

The Association Between Firm Characteristics and Growth Opportunities: Empirical Evidence from the Emerging Market of Thailand*

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ABSTRACT

This study examines the firm characteristics that affect growth opportunities of Thai listed firms in the Stock Exchange of Thailand (SET) of 2005-2014. The firms' growth opportunities in the emerging market are important as those firms need more capital to raise future investment; however, the evidence on determinants of future growth remains unclear, particularly in Thai setting. The research results suggest that growth opportunities decline if Thai firms pay more cash as dividend, supporting the free cash flow hypothesis. In addition, when firm size becomes large the decision making on investment takes longer and hence decreased growth opportunities. The findings further show current profitability as a simple indicator of future growth in Thailand, in that the more the operating incomes, the higher the growth opportunities.

Keywords: Growth Opportunities, Emerging Market

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ความสัมพันธ์ระหว่างคุณลักษณะของกิจการ และโอกาสในการเจริญเติบโต : หลักฐานเชิงประจักษ์จากตลาดทุนไทย*

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บทคัดย่อ

งานวิจัยนี้ศึกษาคุณลักษณะของกิจการที่ส่งผลกระทบต่อโอกาสในการเจริญเติบโตของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย ช่วงระยะเวลา พ.ศ. 2548–2557 โอกาสในการเจริญเติบโตของกิจการในตลาดทุนเกิดใหม่มีความสำคัญ เนื่องจากกิจการเหล่านี้ต้องการเงินทุนจำนวนมาก เพื่อใช้ขยายการลงทุน อย่างไรก็ตามผลงานวิจัยที่เกี่ยวข้องกับปัจจัยของการเจริญเติบโตยังไม่ชัดเจน โดยเฉพาะการศึกษาในประเทศไทย ผลการศึกษาพบว่า โอกาสในการเจริญเติบโตของกิจการในตลาดทุนไทยจะลดลงหากกิจการใช้เงินสดเพื่อการจ่ายปันผล ซึ่งผลการศึกษาดังกล่าวสอดคล้องกับสมมติฐานของ Free Cash Flows นอกจากนี้หากกิจการไทยมีขนาดใหญ่ขึ้น จะส่งผลกระทบต่อตัดสินใจขยายการลงทุนที่จะใช้เวลาดำเนินการมากขึ้น ดังนั้นโอกาสในการเติบโตมีความเป็นไปได้ที่จะลดลง ผลการวิจัยยังค้นพบว่า อัตราส่วนความสามารถในการทำกำไรในปัจจุบัน ซึ่งเป็นตัวชี้วัดอย่างง่าย มีผลต่อการเติบโตของกิจการในประเทศไทย กล่าวคือ กิจการที่มีกำไรจากการดำเนินงานในปัจจุบันสูง จะมีโอกาสของการเจริญเติบโตในอนาคตที่สูงเช่นกัน

คำสำคัญ : โอกาสในการเจริญเติบโต ตลาดทุนเกิดใหม่

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INTRODUCTION

In the theoretical work of Myers (1977), the value of a firm derived from the values of assets-in-place and of future growth opportunities that the latter accounted for a large proportion of the firm's value¹. A firm's growth opportunities could be regarded as the firm's call options to make future investments by which the managers undertake the discretionary decisions to pursue or not to pursue the investments. Kester (1984) and (1986) reported that, in the industries with high demand volatility, growth opportunities accounted for 70-80% of the market value of the firms' equity. Pindyck (1988) also suggested that the proportion of the value of assets-in-place should never exceed half of the firm's market value. This current study uses the definition of growth opportunities from Myers (1977) and measures them by the variability of returns on assets following the previous research to examine the determinants in Thai setting (e.g. Smith and Watts (1992); Gaver and Gaver (1993); Baber, Janakiraman, and Kang (1996); Abbott (2001))².

Extant studies on corporate finance reported the evidence that growth opportunities significantly influenced the corporate policy-making, such as those of financing, dividend payouts, and compensation (e.g. Smith and Watts (1992); Skinner (1993); Baber et al. (1996); Gul (1999)). Chung, Li, and Yu (2005) concluded that growth opportunity of developed economy, i.e. the U.S., played a more dominating role, vis-à-vis the assets-in-place, in determining the Initial Public Offerings (IPO) prices because the investors equated one dollar of growth opportunity to roughly three quarters of the firms' assets. Furthermore, Cahan, Godfrey, Hamilton, and Jeter (2008) reported that the U.S. industries with high growth opportunity were attractive targets for audit specialization because specialist auditors could costly invest the industry-specific knowledge for a firm with high growth opportunities.

The research of growth opportunities in an emerging economy is appealed as the developing capital market needs more external equity for business expansion. Knowledge of the indicators of firm growth is thus of great use. According to Standford (2002); Gorkittisunthorn, Jumreornwong, and Limpaphayom (2006), firms in Thailand needed foreign funds for investment in new growth opportunities; however, the access was hindered by severe agency conflicts. Therefore, in contrast to several advanced economies, e.g. the U.S., U.K., Thailand is an interesting context to investigate the factors affecting growth opportunities in the emerging market.

¹ The firm's value (V) is comprise of:

$$V = V(A) + V(G)$$

where V is the current equilibrium market value of the firm, V(A) is the market value of assets-in-place, and V(G) is the present value of growth opportunities.

² Generally, the firm's growth opportunities are not directly observed as they depend on various factors, e.g. management discretion, macroeconomic circumstance (Kallapur and Trombley (1999)); therefore, they are measured by a proxy based on market performance.

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This research is motivated by the lopsidedness of existing empirical relevant studies that focused almost exclusively on the consequences of growth opportunities. For instance, Skinner (1993), Baber et al. (1996), and Gul (1999) documented that investors' expectations of growth would influence the corporate policy-making, particularly those pertaining to financing and management compensation. Nevertheless, research studies on the determinants of growth opportunities are very limited, while the existing ones utilized the samples of developed markets. Unlike in the advanced economies, the determination of growth opportunities in the emerging markets presents a multitude of challenges due to the latter's economic volatility, particularly following the 1997 Asian financial crisis. Therefore, this current study delves into the firm characteristics which contribute to growth opportunities in the Thai setting; and that offers the empirical evidence to assist investors in assessing the firms' growth possibility.

The current study reexamines the growth impact of dividend policy that reported by Chang (2009) with the sample of Taiwan setting. Contrast to the research in Hossain, Ahmed, and Godfrey (2005) and Becker-Blease and Paul (2006), this current study utilizes Thai listed firms to test whether the positive impact of share turnover and profitability on growth opportunities that is found in the developed countries holds in Thai environment. Additionally, the current research provides new insight into the relationship between growth opportunities and firm-specific factors, i.e. information asymmetry and size; and industry-specific factor, i.e. market concentration in Thai economy. This study offers insights to the policy makers, e.g. the SET, in that they should be concerned about how to promote growth and reduce the costs of capital to Thai capital market. Furthermore, capital providers, e.g. investors, creditors, can use basic information about firm size and current accounting performance to make a decision on investment. Also, corporate policies play a significant role on future growth that the management of Thai listed firms should be aware.

The remainder of this research is organized as follows: Section 2 is concerned with literature reviews and the hypotheses. Section 3 deals with the research methodology including the sample selection and data, and the model test and variable measurement. Section 4 discusses the empirical results, while the concluding remarks and study limitations are provided in Section 5.

LITERATURE REVIEW AND HYPOTHESES

A firm's growth opportunities are subject to a variety of influencing factors. Christies (1989) acknowledged the diversity of the growth opportunity values of enterprises, depending upon both the industry- and firm-specific factors. *For the industry-specific factors*, the primary determinants of growth opportunities involve the industrial advantages presented to the firms, e.g. the barriers to entry or product life cycles, which lead to the competitive advantages and increase the firms' value. For example, investment in R&D shortening the product life cycles with a new product's the introduction and/or human capital enhancing the firm's productivity could constitute competitive benefits in business. *For the firm-specific factors*, they refer to the firms' characteristics that subsequently generate more

investment opportunity. For instance, for internet or biotech firms (i.e. the emerging firms) in which the growth options accounted for a significantly larger proportion of the value than the assets-in-place, the speed of innovation was the critical determinant of the enterprises' growth opportunities (Garner, Nam, and Ottoo (2002)). In order to reasonably estimate the value of growth opportunities and arrive at a logical value of the firm, investors should be provided with the relevant information.

In Thailand where the majority of listed firms are family-owned, the issue of information asymmetry is serious and the listed firms are faced with the agency conflicts of types I and II inhibiting the firms' growth³. Information asymmetry between the informed and uninformed investors influenced the share prices since the trading of stocks was information-based, which in turn influenced the spreads between the bid and ask prices offered by market specialists⁴ (LaFond and Watts (2008)). Amihud and Mendelson (1986) argued that "the greater the relative private information, the larger the bid-ask spreads, the lower the returns to the uninformed investors, and the higher the equilibrium required returns on the stock". The empirical study of He, Lepone, and Leung (2013) utilizing the sample of the developed market, i.e. Australian listed firms, shown the results that cost of capital increases with higher level of information asymmetry. In international setting, Drobetz, Gruninger, and Hirschvogel (2010) employed the sample of both developed and emerging markets (including Thailand) and reported the findings that overall the market value of cash was reduced when the firms faced a higher level of information asymmetry. Therefore, growth opportunities of Thai emerging market are expected to decrease with asymmetric information due to higher costs of equity capital.

Previous studies also examined how dividend policy affects the firms' growth by using the samples with different economics environments. Yoon and Starks (1995) examined the effect of dividend announcements on the U.S. firms' growth. The authors argued that under the cash flow signaling hypothesis, managers with more information about the firms' cash flows than outside investors have an incentive to openly signal that information to the investors. On the one hand, based on the free cash flow hypothesis, changes in dividends reflect the managers' investment policies. In other words, less or no dividends would be distributed if the managers are presented with new investment projects. The authors found that the firms' growth opportunities increased over the three years following the dividend changes, and hence supporting of the cash flow signaling hypothesis. In contrast, Chang (2009) used the samples of Taiwanese listed firms and found that the firms' growth opportunities were inversely correlated with the dividend payouts for the reason that the investment in new projects might be postponed or forgone as internally available funds had been distributed as dividends. According to the studies of Yoon and Starks (1995) and Chang (2009), the relationships between dividend policy and growth opportunities can explained by the hypothesis of the free cash flow for the emerging

³ The divergence of interests in firms stems from the principal-agent relationships between managers and shareholders (agency conflict type I) and between inside and outside shareholders (agency conflict type II).

⁴ Managers are part of the informed group in the equity market.

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market setting and of the cash flow signaling for the developed market setting. Therefore, future investment opportunities in the Thai capital market are expected to decline when the Thai firms pay more cash as dividend.

As mentioned before, the factors involved with the industrial level could influence the firms' future growth. Competitive advantages of a firm in its own industry, i.e. large market share, restrict entry of a new comer owing to the former's economies of scale, lower costs of capital, and monopoly in the future economic rents (Christies (1989); Cheng (2005)). It is thus possible to conclude that larger market shares allow firms to retain growth. Previous research of Doukas and Switzer (1992) also shown the evidence supporting the positive association between market concentration, R&D spending, and the stock price of the U.S. sample. On the other hands, PwC (2011) reported that the economic growth of emerging markets in the East compared to those of developed countries in the West is intensifying. Thus, market leaders in emerging economies whose businesses reach the maturity stage of the product life cycle would be hesitant to make new additional investments, thereby hindering the corporate growth. It is possible that the relationship between market share and growth opportunities of Thai firms is negative.

This research thus makes the predictions on the negative effects of information asymmetry, dividend policy, and market share on growth opportunities of Thai firms in the first set of the research hypotheses as shown below:

- H1: H1.1: Information asymmetry is negatively associated with growth opportunities.
H1.2: Dividend payouts are negatively associated with growth opportunities.
H1.3: Market share is negatively associated with growth opportunities.

Becker-Blease and Paul (2006) reported a positive correlation between stock turnover and growth opportunities for the sample of S&P500 firms. In general, investors favor stocks with high liquidity and are willing to pay a premium price for the stocks by demanding a lower rate of return (i.e. lower costs of capital) in anticipation of high growth. The authors conclude that firms with high equity liquidity also enjoy the lower cost of equity, and hence high future growth. However, the findings of Gregoriou and Nguyen (2010) using the sample from FTSE 100 index deletions in the London Stock Exchange Electronic Trading System contrast to those of Becker-Blease and Paul (2006) in that the association between growth opportunities and stock market liquidity is insignificant. The results imply that the sampled firms have the same cost of capital for the growth opportunity even they are deleted from a major stock index. Recently, Weiqi (2014) using the U.S. listed firms that the firms with lower costs of capital are more able to carry out the seasonal equity offerings (SEO); thus, growth as reflected by future investment projects is unlikely to be postponed or rejected. Since the evidence on the relationship between stock turnover and growth opportunities is absent to an emerging market and mixed by the

U.S. sample, this study anticipates decrease in costs of capital as a result of high liquidity, and hence higher growth.

Furthermore, growth opportunities could be positively correlated to profitability since they are viewed as the risk-adjusted net present value of expected future profits (Chauvin and Hirschey (1993)). Typically, investors rely on the current rate of profitability as the best available indicator of future profits. Thus, the current high profitability reflects the firms' large pool of future investment opportunities and hence the investors' expectations of continued future profitability. Hossian et al. (2005) reported the result of the simultaneous equation that the relationship between the New Zealand firms' profitability and their future investment opportunities is positive. Since, the evidence on profitability is absent in emerging countries, this study predicts the positive association between profitability and investment opportunities following the research results in the developed country.

The firm's factors involved with the size could affect the way of its future investment. The relationship between firm size and growth opportunities might be either negative or positive. A negative correlation is attributable to a belief that larger firms tended to deplete growth options as the expansion continued (Hossian et al. (2005)). On the other hand, a positive relationship is based upon another theory that larger firms, compared to their smaller counterparts, are in a better position to create and explore new investment opportunities, so the future expansion is easily achieved by the larger-sized firms (Chauvin and Hirschey (1993)). For Thai listed firms, Issarawornrawanich and Damrong sukniwat (2013) concluded that large-sized firms tend to engage in earnings management to avoid reporting of financial losses due to their higher reputation costs. Therefore, the positive association between size and Thai firms' growth is expected.

Thus, the positive effects of stock turnover, profitability, and size on Thai firms' growth opportunities are predicted in the second set of the research hypotheses as shown below:

- H2 H2.1: Stock turnover is positively associated with firms' growth opportunities.
 H2.2: Profitability is positively associated with firms' growth opportunities
 H2.3: Firm size is positively associated with firms' growth opportunities.

RESEARCH METHODOLOGY

Sample Selection and Data

The initial samples of this research were SET-listed companies during the years 2005–2014, with those under non-compliance and non-performing group (or rehabilitation firms) excluded because of the unavailability of stock returns data. In addition, firms in the financial industry were excluded since they are subjected to different financial reporting requirements and accounting rules. To control for similar market conditions, this research further excluded the firms whose fiscal year-ends fall outside

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31st of December. Following the removal of unusual data, i.e. the outlying, high leveraged and influential observations, a final sample of 2,416 firm-year observations were obtained. All the financial and accounting data were from the SET Market Analysis and Reporting Tool.

Model Test and Variable Measurement

The testing of the research hypotheses was carried out using the below regression model (1). The model takes into account the firms' characteristics that influence the growth opportunity and the year fixed effects.

$$\begin{aligned} \text{GROWTH}_{i,t} = & \alpha_0 + \alpha_1 \text{ASYM}_{i,t} + \alpha_2 \text{DIV}_{i,t} + \alpha_3 \text{MKSHARE}_{i,t} + \alpha_4 \text{TURN}_{i,t} + \alpha_5 \text{PROFIT}_{i,t} + \alpha_6 \text{SIZE}_{i,t} \\ & + \alpha_{6+j} \sum_{j=1}^9 \text{YEAR}_j + \epsilon_{i,t} \end{aligned} \quad (1)$$

where *i* and *t* denote firm *i* and year *t*, respectively. The dependent variable, GROWTH, is the growth opportunities captured by annualized variance of return on the market value of assets that the measure is based on a time series of at least four annual observations ending in 1998⁵, following the earlier research in Smith and Watts (1992), Baber et al. (1996), and Abbott (2001). Chung and Charoenwong (1991) argued that the value of growth options is a function of the variability of stock returns. The use of this growth opportunity measure relies on the underlying assumption that "investment opportunities become more valuable with increase in the variability of returns on the underlying assets" (Gaver and Gaver (1993)). Thus, the value of the firms' growth opportunities rises with increase in the variability of returns on the asset market value.

In addition, ASYM is information asymmetry calculated by scaling the annual average of the daily ask-bid spreads by the closing prices. DIV is the dividend payout as measured by the ratio of annual dividend payment to annual earnings before extraordinary items. MKSHARE is the market share calculated by dividing the firm's annual revenues by total industry revenues. TURN is the stock turnover captured by the number of shares traded scaled by the number of outstanding shares. PROFIT is the profitability as measured by the ratio of annual operating incomes to total assets. SIZE is the firm size captured by a natural logarithm of annual sales.

The coefficients of ASYM, DIV, and MKSHARE were expected to be negative, following H1.1, H1.2, and H1.3 (Cheng (2005); LaFond and Watts (2008); Chang (2009)). The coefficients of TURN, PROFIT, and SIZE were expected to be positive, in accordance with H2.1, H2.2, and H2.3, respectively (Hossian et al. (2005); Becker-Blease and Paul (2006)). The regression model was also controlled for the year

⁵ The return on the market value of assets in year *t* is calculated by scaling total stock return in year *t* by the market value of assets at the beginning of year *t*.

fixed effects whereby YEAR06, YEAR07, YEAR08, YEAR09, YEAR10, YEAR11, YEAR12, YEAR13, and YEAR14 were individually a dummy variable coded one if firm *i* was in years 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, and 2014, respectively.

RESEARCH FINDINGS

Table 1 presents the descriptive statistics for the sampled firms averaged over a ten-year period. The mean and median of ASYM are 0.0345 and 0.0108, respectively, indicating the larger average bid-ask spreads than those documented by Wang (2013), who utilized the samples of Taiwanese listed firms⁶. An ASYM value of 0.0278 in the third quartile (Q3) points to the fact that the information asymmetry led to one-fourth of the sampled firms exhibiting the price spreads by almost three percent of the closing prices.

The DIV's mean and median of 0.3861 and 0.3935 are identical, suggesting that on average the sampled firms distributed approximately two fifths of their reported annual earnings as dividends⁷. The MKSHARE values in the first and third quartiles are 0.0016 and 0.0141 respectively, indicating that half of the sampled firms captured between 0.16–1.41 percent of total market shares of their respective industries. The mean and median of TURN are 1.1663 and 0.3498, respectively, indicating a positive skewness. A TURN value of 1.2575 in the third quartile indicates that the shares of one-fourth of the sampled firms were of high liquidity since the average ratio of traded shares to the outstanding shares was greater than one. The mean of PROFIT is 0.0457, suggesting that the sampled firms on average generated the operating incomes in the order of four percent from total assets. The average natural logarithm of SIZE is 21.8672, indicating that the sampled firms' annual sales were roughly 3.1 billion baht.

⁶ According to Wang (2013), the ask-bid spreads divided by the average of ask and bid prices were on average 0.00608 during the period of 2002–2011.

⁷ According to Chang (2009), the average ratio of dividend payout to of the annual earnings of Taiwanese listed firms was 53 percent during 2002–2007.

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Table 1: Descriptive Statistics of the 2,416 Firm-year Observations for the Years 2005–2014

Variables	Mean	Q1	Median	Q3	Std.Dev.
GROWTH	0.3919	0.0379	0.0783	0.1659	3.0007
ASYM	0.0345	0.0079	0.0108	0.0278	0.0592
DIV	0.3861	0.0000	0.3935	0.5970	0.3890
MKSHARE	0.0163	0.0016	0.0050	0.0141	0.0419
TURN	1.1663	0.0606	0.3498	1.2575	2.2091
PROFIT	0.0457	0.0017	0.0457	0.0887	0.0909
SIZE	21.8672	20.8492	21.8495	22.8554	1.6305

Variable Definitions: GROWTH is the annual variance of return on the market value of assets since 1998. ASYM is the annual average of the daily ask-bid spreads scaled by the closing prices. DIV is the ratio of annual dividend payout to annual earnings before extraordinary items. MKSHARE is the annual revenues divided by total industry revenues. TURN is the ratio of the number of shares traded to the number of outstanding shares. PROFIT is the ratio of annual operating incomes to total assets. SIZE is a natural logarithm of annual sales.

Table 2 presents the Pearson correlation matrix of the variables, that GROWTH is negatively correlated with SIZE, suggesting that the larger the firm size, the less the firms' growth opportunities. ASYM is negatively correlated with DIV, MKSHARE, TURN, PROFIT, and SIZE, showing that firms with higher information asymmetry tended to pay less dividends, occupy smaller market shares, and have lower liquidity and profits. The positive associations of DIV with PROFIT and SIZE suggest that the shareholders received higher dividend payouts if they were holding the stocks of a company with high profitability and of large size. The negative associations of TURN with PROFIT and SIZE suggest that the higher the stock liquidity, the smaller the firms' size and profits. Moreover, the larger firms compared to the smaller firms have higher operating incomes, as shown the positive association between PROFIT and SIZE. Despite the high correlation between SIZE and MKSHARE, the tests by variance inflation factors indicated that none of the variables suffered from the multicollinearity problems⁸.

⁸ As a rule of thumb, the regressor variables have the multicollinearity problem when their variance inflation factors (VIF) are greater than 10 (Montgomery, Peck, and Vining (2001); Grace Lee, Li, and Sami (2014)). The tests (not reported) showed that the VIFs of both SIZE and MKSHARE were lower than two, and hence the absence of the multicollinearity.

Table 2: Pearson Correlation Matrix

Variables (N = 2,416)	ASYM	DIV	MKSHARE	TURN	PROFIT	SIZE
GROWTH	0.0034	0.0016	-0.0314	0.0231	0.0059	-0.0887***
ASYM		-0.1857***	-0.1112***	-0.1897***	-0.1848***	-0.3395***
DIV			0.0762***	-0.0939***	0.2717***	0.1192***
MKSHARE				-0.0773***	0.0507**	0.5507***
TURN					-0.1304***	-0.1361***
PROFIT						0.2518***
Note: *, **, and *** denote significance at the 0.1, 0.05, and 0.01 levels, respectively.						

Table 3 presents the hypothesis test results of H1.1–1.3 and H2.1–2.3 for the firm’s characteristics, i.e. information asymmetry (ASYM), dividend payout (DIV), market share (MKSHARE), stock turnover (TURN), profitability (PROFIT), and firm size (SIZE), respectively, that play an influential role in growth opportunities. The pooled OLS regression model of the hypothesis tests encompassed the year fixed effects to control for economic variations across years. The H1 and H2 tests are predicted to be negative and positive, respectively.

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Table 3: The Hypothesis Tests: The Association Between Firm Characteristics and Growth Opportunities

The Pooled OLS Regression: $\text{GROWTH}_{i,t} = \alpha_0 + \alpha_1 \text{ASYM}_{i,t} + \alpha_2 \text{DIV}_{i,t} + \alpha_3 \text{MKSHARE}_{i,t} + \alpha_4 \text{TURN}_{i,t} + \alpha_5 \text{PROFIT}_{i,t} + \alpha_6 \text{SIZE}_{i,t} + \alpha_{6+j} \sum_{j=1}^9 \text{YEAR}_j + \varepsilon_{i,t}$				
	Hypotheses	Predicted Sign	Estimate Coefficients	p-value ¹
Intercept			4.8293	<.0001***
ASYM	H1.1	(-)	-0.3414	0.7725
DIV	H1.2	(-)	-0.0130	<.0001***
MKSHARE	H1.3	(-)	2.3661	0.1768
TURN	H2.1	(+)	-0.0179	0.5439
PROFIT	H2.2	(+)	1.9708	0.0075***
SIZE	H2.3	(+)	-0.2181	<.0001***
Year Fixed Effects				Yes
Adj.R ²				0.0364
F-value				<.0001***
N				2,416
<p>Variable Definitions: GROWTH is the growth opportunities measured by the annual variance of return on the market value of assets since 1998. ASYM is information asymmetry calculated by the annual average of the daily ask-bid spreads scaled by the closing prices. DIV is the dividend payout captured by the ratio of annual dividend payment to annual earnings before extraordinary items. MKSHARE is the market share measured by annual revenues divided by total industry revenues. TURN is the stock turnover calculated by the ratio of the number of shares traded to the number of outstanding shares. PROFIT is the profitability measured by the ratio of annual operating incomes to total assets. SIZE is the firm size captured by a natural logarithm of annual sales. Year Fixed Effects include YEAR06, a dummy variable coded one if firm i is in year 2006, YEAR07, a dummy variable coded one if firm i is in year 2007, YEAR08, a dummy variable coded one if firm i is in year 2008, YEAR09, a dummy variable coded one if firm i is in year 2009, YEAR10, a dummy variable coded one if firm i is in year 2010, YEAR11, a dummy variable coded one if firm i is in year 2011, YEAR12, a dummy variable coded one if firm i is in year 2012, YEAR13, a dummy variable coded one if firm i is in year 2013, and YEAR14, a dummy variable coded one if firm i is in year 2014.</p> <p>Note: ¹ To correct for the heteroscedasticity of the pooled data, p-values under heteroscedasticity consistent were used. *, **, and *** denote significance at the 0.1, 0.05, and 0.01 levels, respectively.</p>				

In Table 3, the findings showed that the coefficient of DIV was both negative and statistically significant at the 0.01 level, thus supporting H1.2. The coefficient of PROFIT was both positive and statistically significant at the 0.01 level, thus supporting H2.2. The coefficient of SIZE exhibits the statistical significance at the 0.01 level with the positive direction that is opposite the predicted sign of H2.3. The hypothesis tests reported the statistical insignificance of the coefficients on ASYM, MKSHARE and TURN, thus not supporting H1.1, H1.3 and H2.1, respectively. The F-statistic of the regression model was significant (at the 0.01 level), indicating that the regression model was statistically valid. The adjusted R^2 was 0.0364, meaning that the explanatory variables were able to explain the dependent variables by 3.64%⁹.

The results of the hypothesis tests suggest Thai firm characteristics affecting growth with three aspects. First, the firms' growth opportunities decrease with dividend payment as the firms' cash is paid for dividends instead of future investment projects, consistent with the previous study in Chang (2009) who found the negative association between growth opportunities and dividend policies in Taiwan setting. Secondly, the firms with the larger size tend to make less investment opportunity due to the depleted growth option and intense competition in an emerging economy. Third, a higher profitability of a capital stock indicates future growth and business expansion, supporting the evidence on Hossian et al. (2005) who found the positive effect of profitability on investment opportunities of New Zealand listed firms. However, the bid-ask spread and turnover representing the firm's information asymmetry and share liquidity, respectively do not influence investment decision due to no significant change in the cost of equity capital. Furthermore, the current better position in the industry does not affect future growth.

CONCLUSIONS, IMPLICATIONS, AND DISCUSSION

The aim of this research was to determine the firms' characteristics or factors that could contribute to growth opportunities for Thai SET-listed firms for ten years ending 2014. First, the empirical evidences show the inverse relationships between growth opportunities and dividend payment in Thai setting that support the free cash flow hypothesis and are similar to earlier work in another emerging market. While the previous study of those relationship reports the results with the opposite direction to the developed country. This implies that the developed market signals information about high growth via more paid dividend while investment expansion is less when the emerging market pay more cash as dividend to shareholders.

⁹ The adjusted R^2 of the model involved with variance of returns is rather low because of the high variability data. For example, the adjusted R^2 in the models of Baber et al. (1996) ranges between 0.0150 and 0.1370. However, the significant coefficients still represent the change in the response for one unit of the change in the predictor, holding other predictors constant.

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Second, the findings reveal that Thai firms with more profitability tend to invest in future project for growth, consistent with those evidences on developed economy. Therefore, current operating incomes can be the straightforward indicator of future growth for unsophisticated investors in the developing markets. Third, this study provides the new evidence on the negative relationship between firm size and growth, in that Thai firm's growth opportunities may decline as it grows ever large. Possible explanations are that when corporations become large the layer of management will distance decision makers, and hence investment decision-making taken longer or increased decision-making burden. Furthermore, large sized firms with higher reputation or/and political cost will concern about legal action when they make a decision on future business projects. Fourth, this study finds no evidence on the effects of information asymmetry and share turnover on growth opportunities as the Thai firms' costs of capital do not change. Lastly, there is no significant relationship between the industrial factor, i.e. market share, and Thai firm growth as high market share itself may be not the only successful factor to future growth.

In academic contribution, the results prove that the free cash flow theory explains dividend policy in emerging economies including Thailand (not for developed economies), consistent with Chang (2009). Moreover, the results complement to those of Hossian et al. (2005) who point out the fundamental determinant of future growth by current operating profits in the developed market. Additionally, the study adds the first evidence on the negative association between firm size and growth. This study also practically contributes to corporate stakeholders including regulators of Thai capital market. The research's outcome is a crucial source of knowledge for investors and creditors in making a decision on investing and lending, in that corporate performance, policy, and capacity can shape investment growth. The allocation of cash for capital providers or for new investment should be mattered by the management as it potentially affects future cash flows. In addition, the result provides information to the policy makers such as the SET, in that Thai listed firms have the same costs of capital at any magnitude of information asymmetry and stock liquidity.

However, this research is subject to certain caveats. Firstly, the measurement of future growth relies on the stock returns thus the confounding effects likely exist despite controlling for the year fixed effects. This leads to the low explanatory power of the regression model, and hence leaving the room for future research to add potential predictors into the model. Thus, interpretation of the regression results with caution is advised, in particular for prediction. Moreover, there are factors involved with business competitive advantage, e.g. investment in R&D, advertising, and selling, which possibly affect growth and are excluded in the research because data is unavailable and the financial statements do not require the firm discloses those expenditure items separately. Next, institutional environment of firms, e.g. ownership structure, more likely shapes their investment decision. Corporate ownership by institutes or family group could lessen or aggravate future growth as it affects agency cost of the firms.

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