	15	0.02			

	Malaysia	155	0.30
	Vietnam	41	0.08
TRGHI	Indonesia	155	0.17
	Philippines	9	0.18
	Thailand	9	0.01
	Malaysia	81	0.16
	Vietnam	11	0.02

Given that the range for export performance varies from 0% to 100%, we applied censored Tobit regression analysis to investigate the relationship between the independent and dependent variables. We conducted an overall analysis using data from all five (5) countries combined. In the overall analysis, we explored four (4) models. Model 1 examines the direct effects of FDI and firm factors on export performance, while Model 2 investigates the direct effects of country characteristics on export performance. Model 3 focuses on the impact of country-specific factors, namely Indonesia, the Philippines, and Thailand, on export performance. Model 4, on the other hand, examines the direct effect of all the independent variables on export performance. We have summarized the results in Table 5. The likelihood ratio test reveals that Model 4 provides the best fit for the data used in the analysis.

FDI had a negative and significant impact on export performance. Proportion of foreign ownership, age, and labour productivity, on the other hand, had a positive and significant impact on export performance. We also observed significant relationships between country and export performance, with a positive relationship for Indonesia but negative relationships for the Philippines and Thailand.

We conducted country-level analysis for each of the five (5) countries. We introduced three (3) models, with Model 1 examining the direct effect of proportion of foreign ownership, age, and labour productivity on export performance, Model 2 investigating the direct effects of country characteristics on export performance, and Model 3 examining the direct effect of all independent variables on export performance. The result is provided in Table 6.

For all five (5) countries, proportion of foreign ownership had a positive and significant impact on export performance. Age had a positive and significant impact on export performance only for Indonesia, Vietnam, and Thailand. Age did not have any significant impact on export performance for the Philippines and Malaysia. Labour productivity had a positive and significant impact on export performance for Indonesia, the Philippines, and Thailand. However, we observed a negative and significant impact from labour productivity on export performance for Malaysia and Vietnam.

Four models were used to examine how political instability and trade regulations interact with the proportion of foreign ownership in relation to export performance. Model 1 examined the influence of independent variables on export performance without incorporating any interaction effects. This model serves as the baseline to understand the direct impacts of individual variables on export performance. Model 2 focused exclusively on the interaction effect of political instability. Model 3 investigated the interaction effect of trade regulations. While Model 4

evaluated the combined interaction effects of both political instability and trade regulations.

The analysis aimed to identify whether political instability and trade regulations, either independently or in combination, significantly alter the effect of foreign ownership on export performance. Similarly, country-specific models were also utilised for analysis. The overall analysis result is presented in Table 7, while the results for individual countries are presented in Table 8.

Regarding the overall analysis, a positive and significant interaction effect was observed only when political instability was low. In such cases, changes in the proportion of foreign ownership had a positive and significant impact on export performance. However, no significant interaction effects were observed when political instability was high. Additionally, no significant interaction effects were observed from trade regulations, leading to the rejection of hypothesis H3b.

For the country-level analysis, positive and significant interaction effects were found only when political instability was low for the Philippines. No significant interaction effects were observed for the other four countries, regardless of whether their political stability. Similarly, no significant interaction effects were observed for any of the five countries in relation to trade regulations.

Discussions

The main objective of this study was to investigate the impact of foreign direct investment (FDI) on the export performance of manufacturing firms in Southeast Asia. The results reveal that foreign ownership positively affects export performance, contrary to some expectations. ASEAN (2016) identifies various FDI motives such as market-seeking, resource-seeking, strategic asset-seeking, and efficiency-seeking. Market-seeking FDI aims to access the host country's market, while resource-seeking FDI leverages cheaper production factors.

Using the OLI framework, the study highlights that foreign ownership enhances export performance by leveraging ownership (O) advantages, including intangible assets like patents, trademarks, and technology. The positive impact of foreign ownership is evident both in the overall analysis and country-specific contexts. Foreign investors often prefer to buy stakes in established firms to minimize investment costs and quickly access ownership benefits, such as advanced technology and improved capital liquidity. This approach enhances productivity, allows for better wages, and attracts top talent, giving firms a competitive edge and boosting their export performance. Rasiah (2003) observed similar benefits for Malaysian and Thai firms, Roject et al. (2004) for Estonian and Slovenian firms, and Wang and Wang (2015) for Chinese firms.

The overall analysis shows a positive and significant relationship between firm age and export performance. Country-level analysis confirms this relationship for Indonesia, Thailand, and Vietnam, supporting hypothesis H2b only in these three countries. The age of a firm plays a crucial role in leveraging ownership (O) advantages from Dunning's OLI framework. Establishing a firm, acquiring market knowledge, developing products, building workforce

skills, and earning customer trust take time, which can enhance a firm's capacity to enter and succeed in international markets.

There was no significant relationship found between age and export performance for Malaysia and the Philippines. This suggests that age may not always correlate with increased competency and experience, as noted by Love et al. (2016). Sorensen and Stuart (2000) argue that older companies might struggle to adapt to changing markets and suffer from competency loss due to staff turnover, which could diminish the benefits of accumulated experience. Alternatively, firms in Malaysia and the Philippines might exhibit "born global" traits, as Gkypali et al. (2015) describe, meaning they start exporting immediately to leverage market potential or gain a first-mover advantage, regardless of their age.

In terms of the labour productivity, the study reveals mixed results. The overall analysis indicates that there is a positive and significant relationship between labour productivity and export performance. The positive relationship applies only to Indonesia, Thailand, and the Philippines. This finding is consistent with Wagner's (2002), which suggests that firms with higher productivity have higher export intensity due to economies of scale and better competitiveness. Increased productivity gives them a competitive edge, leading to better export performance. On the other hand, there is a significantly negative relationship between labour productivity and export performance for Malaysia and Vietnam. This finding serves as a warning sign to Malaysia and Vietnam, suggesting that investing in technology and infrastructure to improve labour productivity may not necessarily result in improved export performance.

The study also set out to explore the interaction effects political instability and trade regulations on proportion of foreign ownership towards export performance of Southeast Asian manufacturing firms. It is argued that political instability can have a negative impact on export performance because investors prefer countries that offer a stable and safe environment, as they seek to minimise their risk exposure and protect their investments. According to Asongu et al. (2021), political instability leads to financial losses and a loss of expertise, which hampers trade activities.
The findings from the overall analysis reveal a significant interaction effect of low political instability on the proportion of foreign ownership towards export performance. This indicates that export propensity increases when investors perceive the political environment of the country to be stable (low political instability). Nonetheless, no significant interaction effect was observed on the export performance for high political instability countries.

Trade regulations significantly influence investors' decisions on where to invest. Excessive regulations can deter investors, while relaxed regulations and tax exemptions make a location more attractive. This study tests whether trade regulations affect the relationship between foreign ownership and export performance. However, the findings show no significant interaction effects from trade regulations, leading to the rejection of hypothesis H3b. Southeast Asian countries, including Vietnam since 1995, have been part of ASEAN and engaged in various free trade agreements, reducing trade disruptions and bureaucracy. This stability likely reassures investors that changes in trade regulations will not significantly impact their investments, explaining the lack of significant interaction effects observed.

Conclusion

This study explores the impact of FDI, firm characteristics, and country characteristics on the export performance of Southeast Asian manufacturing firms. It builds on the OLI framework from Dunning's Eclectic Paradigm to enhance our understanding of how FDI influences export performance. Unlike existing studies that mainly focus on technology spillovers, this research provides empirical evidence on the effects of firm characteristics—such as foreign ownership, age, and labor productivity—on export performance. By integrating the OLI framework and Agency Theory, the study underscores the practical relevance of these theories in business decision-making. Additionally, it examines how country characteristics like political instability and trade regulations affect export performance, showing that while these factors can deter investment, their negative impact may be mitigated by other aspects of the OLI framework.

However, the study relies on cross-sectional data from the World Bank Enterprise Survey (WBES), which provides single-year observations for all five countries. Future research could benefit from utilising multi-year data to gain a deeper understanding of how internal changes within firms affect the country's export performance.

References

Antonelli, C., & Feder, C. (2021). The Schumpeterian creative response: Export and innovation: Evidence for OECD countries 1995–2015. *Economia Politica, 38*(4), 803–821. https://doi.org/10.1007/s40888-021-00239-3

Apostolov, M. (2017). The impact of FDI on the performance and entrepreneurship of domestic firms. *Journal of International Entrepreneurship, 15*(4), 390–415. https://doi.org/10.1007/s10843-017-0205-4

Arslan, U., Celikoz, Y. S., & Guzel, A. E. (2018). Causal relationship between foreign direct investment and export: The case of developing economies of Asia. *Asian Economic and Financial Review, 8*(4), 537–551. https://doi.org/10.18488/journal.aefr.2018.84.537.551

ASEANstats. (2017). *ASEAN economic progress 1967-2017* [Leaflet]. Retrieved from https://www.aseanstats.org/wp-content/uploads/2017/08/ASEAN_economic_progress.pdf

ASEANstats. (2021). *ASEAN Statistical Leaflet 2021*. Retrieved from https://www.aseanstats.org/wp-content/uploads/2021/10/ASEANStats_Leaflet_2021_15Oct.pdf

ASEANstats. (2022). *ASEAN Statistical Yearbook 2021*. Retrieved from https://www.aseanstats.org/wp-content/uploads/2021/12/ASYB_2021_All_Final.pdf

ASEAN. (2016). *ASEAN Investment Report 2016: Foreign direct investment and MSME linkages*. Retrieved from https://unctad.org/system/files/official-document/unctad_asean_air2016d1.pdf

ASEAN. (2021). *ASEAN Investment Report 2020-2021: Investing in Industry 4.0*. Retrieved from http://investasean.asean.org/files/upload/ASEAN%20Investment%20Report%202020-2021.pdf

Asongu, S. A., Kossele, T. P. Y., & Nnanna, J. (2021). Not all that glitters is gold: Political stability and trade in Sub-Saharan Africa. *Working Papers 21/005*, European Xtramile Centre of African Studies (EXCAS). https://doi.org/10.2139/ssrn.3736276

Bilgin, M. H., Gozgor, G., & Demir, E. (2017). The determinants of Turkey's exports to Islamic countries: The impact of political risks. *The Journal of International Trade & Economic Development, 27*(4), 486–503. https://doi.org/10.1080/09638199.2017.1396489

Boghean, C., & Mihaela, S. (2015). The relation between foreign direct investments (FDI) and labour productivity in the European Union countries. *Procedia Economics and Finance, 32*, 278–285. https://doi.org/10.1016/S2212-5671(15)01392-1

Calabrò, A., & Mussolino, D. (2011). How do boards of directors contribute to family SME export intensity? The role of formal and informal governance mechanisms. *Journal of Management & Governance, 17*(2), 363–403. https://doi.org/10.1007/s10997-011-9180-7

Carney, M., Estrin, S., Liang, Z., & Shapiro, D. (2018). National institutional systems, foreign ownership and firm performance: The case of understudied countries. *Journal of World Business*. https://doi.org/10.1016/j.jwb.2018.03.003

Contractor, F. J., Nuruzzaman, N., Dangol, R., & Raghunath, S. (2021). How FDI inflows to emerging markets are influenced by country regulatory factors: An exploratory study. *Journal of International Management, 27*(1), 100834. https://doi.org/10.1016/j.intman.2021.100834

Corsi, A., de Souza, F. F., Pagani, R. N., et al. (2021). Technology transfer oriented to sustainable development: Proposal of a theoretical model based on barriers and opportunities. *Scientometrics, 126*, 5081–5112. https://doi.org/10.1007/s11192-021-03969-0

Denisia, V. (2010). Foreign direct investment theories: An overview of the main FDI theories. *European Journal of Interdisciplinary Studies, 3*. Retrieved from SSRN: https://ssrn.com/abstract=1804514

Dunning, J. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies, 19*(1), 1-31. https://doi.org/10.1057/palgrave.jibs.8490372

Dutt, S. D., & Ghosh, D. (1994). An empirical investigation of the export growth-economic growth relationship. *Applied Economics Letters, 1*(3), 44–48. https://doi.org/10.1080/135048594358285

Filatotchev, I., Stephan, J., & Jindra, B. (2008). Ownership structure, strategic controls and export intensity of foreign-invested firms in transition economies. *Journal of International Business Studies, 39*(7), 1133–1148.

https://doi.org/10.1057/palgrave.jibs.8400404

Gkypali, A., Rafailidis, A., & Tsekouras, K. (2015). Innovation and export performance: Do young and mature innovative firms differ? *Eurasian Business Review, 5*(2), 397–415. https://doi.org/10.1007/s40821-015-0030-4

Goh, L. L., Hong, M., & Kamaruddin, R. (2021). Industrial paper price in selected ASEAN countries: The impact of economic and institutional factors. *Global Business and Management Research: An International Journal, 13*(1), 114–128.

Hany, A. L. (2019). FDI response to political shocks: What can the Arab Spring tell us? *Journal of Behavioral and Experimental Finance, 22*, 100–110. https://doi.org/10.1016/j.jbef.2019.07.005

Hye, Q. M. A., & Lau, W. Y. (2015). Trade openness and economic growth: Empirical evidence from India. *Journal of Business Economics and Management, 16*(1), 188–205. https://doi.org/10.3846/16111699.2012.720587

IMF. (2009). *Balance of payments and international investment position manual (Sixth Edition)*. Washington, D.C.: International Monetary Fund Publication Services. Retrieved from https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf

Intal, P. J., & Chen, L. (2017). *ASEAN and member states: Transformation and integration*. Retrieved from https://www.researchgate.net/profile/Lurong-Chen/publication/331949088_ASEAN_and_Member_States_Transformation_and_Integration/links/5c944445a6fdccd460311b13/ASEAN-and-Member-States-Transformation-and-Integration.pdf#page=21

Kechagia, P., & Metaxas, T. (2018). Sixty years of FDI empirical research: Review, comparison and critique. *The Journal of Developing Areas, 52*(1), 169–181. https://doi.org/10.1353/jda.2018.0011

Keling, M. F., Md Som, H., Saludin, M. N., Shuib, M. S., & Ajis, M. N. (2011). The development of ASEAN from a strategic approach. *Asian Social Science, 7*(7). https://doi.org/10.5539/ass.v7n7p169

Kim, J. J., & Hemmert, M. (2015). What drives the export performance of small and medium-sized subcontracting firms? A study of Korean manufacturers. *International Business Review*. https://doi.org/10.1016/j.ibusrev.2015.09.002

King, C., & Du, J. (2023). Profiting from growth: Trade, investment and the ASEAN-China technology gap. *Applied Economics Letters, 30*(13), 1763–1771. https://doi.org/10.1080/13504851.2022.2082365

Lall, S., & Mohammad, S. (1983). Foreign ownership and export performance in the large corporate sector of India. *The Journal of Development Studies, 20*(1), 56–67. https://doi.org/10.1080/00220388308421888

Love, J. H., Roper, S., & Zhou, Y. (2015). Experience, age and exporting performance in UK SMEs. *International Business Review, 25*(6), 806–819. https://doi.org/10.1016/j.ibusrev.2015.10.001

Lu, J., Xu, B., & Liu, X. (2009). The effects of corporate governance and institutional environments on export behaviour in emerging economies. *Management*

International Review, 49(4), 455–478. https://doi.org/10.1007/s11575-009-0004-9

Meenchee, H., Sun, S., Beg, R., & Zhou, Z. (2020). Malaysia's exports to China: Does diplomatic relationship matter? *Economic Papers: A Journal of Applied Economics and Policy, 39*(1), 72–88. https://doi.org/10.1111/1759-3441.12270

Nguyen, D. T. H., & Sun, S. (2012). FDI and domestic firms' export behaviour: Evidence from Vietnam. *Economic Papers: A Journal of Applied Economics and Policy, 31*(3), 380–390. https://doi.org/10.1111/j.1759-3441.2012.00180.x

Nordin, N., & Samsudin, M. A. (2023). Factors influencing e-business use: A study on Malaysian exporters SMEs. *Global Business and Management Research: An International Journal, 15*(2).

OECD. (2008). *OECD benchmark definition of foreign direct investment (Fourth Edition)*. France: OECD Publishing. Retrieved from https://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf

Raj, S. K., & Chand, P. P. (2017). Analysis of Fiji's export and its impact on economic growth. *International Journal of Business and Social Research, 7*(4), 1–14. http://dx.doi.org/10.18533/ijbsr.v7i4.1031

Ramaiah, S., & Roy, G. K. (2021). Determinants of exports behaviour of India's agro-processing firms: Role of technology, imported raw materials and logistics infrastructure. *Vision: The Journal of Business Perspective, 25*(2), 201–208. https://doi.org/10.1177/0972262920981440

Rasiah, R. (2003). Foreign ownership, technology and electronics exports from Malaysia and Thailand. *Journal of Asian Economics, 14*(5), 785–811. https://doi.org/10.1016/j.asieco.2003.10.006

Revindo, M. D., Gan, C., & Hambali, S. (2024). SME's export intensity: enhancers, inhibitors and firm characteristics. *Journal of Small Business & Entrepreneurship*, 1–27. https://doi.org/10.1080/08276331.2024.2321433

Roject, M., Damijan, J. P., & Majcen, B. (2004). Export propensity of Estonian and Slovenian manufacturing firms: Does foreign ownership matter? *Eastern European Economics, 42*(4), 33–54. https://doi.org/10.1080/00128775.2004.11041084

Ruane, F., & Sutherland, J. (2005). Foreign direct investment and export spillovers: How do export platforms fare? *IIIS Discussion Paper No. 58*. Retrieved from https://www.tcd.ie/triss/assets/PDFs/iiis/iiisdp58.pdf

Sorensen, J. B., & Stuart, T. E. (2000). Aging, obsolescence, and organizational innovation. *Administrative Science Quarterly, 45*(1), 81–112. https://doi.org/10.2307/2666980

Stoian, C., & Filippaios, F. (2008). Dunning's eclectic paradigm: A holistic, yet context-specific framework for analysing the determinants of outward FDI. *International Business Review, 17*(3), 349–367. https://doi.org/10.1016/j.ibusrev.2007.12.005

Sun, S. (2009). How does FDI affect domestic firms' exports? Industrial evidence. *World Economy, 32*(8), 1203–1222. https://doi.org/10.1111/j.1467-9701.2009.01175.x

Sun, S. (2012). The role of FDI in domestic exporting: Evidence from China. *Journal of Asian Economics, 23*(4), 434–441. https://doi.org/10.1016/j.asieco.2012.03.004

Sun, S., & Anwar, S. (2015). Interrelationship among foreign presence, domestic sales and export intensity in Chinese manufacturing industries. *Applied Economics, 48*(26), 2443–2453. https://doi.org/10.1080/00036846.2015.1122733

Tuah, S. N. A., Saad, R. M., Mohamed, N. A., Yusof, A. Q. M., Hasin, H., Johari, Y. C., & Jamil, A. (2024). Does government export assistance moderate strategic capabilities and export performance of manufacturing SMEs in Malaysia? *Global Business and Management Research: An International Journal, 16*(2s).

UNCTAD. (2008). *World Investment Report 2008: Transnational corporations, and the infrastructure challenge*. New York: United Nations. Retrieved from https://unctad.org/system/files/official-document/wir2008p3_en.pdf

UNCTAD. (2018). *World Investment Report 2018: Investment and new industrial policies*. New York: United Nations. Retrieved from https://unctad.org/system/files/official-document/wir2018_en.pdf

UNCTAD. (2020). *World Investment Report 2020: International production beyond the pandemic*. New York: United Nations. Retrieved from https://unctad.org/webflyer/world-investment-report-2020

Wang, J., & Wang, X. (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

Wagner, J. (2002). The causal effects of exports on firm size and labour productivity: First evidence from a matching approach. *Journal of Economics Letters, 77*(2), 287–292. https://doi.org/10.1016/s0165-1765(02)00131-3

World Bank. (2017). *Enterprise surveys indicator descriptions*. Retrieved from https://www.enterprisesurveys.org/en/data

World Bank. (2021). *DataBank: World Development Indicators*. Retrieved from https://databank.worldbank.org/source/world-development-indicators

Zureiqat, H. M. (2005). Political instability and economic performance: A panel data analysis. *Award Winning Economics Papers, 1*. Retrieved from https://digitalcommons.macalester.edu/econaward/1

Appendices

Table 5: Tobit regression model for overall analysis

	Model 1		Model 2		Model 3		Model 4	
EXP	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**
FDI	-23.310***	8.171					-785.831***	153.955
Firm Characteristics								
PFO	1.166***	0.069					1.176***	0.070
AGE	0.559***	0.153					0.726***	0.158
LP	-1.615	1.242					12.285***	2.368
Country Characteristics								
POLLOW			-5.238	5.595			-1.323	5.189
POLHI			-2.894	7.691			5.375	7.085
TRGLOW			-17.486***	5.826			-9.228*	5.584
TRGHI			-14.191*	7.871			-1.107	7.324
Country								
DUMMYINDO					-50.560***	5.557	143.079***	38.483
DUMMYPHIL					-9.233*	5.520	-244.783***	42.609
DUMMYTHAI					-17.294***	5.726	-383.475***	73.997
Constant	170.741**	77.321	-33.352***	6.631	-32.429***	3.800	7753.577***	1530.579
Pseudo R2	0.033		0.001		0.009		0.043	
LR chi2	365.790		11.540		95.110		480.650	
Log likelihood	-5444.055		-5621.183		-5579.394		-5386.626	

*N=3125; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 6: Tobit regression model for country specific analysis

	Model 1		Model 2		Model 3	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Country: Indonesia						
Firm Characteristics						
PFO	1.475***	0.230			1.374***	0.228
AGE	1.603***	0.411			1.568***	0.408
LP	23.815***	4.613			24.456***	4.650
Country Characteristics						
POLLOW			-17.748	14.262	-14.219	13.685
POLHI			4.293	17.231	5.999	16.582
TRGLOW			-30.113**	13.051	-22.916*	12.469
TRGHI			-45.327***	16.906	-29.672*	16.120
Constant	-337.726***	44.711	-60.636***	15.744	-312.547***	45.274
Observations	911		911		911	
Pseudo R2	0.062		0.006		0.066	
LR chi2	130.940		13.230		139.350	
Log likelihood	-987.950		-1046.803		-983.746	
Country: Philippines						
Firm Characteristics						
PFO	1.479***	0.165			1.494***	0.167
AGE	0.104	0.385			0.053	0.389
LP	14.861*	8.246			14.359*	8.331
Country Characteristics						
POLLOW			7.432	19.998	-0.764	17.093
POLHI			-12.644	25.813	0.762	22.063
TRGLOW			-35.619*	19.767	-18.019	17.063
TRGHI			4.140	22.962	19.063	19.765
Constant	-191.628***	52.476	-55.616**	24.566	-180.211***	55.851
Observations	644		644		644	
Pseudo R2	0.057		0.003		0.061	
LR chi2	125.080		7.270		132.470	
Log likelihood	-1027.690		-1086.597		-1023.993	

Table 6: Tobit regression model for country specific analysis (continued)

	Model 1		Model 2		Model 3	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Country: Thailand						
Firm Characteristics						
PFO	1.540***	0.191			1.550***	0.194
AGE	1.488***	0.373			1.482***	0.374
LP	21.867***	5.342			21.578***	5.514
Country Characteristics						
POLLOW			6.622	10.475	-2.532	9.534
POLHI			-3.455	17.211	-13.839	16.078
TRGLOW			-33.745	23.642	-13.684	21.732
TRGHI			-41.962	40.742	-24.677	37.956
Constant	-197.231***	32.451	-10.991	25.527	-179.141***	38.596
Observations	581		581		581	
Pseudo R2	0.045		0.001		0.045	
LR chi2	99.990		2.730		101.170	
Log likelihood	-1073.502		-1122.130		-1072.910	
Country: Malaysia						
Firm Characteristics						
PFO	0.445***	0.116			0.456***	0.115
AGE	0.030	0.253			0.028	0.256
LP	-6.950**	3.206			-7.803**	3.213
Country Characteristics						
POLLOW			-2.228	5.535	-4.011	5.416
POLHI			8.280	7.600	10.351	7.413
TRGLOW			8.220	5.548	9.262*	5.468
TRGHI			1.704	7.462	4.794	7.296
Constant	21.467	15.227	-8.009	5.466	20.112	15.642
Observations	504		504		504	
Pseudo R2	0.009		0.001		0.012	
LR chi2	25.750		3.690		31.920	
Log likelihood	-1353.576		-1364.604		-1350.490	

Table 6: Tobit regression model for country specific analysis (continued)

	Model 1		Model 2		Model 3	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Country: Vietnam						
Firm Characteristics						
PFO	1.134***	0.197			1.129***	0.200
AGE	0.984*	0.533			0.984*	0.534
LP	-21.920**	10.749			-20.756*	10.941
Country Characteristics						
POLLOW			-5.583	21.279	7.838	20.745
POLHI			4.020	33.534	8.729	32.140
TRGLOW			-35.020	22.453	-16.459	21.459
TRGHI			-52.186	50.292	-39.361	47.775
Constant	104.162	92.696	-24.978	27.930	102.677	99.361
Observations	485		485		485	
Pseudo R2	0.025		0.002		0.026	
LR chi2	43.800		2.830		44.820	
Log likelihood	-848.445		-868.928		-847.934	

** p < 0.10; ** p < 0.05; *** p < 0.01*

Table 7: Overall analysis for interaction effects

	Model 1		Model 2		Model 3		Model 4	
	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
FDI	-785.831***	153.955	-768.966***	153.774	-773.624***	154.138	-759.572***	153.957
Firm Characteristics								
PFO	1.176***	0.070	0.835***	0.157	1.002***	0.148	0.708***	0.196
AGE	0.726***	0.158	0.736***	0.158	0.723***	0.158	0.732***	0.158
LP	12.285***	2.368	12.203***	2.365	12.188***	2.369	12.127***	2.366
Country Characteristics								
POLLOW	-1.323	5.189	-7.438	5.758	-0.886	5.197	-6.675	5.781
POLHI	5.375	7.085	-0.158	7.813	4.854	7.090	-0.769	7.845
TRGLOW	-9.228*	5.584	-9.150	5.580	-13.972**	6.428	-13.197**	6.434
TRGHI	-1.107	7.324	-1.625	7.317	-2.629	8.202	-2.330	8.215
Country								
DUMMYINDO	143.079***	38.483	138.640***	38.448	140.196***	38.533	136.431***	38.497
DUMMYPHIL	-244.783***	42.609	-240.473***	42.552	-241.311***	42.655	-237.725***	42.600
DUMMYTHAI	-383.475***	73.997	-375.587***	73.904	-376.793***	74.101	-370.355***	74.009
Interaction Factors								
PFO x POLLOW			0.408**	0.172			0.386**	0.173
PFO x POLHI			0.391	0.241			0.402	0.244
PFO x TRGLOW					0.243	0.165	0.205	0.166
PFO x TRGHI					0.052	0.228	0.008	0.231
Constant	7753.577***	1530.579	7590.065***	1528.743	7635.061***	1532.295	7498.808***	1530.472

	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Pseudo R2	0.033		0.001		0.009		0.043	
LR chi2	365.790		11.540		95.110		480.650	
Log likelihood	-5444.055		-5621.183		-5579.394		-5386.626	

*N=3125; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 8: Country specific analysis for interaction effects

Country: Indonesia	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Firm Characteristics								
PFO	1.475***	0.230	1.362***	0.437	1.337***	0.327	0.485	2.660
AGE	1.603***	0.411	1.704***	0.414	1.632***	0.413	0.415	4.120
LP	23.815***	4.613	23.911***	4.593	23.885***	4.685	4.664	5.090
Interaction Factors								
PFO x POLLOW			-0.162	0.486			0.487	-0.350
PFO x POLHI			0.893	0.586			0.606	1.430
PFO x TRGLOW					0.119	0.419	0.422	0.300
PFO x TRGHI					0.448	0.536	0.550**	0.250
Constant	-337.726***	44.711	-340.143***	44.671	-338.796***	45.242	45.125***	-7.510
Pseudo R2	0.062		0.065		0.063		0.065	
LR chi2	130.940		136.050		131.640		136.160	
Log likelihood	-987.950		-985.396		-987.600		-985.340	

*N=911; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 8: Country specific analysis for interaction effects (Continued)

Country: Philippines	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Firm Characteristics								
PFO	1.479***	0.165	0.860***	0.326	1.206***	0.291	0.694*	0.381
AGE	0.104	0.385	0.145	0.382	0.094	0.384	0.132	0.381
LP	14.861*	8.246	12.594	8.241	14.822*	8.219	12.712	8.227
Interaction Factors								
PFO x POLLOW			0.700**	0.340			0.660*	0.343
PFO x POLHI			0.799	0.494			0.808	0.498
PFO x TRGLOW					0.401	0.301	0.312	0.302
PFO x TRGHI					0.029	0.376	-0.077	0.379
Constant	-191.628***	52.476	-177.898***	52.217	-190.595***	52.290	-177.867***	52.115
Pseudo R2	0.057		0.0595		0.0586		0.0606	
LR chi2	125.080		129.71		127.86		132.04	
Log likelihood	-1027.690		-1025.3755		-1026.3003		-1024.2118	

*N=644; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 8: Country specific analysis for interaction effects (Continued)

Country: Thailand	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Firm Characteristics								
PFO	1.540***	0.191	1.355***	0.481	1.958***	0.556	1.766**	0.763
AGE	1.488***	0.373	1.488***	0.373	1.513***	0.373	1.510***	0.373
LP	21.867***	5.342	21.750***	5.334	21.713***	5.323	21.638***	5.321
Interaction Factors								
PFO x POLLOW			0.316	0.512			0.191	0.522
PFO x POLHI			-0.068	0.573			-0.068	0.571
PFO x TRGLOW					-0.518	0.571	-0.415	0.591
PFO x TRGHI					3.742		3.740	
Constant	-197.231***	32.451	-196.471***	32.385	-196.475***	32.339	-195.996***	32.313
Pseudo R2	0.045		0.045		0.046		0.046	
LR chi2	99.990		101.150		102.660		103.130	
Log likelihood	-1073.502		-1072.921		-1072.165		-1071.934	

*N=581; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 8: Country specific analysis for interaction effects (Continued)

Country: Malaysia	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Firm Characteristics								
PFO	0.445***	0.116	0.375*	0.223	0.259	0.192	0.246	0.253
AGE	0.030	0.253	0.007	0.254	0.011	0.253	-0.003	0.254
LP	-6.950**	3.206	-6.634**	3.223	-7.337**	3.222	-7.013**	3.239
Interaction Factors								
PFO x POLLOW			0.136	0.242			0.082	0.253
PFO x POLHI			-0.177	0.363			-0.222	0.364
PFO x TRGLOW					0.259	0.218	0.229	0.225
PFO x TRGHI					0.250	0.372	0.302	0.377
Constant	21.467	15.227	20.674	15.290	23.759	15.317	22.661	15.374
Pseudo R2	0.009		0.010		0.010		0.010	
LR chi2	25.750		26.880		27.220		28.120	
Log likelihood	-1353.576		-1353.011		-1352.841		-1352.387	

*N=504; * p < 0.10; ** p < 0.05; *** p < 0.01*

Table 8: Country specific analysis for interaction effects (Continued)

Country: Vietnam	Model 1		Model 2		Model 3		Model 4	
EXP	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error	Coeff.	Std. Error
Firm Characteristics								
PFO	1.134***	0.197	1.187***	0.366	1.593***	0.432	1.622***	0.534
AGE	0.984*	0.533	0.983*	0.533	1.003*	0.531	0.993*	0.531
LP	-21.920**	10.749	-21.996**	10.808	-20.501*	10.751	-20.568*	10.816
Interaction Factors								
PFO x POLLOW			-0.026	0.405			-0.039	0.404
PFO x POLHI			-0.576	0.766			-0.671	0.958
PFO x TRGLOW					-0.549	0.455	-0.521	0.457
PFO x TRGHI					-0.697	1.134	-0.077	1.431
Constant	104.162	92.696	105.021	93.253	92.080	92.820	92.921	93.430
Pseudo R2	0.025		0.026		0.026		0.026	
LR chi2	43.800		44.450		45.320		45.860	
Log likelihood	-848.445		-848.120		-847.685		-847.415	

*N=485; * p < 0.10; ** p < 0.05; *** p < 0.01*