FINANCE-SPECIFIC DETERMINANTS OF MERGERS AND ACQUISITIONS-TYPE FDI: FIRM-LEVEL ANALYSIS FOR THAILAND

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Abstract

This study explores finance-specific determinants that encourage domestic firms to receive foreign direct investment (FDI), especially those with a focus on mergers and acquisitions at the firm level, using firms operating in Thailand. Two main objectives of this study: to identify significant finance-specific determinants that make Thai companies more likely to receive foreign investment; and to explore the heterogeneity at the firm level and the impact of financial constraints. Our findings are: larger firms and younger firms draw more foreign attention and have a higher probability of receiving foreign investment, and companies with a larger amount of intangible assets attract more investment from abroad. The results point to the appropriate practical business policy of accumulating intangible assets with flexible formal/informal linkages with potential partners is key to promoting FDI. Research implications falls into two categories: first, the government policy implication, the government in emerging economies could secure business environment for scaling-up of business operations so that FDI is further promoted; also, the government could facilitate nurturing of firm-level intangible assets. Second, on managerial implications, business companies in emerging countries could act on such government policies to pursue scaling-up of business activities based on intra company intangible assets. This research has contributed to the macro-level consequence of micro-level M&A with firm-level data in Thailand, specifically the financial determinants.

Keywords: Foreign direct investment, Multifactor productivity, Intangible capital, International investment, Mergers and Acquisitions.

Introduction

For most developing and emerging countries, it has been recognized that the benefits of foreign direct investment (FDI) in the host country are significant, although their benefits and importance differ according to the host country and condition (Kurtishi-Kastrati, 2013). The benefits from FDI include the transfer of technology and human capital support, improvement

the quality and skills of the local labour force, enhancement of the competitive business environment, and great contributions to international trade and enterprise development and improvement (Kurtishi-Kastrati, 2013; Lipsey, 2004; Patterson, Montanjees, Motala, & Cardillo, 2004). In this context, as a source of external funding, FDI plays a key role in the economy of the host country, affecting the balance of payments and supporting long-term economic growth and productivity (Patterson et al., 2004). Theoretically speaking, determinants of FDI from institutional economics, e.g., (Dunning, 1973, 2000) and a strand of its off-shoot analyses include firm-level and finance-specific determinants as well as consequence, or macro-level impacts, of FDI. Theoretically speaking, determinants of FDI from institutional economics, e.g., Dunning (1973, 2000) and a strand of its off-shoot analyses include firm-level and finance-specific determinants as well as consequence, or macro-level impacts, of FDI. With the above considerations in mind, this study analyses the factors that make firms attractive to foreign investors.

This article focuses on M&A-type FDI because of its significant impacts on technology and administration transfer needed for business and country-level economic development. Empirically, this research focuses on companies based in Thailand with equity participation from abroad, it aims to determine which of the finance-specific determinants relatively easily to obtained and meaningful for comparison a standardized concept, that encourage local firms to receive FDI deserve attention. That is, this paper addresses the determinants of cross-border mergers and acquisitions (hereafter, M&A-type FDI) in the country. Table 1 shows the macrolevel volume of M&As relative to that of FDI by region and by country across the world. As shown, M&As comprise approximately forty percent of the total FDI in the world, albeit with a significant fluctuation at the regional level and over the 1990-2021 period. In the Asia-Pacific region, the situation differs greatly across its subregions: in North America, Oceania, and East Asia (due to the high figure for Japan), the relative size of M&As is larger than fifty percent, while in South America and Southeast Asia, the presence of M&As remains lower. In Thailand (shown in bold in Table 1), M&As make up sixteen percent of the total FDI amount across the entire period. In the reference region of Europe, a high level of M&As is recorded, whereas in Africa, M&As make up much lower than fifty percent of the total FDI. There is heterogeneity in terms of the relative size of M&As vis-à-vis the size of FDI, and it seems that emerging countries register lower levels of M&As than developed countries.

Table 1 Percentage of M&As in Total FDI Inflow by Region and by Country

	1990-2000 average (percent)	**2001-2010 average (percent)**	**2011-2021 average (percent)**	**All period (1991-2021) average (percent)**
World	41.1	40.0	37.5	39.5
Asia-Pacific region				
North America	59.8	60.3	61.2	60.4
South America	44.8	12.6	15.2	24.6
Oceania (Australia and New Zealand)	94.7	32.1	37.4	55.4
East Asia (China, Japan and Korea)	84.9	21.1	23.3	43.7
China	13.3	12.0	12.5	12.6
Japan	212.2	24.1	50.2	97.7
Korea	29.3	27.3	7.1	20.8
South─East Asia	10.3	19.8	9.8	13.1
Indonesia	-37.1	78.4	5.7	15.4
Malaysia	5.6	37.1	15.5	18.9
Philippines	52.2	-4.8	21.6	23.9
Singapore	6.2	26.8	12.2	14.7
Thailand	**22.4**	**9.7**	**16.0**	**16.2**
Vietnam	n/a	2.9	7.9	5.4
Europe	44.7	47.6	79.4	57.5
Africa	15.5	25.6	11.2	17.2

Source: Authors' calculation based on UNCTAD, 2022. World Investment Report, Annex Table 1 and Table 5.

The Research Framework

The research question in this paper is: what factors serve as determinants of M&A-type FDI in the emerging part of the world, in which financial as well as non-financial (or institutional) factors of the local target firms (“at the firm level”) seem to play a crucial role. Following this overarching question, this study focuses on Thailand, as a representative emerging economy, and intends to add to the finance and trade literature by focusing on the following two objectives: (1) to identify significant finance-specific determinants that make Thai companies more likely to receive foreign investment; and (2) to explore heterogeneity (different responses to investment decisions) at the firm level and the impact of financial

constraints. In view of the above, this study, with its focus on firm-level determination and the impact of FDI, is significant.

In terms of actual policy-making, especially for Thailand as a host country and potential investors from around the world, there is policy-level significance since the focal point of this research contributes to the fine-tuning of existing industrial policy while giving due consideration to firm-level heterogeneity. Theoretically, firms with different productivity levels engage in investment to various degrees. Firms with low productivity are forced to pay higher fixed business costs to enter and operate in foreign markets. The least productive firms may even exit the industry and predict negative operating profits. Only firms with high productivity levels can benefit from investments because they expect to earn positive operating profits from sales in foreign markets. Thus, they choose to invest in foreign companies, and the gap in profits between high-productivity and low-productivity firms may widen. This is a serious socioeconomic concern.

If the necessary elements of production activities, such as labor and capital inputs, can be smoothly transferred from firms with lower productivity to those with higher productivity within a country (e.g., Thailand), the overall productivity in the country's domestic market will increase, and economic development will be possible in a way that avoids fragmentation due to differences in productivity. However, owing to market imperfections, it cannot be assumed that the transfer of workers and other "productive resources" to high-productivity firms will be smooth within the same industry over a short period of time.

In this context, trade and investment liberalization can contribute to an increase in society's productivity. Trade and investment liberalization make it easier for highly productive firms to export and invest abroad. On the other hand, liberalization will increase market competition, forcing firms with low productivity in their home countries to withdraw from the market. As a result, market share is captured by firms that survive competition. This is a negative consequence of trade and investment liberalization. On the positive side, an increase in the productivity levels of these firms will also lead to an increase in the average productivity of the country (e.g., Thailand). To further promote the internationalization of business firms and increase profits arising from trade and investment, it is essential to boost the productivity and market competitiveness of firms by reducing the costs of trade and investment through regional integration.

Thus, this research has real-world significance because it focuses on assessing the extent to which the heterogeneity theory of firms provides empirical support. This would also eventually benefit countries (including Thailand and Japan) involved in foreign investment activities at the firm level. Investigating the firm-level determinants of finance-specific and M&A type FDI is expected to boost Thailand's overall level of income at the crossroad of COVID-impacted economic activities through practical policy arrangements.

Literature Review

According to World Trade Organization (1996), FDI occurs when an investor based in one country (home country) acquires an asset in another country (host country) to manage that asset. According to the World Bank definition, FDI includes buying shares of an enterprise, reinvesting earnings of a foreign-owned enterprise in a host country, and parent firms extending loans to their foreign affiliates (Soubbotina & Sheram, 2000). The International Monetary Fund guidelines define FDI as the foreign ownership of at least ten percent of an enterprise's ordinary shares or voting stock, which indicates a significant influence by an investor (Patterson et al., 2004). Many countries, therefore, have set a threshold higher than ten percent, since a foreign ownership level of only ten percent of is not sufficient to establish management control of an enterprise (Patterson et al., 2004; Soubbotina & Sheram, 2000). Many schools of thought explain FDI issues, but there is still no single theory that is superior to others. The related literature in this section is discussed under three headings as follows.

The literature on FDI concentrates mainly on identifying the determinants that influence companies to invest abroad. Aw and Tang (2010), Brahmasrene and Jiranyakul (2002), Schneider and Frey (1985), Walsh and Yu (2010), Yang and Deng (2017) and Zhang and Daly (2014) have studied macroeconomic levels and found that FDI is mainly determined by the market size and growth potential of the host country, its political and macroeconomic stability, the relative exchange rate, the degree of openness of the host country, and infrastructure. Another strand of literature by Buch, Kensternich, Lipponer, and Schnitzer (2014), Esaku (2020), Garavito, Iregui, and Ramirez (2014), and Tripathi and Thukral (2020) explored the determinants of FDI at firm level, these include human capital, company ownership, wages, labor productivity, capital intensity, capital structure, growth rate, profitability, and firm size. In addition, the intangibles such as external knowledge and technologies from abroad are also found at the firm-level (Armas & Rodriguez, 2017).

For Thailand, as a host country, FDI positively contributes to the country's economy by supplying capital and technology and enhancing the competitive business environment, trade integration, and enterprise development. Previous studies in Thailand explore macroeconomic determinants, whereas firm-level determinants have not received sufficient attention, especially finance-specific determinants, which could play a key role in drawing attention from foreign investors (Ang, 2009; Brahmasrene & Jiranyakul, 2002; Pansuwan, 2018). Stiebale and Trax (2011) indicated the positive effects of cross-border acquisitions on domestic firm production. In their research, various firm-level determinants were also selected, such as firm size, wage, capital stock, sales growth, and working capital ratio. In an attempt to contribute to the literature, this research aims to focus on the firm level and explore finance-specific determinants of FDI in Thailand that make Thai companies more likely to receive foreign investment attention.

While there are many country- and industry-level studies on the determinants and impacts of foreign direct investment (FDI), firm-level studies seem to be limited. A benchmark framework, from the perspective of microeconomic FDI theories coupled with the ownership, location-based, and internalization (OLI) paradigm (Dunning, 1973), would be useful for highlighting the rationale of this research, i.e., to consider a basic framework illustrating FDI determination and firm-level characteristics. Conceptually, suppose that a "local firm" located in a country outside of that of the potential investor can generate net positive profit P(x) utilizing managerial input x. Based on the OLI framework discussed in the literature review, a potential foreign direct investor has an ownership (O) advantage, and when combined with the host country firm's acceptance of FDI (to materialize an M&A type of FDI), an extra profit can be generated. In other words, the higher profitability generated by the combination of local assets and the input of foreign ownership assets can be expressed by a positive intrafirm externality or synergy effect. Formally, scalar s (> 0) can be introduced as an exogenous variable denoting the synergistic effect enabled by the utilization of the ownership asset. At the same time, however, foreign investors with ownership assets must incur a fixed sunk cost, F (> 0), when entering the business in the host country. Assuming that E, which takes a value between 0 and 1, is the degree of controllability of the firm, the *ex-post* net profit of the local firm is $(1+Es)P(x^*)$, where x^* is the optimal level of managerial input.

Fukao, Ito, Kwon, and Takizawa (2008) indicated that cross-border or foreign acquisitions lead to significant improvements in target firms' productivity and profitability, measured by return on assets (ROA) (Fukao et al., 2008). Their results were confirmed by combining propensity score matching and difference-in-differences techniques. Fukao et al. (2008) and Stiebale and Trax (2011) showed the positive effects of foreign investment on target firms (Fukao et al., 2008; Stiebale & Trax, 2011). In this study, comparing the situation without (before) FDI and with that (after) FDI, the increase in profit generated by the FDI-taken local firm is $EsP(x^*)$. Of this amount, $E^2sP(x^*)$ - F is the net benefit to the foreign investor. In this connection, the higher fixed sunk cost F serves as a deterrent against business operation. Hymer points out in this connection that a negative impact of the presence of F (transaction costs, i.e., haggling costs associated with contracting FDI, plus other monetary disadvantages arising from foreign operation under FDI) exists but the positive impact of s overpowers it (Hymer, 1976). That is, $E^2sP(x^*) > F$. (It is assumed here that F is borne by the investor.) The remaining portion, $(1-E)\ EsP(x^*)$, is the additional net profit captured by the local capital as a local partner of the FDI, which the investor firm expects to be positive. This is a win-win situation for both local capital and foreign investors and is indeed the determinant of FDI as well as the impact of FDI. The assertion that the positive impact of s overpowers F and leads to a win-win situation may not be universally applicable; this study assumes the *ex-ante* (before M&A) expectation to this effect, held by the acquirers, focusing on the determinants (rather than impacts) of M&A type FDI.

One thing to note is that there is a hidden "selection" effect, that is, the local firm selected as the investment partner among heterogeneous firms in terms of profitability might already be relatively highly profitable in the first place (even before M&A). In the empirical analysis in this study, no distinction is made between the two (selection effect and realized profit), since only ex-post financial data of the firm are available. However, the profit-making function P(x) is expected to be empirically specified in this study. This sort of firm-level investigation into FDI determination in Thailand is limited and, hence, merits our investigation.

In the literature on FDI (which includes the M&A type of FDI), as mentioned above, there are a wide variety of theoretical models to explain the determinants of FDI. Several theories have contributed to identifying the firm-level determinants behind a firm's decision to undertake FDI, whereas the finance-specific determinants of the firm have received little attention (Forssbaeck & Oxelheim, 2008). Because the financial characteristics of a firm provide financial strength and advantages that can be exploited through cross-border investment activity, the main purpose of this research is to suggest firm-specific financial factors that deserve attention that encourage companies to receive FDI. To the best of the authors' knowledge, in the Thai context, a number of studies have examined the relationships between FDI and macroeconomic and institutional variables (Ang, 2009; Brahmasrene & Jiranyakul, 2002; Pansuwan, 2018), but there has been no exploration of firm-level and/or finance-specific determinants in Thailand; thus, this research contributes by filling this research gap.

In efficient market theory, no firm has an advantage over another since all firms have equal access to finance at equal costs. However, in the real world, there is imperfection in capital markets, and therefore, firms with better finance strategies, such as lowering the cost of funds or increasing the availability of funds, should create a financial advantage, and they are more likely to gain FDI attention (Forssbaeck & Oxelheim, 2008). Oxelheim, Randoy, and Stonehill (2001) mentioned that under the "OLI paradigm" by Dunning (1973), the "O", which represents ownership advantages, may include various economies of scale and scope, advanced technology, managerial and marketing expertise, and differentiated products (Oxelheim et al., 2001). Oxelheim et al. (2001) also stated that the "firm's financial characteristics", or so-called finance-specific factors, should be included under the economies of scale and scope (Oxelheim et al., 2001). Therefore, the OLI paradigm does not explicitly address the effect of finance-specific determinants on FDI. Since the firm from the home country will gain more advantage through ownership control and as a response to market imperfections, the financial characteristics of a firm in a host country should be explicitly addressed.

Finance-specific determinants are part of finance strategies and are important to all firms but are particularly important to firms in host countries that wish to receive foreign investment. This study follows the OLI and firm-level frameworks by identifying the firm's

finance-specific determinants that deserve explicit consideration since they create financial advantages relevant to foreign investment decisions.

Research Data and Methodology

Research Sample and Data Description

Based on the prevailing literature survey, our research explores the relationship between finance-specific determinants and the M&A type of FDI. Our research sample was from the Zephyr and Orbis databases (released by Bureau van Dijk). Both databases are used worldwide and cover the largest amount of firm-level data. Our research collected Thai companies' operational and financial data as secondary data, both for listed and non-listed companies. The sample period was from 2012-2021. The final sample included 14,576 firm-year observations.

In this study, the incidence of M&A FDI was the dependent variable. Our dependent variable was binary data, which takes "0" when there is no M&A involved and "1" in and after the year when M&A FDI was undertaken. We included finance-specific variables for Thai local companies as explanatory variables that are related to M&A FDI. In particular, we included firm size (log of total assets); intangible assets (nonphysical assets/total assets) such as patents, brands, trademarks, and/or copyrights; profitability (net income/total revenue); leverage of the target company (total debt/total assets); cash holdings (cash holdings/total assets); firm age (log of years since establishment); and growth in sales of target firms (year-on-year growth rate). To account for any unobservable characteristics that may have been omitted in the equation, we also include firm fixed effects. Table 2 shows descriptive statistics for the sample.

Table 2 Descriptive Statistics

Variable	No. of Obs.	Mean	Std. Dev.	Min	Max
M&A_FDI	142,635	0.0047814	0.0689827	0	1
Size of the company	129,915	0.988496	1.311165	0.0022945	6.048172
Intangible assets	122,006	0.0027856	0.014707	0	0.1213909
Profitability (Net income margin)	12,154	0.1272055	0.1143266	0.0000313	0.9956427
Cash holdings	110,356	0.1568963	0.2306551	0.0001837	0.9965458
Age of the company	145,030	20.26566	8.57878	3	50
Leverage (TD/TA)	110,819	0.3618821	0.3014354	0.0009654	1

Notes: The variables are winsorized (for the purpose of suppressing the influence of outliers) at the 5% and 95% levels.

Source: Authors' calculations based on the Zephyr and Orbis databases.

Research Methodology

This research explores the relationship between finance-specific determinants and FDI. Multiple regression analysis with fixed effects was applied, and one-period lagged explanatory variables were used to avoid causality-related issues. This research investigated firm fixed effects, and an equation model [Eq. 1] was constructed to indicate the influence of finance-specific variables on M&A-type FDI, as follows:

$$M\&A\_FDI_{i,t} = \alpha_{i,t} + X_{i,t-1}\beta + Z_{i,t-1}\delta + \tau_t + \varepsilon_{it} \quad \text{[Eq. 1]}$$

where $X_{i,t-1}$ is a vector of the control variables, which are firm-level characteristics, including firm size, firm age and the square term of firm age. $Z_{i,t-1}$ represents firm-level financial factors, such as leverage ratio and cash holdings. We also controlled the time-fixed effects and firm-specific fixed effects in our linear models.

Results Discussion & Analysis

Regression Analysis

In this research, the dependent variable was the M&A type of FDI. We began by examining the effect of finance-specific variables on M&A_FDI. Table 3 shows the results from pooled-linear probability model (pooled-LPM) regression for comparison in Column 1, and the baseline estimation results of a fixed-effect linear probability model (Fixed Effects-LPM) in Column 2. In Column 1, with the pooled-LPM regression; size, intangibility, and cash holdings show positive and significant effects, while firm age shows a negative and significant effect. Our main interest results are presented in Column 2, with the fixed-effect LPM, the size and intangibility show positive and significant effects. The effect of age is negative and significant, while profitability shows a positive effect on M&As. As consistently shown in Table 3, under both specifications (pooled-LPM and fixed-effect LPM), the size of the company has a positive and significant impact on the probability of a local company in Thailand receiving FDI, and larger Thai firms are more attractive to M&A FDI. Concerning intangibility, this variable has a positive impact on the dependent variable (the probability of the company receiving M&A FDI).

This result can be interpreted as indicating the presence of a synergy effect, that is, the foreign company is attracted by the local company's intangible assets and undertakes M&A-type FDI to engage in profit-making activities in Thailand. The result from pooled-LPM analysis shows that there is a positive and significant effect of cash holdings on M&A FDI. The result showed that firm age had a negative impact on the probability of being an M&A target. This could be interpreted as Thai firms with shorter track records since their establishment tending to receive more foreign investment attention. We also include the square of the age in the regression to check whether there is a quadratic relationship between firm age and M&A propensity, and we found that the square term is positive, which indicates that the negative impacts of age are decreasing for older firms.

Table 3 Pooled-LPM Regression and Fixed-effect LPM of Equation Model [1]

Dependent Var: M&A FDI (t)	**(1)** **Pooled-LPM with year dummies**	**(2)** **Fixed Effects-LPM**
Size(t-1)	0.0107*** (0.00111)	0.0791*** (0.0112)
Cash(t-1)	0.0178* (0.0101)	0.00204 (0.0259)
Intangibility(t-1)	0.697*** (0.132)	0.661*** (0.23)
Profitability(t-1)	-1.01E-05 (0.013)	0.0390* (0.0209)
Age(t-1)	-0.00601*** (0.000914)	-0.0115* (0.00656)
Age^2 (t-1)	9.29e-05*** (1.55E-05)	-1.95E-05 (5.23E-05)
Observations	10,404	9,830
R-squared	0.034	0.36
Firm FE	-	YES
Year FE	YES	YES

Clustered robust standard errors at the firm level in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The researchers worked on the probit model and the marginal effect results are shown in Tables 4-6.

Table 4 shows the results from the probit model without year-effect (in Column 3) and with year dummies (in Column 4). The results in Column 3 and Column 4 show that out of six variables, only one variable (profitability) was not significant. According to the results in the table, foreign companies that seek to acquire local firms do not view the profitability of the target firms as an important factor. In both columns, the coefficients of firm size, intangibility, and cash holdings are positive and significant for the M&A type of FDI, while the coefficients of firm age are negative and significant for the M&A type of FDI. The results in Table 4 imply that firms that are larger, have more intangibles, and possess larger cash holdings have a higher potential to draw-in M&A FDI. Firms with low liquidity and fewer operation years may have more potential to be acquired by foreign firms. Nevertheless, M&A propensity tends to have a quadratic relationship with firm age.

Table 4 Baseline Results (Probit model)

Dependent Var: M&A FDI (t)	**(3) Probit**	**(4) Probit**
Size(t-1)	0.0145***	0.0154***
	(0.00213)	(0.00182)
Cash(t-1)	0.0227*	0.0242**
	(0.0122)	(0.0115)
Intangibility(t-1)	0.394***	0.410***
	(0.0659)	(0.0634)
Profitability(t-1)	0.0178	0.0196
	(0.017)	(0.0152)
Age(t-1)	-0.00474***	-0.00491***
	(0.000666)	(0.000614)
Age^2 (t-1)	7.19e-05***	7.46e-05***
	(1.21E-05)	(1.13E-05)
Observations	10,404	10,404
Year Dummies	YES	NO
Pseudo R-squared	0.683	0.681
Likelihood-ratio test of rho=0	2.219	4.942
Log-Likelihood	-1369	-1378
Wald chi2	195	170.7
Prob > chi2	0	0
Prob Wald	0	0

Clustered robust standard errors at the firm level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Robustness Checks with Leverage and Sales Growth

To ensure that our results were robust, we carried out several robustness checks by adding in and removing some explanatory variables from the equation model [Eq. 1], as shown below in Tables 5-6. This approach exploits the relationships inherent in the explanatory variables, but the results are similar. First, it is conceivable that profitability may have a positive effect on M&A_FDI. To confirm the results, we add leverage (total debt/total assets) as another explanatory variable in equation model [Eq. 1], and we find that the results in Table 5, which includes the leverage ratio of target firms, are consistent with the results reported in Table 3 and Table 4 in terms of size, firm age and intangibility. The results in Table 5 (in columns 5 and 6) indicate that the leverage ratio does not contribute to the probability of receiving M&A from abroad; profitability might have a positive impact, yet its explanatory power seems to be limited, judging from the limited statistical significance; and that size as well as intangible

assets play a significant and positive role in the M&A determination by a foreign acquiring company.

Table 5 Leverage Ratio of Target Firms Included

Dependent Var: M&A FDI (t)	**(5)** **Fixed Effects**	**(6)** **Probit**
Size(t-1)	0.0816***	0.0134***
	(0.0129)	(0.00168)
Leverage (t-1)	0.00825	0.00626
	(0.0235)	(0.00686)
Intangibility(t-1)	0.687***	0.403***
	(0.244)	(0.0622)
Profitability (t-1)	0.0409*	0.0226
	(0.0227)	(0.0153)
Age (t-1)	-0.0125*	-0.00466***
	(0.007)	(0.000647)
Age^2 (t-1)	-1.93E-05	7.16e-05***
	(5.32E-05)	(0.0000115)
Observations	9,492	10,032
R-squared	0.361	
Firm FE	YES	.
Year FE	YES	.
Year Dummies	.	YES
Pseudo R-squared	.	0.687
Likelihood-ratio test of rho=0	.	1.023
Log-Likelihood	.	-1352
Wald chi2	.	197.4
Prob > chi2	.	0
Prob Wald	.	0

Clustered robust standard errors at the firm level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

To further confirm the results, we also investigate by adding leverage and growth in sales of target firms into equation model [Eq. 1]. Table 6 shows that sales growth may increase the propensity of a firm to be a target (by 3.4%), although the factor is not statistically significant under the fixed effect specification; under these specifications, size of the target firm consistently contributes to the higher probability of receiving M&A. Age of the company has mixed effects (positive or negative), depending on the model specification; in either case though, the magnitude remains rather low, as compared with other factors including size of the company and possession of intangible assets.

From the perspective of the OLI framework (Dunning, 1973; Dunning & Lundan, 2008), the ownership-specific assets correspond to the intangibility in the regression. While profitability does not seem to strongly explain the M&A determination, intangible assets have a stronger and positive explanatory power, indicating the importance of local companies' possession thereof for attracting M&A-type FDI from abroad.

Table 6 Sales Growth of Target Firms Included

Dependent Var: M&A FDI (t)	**(7)** **Fixed Effects**	**(8)** **Probit**
Size(t-1)	0.0925***	0.0176***
	(0.0219)	(0.003)
Sales growth(t-1)	-0.0264	0.0344*
	(0.0234)	(0.0201)
Intangibility(t-1)	0.615	0.596***
	(0.405)	(0.0988)
Profitability(t-1)	0.0691*	0.0295
	(0.0388)	(0.0252)
Age(t-1)	0.00998***	-0.00756***
	(0.00377)	(0.0013)
Age^2 (t-1)	-0.0000323	0.000115***
	(8.36E-05)	(2.25E-05)
Observations	5,279	5,279
R-squared	0.046	
Firm FE	YES	
Year FE	YES	
Year Dummies		YES
Pseudo R-squared		0.824
Likelihood-ratio test of rho=0		9.085
Log-Likelihood		-762.1
Wald chi2		63.89
Prob > chi2		1.05E-08
Prob Wald		1.05E-08

Clustered robust standard errors at the firm level in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Conclusion

This research addresses finance-specific and firm-level determinants of M&A-type FDI in Thailand. The main results of this research are as follows: (1) firm size as well as the

intangible assets of target companies in the country have significant and robust positive effects on the probability of a firm becoming a target of M&A-type FDI, and intangibility assets in particular may substantially increase the probability of a firm being a target firm; (2) from the findings, as for finance-specific considerations, cash holdings is a positive determinant for target firms, implying that acquirers are more interested in target firms with sufficient liquidity or cash holdings, because there is higher chance for business success; (3) growth pace in sales have barely significant positive impact, although it does not show the consistency in the other speciation (column 7, in table 6); (4) given the statistically positive significance of the size of target companies and intangible assets (which is idiosyncratic across companies), firm-level heterogeneity seems to play a crucial role in the determination of M&A-type FDI in Thailand. Of these results, the third one seems to indicate the importance of the intangible assets that accompany M&A-type transactions, the higher potential for more profits because of the larger size of the firm and the expected positive synergy effects after M&A.

As Thailand is a representative emerging country, local "emerging" companies could be expected to nurture firm-specific intangible assets to attract more M&A-type FDI. On managerial implications, business companies in emerging countries could act on such government policies to pursue scaling-up of business activities on the basis of intra company intangible assets. As policy implications, the government in emerging economies (including Thailand) could secure business environment for scaling-up of business operations so that M&A-type FDI is further promoted; also, the government could facilitate nurturing of firm-level intangible assets through, e.g., allowing double tax deduction for innovative activities by small and medium sized firms, however piecemeal and incremental these activities might be. This research has contributed to the macro-level consequence of micro-level M&A with firm-level data in Thailand, specifically the financial determinants.

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