

Entrenched CEO, Loss Aversion Behavior on Dividend Policy of Listed Firms in Thailand

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Abstract

This study aims to investigate the dividend policy of listed firms in Thailand stock exchange market and fill the gap in academic literatures by integrating two sides: demand side (investors) and supply side (CEO) of dividends simultaneously. According to five years backward time series yearly data (2011 to 2015), the logit model in the current study can explain well on dividend policy. The findings are not only aligned with some theories in modern finance field, such as agency theory, life cycle theory, catering theory and managerial entrenchment hypothesis, but also complied with some theories in behavioural finance field, such as loss aversion, or risk aversion. Furthermore, the findings can be used by regulators to monitor the management of listed firms on the dividend provisions, and can also be used by institutional and individual investors to select firms to invest according to their risk preferences.

Keywords: Dividend Policy, CEO Index, Loss Aversion, Entrenched CEO, Managerial Impatience.

1. Introduction

Dividend policy is a very important issue for every listed firm due to its significant effects on capital structure and related to every stakeholder of firms. Since Modigliani and Miller (1961) raised the dividend irrelevant theorem, many theories and hypotheses have been used to explain the dividend behaviours under the relaxation of perfect market conditions, such as Agency theory; the Life cycle theory; the Catering theory; Managerial entrenchment hypothesis; Pecking order hypothesis; Signal theory, and the free cash flow theory.

In Thailand, many researchers focused on dividend policy based on these theories, for example, Agency theory (Jensen and Meckling, 1976) points that if there is no effective separate and control mechanism between the principal and agent, then there will be agency costs. These costs affect firms' values negatively and cannot maximize all shareholders' values (Stulz, 1988) especially when the law to protect the individual investors is weak (Jensen et al., 1992; La Porta et al., 2000; Burkart et al., 2003), several studies about listed firms of Thailand confirmed this theory (Wiwattanakantang, 2001; Polsiri 2004; Thanatawee, 2013; Sukkaew, 2015).

Meanwhile, the Life cycle hypothesis (DeAngelo et al., 2006) suggests that if firms in their maturity stage, these firms are large and pay out dividends at high level. Thanatawee (2011), Sukkaew (2015) supported this hypothesis. However, Komrattanapanya (2013) found evidence against this hypothesis: small firms with profit like to pay dividend, and firms in different industries seems to have different propensity to pay dividends.

The Catering theory (Baker and Wurgler, 2004) states that if the dividend premium, which is measured by the difference on prices between dividend payers and non-payers in the market, is higher, non-payers may initiate to pay dividend, Tangjitprom (2013) underpinned such conclusion.

From prior studies, the Pecking order theory (Myers and Majluf, 1984) is still in doubt. This hypothesis predicts that if a firm funds a new investment, the firm must arrange the funds from internal to the external. The debts would be heavily relied on if the firm seek external funds. But, Fama and French (2002) found that the tradeoff model between the costs and benefits by using debts predict that the more profitable firms have high level of debt ratios, this finding against the Pecking order theory, meanwhile, the Frank and Goyal (2003) concluded that the Pecking order was only valid for larger firms.

According to managerial entrenchment hypothesis (Morck et al., 1988), an entrenched CEO who controls a significant portion of the equity of the firm may not be aligned with shareholders' interests. So, some theories about dividend policy may not be valid anymore, for example, the "Bird in Hand" theory (Gordon, 1963; Lintner, 1964), Signal theory (Miller and Rock, 1985) and the free cash flow hypothesis (Jensen, 1986). "Bird in Hand" reveals that risk averse investors always prefer current dividends stream rather than discount on uncertain future higher share prices, however, the entrenched CEO may not pay dividends currently, the "Bird in Hand" theory is not valid; this is also true for the free cash flow hypothesis which express that the extra cash (the cash left after the firm invested in all positive net present value projects) must be paid out as dividends to shareholders (Shleifer and Vishny, 1989). Further, as the dividend always be interpreted as a signal to outside shareholders about the firms' future profitability, if the entrenched managers dishonestly pay dividends to imitate firms with good reputation or just intermittently pay dividends according to their selfish interests, then, the Signal theory is in doubt too (Hangsasuta. 2015).

Meanwhile, the findings from prior studies which linked managerial entrenchment hypothesis directly with dividend policy supported that the likelihood of dividend payout and level of such payout were significantly and positively (negatively) related to factors that increase (decrease) executive entrenchment levels (Farinha, 2002; Hu and Kumar, 2004; Chemmanur et al. 2009).

In behavioral finance field, the loss aversion, which "refers to the phenomenon that decision makers are distinctly more sensitive to losses than to gains" (Berkelaar et al. 2004, p 973), also plays an important role on firms' dividend policy. For instance, Shapiro and Zhuang (2013) established a model consist of two separate sides: investors as demand side and managers as supply side. The investors are loss aversion, managers will determine the dividend policy and pay out level according to outside investors' preference and firms' current earnings as well as predicted future profitability distribution function for next period.

Needless to say some macroeconomic factors, such as inflation rate and monetary policy affect the firms' dividend policy. However, these factors affect the firms' dividend policy indirectly (Ameer, 2012; Ghafoor et al., 2014). For example, if there is an inflation, the nominal value of firms will increase, then, managers may timing the market to pay dividend, or, if investors foresee that there will be a tight monetary policy, then, they may expect the higher interest rate and lower dividend yield in the future. In current study, the firms' the yearly Return on Assets (ROA) which stands for profitability, Firm Size (FIRM), which was measured by firm's market capitalization, as well as the lagged one year's Price to dividend ratio (PD) can be used to reflect these macroeconomic factors' impacts.

2. Determinants on dividend policy:

1) The statistics of listed firms in Thailand

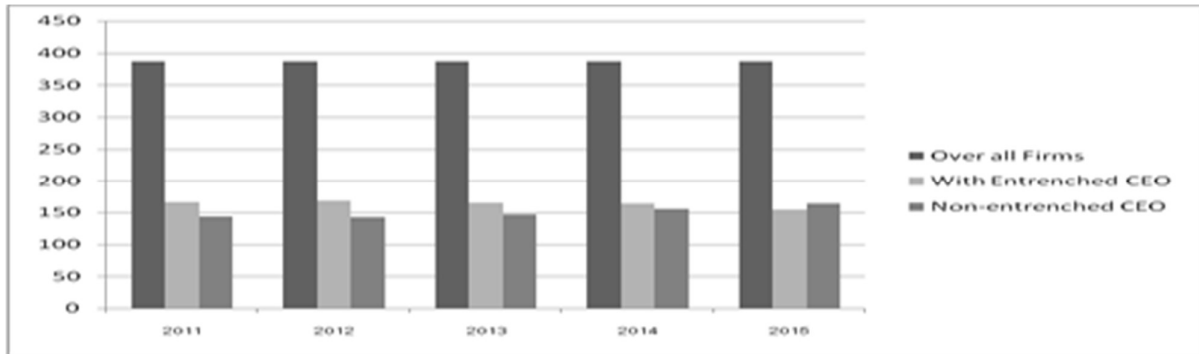


Figure 1: Number of All Sample Firms and Firms with or without Entrenched CEO

If a CEO inside ownership equals or more than 20% of total outstanding shares of the firm, this CEO is entrenched CEO (Wiwattanakantang, 1999, Page 380)

Figure 1 shows that among all sample of listed firms, there are nearly half of firms have entrenched CEO, and the Figure 2 reveals that the total dividend payers were reduced and Dividend Non-payers increased.

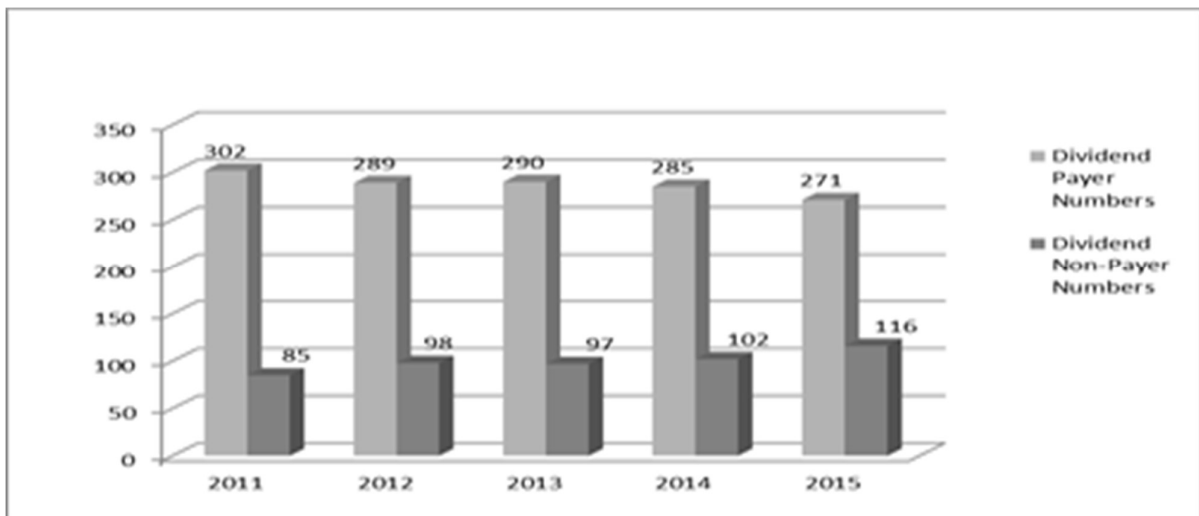


Figure 2: Dividend Payers and Non-Dividend Payers During 2011 to 2015

Dividend Payer and Non-Payer numbers during 2011 to 2015

2) Variables Descriptions

In current study, all the variables are summarized in Table 2.1

Table 2.1 Definitions of Variables and Related Theories and Hypotheses

Variable Name	Descriptions	Related Theory	Referent Author, Year	Measurement In Current Study	Expected Sign
Dependent Variable					
Dividend Policy (DVP)	"the practice that management follows in making decisions about dividend payout or, in other words, the size and pattern of cash distribution return shareholders"		Lease, et al., 2000, p 29	Pay equals to 1, otherwise, 0	
Independent Variables					
Supply Side Variables					
Single Ownership CEO Index (ENT)*	"A single Shareholder own at least 25% of a firm's outstanding share, either directly or indirectly"	Entrenchment Hypothesis Agency Theory	Hu and Kumar, 2004 Chenmamar et al 2009	Wyszczanskiang, 1999, on p 300. (In the current paper, more than 20% of inside ownership as an Entrenched CEO, if Not, high ENT means Powerful CEO)	Positive (+)
CEO with Loss Aversion (LENT)**	Multiplicative variable	Loss Aversion	Berkelaar et. Al, 2004, p 975	Loss Aversion Utility value multiplied by CEO Indexes which are above All CEO Index mean	Negative (-)
Managerial Impatience BW (β_0)***	"Increasing Impatience raise current payout at expenses of future payout"	Risk Aversion	Lambrecht and Myers, 2012, p 1774	Equals to 1 divided by 1+ ρ , then divided by averaged or two consecutive managerial subjective return rates (current ROA and lagged one year's ROA)	Positive (+) or Negative (-)
Demand Side Variables					
Loss Aversion of Individual Investors (LVI)	"The investor's stage is the demand side story where the focus is on how investors preferences and behavior affect the payout policy"	Loss Aversion	Shapiro and Zisman, 2015, p 63 Berkelaar et. Al, 2004, p 975 Cochrane J.H., 1992, p 344	Loss Aversion Utility value (use lagged two consecutive years' Relative dividends received ****)	Positive (+)
Price to Dividend Ratio (PD)	"The change in the price must reflect news about future dividend"	Signal Theory Catering Theory		Lagged one year market price divided by real dividend	Positive (+)

Table 2.1 Definitions of Variables and Related Theories and Hypotheses (Continued)

Variable Name	Descriptions	Related Theory	Referent Author, Year	Measurement In Current Study	Expected Sign
Independent Variables					
<i>Firm's Variables</i>					
Retained Earnings to total Asset Ratio (NETA)	"Retained Earnings divided by Total Assets (RE/TA)"	Life Cycle Theory Pecking Order Theory	Tanawatwee, 2011, p 55	Current year's realized earnings (unappropriated) divided current year's Total Assets	Positive (+)
Total Debts to Total Assets Ratio (DE)	"The Ratio of Total Debt divided by Total Assets"	Pecking Order Theory	Tanawatwee, 2011, p 55	The logarithm absolute value between the lagged one year's debt ratio minus the lagged two year's debt ratio	Negative (-) or Positive (+)
Turnover Ratio (TN)	"The equity value traded for each period divided by that equity's market capitalization of that period"	The Theory of Clientele Effects	Banerjee et al., 2007, p 1786	Logarithm value of current year's turnover ratio	Negative (-)
Return on Total Assets (ROA)	"Operating income divided by Total Assets"	Life Cycle Theory Signal Theory	Tanawatwee, 2011, p 55	A sample firm's current ROA divided by mean of all sample firms' current ROA	Positive (+)
Firm Size (FIRM)	"Among dividend payers, larger and more profitable firms have higher payout ratios"	Life Cycle Theory	Fama and French, 2001, p 21	Logarithm value of current year's market capitalization of a sample firm	Positive (+)

*. EMT: the current Relative Strength for each CEO's status or powerful score in total sample group. The higher CEO's status or powerful scores compromised by higher relative CEO's tenure, higher percentage of CEO's related directors in the Board, lower percentage of independent directors in the board, smaller of board size, higher capability.

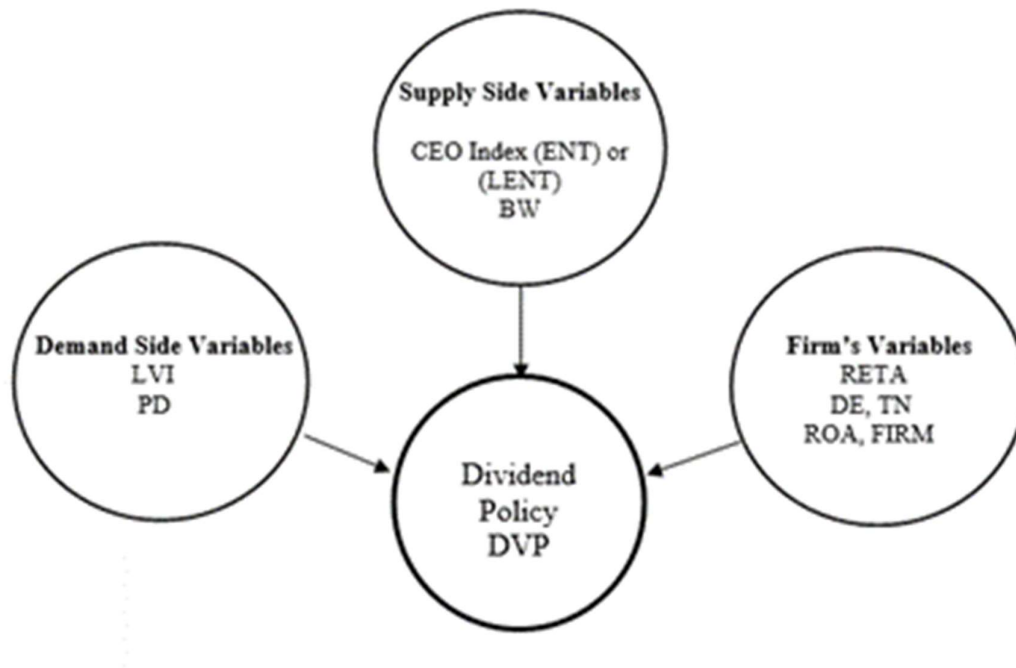
** LENT: Louis Aversion Utility value multiplied by CEO Indexes which are above All CEO Index mean, by using a firm's market price, current market price and the lagged one year's market price. All parameters are as same as the formula used by Berkelaar et al., 2004, p 975.

***. BW $((\beta/\alpha) \text{ equals to } (1 / (1 + \rho)) - ((ROA_{t-1}) / 2))$, where ρ equals to risk free rate (20 year's Thailand Government bond coupon yield).

****. Relative dividend received = (a firm's Dividend Yield - Mean of Dividend Yields of all sample firms) x Current Market Price.

3. Research Methodology

- 1) *Data collection and Sample size*: The sample size is categorized into 22 industries according to the Stock Exchange of Thailand (SET) and Market of Alternative Investment (MAI)
- 2) *The population of samples*: Total 387 listed firms during the year 2011 to 2015, except the firms fall into following categories: Stated Owned firms; Crown Property Bureau Owned; Mutual Funds; Financial Firms; Firms listed after 2011; Firms whose data are not completed during 2011 to 2015.
- 3) *Theoretical Framework*: Agency theory states that if there is a conflict between owners and managers, then, agency cost happened, so, the dividend may be used as a tool to reduce this cost. However, prior studies based on several theories and hypothesis mentioned above could not explain well, for example, even there is tax disadvantage on dividend, why managers still pay dividends? This is still a “puzzle” owed to be answered. Such ambiguous relationships between management and dividend policy became more complicated when a CEO control a portion of share of the firm and become entrenched CEO: does this entrenched CEO still pay dividend or if this entrenched CEO is loss averse or has managerial impatience, does this CEO pay dividend or not? Can demand for dividend from individual investors be satisfied if there is an entrenched CEO or entrenched CEO with loss aversion behavior or has managerial impatience?
- 4) *Conceptual Framework*: As the dependent variable in current study (DVP) is a binary or categorical variable: 1 (dividend payer) or 0 (non-dividend payer) and to avoid the problem of multicollinearity which may generate invalid result about each high correlated independent variable when linear function is applied, so, the logit model is suitable to be adopted to estimate the probability (1 or 0) under the cumulative distribution function (Hu and Kumar, 2004, p 764).



5) Logit Model:

$$Pr_i (DVP = 1) = \left[\beta_0 + \beta_1 BW (\beta/\omega_t) + \beta_2 DE_{t-(t-1)} + \beta_3 \text{dummy (1)} * ENT_t + \beta_4 \text{dummy (2)} * LENT_t + \beta_5 FIRM_t + \beta_6 LVI_{t-1} + \beta_7 PD_{t-1} + \beta_8 RETA_{t-1} + \beta_9 ROA_t + \beta_{10} TN_{t-(t-1)} + \varepsilon_i \right]$$

Where ε_i is random error term.

*. When dummy (1) = 0, dummy (2) = 1, or dummy (1) = 1, then, dummy (2) = 0;

Study hypothesis: Either Entrenched CEOs or Entrenched CEOs with loss aversion have effects on dividend policy of the listed firms of Thailand.

Presentation of Test Results and Critical Discussion of Results

1) Empirical Logit regression test results

From Table 4.1, the coefficient of ENT has no significant relationship with the dividend policy under the Entrenched CEO group. This result is contradict with prior studies, however, one explanation is that if the CEO is entrenched, some dividend related theories may not be valid anymore. But, when the CEO has impatience or risk aversion, he or she tends to pay dividend. This is confirmed from the results in Table 4.2 when the independent variable is LENT instead of ENT. The coefficient of BW has significant negative relationship with dependent variable and does not vary much between the Table 4.1 and 4.2. Meanwhile, for other two groups, the CEO Index have significant and positive relationship with the dividend policy.

The independent variable LVI has significant positive relationship with the dependent variable under the overall market group and non-entrenched CEO groups no matter CEO has risk aversion attitude or not. These results suggest that individual investors are more satisfied with relative dividend received under the non-entrenched CEO group. As the coefficient of the LVI is too small, so, the power of their demand for higher current dividend payment is too weaker, instead, they have to pay higher price for the current dividend, this is confirmed by the significant and positive coefficients of the independent variable PD with dependent variable from all the groups. The coefficients of other independent variables, such as RETA, TN, ROA, and FIRM, have significant relationships with dependent variable, either in positive or negative directions, except DE.

One important finding is that under the entrenched CEO group, all the coefficients either have highest values or lowest values with expected signs. These results suggest that all independent variables under entrenched CEO group have extreme effects on dividend policy in either negative or positive ways, for example, the independent variables RETA and FIRM, the coefficients are the highest at 7.71 (7.95 in Table 4.2) and 7.43 (7.23 in Table 4.2) respectively, these results imply that the firms' sizes and retained earnings under Entrenched group are smaller and the lowest.

As the best McFadden R-squared is 0.494, the Logit model's predictive power seems to be in doubt. So, the data from 2011 to 2014 are used to establish a logit model and to forecast the dividend policy for each firm in year 2015 under three groups separately.

2) *Robust Test*

The predictive outputs are classified by more than or equals to 0.8 and 0.5 as the thresholds to categorize each firm's dividend policy. For example, if the predicted value is more than or equals to 0.8 or 0.5, then, this firm is assumed as a dividend payer.

In Table 4.3, when the threshold is set as more than 0.80, the out of sample predictive results are all above 77%, and the predictive accuracy for the Entrenched CEO group is the highest either by using ENT (83.77%) or by using LENT (86.36%). Meanwhile, in Table 4.4, when the threshold is set as more than 0.50, the out of sample predictive results are all above 83%.

The Total observation accuracies for Entrenched CEO group are relative constant under both thresholds. For example, under 0.80 threshold, the total accuracies are 83.77% (using ENT), and 86.36% (using LENT); when the prediction under 0.50 threshold, the total accuracies are 85.71% (using ENT) and 84.42% (using LENT). These results express that the total accuracies are not affected much for using different thresholds for the Entrenched CEO group. So, the logit model has more constant predictive power on total observation accuracy for the Entrenched CEO group.

4. **Conclusions**

From the empirical test results, the current study hypothesis is partially supported: when the entrenched CEO with loss aversion, these CEOs have a significant and negative relationship with dividend policy of firms.

Summarized, from supply side, a CEO has an important role to the dividend payment decision, especially, when there is a powerful CEO. Meanwhile, when an Entrenched CEO has loss aversion utility, he or she has significant negative relationship with the dividend policy. The CEO's managerial impatience is another important factor to determine the dividend policy

no matter the firm is larger or small, and whether the firm is in its maturity stage or not. These make the current study to be more realistic on the dividend policy of listed firms in Thailand.

From demand side, two independent variables LVI and PD reinforce the reality: as many of firms involved in the current study have entrenched CEOs (Figure 1), so, the coefficients of LVI has not significant relationship with the dependent variable under the entrenched CEO group, even when the CEO has loss aversion.

These results reveal that small firms with entrenched CEOs may or may not pay dividends, but, even they pay, such dividends rarely meet with the demand of individual investors because of the lower levels of these dividends.

Table 4.1: Logit Regression Results: By Using ENT

Logit Regression Results: Three Groups						
Dependent Variable: DVP (Dividend Policy: Pay or Not Pay)						
Group Name	Overall Market		Entrenched CEO		Non-Entrenched CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-4.64	(0.000)**	-5.39	(0.0003)**	-5.88	(0.0001)**
BW	-1.85	(0.000)**	-2.27	(0.0001)**	-1.48	(0.0066)**
DE	-0.13	(0.1345)	-0.04	(0.7744)	-0.16	(0.3002)
ENT	2.43	(0.000)**	2.23	(0.0741)	6.23	(0.000)**
FIRM	6.62	(0.000)**	7.43	(0.0004)**	6.42	(0.002)**
LVI	0.11	(0.000)**	0.12	(0.1328)	0.12	(0.0017)**
PD	16.75	(0.000)**	12.95	(0.000)**	20.52	(0.000)**
RETA	4.89	(0.000)**	7.71	(0.000)**	2.99	(0.000)**
ROA	0.44	(0.000)**	0.55	(0.000)**	0.37	(0.001)**
TN	-0.53	(0.000)**	-0.69	(0.0002)**	-0.43	(0.0106)*
McFadden R-squared	0.466		0.474		0.494	

*Significant at 5% confident level **Significant at 1% confident level

These conclusions can be interpreted from the coefficients of independent variables: FIRM and ROA: both of these two variables are significantly and positively related to dividend policy with the highest coefficients among three groups no matter the CEO with or without loss aversion utility, these results suggest that both firm size and profitability are smaller and lower for firms with the entrenched CEOs, so, the dividend payout would be lower than that under other two groups. The individual investors were not satisfied, they rather pay higher prices (PD) to exchange for the future dividends from firms under other two groups.

Table 4.2: Logit Regression Results: By Using LENT

Logit Regression Results: Three Groups						
Dependent Variable: DVP (Dividend Policy: Pay or Not Pay)						
Group Name	Overall Market		Entrenched CEO		Non-Entrenched CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-3.22	(0.000)**	-3.55	(0.009)**	-2.25	(0.0775)
BW	-1.96	(0.000)**	-2.35	(0.000)**	-1.77	(0.0013)**
DE	-0.13	(0.1251)	-0.04	(0.7634)	-0.16	(0.2737)
LENT	-0.38	(0.2544)	-0.92	(0.033)*	-1.69	(0.0105)*
FIRM	6.42	(0.000)**	7.23	(0.0006)**	5.51	(0.0049)**
LVI	0.12	(0.000)**	0.13	(0.1442)	0.12	(0.0007)**
PD	16.34	(0.000)**	13.03	(0.000)**	21.82	(0.000)**
RETA	5.27	(0.000)**	7.95	(0.000)**	3.28	(0.000)**
ROA	0.52	(0.000)**	0.58	(0.000)**	0.47	(0.000)**
TN	-0.53	(0.000)**	-0.74	(0.0001)**	-0.43	(0.009)**
McFadden R-squared	0.456		0.476		0.478	

*Significant at 5% confident level **Significant at 1% confident level

The current study support several theories and hypotheses in both modern finance field and behavior field, except the Pecking Order hypothesis. In current study, there is no significant relationship between the debt ratio and dependent variable for all three groups. However, as the variable of RETA has a significant and positive relationship related to the dependent variable for all three groups, so, all sample firms, especially for the firms under Entrenched CEO group, emphasize on internal resources first when the management make dividend policy.

Though there is no significant relationship between the variable DE and dividend policy for all three groups, such results are not unexpected.

Under the managerial entrenchment hypothesis, the powerful or entrenched CEOs may use debt as a tool in both directions: they may use less debts to reduce firm's risk and avoid monitoring from creditors, or they may use more debts to reduce possibility of takeover (Stulz, 1988; Shleifer and Vishny, 1989; Berger et al., 1997). With robust tests, the logit model has explanatory power on prediction of dividend policy for all groups. This predictive power are more strong and constant for the entrenched group. So, the current study has fill the gap by integrating demand and supply sides to analyze the dividend policy for the listed firms of Thailand.

Table 4.3: Predictive Results for Year 2015: Using 0.8 as threshold

Panel A: Overall Market Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	271	219	80.81%	216	79.70%
Non-Dividend Payer	116	94	81.03%	100	86.21%
Total Observations	387	313	80.88%	316	81.65%

Panel B: Entrenched CEO group's Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	107	94	87.85%	96	89.72%
Non-Dividend Payer	47	35	74.47%	37	78.72%
Total Observations	154	129	83.77%	133	86.36%

Panel C: Non-Entrenched CEO group's Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	108	82	75.93%	80	74.07%
Non-Dividend Payer	56	46	82.14%	47	83.93%
Total Observations	164	128	78.05%	127	77.44%

Theoretically, the factors used in current study can be employed in other researches, and practically, the findings in current study can be used by regulators to monitor the management on the dividend provisions, and can also be used by institutional and individual investors to select firms to invest according to their risk preference.

For further study, this logit model may include other dynamic independent variables to improve the explanatory power, for example, according to Lintner (1956) and Lamberecht and Myers (2012), if there is an assumed optimal dividend or target dividend payout ratio, but, when the firms do not pay dividends at such ratios, either overpaid or underpaid, how the debts or equities issued for dividend payment as well as cash saved in hand will affect the dividend policy in the next period given that there is a powerful CEO or an entrenched CEO?!

Table 4.4: Predictive Results for Year 2015: Using 0.5 as Threshold

Panel A: Overall Market Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	271	260	95.94%	263	97.05%
Non-Dividend Payer	116	74	63.79%	74	63.79%
Total Observations	387	334	86.30%	337	87.08%

Panel B: Entrenched CEO group's Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	107	105	98.13%	105	98.13%
Non-Dividend Payer	47	27	57.45%	25	53.19%
Total Observations	154	132	85.71%	130	84.42%

Panel C: Non-Entrenched CEO group's Data: Predictive results for year 2015

	Actual Observations	by using ENT		by using LENT	
Dividend Payer	108	100	92.59%	102	94.44%
Non-Dividend Payer	56	37	66.07%	36	64.29%
Total Observations	164	137	83.54%	138	84.15%

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