CONCENTRATED OWNERSHIP-CEO, LOSS AVERSION BEHAVIOR ON DIVIDEND PAYMENT DECISION OF LISTED FIRMS IN THAILAND

By
ZHONGWU LI

A Dissertation
Submitted in Partial Fulfillment of the Requirements
for the Degree of

DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

Martin de Tours School of Management and Economics
Assumption University
Bangkok, Thailand

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and hereby certify that the verbiage, spelling and format is commensurate with the quality of internationally acceptable writing standards for a PhD in Business Administration.

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declare that this dissertation and the work presented in it are my own and has been generated by me as the result of my own original research.

CONCENTRATED OWNERSHIP-CEO, LOSS AVERSION BEHAVIOR ON DIVIDEND PAYMENT DECISION OF LISTED FIRMS IN THAILAND

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Mr. Zhongwu Li

May 22, 2017

ABSTRACT

This study aims to use some new factors and measurements to explain dividend behaviors or dividend payment decision of the listed firms of Thailand.

This study investigates the dividend payment decision by integrating two sides: demand side (investors) and supply side (CEOs) together. One more important part of this study is focusing on the status of Concentrated Ownership-CEOs' power. Also, this study includes managerial impatience, and loss aversion for both CEO and individual investors to explore more deep on dividend payment decision at firms' level and industrial level. Moreover, the CEO indexes in the current study capture the changing status of CEOs' power either under Concentrated Ownership-CEO and Non-Concentrated Ownership-CEOs across each industry for which the prior research papers rarely did.

According to five years' backward data from year 2011 to 2015 of qualified listed firms in Thailand, the findings can explain dividend payment decision well, and reveal that the firms with Concentrated Ownership-CEOs are scattered in every industry in listed firms of Thailand. Most of such firms are smaller in size and associated with lower profitability. These Concentrated Ownership-CEOs may pay dividends but at a lower levels either because of their managerial impatience or based on their loss aversion behaviors, so, these dividends are rarely met the demand of individual investors who are loss averse. Further, these findings can be used by both regulators to monitor the boards' structural changes which could affect individual investors' benefits directly and indirectly. Individual investors also can use the results to select firms to invest according to their risk preference and tax bracket. Finally, this study fills the gap in academic literatures by using theories in both modern and behavioral finance fields in the logit models.

Key Words: Dividend Payment Decision, CEO Index, Loss Aversion, Concentrated Ownership-CEOs, Managerial Impatience.

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CHAPTER I

INTRODUCTION

1.1 Background:

Many prior theories and empirical tests cannot explain the dividend puzzle (Black, 1976) that is why firms pay dividend or do not pay dividend. These dividend payment decisions are owed a deep and integrated investigation. Since Modigliani and Miller (1961) raised the dividend irrelevance theory by arguing that the dividend can be paid at any level if and only if the firms can access the debts and equities resource at costless, there are many relevant researches that focus on if the unrealistic assumptions based on perfect market conditions are relaxed, can this dividend irrelevance theory be still valid and what factors will determine the dividend payment decision. For example, the "Bird in Hand" Theory (Gordon, 1963; Lintner, 1964) reveals that risk averse investors always prefer current dividends stream rather than discount on uncertain future higher share prices or dividends; the Agency theory (Jensen and Meckling, 1976) tries to explain that the dividend policy is a tool, by which the principal (owner or shareholders) can monitor or control the agent (management), The Signal theory (Miller and Rock, 1985) argues that, dividend policy is used by agents or management (insiders) to deliberately send signals to outsiders (investors) to differentiate their company from others under asymmetric information situation and to avoid the adverse selection problem, by assuming that there is an imperfect market. The Pecking Order theory (Myers and Majluf, 1984) predicts that the dividend changes are related to the changes of earnings, so, the investment is mostly funded from internal resources to external resources and mostly rely on the debts. The Free Cash Flow hypothesis (Jensen, 1986) is another hypothesis related to dividend in such way that if the free cash flow is low in a firm, then the agency cost tends be lower. The Managerial Entrenchment hypothesis (Morck et al., 1988) discovers that the

managerial or board inside ownerships do have effects on firms' values: proxy by Tobin's Q as firms' values, the managerial or board inside ownerships have a negative relationship with Tobin's Q when such inside ownerships varies between 5% and 25%, so, such negative relationship has an effect like agency cost. As a result, the likelihood of dividend payment and level of such payment are significantly and positively (negatively) related to factors that increase (decrease) executive entrenchment levels after controlling other factors (Hu and Kumar, 2004). The theory of Tax Clienteles on dividend (Allen et al. 2000) explains that as institutional investors come under relative lower tax bracket than individual investors, so, dividend payment causes a tax clientele effect as well as the clientele effect; if a firm wants to attract more institutional investors by paying dividend, such firms may deliver a signal that they are well managed. Investors select the firms to invest according to their tax bracket or risk preference. The Catering Theory (Baker and Wurgler, 2004) states that if the dividend premium is high in market, then, the management will tend to initiate dividend payment to investors to cater to their needs. Such dividend premium is measured by the difference between the market prices of dividend payers and non-dividend payers. The Life Cycle Theory (DeAngelo et al., 2006) cites that, if a firm is in its mature stage, because when a firm is in its mature stage, there are few investment opportunities, so, to reduce the extra cash in hands of managers, such firms will always pay out dividend and at a high level. All of these theories involved managerial role into their models either actively or passively.

As all above theories and many theoretical or empirical researches still cannot fully explain the "The Dividend Puzzle" (Black, 1976) on several aspects of the dividend payment decision, for instance, why firms pay dividend even if the firms' value could be traded off or even decreased after paying out dividends, why managers do not use other cheaper tools to signal out their perspective to firms' performance in the future except the costly dividend? The other issue not explained included why investors prefer dividend rather than capital gain even if there is tax disadvantage, why the firms do not use such dividend as internal capital fund rather than raise new debt or issue new equities.

Miller M.H. (1986) directly pointed out that under behavioural rationality assumption, and based on the demand and supply of dividends analysis, some researchers unable to explain the Fischer Black's "The Dividend Puzzle", such unexplainable puzzle give a paradigm shift in the academic world from modern finance to behavioural finance.

In behavioural finance, there are also several researches that try to explain the dividend puzzle based on two main behaviour theories: loss aversion behavior under the Prospect theory (Kahneman and Tversky, 1979, 1991) and the theory of Self-Control (Thaler and Shefrin, 1981). The loss aversion behavior explains dividend behavior that individual investors usually evaluate their gain or loss to a referent point, not based on final results, and these referent points are also adjusted with time, for example, announcement of dividend decrease has a more painful effect to the individual investors than the degree of happiness when there is announcement of dividend increase, and if there is an incremental dividend announcement, the referent point would be adjusted to a higher level. The theory of Self-Control attributes the preference for cash dividend from investors to their self-control behavior: the investors follow a rule that current consumptions must be determined by dividend payout from the shares they own, not by sales of such shares. From the perspective of investors, the dividend and capital gain are not substitutable.

In Thailand, the stock market circumstances and investors have different characteristics in comparison to other stock markets and investors. For example, most of listed firms traded in the Stock Exchange of Thailand (SET) and Market for Alternative Investment (MAI) are family owned, and associated with high concentrated ownership (Wiwattanakantang, 1999, 2001, Suehiro A., 2001; Polsiri, 2004; Thanatawee, 2013). The firms in which the family members were involved in the management before and after the 1997 financial crisis (Khanthavit et.al. 2003) were not quite different. Moreover, the financial institutional shareholders were very few in Thai firms (Wiwattanakantang, 1999), in fact, the institutional shareholders could act as monitors to the activities of management. So, on one side, under the high concentrated ownership among the listed firms in Thailand stock market, the phenomenon that a shareholder who holds more than

20% of total outstanding shares involved in management is inevitable, such shareholder-management structure is harmful to firms' value without effective inside or outside monitoring, especially, when the controlling shareholder involved in management hold more than 20% or 25% of total outstanding shares of the firms (Morck et al. 1988; Wiwattanakantang, 2001). Those managers who own more than 25% of total outstanding shares of their firms are defined as *"controlling shareholder-cum-managers"* by Wiwattanakantang (2001, p326). On the other side, Thai individual investors seem to be conservative, they always desire to get dividend by paying higher prices for dividend payers (Tangjitprom, 2013), such behavior does reflect that Thai individual investors are risk averse or show loss aversion behavior.

Many of prior studies (Lintner, 1956, 1962; Miller and Rock, 1985; Kumar, 1988; Noe and Rebello, 1996; Lucas and McDonald; 1998; La Porta et al., 2000; Farinha, 2002; Hu and Kumar, 2004; Chemmanur et al., 2009; Bertrand et al., 2003; Chen et al., 2011; Michaely and Roberts, 2012; Lambrecht and Myers, 2012; Van der Werf, 2013; Chaliskan and Doukas, 2015; Shapiro and Zhuang, 2015; Dittmar and Duchin, 2016) focused on the managerial role in dividend policy, while there are also several studies on the relationship between investors demand for dividend and dividend policy (Shefrin and Thaler, 1981; Shefrin and Statman; 1984; Tversky and Kahneman, 1991; Benartzi and Thaler, 1995; Redding et al. 1998; Koszegi and Rabin, 2006; Nagel and Wurgler, 2007; Yang et al. 2009). These studies either employed the theories and hypotheses in modern finance field or behavioral finance field, but, all of these theoretical or empirical studies have not found out an explainable interaction relationship between managerial role on dividend and the effect of demand for dividend from individual investors in an integrated model.

According to the Public Limited Company Act B.E. 2535 (1992), under the Section 77, the Board of a company can entrust one director (a CEO) to manage the company on behalf of the Board, but, if such a director or CEO owns more than 20% of shares of the company, this CEO has effective influence on any major corporate decision. However, in Thailand, there was no research paper or studies that link such managerial influence on

dividend payment decision explicitly and directly, further, there is no any study including factors in both modern and behavioral finance fields on dividend payment decision of listed firms in Thailand. Most of the prior studies about the dividend policy of listed firms of Thailand have employed factors in modern finance fields, and analyzed the dividend policy by using cross-sectional data only, such studies could not reflect the facts that the managerial influence and some firms' characteristics are changing all the time, also, under this managerial influence, the demand for dividend from individual investors can be satisfied or not is still in doubt, so, there is a gap for the current study to fill and explore more deeply about the ownership-CEOs' influence on dividend payment decision of listed firms of Thailand, given that there is a higher level of concentrated ownerships in these firms (Wiwattanakantang, 2001), and weak shareholder protection law in Thailand (La Porta et al. 2000; Thanatawee, 2012). Moreover, in the current study, some variables and concepts are first employed empirically based on prior theoretical researches to test the relationships between the managerial influences on dividend payment decisions of listed firms in Thailand and to provide explanations to some abnormal dividend behaviors observed from the Stock Exchange of Thailand if modern finance theories are applied.

1.2 **Statement of Problem:**

In Thailand, some dividend payment behaviours can be observed as abnormal behaviors from the Market of Stock Exchange of Thailand if theories or hypotheses in modern finance field are applied:

According to life cycle theory on dividend, the mature firms, represented by RE/TA, should pay dividend and at high level, however, based on the data collected from 2011 to 2015 either quarterly or yearly, abnormal dividend behavioural found, for example, in Fashion industry, PRANDA company with high RE/TA level, around 40%, however, the Dividend Yield (hereafter, D.Y) just be around 3.45%-7.05%, while within the same industry, SABINA, whose RE/TA was around 38%, but, the D.Y was just 0.12% to

0.73%. In Health care and service industry, The Ramkhamhaeng hospital public company limited (RAM), it had RE/TA around 57%, its stock price raised from 1,576 baht to 2,000 baht, but the D.Y was only 0.6% to 0.76%; same as RAM, the BH had RE/TA around 35%-49%, but its D.Y was just around 0.92% to 2.05%; at the same time, SKR, the Sikarin Hospital, whose RE/TA was 16%, but, D.Y was from 0.97% to 3.30%,

Lintner (1956)'s model implied that managers always try to smooth the dividend payout amount, but, the Dividend Yield of some listed Thai firms are quite different with this proposition, for example, TTL in Fashion industry, whose RE/TA is about 54%, but the D.Y varies from 0.73% to 16.17%, another example was METCO, with RE/TA around 60%, its D.Y changed from 2.08% to 6.69%. However, there were some firms seems apply this smooth strategy, such as RAM, as well as some firms in Packaging industries (ALUCON, TOPP), WACOAL in Fashion, MAKRO in Commerce industry.

Refer to Shapiro and Zhuang (2015)'s conclusion, the current earnings and future matters to dividend payment, but, for CSL (CS Loxinfo public company limited), its net profit was negative for 2014, but, the dividend yield for both 2014 and 2015 were positive: 9.09% and 9.19% respectively, some other examples were AIRA, CI and DRACO.
Another Inexplicable thing is: small firms always pay dividend which against the life cycle theory, for example, MOONG, its market capital was about 721.4M Baht, but, its D.Y is around 3.39% to 5.10%, other examples were TNPC, FVC, PLE, and TC.

According to Agency theory, Signalling theory or Catering theory, Free cash flow hypothesis, the firms should pay out dividend to reduce the agency costs and cater the needs of outside investors and differentiate themselves from other, however, some Thai listed firms sometimes pay dividend sometimes not, even with positive and high net profit margin, for instance, MPG, even if its net profit margin was about 13% for 2013, it did not pay dividend for this period. The same manner happened to ACC. For SANKO, even its net profit margin is negative for both 2013 and 2014; it still paid out dividend for 2013 operation period.

Based on findings of prior studies on related topic, the ownerships of listed firms of Thailand are concentrated and most of them have been run by family members (Wiwattanakantang Y., 2001; Suehiro A., 2001; Polsiri P., 2004; Thanatawee Y., 2013), so, such dividend behaviors, which seem to be not in line with their stated dividend policy in the companies' provision, or not in line with the Public Limited Company Act B.E. 2532 (1992), for example, under the Section 115, a company should not pay dividend from other resources rather than profit, also, under the Section 116, a company should keep net profits until the reserved fund reached at least 10% of register capital. As the result, the dividends' behaviors observed from listed firms in the Stock market of Thailand are needed to be explored deeply on aspects of managerial roles to find out what kinds of factors determine such dividend behaviors and how these factors can be used to explain such phenomenon. Based on prior studies on dividend payment decision, combined with some factors in behavioral finance, for example, the loss aversion, and managerial impatience, especially under the Concentrated Ownership-CEOs, these dividend behaviors are owned to be studied for listed firms of Thailand.

1.3 Research Objectives:

According the Public Limited Company Act, if an individual as a shareholder has more than 25% of firms share directly or indirectly, such person is a controlling shareholder who has significant power to affect firm's policy, for example, this controlling shareholder can submit a motion to the court demanding for the dissolution of a company (Wiwattanakantang, 2001, p336), this action will be unfair to other 75% shareholders, as the result, such controlling person must make a tender offer to other 75% shareholders.

But, the current study aims to explore the top management or CEO's influence, loss aversion behavior on dividend payment decision of listed firms in Thailand, such threshold point 25% could not be used as the cutoff point to classify the top management or CEO to be an influent CEO or not, instead, the threshold point 20% of total outstanding share holdings is suitable to be used to divide CEOs into Concentrated

Ownership-CEO Group or Non-Concentrated-CEO Group based on two reasons: first, according to prior study, if a shareholder holds at least 20% of a firm's share, he or she already can influence on any major corporate policy, which including the dividend policy, such individual is classified as concentrated ownership individual, if this individual is involved in top management, such as CEO, then, he or she is a Concentrated Ownership-CEO (Wiwattanakantang, 1999, p376, p377); second, according to Morck et al. (1988) and Wiwattanakantang (2001), when managerial shareholdings are between 20% and 25% of total outstanding shares, these managerial shareholdings are harmful to firms' values, and become entrenched management. So, at the 20% level of Concentrated Ownership holdings, the CEO has effective influence to any major corporate issue, but, he or she cannot nullify any corporate decision (Wiwattanakantang, 2001, p336).

At the same time, the independent directors in boards of companies must fulfill their responsibilities which are ruled by Securities and Exchange Commission Thailand (SEC) and Stock Exchange of Thailand (SET), such as to review the adequacy and efficiency of internal control systems and review the accuracy and reliability of the company's financial statements, but, if there is a Concentrated Ownership-CEO, and this CEO can dominate the approval process in the Board, can these independent directors really fulfill their responsibility? If the independent directors cannot fulfill their responsibility, how and to what extent, the Concentrated Ownership-CEO affect the dividend payment decision must be explored deeply.

Derived from several theories on dividend policy discussed above and prior empirical tests, the current study will focus on the effects of Concentrated Ownership-CEO, loss aversion behaviour on dividend payment decision of Thai listed firms. The research objectives aim to discover the following aspects related to the dividend payment decisions of listed firms in Thailand:

1) To understand the Concentrated Ownership-CEO effects on firm's dividend payment decision.

2) To explore the relationships between a Concentrated Ownership-CEO with Loss aversion factor and firms' dividend payment decision.
3) To identify the effects of demand on firms' dividend payment decision from the demand of individual investors with loss aversion behavior.
4) To discover the impacts on dividend payment decision from the interaction between a Concentrated Ownership-CEO, a Concentrated Ownership-CEO with loss aversion behavior and demand effect for dividend from the individual investors with loss aversion behavior.

1.4 Research Questions:

1) Do these Concentrated Ownership-CEOs make dividend payment decision with his or her affiliated parties only in the companies?
2) When these Concentrated Ownership-CEOs with loss aversion utility, do they still pay dividend out or not?
3) Do these Concentrated Ownership-CEOs cater to the needs of dividends of individual investors who have loss aversion utility?
4) Will the demand for dividend from individual investors be changed whether there is a Concentrated Ownership-CEO or not?

1.5 Scope of the Research

This study included all public traded listed firms at the Stock Exchange of Thailand (SET) and Market for Alternative Investment (MAI). Following previous studies in this financial field, samples of firms which are nonfinancial included (Wiwattanakantang, 1999; Thanatawee, 2011; and Tangjitprom, 2013), at the same time, as the current study focus on the CEO ownerships' effect on dividend policy, so, firms owned by either government related agencies and Crown Property Bureau will be also excluded from samples as well. Generally, firms which are classified in the following categories will be excluded from the samples data in the current study:

1.) Stated owned firms.
2.) Crown Property Bureau owned
3.) Mutual funds
4.) Financial firms
5.) Firms without complete information needed and firms listed after 2011

1.6 Limitation of the Research:

There are some limitations in the current study:

1.) The measurement of the Index scores of CEOs based on factors in prior studies, such as CEO ownerships, Independent director's percentage in board, CEO tenure, CEO dominance in the Board, Board size and CEO's capability. However, some factors or concepts are just borrowed from other previous studies, not exactly use that concepts, for example: to measure the CEO's capability, some articles used the five years' sales growth rate, however, in current study, the Index scores of CEOs are calculated yearly, so, the profitability, represented by positive net profits of two consecutive years and positive return on total assets is positive for current year are applied for the capability of such CEO.
2.) In Thailand, more businesses have been controlled by families, so, the families' names and their marriage situation are also difficult to find all them out in the current study. But, if no one tries to change his or her famous family name even after the marriage, the current study can find out the relatives linked inside management for each firm's shareholder lists (In Thai language) and compare with management lists (In English language) to explore deeply into the CEO's internal connections in the board and inside ownerships.
3.) As some companies have only annual report in Thai language, no Form 56-1 available, so, this study does not include all the Forms 56-1 for all the firms.
4.) The current study covered only cash dividend, not share repurchase, because, in SET and MAI, there rarely have such programs.

5.) As the yearly dividend information was applied for one firm, even there were some quarterly announcements of dividend payment, in this study, only the available yearly dividend information were used in the analysis.

6.) In this study, all individual investors are assumed to be homogeneous on loss aversion.

7.) In this study, the manager's loss aversion parameters are assumed to be same as that of individual investors, and without initial endowments of wealth.

1.7 Significance of the Research:

This study is the first research on relationship between the Concentrated Ownership-CEO and dividend payment decision of listed firms in Thailand. By measuring the degree of CEO's power status, which were compromised by several factors (Using the CEO index for each CEO's relative power status ---"strong or weak" among all sample firms), together with loss aversion utility values calculated from the loss aversion formula for both CEOs and individual investors and put such variables into the same side of logit model, so, the study is the first one too to integrate the demand side and supply side of dividends simultaneously to test which and how factor affect more on firms' dividend policy, for instance, how and to what extent, the CEO, especially, an Concentrated Ownership-CEO can affect firm's dividend policy, how and to what extent, the individual investors with loss aversions can affect firm's dividend policy, and whether or not there is interaction between CEOs, especially between the Concentrated Ownership-CEOs and Individual Investors with loss aversions.

Another point make current study differs with other research papers on the same topic is that: in current study, the CEO and Ownership structures of firms are not assumed unchanged during the study period, for example, a CEO of the firm A may own a significant proportion of shares of this firm, however, after some days, months, or years, this CEO may sell out off his or her owned shares, such change may affect this CEO's influence in the firm as well as his risk aversion level. This feature, or keeping attention

on variables changing, makes the current study more realistic and more practical than other papers.

The current study may also contribute theoretically and practically to the governance of Thailand Stock Exchange Market and Market for Alternative Investment, individual investors as well as institutional investors:

Theoretically, the current study provides some unique models for further research on effects of CEO ownerships on dividend policy, especially, in such models, the demand side and supply side on dividend payment decision are both treated as independent variables, and this aspect of interaction relationship along with loss aversion behaviour between demand side and supply side could give the regulators of stock market a more deep and more reasonable causes on the unexplicable dividend behaviors of listed firms of Thailand.

Practically, the current study provide evidences that which kinds of firms outperform to other firms on dividend payout amount as well as on other firms' factors, to some extent, these empirical results could help individual investors or institutional investors on selecting investment portfolio based on their different risk preference and tax brackets in stock market of Thailand. At the same time, these results may also suggest the governance of Thailand Stock Exchange Market to protect the interests of individual investors from being expropriated by Concentrated Ownership-CEO on one side, and help the firms with Concentrated Ownership-CEO transformed to be more transparent by not only monitoring the firms, but also monitoring the performance of independent directors of each firm intensively.

1.8 Definition of Terms:

1.8.1 The concentrated ownership: the percentage of shares held by the largest shareholder, which are classified into three main investor groups: Individuals, domestic and foreign corporations, and financial institutions. (Wiwattanakantang, 1999, p3'76)

1.8.2 The concentrated ownership individual: A shareholder who has effective influence over any major corporate decisions if he owns at least 20% of a company's shares. (Wiwattanakantang, 1999, p377)

1.8.3 The Concentrated Ownership-CEO: from definition of terms in 1.8.1 and 1.8.2, if an individual owns at least 20% of a company's shares and holds top management position, he or she is a Concentrated Ownership-CEO.

1.8.4 The Non-Concentrated Ownership-CEO: from definition of terms in 1.8.3, if an individual owns less than 20% of a company's shares, or does not own any share of a company and holds top management position, he or she is a Non-Concentrated Ownership-CEO.

1.8.5 Loss aversion is "the loss of utility associated with giving up a valued good is greater than the utility gain associated with receiving it" (Tversky and Kahneman, 1991, P1041)

CHAPTER II

LITERATURE REVIEW

In this chapter, several literatures about theories and empirical tests results which are either support or importantly related to the current topics are reviewed to align with the research questions in this current study:

1) Do these Concentrated Ownership-CEOs make dividend payment decision with his or her affiliated parties only in the companies?
2) When these Concentrated Ownership-CEOs with loss aversion utility, do they still pay dividend out or not?
3) Do these Concentrated Ownership-CEOs cater to the needs of dividends of individual investors who have loss aversion utility?
4) Will the demand for dividend from individual investors be changed whether there is a Concentrated Ownership-CEO or not?

The research questions in this study are derived from some key prior literatures, concepts, and empirical tests results on the relationships between controlling shareholders or entrenched CEO and firms' values or dividend policy (Demsetz, H.1983; Shefrin and Statman, 1984; Morck et al., 1988; Shleifer and Vishny, 1989; Berger et al., 1997; Redding and Glasgow, 1998; Wiwattanakantang, 2001; Jorge Farinha, 2002; Combs and Skill, 2003; Bertrand and Schoar, 2003; Hu and Kurmar, 2004; Polsiri, 2004; Graham, Harvey and Michaely, 2005; Chemmanur et al., 2009; Mohamed Ali and Anis, 2012; Shapiro and Zhuang, 2013; Baratiyan et al., 2013; Caliskan and Doukas, 2015). The findings in the prior studies are explored more deeply concerning the factors which are linked the Concentrated Ownership-CEO with dividend payment decision, so, the results

of current study could provide more accurate and different perspectives on the dividend payment decisions and dividend behavior of the listed firms in Thailand, such as from demand side of dividend and supply side of dividend.

In this chapter, the reviews of literatures are composed as: Section I. Relevant theories and hypotheses on dividend policy; Section II. Prior empirical tests under the relevant theories on dividend Policy; Section III. Empirical Studies on dividend policy of listed firms in Thailand; Section IV. Summary of related theories, hypotheses, and variables used in current study.

2.1 Relevant Theories and Hypotheses on Dividend Policy

Dividend policy is a very important issue in corporate finance field. Due to its significant effects on capital structure and being related to every stakeholder of firms, it has been debated for many years from different perspectives.

For a firm or company, "Dividend, together with capital gain, is a reward to investors holding share of a company" (Tangjitprom, 2013); Since Lintner (1956), many researchers have studied the relevant factors to explain dividend behavior, however, now, there is no universal reason for what called as "The Dividend Puzzle" phenomenon (Black,1976).

2.1.1 Modigliani-Miller Irrelevant Theory on Dividend Policy (1961)

Miller-Modigliani (1961) presented their irrelevant theorem of dividend policy, or MM's Theorem, by arguing that a firm's value is not affected by dividend policy under the conditions that there are no taxes and transaction costs, because a firm can choose any dividend policy or pay dividend at any level if and only if the firm can borrow debts and issue new equities at no cost, as the result, the dividend policy is independent to the investment policy of the firm. The firms' value can only be affected by present value of

the cash flow generated from the investments. The investors will be indifferent by receiving dividends or get the capital gains under the perfect capital market assumptions. This irrelevant argument could only be invalid only because there is personal tax on the dividend income.

2.1.2 The "Bird in the Hand" Theory (Lintner, 1963; Gordon, 1964)

Lintner (1963) and Gordon (1964) to MM's irrelevance theory of dividend policy, they argued that the current dividend was related to current retained earnings, and the investors always treated the dividend as less risky gain than the capital gain even in a short time horizon under the risk averse assumption for individual investors. Such investors preferred dividend more, if the investors could not get dividend at current time, then, they would evaluate the future capital gain with a higher discount rate because of the risk for future uncertainty.

2.1.3 Agency Theory (Jensen and Meckling, 1976)

Starting Adam Smith (1776), elaborated by Jensen and Meckling (1976), Jensen and Meckling raised the Agency Theory by showing the relationship between separation of ownerships and control of firm's ownerships and management; it is also a relaxing assumption of perfect market under MM's theorem. The authors argued that a public company holding by many investors is good to control agency costs, high or low agency costs are mostly dependent on law, human characteristics and contracts between principals and agents. One method to reduce these agency costs is to pay out excess cash in hand of managers to shareholders as dividends.

2.1.4 Signal Theory (Miller and Rock, 1985)

Miller and Rock (1.985) stated that if there is asymmetry information between the firm's management (insider) and investors or shareholders (outsider), then, management tried to

send signals, such pay or not pay dividends and the levels of dividends payout, to outside investors or shareholders about the past, current and future information about the firm to shareholders or investors and to avoid the adverse selection problem in the market.

2.1.5 Free Cash Flow Hypothesis (Jensen, 1986)

According to the Free Cash Flow hypothesis defined by Jensen (1986): managers endowed with free cash flow will invest it in negative net present value projects rather than pay it out to shareholders. Citing by the definition of free cash flow, the extra cash flow is what is left after the firm has invested in all available positive NPV projects. However, if there is an agency problem, the management may not invest in positive NPV projects with excess free cash to maximize the wealth of shareholders. So, to minimize the agency costs by reducing the free cash flow in hands of management, it is a useful tool.

2.1.6 The theory of Tax Clienteles and Clientele Effect on Dividend (Allen et al. 2000)

Allen et al. (2000) explained that as institutional investors come under relative lower tax basket than individual investors, so, dividend payment can cause the tax clientele and clientele effects; if a firm tries to attract more institutional investors by paying dividend, such firms may deliver a signal that they are well managed. Such tax clientele effect and clientele effect are caused by investors in different tax brackets or with different risk preference on demand of dividend, for example, widows, senior citizens, non-profit organizations, financial institution will always prefer more dividends, while, other investors may prefer the firms in growth stage who never pay dividends. Such clientele effects prevent dividend payers from dividend being reduced substantially.

2.1.7 The Pecking Order Theory (Myers and Majluf, 1984)

This theory focuses on a firm's investment policy under asymmetric information problem. For example, if a firm tries to issue new equities to finance an investment, only management knew that the price of equity was overpriced, but outside investors did not

have such information, however, when the outsider knew, they would ask for discount on equity price or even sell such equities, so, managers of this firm could not use such equity as a tool to finance the new investment. To avoid this problem, managers must finance the new investment from internal funds first, if the internal funds are not sufficient, then, the managers will go for outside financial resource, if they do so, the debts are heavily relied on because the debts are cheapest compared with other financial resources. But, if the internal funds are used out, then, the dividend payout must be lower.

2.1.8 The Catering Theory (Baker and Wurgler, 2004)

Baker and Wurgler (2004) proposed a "A Catering Theory of Dividends" theory, if the dividend premium was high, which is measured by the difference of stock price of payer with non-payer, the management will initiate to pay dividend (but not necessary to increase the dividend amount), if the dividend premium was low, they might omit or reduce the dividend.

2.1.9 The Life Cycle Theory (DeAngelo et al., 2006)

If a firm is in its mature stage, such a firm will always pay out dividend and at a high level, because, for such a firm, the investment opportunities are few, holding a lot of cash in hands of managers is not good for the firm to control agency costs, so, shareholders and board of directors could require to distribute dividend out to investors to reduce the risk of conflicts, either between the principals and agent, or between large shareholders and minor shareholders or investors.

2.1.10 The Managerial Entrenchment Hypothesis (Morck et al, 1988)

Morck et al, (1988) stated that managerial entrenchment reduces a firm's value. The firm's real value would be the difference between market value of the firm and the reduced value by selling shares of managers when the share is overpriced. They

explained that such behavior which is categorized as the agency costs would increase due to managerial concentrated ownership. However, the firms' values fluctuated as the degree of entrenchment varied, for example, when the managerial ownership is between 20% to 25%, the firms' values were reduced, when such ownerships are over 25%, the firms' values have a positive relationship with the degree of entrenchment. At same time, other studies stated that both likelihood of dividend payout and level of such payout are significantly and positively related to the factors that increase (decrease) executive entrenchment levels after controlling other factors (Hu and Kumar, 2004).

2.1.11 Behavioral Finance's Explanation: Loss Aversion on Dividend Policy

Loss aversion expresses that a person who is risk averse when he or she prefers a certain outcome to any other risky choice even if the possible of gain is more than loss in a game, such person has concave utility function (Kahneman and Tversky, 1979, Page 264). Loss aversion explains dividend behavior that individual investors usually evaluate their gain or loss to a referent point, not based on final results, and these referent points are also adjusted with time, as the result, individual investors prefer current dividend rather than discount on future uncertain market price or capital gains.

2.2 Prior Empirical Tests under the Relevant Theories on Dividend Policy

2.2.1 Modigliani- Miller Irrelevant Theory on Dividend Policy (1961)

As Lintner (1956) proposed a theoretical model on dividend distribution, assumed that there would be a target or optimal payout ratio of dividend policy for each firm at each time, and such dividend payout was based on the current income only and smoothed by management, so as to attract more investors and enhance to increase share price and firms values and minimize the adverse selection behavior. This proposition implies that the management plays an important role on dividend policy at each time for the firm, for example, the management may be confident about current and future earnings to pay

dividend out (Gordon, 1959). However, Miller-Modigliani (MM) irrelevant Theory of Dividend Policy (1961), supported by Fama and French (1974)'s empirical test, argued that a firm's value only depends on firm's present value of the cash flow from independent investment policy or growth opportunity. So, the firm's value does not depend on its dividend policy if and only if such firm works under a perfect market and without internal conflicts, no tax on dividend and capital gain, no transactions, and no symmetric information to everyone.

2.2.2. The "Bird in the Hand" theory (Lintner, 1963; Gordon, 1964)

Bhattacharya (1979), La Porta et al. (2000) and Easterbrook (1984) reached the opposite conclusion about the "Bird in the Hand" theory: Bhattacharya argued that even if there is tax rate on dividend and given the asymmetric information, under the risk of future cash flow and other characteristics of a firm, the "Bird in the Hand" is still alive because investors still prefer current dividends. La Porta et al. (2000) support this point by citing that retained earnings may not be cash in form of dividend in future, so, investors prefer to accept low but certain gain. However, Easterbrook argued that the reasons for dividend may be caused by either to control agency cost, or to reduce the risk aversion of managers, so, as long as the dividend policy does not affect the investment policy of a firm, the "Bird in the Hand" is not valid.

2.2.3 Agency Theory (Jensen and Meckling, 1976)

According to the Agency Theory, principals (or the business owners) must keep agents (managers) aligned with the interests of all shareholders (both inside and outside shareholders) together by various methods (Stulz, 1988), for example, the dividend payout is a mechanism to reduce the excess cash in hand of management to invest in non-profitable projects for their own interests (La Porta et al., 2000).

There are many ways to control and reduce the agency costs caused by the agency conflicts. For example, a firm may separate the ownership and control by using diffuse

system of decision making process, recruit expert, establish a board, go to public and using large professional partnership (Fama and Jensen, 1983), or protect the shareholders' rights either by a firm's provisions or by a law (Chi J., 2005; La Porta et al., 2000). Also, a firm may employ more outside directors in board of directors (He and Sommer, 2010). But, these mechanisms may not be effective, for example, if independent directors use inside information to realize the abnormal return before bad news or good news released, so, these mechanisms actually are bad for outside investors (Ravina and Sapienze, 2010). A firm may pay dividend out to shareholders and reduce the risk aversion of management (Easterbrook, 1984), however, Jensen et al. (1992) found that dividend policy is determined by several factors, such as a firm's insider ownerships, debt, business risk, profitability, investment opportunity. Among them, the insider ownership does have a negative relationship effect on debt and dividend policies, because the insider ownership seems to get benefit from controlling firms. This point is echoed by Stulz (1988). Isik and Soykan (2013) explored further on agency cost. One agency cost was caused by principal or agent between small shareholders; another cost was caused by larger shareholders expropriation to small shareholders. They concluded that, the first agency problem was significant, which meant that if there was concentrated ownership by outside larger shareholders, it is good for a firm's performance under efficient monitoring hypothesis; while the second agency problem is rejected: there was no expropriation to small shareholders from large shareholders.

2.2.4 Signal Theory (Miller and Rock, 1985)

If there is asymmetry information between the firm's management (insider) and investors or shareholders (outsider), then, management will try to send signals to outside shareholders or investors by paying dividend payment and the change of such dividend as a tool about the past, current and future performance about the firm (Bhattacharya, 1979). The management can initiate, omit, smoothing the dividend payment, change debt ratio, employ share repurchase program to send such signals either honestly or dishonestly. (Bhattacharya, 1979; Miller and Rock, 1985)

For instance, management as insider know more about the firm's current and future profitability. If there is asymmetric information, then, the management could sell shares higher for capital gain than the point signaling equilibrium implied, so, these insiders would get benefits at costs of those who buy the shares. So, the signaling equilibrium point is not consistent for investment policy, the investment is suboptimal and the relationship between dividend payout and investment is negative (Miller and Rock, 1985). Also, management may use dividend payment to assess clientele effects and difference of these effects between industries (Baker et al., 1985), because dividend conveyed goods, not bad news (Miller and Rock, 1985). Some firms may distribute dividend, others may not, and those firms paid dividend also issued new shares simultaneously even if there is transaction costs, such behavior enable the dividend payers to have a class of shareholders under clienteles' effect (John et al., 1985). But, as Gordon (1963), Easterbrook (1984) pointed out that if a firm pays dividend and issues new equities simultaneously, the signal effect is weak if not eliminated at all. However, John and Williams (1985) claimed that if there is no tax factor, then, there was no signal equilibrium point and the "Puzzle" of a firm pay dividend and issuing new equities simultaneously could not be explained, therefore, dividend had no signal. Graham et al. (2005) also argued that their findings provided little supportive evidence that manager used dividend as a tool to create the clientele effects, so there was no outside larger shareholder who could monitor them to reduce the agency costs.

If the Signal theory does matter, then, the dividend behavior itself could be used to predict future dividend yield and earnings (Rozeff, 1984, Fama and French, 1988, Goetzmann et al., 1993, Engsted et al. 2010). However, the empirical results were not supportive about the predictability of the dividend yield , the dividend yield can only be used to predict the abnormal future stock return, not future earnings (Benartzi et al. 1997; Garrett and Priestley, 2000), but, this findings seems against the assumption that dividend must be changed in the same direction of profitability. Kumar (1988) and Graham et al. (2005) explained on this issue that the relation between dividends and earnings had less significance currently, this less significant relationship was partially caused by dividend smoothing behavior, especially for firms traded in the stock market (Michaely and

Roberts, 2012). At the same time, as many managers prefer to do share repurchase than the dividend payout because they could time the market to increase earnings per share, so that was not necessary for manager to smooth the dividend payment.

As Lintner (1956) mentioned, managers who avoid future dividend cut problem always tried to smooth dividend payment, so, many researchers studied on the dividend smoothing predictability, for example, Leary et al. (2011), Chen L. et al. (2009, 2012), the authors found that if there was less asymmetric information problem, less growth opportunities and their financial resource were not constrained, then, firms tended to smooth more, but such empirical results were sensitive to the time when the researches were implemented.

Cochrane J. H. (1992) recognized the predictability of dividend growth caused by dividend smooth behaviour, he stated that as the dividend yield and discount rate were relatively smoothed to the volatility of price, so, rechecking the variance of price to dividend ratios was necessary to answer the questions: were stock prices more volatile? If the stationary of such test was rejected, then, the rational asset pricing model could be rejected too. He used the autocovariances as variance bound, and derived the relationship between the covariance of price and dividend to express that the price's change must contain information of future dividend's change. Based on his analysis, he argued that the value weighted variance of price to dividend ratio had a negative relationship with real dividend growth, while, equally valued weighted price dividend ratio had a positive relationship with dividend growth.

2.2.5 Free Cash Flow Hypothesis (Jensen, 1986)

Jensen (1986) studied the agency cost of free cash flow hypotheses on corporate finance and takeover activities, he used firms in oil industry during 1970's period, in which, the oil firms which had abundant free cash flow, as a result, managers used these free cash

flow to invest in other industries unrelated to oil to diversify businesses' risks rather than paid the free cash out as dividend to shareholders, such behavior induced decreases in stock prices of the firms, and were vulnerable to be taken over. However, those firms who increased leverage level by using debt and paid dividend out from free cash flow performed well in the capital market. The author argued that using debt could strengthen the monitoring activities to management and made firms more efficient. The author concluded that the free cash flow could predict well that if there was a takeover happened, and financed both by cash and debt, the shareholders will have more benefit under such takeover.

Lang et al., (1991) used Tobin's Q as proxy, High q means that firms likely to have positive NPV projects, these firms were expected to use their internal funds productively. Low q mean that firms likely to have no positive NPV projects, so, they should pay out cash flow to shareholders or invest in zero NPV projects rather than make acquisitions, otherwise, the extra free cash in hand of mangers could decrease shareholders wealth. Further, the authors used different proxies for free cash flow to test again and reported that the results were also supportive of the free cash flow hypothesis. Grullon et al. (2002) also partially confirmed this free cash flow hypothesis when they studied the signal of change on dividend whether firm is in its maturity state or not. Grullon and Michaely (2004) investigated the share repurchase program, they found that share repurchase program could reduce the systematic risk and cost of capital compared firms' performance with and without the repurchase program. They found that market reaction was significant and positive to share repurchase news because of free cash flow hypothesis: the free cash holding in hands of management reduced under this program. However, the characteristics of firms who paid dividend and who used share repurchase were not different, at the same time, this repurchase program could not be used to predict the firm's profitability.

2.2.6 The Theory of Tax Clienteles and Clientele Effect on Dividend (Allen et al., 2000)

The Tax Clientele Effect is caused by investors in different tax brackets or different demand of dividend, for example, widows, senior citizens, non-profit organizations, financial institutions, if so, then, the tax change should not cause much change on structure of investor of the firm, as the result, the effect must be indifferent between dividend and share repurchase or dividend reinvestment plan. But, if a firm has more tax disadvantage, institutional shareholders would (tax clientele effects high) increase, then, tax on dividend will be paid more, so, the firm would like to use repurchase program, or vice versa. At same time, some investors prefer the firms who never pay dividends, instead, they rather invest in the growing companies no matter whether their tax brackets are high or low. This phenomenon is caused by clientele effect. Such clientele effects affect dividends payout decision in the way that companies are reluctant to reduce dividend payment substantially, otherwise, the investors will sell off the shares of such companies, and induce a sharp drop in the prices of the shares. The authors concluded that the tax clientele effects or clientele effect, combined with the risk aversion of investors, signal theory and transaction costs just can only explain the dividend puzzle to some extent (John et al., 1985; Crockett and Friend, 1988; Bernheim, 1991; Moser, 2007).

Under either Tax Clientele Effect of dividends or clientele effect of dividend policy, the institutional shareholders will select their target firms to invest, so, there may be a single or individual shareholder with high holding level, for example, holding excess 5% of total outstanding shares, named as the block shareholder, or larger shareholders (Barclay et al., 2009). How these block shareholders or larger shareholders affect the dividend policy of that firm through interaction with management under asymmetric information condition?

Several research papers found that if there are such block shareholders and asymmetric information was high, and the block shareholders determined the dividend policy, these firms reduced dividend payout (Noe et al., 1996), this point was echoed by Grinstein et al.

(2005) and Barclay et al. (2009): large institutional investors actually reduced the monitoring costs (asymmetric information level is low), then, the likelihood to pay dividend was not high. This result was contradictory to the theoretical models in which there should be a positive relationship between block shareholders and dividend policy, such positive relationship was confirmed partially in some UK industries found by Khan (2006). However, higher institutional holdings or majority holdings could not cause firms to increase dividends. Why management does not bow to requirement from block shareholders to pay more dividends out? Lucas and McDonald (1998) investigated this question and they found that management use asymmetric information about the firm's value, if the management know the firm's value is overestimated, they would pay dividend or vice versa, also, they found that management may consider the dividend and share repurchase were substitutable, selected which channel was dependent on agency costs and tax effects. Graham et al. (2005) supported this conclusion by stating that management believe that institutional shareholders were indifferent between receiving dividend and entered into the share repurchase program, dividend policy had no or less effect on investors' tax clientele or clientele effect, but, for non-payer, there were two factors to determine the time to pay dividend, first was the earnings and second was the demand of block shareholders. But, DeAngelo et al. (2004) doubted this clientele effect, they argued that if management catered to the demand from heterogeneous shareholders, then, the payers and nonpayers should be seen in all the industries, however, from their observations, this was not true, they pointed that management paid dividend due to these large shareholders' pressures according to their different preference of unusual demand on dividends.

Holder et al. (1998) studied the relationship between dividend policy and the influence of stakeholders and concluded that non-investors stakeholders, such as customers, suppliers, workers, distributors, also had an effect on dividend decision via implicit claims, this result was against the separation of investment and financial decision theory, and was consistent with prior studies, such as Shapiro (1990)'s prediction that high NOC firms would pay dividends and not cut it.(NOC is defined as the excess amount of one firm's

asset over its liability, proxy by this firm's concentration in its core business, the more business lines, the lower NOC it has)

Shao et al. (2010) related the national culture to the dividend policy by dividing culture into two dimensions: Conservatism and Mastery, the authors analysed the Conservatism characteristic and Mastery characteristics on several dividend policies respectively, for example, the Conservatism on "bird in hand" Theory, Signal theory, Agency Theory, and the Mastery on Agency Theory, Pecking Order Theory. They found that Conservatism culture positively related to dividend policy, while, the Mastery had a negative relationship with the dividend pay-out policy. Such results were also valid if including other conditions, for instance, the investor protection conditions, tax, and dividend catering premium.

However, if there were more institutional shareholders or block shareholders in the shareholder list of a firm, the conflicts between such shareholders and minor investors would happen, also, such block or institutional shareholders may expropriated benefits of minor investors (Isik and Soykan ,2013) through other patterns except the dividend payment, for example, if there were such block shareholders, the trade of shares would be reduced (Demsetz,1968; Easley et al. 1996; Bekaert et al. 2007), so, the liquidity of shares would be declined, transaction costs were higher for minor investors who tried to get capital gain in a relative short term (to avoid the risk of holding for a long time period), such investors must be compensated by the dividend as waiting costs, as they could not sell securities off due to the high spread between bid and ask prices. For such reason, the liquidity of shares was an important factor which could affect the dividend policy. Suman Banerjee et al. (2007) tried to analyze the relationship between the firm's stock liquidity and its dividend policy. They cited the empirical results of Fama and French's study (2001) that there was a trend of lower propensity to pay dividend of firms, but added in the second set by an independent variable: market liquidity proxy as the turnover of outstanding shares, the dependent variable was the dividend payers numbers of that year, they found that, the past market liquidity of shares of firms was an important factor to determine the firm's dividend initiation and omission. Lower liquidity firms that

had never paid dividend were more likely to initiate dividend. For firms who were in comovement with the liquidity of its industry's aggregate liquidity level, these firms initiated to pay cash dividend, rather than share repurchase, the firm's stock return would be less sensitive the industrial aggregate liquidity, and more consistent with liquidity hypothesis of dividend, which meant that the investors took the stock market liquidity as a substitution of dividend. Such findings were advanced by Griffin (2010), and the results were supportive to the findings of Banerjee et al. (2007). Thus, the stock illiquidity was compensation for dividend payment.

2.2.7 The Pecking Order Theory (Myers and Majluf, 1984)

Fama and French (2002) and Frank and Goyal (2003) tested this hypothesis by using the debt level or debt ratio as the dependent variable. The findings of Fama and French (2002) contradicted with the Pecking order theory. Under their trade off model, for example, when management evaluated the cost and benefit by using debts, the results against the pecking order predication that the more profitable firms usually have lower debt ratio, also, such trade off model could also be applied to dividend payout when costs equalled to benefits of debts to maximize the firms' value. However, when Fama and French examined the dividend payout policy of firms, they found that in the short term, if the dividend payout was smoothed, or stable, then, the risks of current and future earnings and investment funds must be absorbed by outside debts, these conclusions supported the Pecking Order Theory, and supported by a modified version from Jensen et al. (1992) that if the retained earnings was not sufficient enough to cover the investment outlay, the external financing was heavily used, the debt was dominated equity in order. If internal financing was used, then, the dividend payout must be lower. However, this hypothesis could not be fully supported by contradict results of other tests, for example, Frank and Goyal (2003) concluded that the Pecking Order Theory was supported only by the evidences from larger firms, the results of smaller firms or high growth firms did against the Pecking Order Theory. So, above empirical evidences implied that the Pecking Order Theory just performs well for the large firms, but, it is not suitable for smaller firms, then, the firms' size does matter under the Pecking Order Theory.

2.2.8 The Catering Theory (Baker and Wurgler, 2004)

Since Fama and French (2001) found the phenomenon that the percentage of firms who paid cash dividends declined "from 66.5% in 1978 to 20.8% in 1999", they investigated the factors behind this phenomenon, and found that the characteristics of firms changed during their research period, many small firms with lower profitability and more growth opportunities were listed. Motivated by Fama and French's findings, Baker and Wurgler (2004) proposed a "A Catering Theory of Dividends" theory. This theory stated that if the dividend premium was high, the management would initiate to pay dividend (but not necessary to increase the dividend amount), if the dividend premium was low, they might omit or reduced the dividend. The Theory, the findings from Fama and French (2001) and Baker and Wurgler (2004) were supported by another research paper of DeAngelo et al. (2004). Based on the findings and the phenomenon that the dividend premium changed from each period to another period during the data collection time, the Authors argued that there seems to be an omitted factor which should be included. Hoberg and Prabhala (2009) stated that risk was an important factor that affects the dividend policy. They defined the risk under several situations, for example, the manager may be conservative, so, he or she might avoid the risk to cut the dividend, or, the unexpected dividend change may cause risk to investors and the risk when a firm had less cash flow. Following Fama and French (2001a)'s test, they found that the risk factor explained about 40% of disappearing dividend puzzle.

Grullon et al. (2011) explored further on the dividend premium because they found that the definition of payer in prior studies may be wrong, so, they used net payer instead of payer only. They found that some of the payers defined in prior models were not net payers, the propensity calculated from such mistakes maybe wrong. By measuring the net payouts, they found that if the net payout included into the test, then, the decline propensity puzzle could be explained, and they also found that firms with a negative and low retained earnings were more willing to pay cash dividend in 1970s. So, the dividend did not disappear, this finding was in line with what Denis and Osobov (2008) empirical

test, as they claimed that the dividend had not reduced in US, but, such propensity was determined by many factors, for example, firms size, profitability, earnings, etc.

2.2.9 The Life Cycle Theory (DeAngelo et al., 2006)

When Fama and French (2001) analysed the puzzle of disappearing dividends, they cited that the characteristics of firm changed during the period 1963-1998, in which the larger and profitable companies had a higher dividend pay-out ratio, at the time, if there was an investment opportunities, the firms who had such opportunities tended to pay less dividend or even omitted the dividend. Echoed to Signalling theory, Grullon et al., (2002) studied on the information content which could convey the change of a firm's characteristics. Based on findings from data collected from 1967 to 1993, the authors concluded that when a firm became more mature, then such firm tended to pay more cash dividend out because this firm had less investment opportunities which supported the findings of Fama and French (2001), also, such firm' s systematic risk negatively was related to its dividend policy. DeAngelo et al. (2006) tested the life cycle theory by using the ratio of retained earnings to total equities (RE/TE), and total assets (RE/TA) of the firm, they found that, the higher RE/TE, the high probability to pay dividend, this finding was consistent with the Life Cycle Theory.

2.2.10 The Managerial Entrenchment Hypothesis (Morck et al, 1988)

According to Berger et al. (1997): the entrenchment means that managers are in strong position enough even a board and other corporate control systems cannot monitor their behaviour; or according to Baratiya et al. (2013): Managerial entrenchment means that management control a significant portion of the equity in the firm and his/her actions is inconsistent with the maximizing aim of the firm.

So, if managers control a portion of the equity in the firm, such managers may act against their duties to maximize wealth of shareholders. They might set their bonuses and salary

for their own interests, and they may manage the company through various selfish behaviors that could harm the firm seriously.

- **Factors affecting the managerial entrenchment levels**

The managerial entrenchment hypothesis implies that the management, especially the CEO, has more power to influence the decision making process of a firm, so, how these power come from is the first question to be answered. Some research papers suggested that such power came from CEO's ability and firms' characteristics. Allgood and Farrell (2000) studied the relationship between a CEO's tenure and firm performance, they found that if the performance of firms was measured by ROA (return on total assets), the founders of firms are more entrenched in the first ten years, and there was no evidence showing that inside promotion to be CEO has no more entrenched during their tenure, while, if the CEO was hired from outside, such CEOs may be entrenched during their intermediate tenures based on the firms' performance. Another study by Eisenberg et al. (1998) on board's size and its influence firms' value among the Finnish firms. By reviewing previous study on the board size and its effect on monitoring management, especially, on monitoring the CEO, the authors cited that CEOs may perform worse because the large board size reduce the threat to dismiss the CEOs from their position, as a result, the firms' performance is negatively related to the board size. They used the difference of return on total asset (ROA) which was transformed between firms' level and industrial level as dependent variable, log of board size and other independent variables to test the profitability, they confirmed that there was a negative correlation between the board size and profitability among the small firms in Finland. They also pointed out that the change of board members may also change the risk preferences of the firms if owners or main controlling shareholders chose the board members by themselves. However, Coles et al. (2008) argued that the board size may be varied according to the firms' characteristics, not simple as the smaller board size, the better the firms' performance. They found that dependent variable Tobin's Q was increased (decreased) indirectly by number of outside board members for complex (simple) organizational chart of firms, but,

if the firms were in intensive R&D industries, the more insider board members, the higher the value of firms.

There are also some research papers that explored the CEO's turnover sensitivity based on their firms' profitability among the large private and public firms, for example, Coles et al. (Working Paper, 2003) argued that private firms had lower profitability than that of public firms. The concentration of ownership in private firms made CEOs of these firms tend to take lower risk and lower profitable projects, also, the different characteristics of industries were one of reasons making profitability different between firms across industries. However, the coefficients of profitability for private and public firms had same signs related to the CEO turnover. Finally, they concluded that for public firms, the CEO's sensitivity to CEO's turnover was significant and negatively related on sales, and profits.

Referring to CEO's ability, Hambrick and Mason (1991), Adams et al., (2005), echoed by Chang et al., (2010) stated that CEO's ability to influence other directors on a decision would affect the firm's performance. CEOs' ability or power can come from several resources, for example, the structure power, ownership power, professional power and prestige power, such as management quality and reputation (Finkelstein S., 1992; Adams et al., 2005; Chemmanur et al., 2009; Bunkanwanicha and Wiwattanakantang, 2009), it can also come from the CEO's prior labor market success or performance (Chang et al., 2010). But, whether this power affects the firm's performance in positive or negative ways still has no consensus and varies among industries (Adams et al., 2005; Chang et al., 2010).

Many research papers study on CEO related structure, ownership and expert power, for example, CEO duality, which means that one person hold both CEO and Chairman of board simultaneously or be the CEO and Founder simultaneously has become more obvious practice (Morck et al., 1988; Boyd, 1995; Daily et.al., 1997; Harris et al., 1998; Wallace et al., 1998; Jayaraman, et al., 2000; Shen, 2003; Combs et al., 2003; Adams et

al., 2009). Such duality signaled outside that these firms had a clear strategic direction on strategy and had greater knowledge of their industries. However such duality may have negative relationship with the firms' performance, so, implementation of the separate and control mechanism may be good for the firm. However, the findings from these research papers were not so unanimous, some papers support the view that the CEO duality was better for a firm's performance, needed not to monitor either from inside or outside, such as monitoring by block shareholders (Boyed, 1995; Daily et al., 1997; Harris et al., 1998; Jayaraman et al., 2000; Shen, 2003; Combs et al., 2003; Villalonga and Amit, 2006). Conversely, such duality might also cause agency costs and reduce the firm value, even caused financial distress, for example, the Morck et al. (1998) found that there was negative influence on market value of older firms which were family fully controlled, but there was no negative effects on the younger firms in which there might be one or two family members as CEO. This point was supported by Pearce II and ZAHRA (1991) and Jayaraman et al. (2000). If the management and its family number was largest shareholder or block holders of the firm, the management could become controlling holders via pyramid vote rights, if there was no monitors from outside, then, firm's value could be reduced, if management can act in line with outsider shareholders, the firm's value could be increased, especially under weak investor protection law circumstance (Linn K.V., 2003; Burkart et al., 2003). However, if one person was holding 3 positions, then, the market reaction must be negative (Harris et al., 1998; Wallace et al., 1998).

Generally, A CEO's power status may come from several sources and under different conditions (Adams et al., 2005). For instance, if a CEO has longer tenure, with a good professional knowledge, or capability, he or she has more related parties in board of directors, meanwhile, the outside directors inside the board is less, as a result, the percentage of independent directors to total directors of the board is lower. Also, the board size is small enough for such CEOs to dominate or influence other directors in favor of the CEO's decisions, so, this CEO will have high power status even if this CEO has no inside share holdings (Eisenberg et al. 1998; Adams et al., 2005; Belen et al., 2006; Coles et al., 2008).

If the CEO ability or power is really better off for the firm, how such CEO with power affect a firm's performance? As one extreme point of CEO power: how the managerial entrenchment affect a firm's policy? There are some researchers who have studied this topic, for example, under management entrenchment, managers may select manager-specific investment project, so, to test the investment with or without such manager-specific characteristics is a way to measure whether the manager's position is "strong" or "not" (Shleifer A. and Vishny R.W., 1989). Some researchers used debt level to test such proposition of entrenchment, however, the entrenched managers may use debt as a tool in different ways to protect their position, for instance, they may use less debt to avoid the creditors' monitoring, or they may use more to against possible takeover even if the takeover may benefit outside shareholders (Stulz, 1988; Berger et al., 1997). As the managerial entrenchment was categorized into agency problem, Kalcheve et al. (2007) estimated the relationship between cash and managerial entrenchment on a firm's value, proxy by Tobin's Q under different external shareholder protection conditions, further, they assessed the dividend payment related to Tobin's Q and managerial entrenchment, they found that when under weak external shareholder protection conditions and management with more cash in hand, the firms' value was lower, however, if management decided to pay dividend out to shareholders, then, the firms' value would be higher. If external shareholders protection was strong, then, the firms' value was not related to managerial entrenchment.

Furthermore, Afriyie (2015) focused on the financial sustainability factors, which are related to organizational leadership, of high education institutions. Referring to financial sustainability, the author stated that such sustainability must be stable enough to cover all costs without other additional resources, also, such sustainability required a long term perspective with annual budgeting, so, the capacity of firms to achieve financial sustainability was necessary and essential factors to fulfill such firms' current and future financial obligations. So, the independent variable of the authentic leadership was one of significant factor needed to achieve the financial sustainability. So the authentic leadership did matter for a firms' financial sustainability.

- **Managerial entrenchment hypothesis and dividend policy**

Some papers linked the managerial entrenchment with dividend policy directly, they found that under managerial entrenchment conditions, both the likelihood of dividend payout and level of such payout are significantly and positively (negatively) related to factors that increase (decrease) executive entrenchment levels after controlling other factors. At the same time, a firm with good quality management and reputation team had lower debt leverage and less asymmetric information problem, so, they did not use high dividend to signal outside investors like other firms, those firms with good quality management and reputation would pay lower dividends and the quality of management was negatively related to leverage ratio and dividend payout ratio, and positively with firm's level of investment. (Farinha, 2002; Hu and Kumar, 2004; Chemmanur et al. 2009).

2.2.11 Behavioral Finance's Explanation: Loss Aversion on Dividend Policy

The question about why do some companies pay dividends, while there are other companies that do not pay is a puzzle in modern corporate finance field (Black, 1976; Bhattacharya, 1979; Feldstein and Green, 1983; Denis and Osobov, 2008).

Miller (1986) directly pointed out that under behavioural rationality assumption, and based on the demand and supply of dividends analysis, the behavioural finance theory can explain well the dividend policy at individual level. For example, the investors' cash preference. This puzzle could be partially answered by loss aversion as claimed by Feldstein and Green (1983) together with different tax brackets and portfolio diversification. Easterbrook (1984) also pointed out one agency cost in form of risk aversion of manager when he researched on two agency costs. So, if manager has loss aversion, he or she may behave on escalating commitment which means that the more he or she invested, the less willing it would be for him or her to give up, such behavior would cause managers to keep investing on a zero or even negative return project by omitting dividends (Working Paper, Van der Werf SA, 2013).

Since Kahneman and Amos Tversky (1979) developed the prospect theory to analyze the decision made under uncertain risk, there are many research papers related to the behavior finance field on dividend issues. Thaler (1999) attributed his mental accounting theory to answer this question. Underpinned by both prospect theory and mental accounting theory, together with Loss aversion hypothesis which was developed from the prospect theory, there are many papers that have studied the relationship between loss aversion behavior and dividend policy.

From Lintner (1959) and Gordon (1963), the risk averse behavior, which always means loss aversion (Berkelaar et al. 2004), can be seen in many studies related to dividend policy. In Linter's article, managers try to smooth the dividend to avoid the dividend cut in the future, such "fear" implied that managers took risk aversion or loss aversion of investors into their consideration when they made dividend decisions. Gordon (1959) analyzed the rate of growth of dividend, he attributed two uncertainties, one was investor risk aversion and another was uncertainty of dividend in future, these finding was echoed by Breuer et al. (2014) who pointed out that with more patient individuals investors, the less dividend payout ratios, while, loss aversion and ambiguity aversion were positively related to dividend payout ratios. Lambrecht and Myers (2012) established a theory of payout policy based on Lintner (1956)'s target payout model. They derived the theoretical model with relationships to other factors, such as relationships with all net present incomes, taxes, managerial risk aversion, and growth opportunity. From their agency model and the framework about the utility function of managers, these managers tried to maximize the value of the utility by choosing optimal payout ratio and compensation policy ratio. Under proposition 2, the authors presented several key factors to analyse the relationships, for example, they argued that the target payout ratio was dependent on all net current and future income, the target payout ratio was expressed as the percentage of outside shareholders (a) multiplied by the rate of return of all incomes (Y_t). This target payout ratio may also be affected by manager's impatience, which represented as (3/co, where, the 13 was the market discount factor equals to 1/1+p, p was risk free rate; while, w was managerial subjective discount rate, so, 1/o) measured impatience of managers, the higher Pico , the higher the current payout amount. Their

main findings were that the dividends payout and management compensation or rents move together in the same direction, and the change of debt was just the result when the total cash in each time period was not sufficient enough to pay dividends, in other words, if the total cash in hand was not sufficient to pay dividend at target payout ratio, then, debt would be the first choice. This conclusion did follow the Pecking Order Theory. The conclusion on uncertainty about the earnings and level of risk aversion was partially supported by the findings of Stiglitz (1971): when there was more uncertainty of future earnings, the higher risk aversion behavior can induce higher savings, or higher payout ratio which was demanded by investors with loss aversion behavior.

Shapiro and Zhuang (2013) established a model consisting of two separate sides: investors as demand side and managers as supply side to generalize the signalling model of Baker and Wurgler (2012) in which the investors had loss aversion, managers would 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 at the first time period only, they stated that if the threshold value or reference point is not high enough to the first period earnings, then, the firms will pay nothing, otherwise, they will pay dividend out. When the value of such threshold is low, many will pay dividend but at low level, if the threshold is high, fewer firms will pay dividend but if they pay, the level is high. These managerial threshold was set according to three elements: share stock options, risky for next period earnings, level of investors' loss aversion behavior, if there were high share stock options of managers, more risky for next period earnings, and low level of investors' loss aversion, then, the threshold was high, the managers would not like to pay dividend out.

From individual investor perspective, if an individual investor has loss aversion behavior, then he or she may prefer dividend rather than selling shares, because "collecting cash dividend may be a less risky way of generating a cash stream" (Working paper, Redding et al.1998, P2). When investors receive such cash stream, they should use them as fund for consumption. The findings of Baker, Nagel and Wurgler (2007) confirmed this point that the consumption level was positively related to the level of dividend received even if

there was high tax rate on dividend. This preference on cash dividend is one in the dividend puzzle which could not be explained. The authors argued that, based on Thaler (1999)'s three mental account theory and Shefrin and Thaler (1981)'s self-control theory, individuals always have three mental accounts: current income, current asset and future wealth, in which, individual investors may treat the dividend received to be categorized into current income rather than current asset, so investors just use current income to fund current consumption under which they feel more comfortable than selling assets or using future wealth (Shefrin and Thaler, 1981). However, as an individual investors with loss aversion behavior, he or she may have different initial endowment; such initial endowment does matter to individual investors when they set up their preferences on risk based on their reference points and sensitivity to the reference points. Furthermore, individuals may adjust these reference points according to their experiences for gain and loss all the time, even if they are long term investors, they are assumed to examine their portfolio too frequently to adjust the reference point (Shefrin and Statman, 1984; Tversky and Kahneman, 1991, Benartzi and Thaler, 1995; Koszegi and Rabin, 2006).

From a managerial perspective, as individual investors with loss aversion behavior have inconsistent preference on dividend income and capital gain, how a firm can pay optimal dividend (Yang, Shoji and Kanehiro, 2009). By comparing with and without inconsistent preference and loss aversion behavior, the authors found that, it was better to pay dividend earlier than later if the investors of the firm showed inconsistent preference and loss aversion behavior. So, what factors affected the management on dividend policy? Mohamed Ali and Anis (2012) linked the CEO emotional bias to dividend policy by Bayesian network method. They included three elements inside the CEO emotional bias, loss aversion, optimism and overconfidence. Their findings confirmed their prediction: the CEO's optimism was positively related to dividend policy; CEO loss aversion related to the level of dividend positively (Caliskan et al. 2015); and CEO's overconfidence also has a positive relationship with dividend payout.

Some research papers have studied on CEO characteristics. These studies pointed out that managers were different based on risk preference, knowledge, and background, so, the assumption that managers are homogeneous under each empirical test on company policy

was not reasonable. Individual CEO's characteristics does matter. For example, managers who were conservative or overconfident also affect the firm's dividend policy: the managers who were conservative may pay less dividend, while overconfident managers or had the political connection may pay more dividend under a different situation (firm's size, age, capital intensity) and dividend policy is different too across industries, markets, and demand stability. (Bertrand et al. 2003; Chen et al. 2011, Dittmar and Duchin, 2014)

Table 2.1: Summary of Factors from Previous Studies Effect the Dividend Policy:

Theory	Factors	Authors
Bird in Hand	Profitability,	Lintner (1962), Gordon (1963)
	Retained earnings	Gordon(1963), Bhattacharya (1979)
Agency Theory	Ownership Structure, Free cash flow, Debt, Profitability	Jensen and Meckling (1976), Fama and Jensen (1983), Jensen et al. (1992), Ozcan et al.(2013)
Signal Theory	Profitability, Dividend Yield, Growth Opportunity, Price to Dividend Ratio, Dividend Smooth	Miller and Rock (1985)Baker et al. (1985)Rozeff (1984) Fama and French(1988) Leary et al.(2011) Chen L. et al.2009,2012) John Cochrane (1992)
Free Cash Flow	Free Cash Flow	Jensen (1986)
Clientele effect	Block shareholders Institutional Shareholders Liquidity of Asset National culture Stock liquidity	Allen et al.(2000) Demsetz (1968) Holder et al. (1998) Grinstein et al.(2005) Barclay et al.(2009) Graham et al. (2005) Shao et al.(2010) Banerjee et al. (2007)
Pecking Order	Debt Ratio, Free Cash Flow Debt change, Earnings Remained	Myers and Majluf (1984) Fama and French (2002) Goyal (2003) Lambrecht and Myers (2012)
Catering Theory	Firm Size Profitability Dividend Premium Growth Opportunity	Baker and Wurgler (2004) Fama and French (2001) Malcolm et al. (2004) Hoberg and Prabhala (2009)
Life Cycle Theory	Growth Opportunity (RE/TE) Profitability Firm Size	DeAngelo et al (2006) Fama and French (2001) Grullon et al. (2002)

Table 2.1 Summary of Factors from Previous Studies Effect the Dividend Policy (Continued)

Theory	Factors	Authors
Managerial Concentrated Ownership	CEO ownership	Morck et al.(1988), Wiwattanakantang (1999, 2001)
	Block shareholder	Berger et al. (1997)
	CEO Tenure	Hu and Kumar (2004)
Strong or Weak Managerial Type (Concentrated Ownership or Non-Concentrated Ownership type)	Board Composition	Chemmanur et al.(2009)
	Board Size	Boyed (1995)
	CEO Duality	Chang et al. (2010)
	CEO Dominance	Adams et al. (2005)
	Debt Level	Combs et al. (2003)
	CEO Capability	Jeffrey L. Coles et al.(2003)
	(Financial Sustainability)	Amos Oppong Afriyie (2015)
Risk Aversion	Impatience of Managers	Lambrecht and Myers (2012)
Prospect Theory	Loss Aversion	Kahneman and Tversky (1979, 1991)
	Reference dependence	Berkelaar et aI.(2004)
		Benartzi and Thaler (1995)
		Mohamed Ali and Anis (2012)

2.3 Empirical Studies on Dividend Policy of Listed Firms in Thailand

Wiwattanakantang (1999) studied factors affecting capital structure among the Thai firms. She found that traditional factors, such as profitability, tangible assets, taxes, and growth, all have significant effects on firms' capital structure. Beside these findings, other factors, for example, governance rules and degree of controls, different type of controlling shareholders affected capital structure. For Thai firms, single firm ownership, where shareholders were involved in management, had higher debt levels. The debt would influence the dividend payout. For the composition of shareholders in Thailand Stock Exchange Market, the author pointed out that the institutional investors were relative lower to that in developed countries, but, the influences of such institutional investors could not be ignored, she attributed this problem due to domestic law regulations, such as Banking Law, further, the author defined 6 categories of Thai firms according to existing shareholders controlling votes in the firms, there were single family owned, conglomerate, non-conglomerate (different to conglomerate only on less diversification and less values), government owned firms, foreign companies. The author used cross sectional regressions on book value, market value depended on several factors. She concluded that factors in previous researches, such as, size, tangible assets, and growth did influence the capital structure of Thai firms, beside these, the governance structure also affected the capital structure. But, the management ownership did not show any significant effect, however, the sole family owned firms had positive relationship with debt.

La Porta et al. (2000) examined the agency problem and dividend policies, they cited conclusions in several prior studies that the dividend policies reflected the problems between inside and outside shareholders, as insiders might use asymmetric information to benefit themselves, so, outsiders preferred dividend rather than capital gains. They tested two cross sectional models associated with law protection for minor shareholders, one was outcome model and another was substitute model. The former one supposed that the dividend payout was under-pressured by minority of shareholders pressure, and the latter was for management's intention to issue new equity in the future, so, they paid dividends

to get a good fame among the minority shareholders. The authors concluded that these models, under minority legal protection, were distinguished based on the legal rules, but, this legal protection also made such research more limited, for example, before researchers applied the models, the researchers may already know the extent of effects of the legal rule in each country.

Wiwattanakantang (2001) explored the relationship between the controlling shareholders and firm's value. She used three dependent variables (ROA, Sales-asset ratio and Tobin's q) to measure the performance of a firm in which at least one controlling shareholder existed. She defined that a controlling shareholder should have at least 25% of outstanding shares of that firm, at the same time, she also included such controlling shareholders between 25% to 50% and 50% to 75% as well as 75% to 100% respectively into the test. For a more accurate descriptive of the control and management of the firms, she explained difference between cash flow vote rights and control vote rights (via pyramids or cross-holdings). She found that contradictory to the hypothesis that large shareholders always expropriate small shareholders or minor shareholders via privatizing firm's assets to be their own, in Thai listed firms, there was no evidence to support this hypothesis when the concentrated ownership level is at 25%, and became entrenched management. She attributed such results to two reasons, first, among Thai listed firms, only few firms use pyramid and cross-holding vote to control the firms, and second, cash flow rights and voting are not separated in the most of Thai listed firms, so, the controlling shareholders behave in a self-constrained way and did not expropriate others, instead the controlling shareholders acted as monitors to increase the value of firm via reducing the agency costs. In local listed firms, if controlling shareholders participated in managerial activities, the performance would be better than that of firms in which the controlling shareholders did not engaging in the management. Finally, the firms controlled by a family, and firms that had more than one controlling shareholders had significant profitability than the firms without controlling shareholders.

Polsiri (2004) studied the concentrated ownership and firms when there was a crisis. By using data of listed firms in Thailand, the author stated that theoretically, if the

controlling shareholders can monitor the management, then all stakeholders of such firms would be better off. However, if not, there would be some problems of expropriation to minority of shareholders. So, the author tested two hypotheses, one was expropriation/concentrated ownership hypothesis and another was the monitoring and incentive hypothesis. The dependent variables were six actions if there was crisis, all actions were included in a category called "restructuring". The data was from 1997 to 2000 for listed firms in Thailand. The author excluded the "health care services" industry because of the higher number of firms with controlling shareholders to avoid the bias. Because all six actions could interact with each other, so, the author used multivariate probit function with the controlling shareholders as the independent variables. The author found that if there was controlling shareholder, during a crisis, the restructuring activities may not be implemented, which may be harmful to shareholders themselves, such result was contradict with the monitor and incentive hypothesis. Instead, these controlling shareholders may exercise their voting rights to prevent such restructuring activities for their selfish interests, for example, reduce the probability of using debt. This finding was aligned with expropriation or concentrated ownership hypothesis. However, the responses of firms with family control and with at least one large shareholder were not clear about restructuring effects. However, if the controlling shareholders engaged in management activities, then, there was a high probability of restructuring happening.

Thanatawee (2011) used data of Thai listed firms to test the Life Cycle Theory and Free Cash Flow Hypothesis. He collected data from 2002 to 2008 period and used two analyses: correlation analysis and regression analysis to test the hypotheses. He found that under correlation analysis, the dividend payout ratio had a positive relationship with retain earnings to equity and firm size. The dividend payout ratio also had a positive relationship with market to book ratio and ROA. But, in contradiction to both hypotheses, the dividend yield was correlated with asset growth and market to book ratio positively, also there was a positive correlation with leverage ratio. Under the regression analysis, he found that firms with high ROA paid high dividend, also large firms paid higher dividend, but the puzzle of positive relationship between market to book ratio, leverage ratio and dividend yield still existed. The same author together with Fairchild et al. (2014) tested

Signal Theory, Free Cash Flow Hypothesis, and Life Cycle Theory under three time periods theoretical model, assumed that the management interacted with investors for selecting two projects, one was associated with negative present value but managers get private benefit, and another was associated with positive present value, but, both managers and investors get capital gains. Within these theoretical models' logics, they used profit change and dividend change as dependent variables respectively to test the three hypotheses. The results reinforced Thanatawee (2011)'s findings: the Free Cash Flow Hypothesis and Life Cycle Theory can be well supported again, but the signaling theory was not supported. In their univariate analysis, higher percentage of domestic institutional shareholders of a firm was positively with high dividend increase, the foreigner holdings seems to be associated with dividend smoothing behavior more, and again, the dividend change just reflected the past and concurrent profitability and earnings, it was not for prediction of future which was not aligned with signal theory. Finally, they concluded that, the investors have power to force firms to pay dividend.

Thanatawee (2013) presented one article focusing on the relationship between ownership structure and dividend policy among firms in Thailand. The author used total 1,927 samples, the data was collected from 2002 to 2010 to do the empirical test: first, he analyzed the firms that paid or did not pay dividends, second, he tested how much was paid. The dependent variable is dividend payout ratio, the independent variables were ownership structure, for example, the top 5 larger shareholders. He found that, there were significant and positive relationships between dividend payout policy and ownership concentration, for firms' age, there was no different between payer and non-payer. The author concluded that Thai firms usually had high degree of concentrated ownerships structure, and mostly owned by institutions, such structure always "force" firms to pay dividend at a higher ratio. Some controlled characteristic variables, such as profitability, firm's size, and ratio of retain earnings to book equity also had a positive relationship to dividend payout decision, but, had a negative relationship with financial leverage. Finally, the free cash flow had no significant relationship with dividend policy.

Komrattanapanya (2013) published a study on factors which affected the dividend payout in listed firms of Thailand by using Tobit regression analysis. She used dividend payout ratio as dependent variable, while the independent variables were ROA, cash flow/share, Debt to Equity ratio, market to book ratio; sales changes (in ratio), Risk (proxy by variability in ROA), firm size and industrial categories (dummy variable) as well as whether there were small, medium and large firms with profit or not (dummy variable) in the Tobit regression. She found that during the 2006 to 2010, the leverage level, investment opportunity, and sales change had negative relationships with dividend payout; while, the size was positively related to the dividend payout. Further, firms in different industries seem to have different propensity to pay dividend, for example, firms in property and construction are more likely to pay; in contrast to Life Cycle Theory, the small firms with profit also like to pay dividend too, but, the medium size firms do not.

Tangjitprom (2013) studied the Catering theory by using propensity measured by difference between market to book ratio for dividend payer and nonpayer. He found that the dividend premium in Thailand was positive, which means that in the Thai stock market, investors always show desire to get dividend and pay higher prices for firms paying dividend. The author declared that these facts to factors such as conservative personality of Thai individual investors, and risk averter's properties, as a result, the management could time the market to maximize the value for shareholders according to such phenomenon.

Hangsasuta (2015) presented a relationship between dividend change and future profitability in a conference paper. He used the data from 2002 to 2013 to investigate such a relationship by regressing the change in future earnings on the changes of dividend, while controlled some other variables. The dependent variable was either dummy for dividend initiation or omission. From the tests, he found that pre-2008 financial crisis, there was no significant effect of dividend change on future earning change, but after the crisis, the signal power improved for the subsamples. Also, he discovered that the dividend payment was decreased, and dividend initiation and omission were common

over the sample period. Such dividend behavior may have been due to the economic situation in each period. His empirical test also implied that Thai firms seem not to use dividend as a signal to outsiders about the firm's profitability. There was no difference on future performance between the firms increasing dividend and firms decreasing dividend. For the widely held firms, the signal power was still not significant, which was against the signal hypothesis too. Finally, he concluded that in Thailand, public firms are more likely to use dividend as a tool to solve agency problem rather than send information out.

Bialowas and Sitthipongpanich (2014) investigated the relationship between CEO characteristics and a firm's value. Supported by upper-echelon theory, resource dependence theory and agency theory, the authors classified CEO characteristics into three factors: Biography, Networks, and Incentives, each factor had several variables to measure the degree or levels of the main three factors. By using 2001- 2005 non-financial firms' data listed on the Stock Exchange of Thailand, the dependent variable was Tobin's Q, independent variable derived from the main three factors above. They found that CEO Biography and networks were positively related to the firms; values, especially, CEO's knowledge and network (not including political connections) about the firm's business were very important. Also, there was a trade-off between older manager's expertise and incentives of younger CEO in the long run, and small board was more valuable as a monitoring mechanism and CEO duality improved the value of Thai firms.

Sukkaew (2015) studied agency costs and free cash flow of dividend policy in Thailand firms. The author cited that the dividend policy was a tool to reduce the agency problem between the principal and agent for a company by distribute the free cash flow. She used panel data of listed firms in technology industry from 2009 to 2013 to test this hypothesis under a Tobit model. By using dividend payout ratio as dependent variable, and independent directors' tenure, position of these independent directors in other companies, major shareholders, foreign shareholders, institutional shareholders as independent variables, at the same time controlling other fixed effects of the firm, such as age, size, and debt. She found that if a firm with good governance, which was measured by number

of independent directors, ownership composition, dividend payout, did reduce the agency costs. This result was consistent with the free cash flow hypothesis, also, her findings were aligned with life cycle hypothesis in dividend policy. The limitation of this study was that she just focused on technology industry, not all listed firms in Thailand stock market.

2.4 Summary of Related Theories and Hypotheses to the Variables

2.4.1 Dividend Payment Decision: (DVP)

Agency costs which are caused by agency conflicts either between the principals and agents or between large shareholders and small shareholders (Fama and Jensen, 1983; Jensen et al., 1992; Wiwattanakantang, 2001; Isik et al., 2013). Such agency costs can be controlled or reduced by either implementing separation of ownership and control (Fama and Jensen, 1983; Wiwattanakantang, 2001; Thanatawee, 2012) or other ways, such as using more debts and dividend policy. (Jensen, 1986; Wiwattanakantang, 1999; Fama and French, 2002; Frank and Goyal, 2003). For example, pay free cash out to the shareholders (Jensen, 1986; Sukkaew, 2015); or under Clientele effects, large institutional investor's pressure management to pay dividend (Noe et al., 1996; Holder et al., 1998; La Porta et al., 2000; Grinstein et al., 2005; Barclay et al., 2009). However, there also some empirical findings which argued that such dividend payout may not reduce agency costs via clientele effects (Graham et al., 2005). One specific situation was that when a CEO owns or controls a significant portion of the equity in the firm, such a CEO became a Concentrated Ownership-CEO (Wiwattanakantang, 2001), or according to the Managerial Entrenchment Hypothesis (Morck et al., 1988), this CEO cannot be monitored from either inside or outside, thus, whether and how this CEO with concentrated ownership will pay dividend or not, is still in doubt.

2.4.2 Signal Theory: Dividend Growth (DGH)

When a firm uses dividend policy as a tool to reduce the agency cost under asymmetric information between management and outside shareholders or investors, such dividend policy does not only reduce the agency cost, but also is used as a signal to the market. Management may use dividend payment to assess clientele effects and difference between industries (Baker et al., 1985), also, initiate, omit and change dividend payout ratio may signal the firm's past, current and future profit. So, one year dividend growth can be used to predict the future dividend payout for some countries (Rozeff, 1984; Fama and French, 1988; Goetzmann et al., 1993; Engsted et al., 2010).

However, Graham et al. (2005) and Hangsasuta (2015) did not find a significant relationship between current dividends and earnings and current dividends to future profitability respectively, they argued that such insignificant relationship may be caused by other patterns of cash payout, for example, share repurchase, or management just pay dividend according to the economic situation and also may be forced by paying to solve the agency problem.

As there are contrary results on predication of current dividend to future earnings and profitability, so, the dividend yield could not be used as an independent variable in current study, because, the current study focuses on the dividend payment decision and not on the future profitability.

2.4.3 Life Cycle Theory: The ratio of Retained Earnings to Total Assets (RETA, FIRM)

According to the Life Cycle hypothesis (DeAngelo et al., 2006), firms in its mature stage will always pay out dividend and at high level, firms which are larger and profitable pay more (Fama and French, 2001; Grullon et al., 2002; Thanatawee, 2011). Small firms

always have lower profitability with more growth opportunities, so, these small firms have never paid dividend (Shapiro et al., 2013). However, there still a puzzle that a positive relationship between market to book ratio, leverage ratio and dividend yield existed (Thanatawee, 2011). Therefore, the ratio of retained earnings to total assets-RETA can be used to test the hypothesis on dividend payment decision. The RETA variable can also avoid one puzzle that some firms pay dividend on one side and issue new equities on another side (Easterbrook, 1984). Also, if larger firms usually pay dividend, then, the firm size which is measured by its market capitalization does have effect on dividend payment decision as several prior researches concluded.

2.4.4 The Pecking Order Theory: Debt change (DE) and Earnings carried Forward (EF)

The Pecking Order Theory predicts that firms that are more profitable have less book to market leverage are non-payer (Fama and French, 2002), so, these firms have high probability to pay dividend. Also, the Pecking Order Theory predicts that changes in earnings are mostly absorbed by changes in debts, at the same time, such changes of earnings are also in line with changes of dividends for dividend payers. Under this theory, if a firm wants to fund a new investment, the firm must use internal funds, if the internal funds are not sufficient, then, external financing will be heavily used, the debt is the first choice (Fama and French, 2002; Frank and Goyal, 2003).

However, according to the managerial entrenchment hypothesis, an entrenched CEO may use debt as a tool to protect his or her position, for example, the CEO may use less debt to avoid the creditor's monitoring, and the CEO may use more debt to fight against possible takeover.

Lambrecht and Myers (2012) established a theory of payout policy based on Lintner (1956)'s target payout model, and derived their model with relationships to other factors, such as relationships with all net present incomes, taxes, managerial risk aversion, growth opportunity and so on. One of their main findings is: the change of debt is just the result

when the total cash in each time period is not sufficient enough to pay dividends, and such change does follow the Pecking Order Theory. The authors stated that if firms follow the target payout ratio, then, the ratio should be expressed as the percentage of shares held by outside shareholders multiplied by the rate of return for all incomes. In other words, if firms do not follow the target payout ratio, either the firms have no sufficient funds to pay debts off, or the firms may save some of the profits, so, these remaining internal resources would affect the firms' dividend payment decision under the Pecking Order Theory.

2.4.5 The Theory of Tax Clienteles and Clientele Effects on Dividend: Stock Liquidity (TN)

Allen et al., (2000) explained that as institutional investors come under relative less tax bracket than individual investors, so, dividend payment caused a tax clientele effect or clientele effect. Under the tax clientele effect or clientele effect, if there are more institutional shareholders or block shareholders in the shareholder list of a firm, the conflicts between such shareholders and minor investors would happen, also, such block or institutional shareholders may expropriate benefits of minority of investors (Isik and Soykan, 2013) through other patterns except the dividend payment. For example, if there were such block shareholders, the trade of shares would be reduced (Demsetz, 1968; Easley et al., 1996; Bekaert et al., 2007), so, the liquidity of shares would be declined, transaction costs were higher for minority of investors who want to get capital gain in a relative short term (to avoid the risk of holding in a long time period), such investors must be compensated by the dividend as waiting costs.

But, DeAngelo et al. (2004) doubted this tax clientele effect and clientele effect, they argued that if a management wants to cater the demand from heterogeneous shareholders, then, the payers and nonpayers should be seen in all the industries, however, from their observations, this was not true, such results suggested that management paid dividend

due to these large shareholders pressures according to their different preference of unusual demand.

2.4.6 Catering Theory: Price to Dividend Ratio (PD)

According to Catering Theory, if the dividend premium which is the difference of prices between dividend payers and non-dividend payers is high, then, the management tends to cater the need of the investors; meanwhile, the higher prices of dividend payers implies that investors are willing to pay such prices for future dividend payout.

DeAngelo et al. (2004), supported the catering theory based on their empirical tests for the dividend premium which was changing from one period to another period during the data collection time. But, this theory did not classify what kind of shareholders' structure and how the management style could affect such "Catering Activity", there seems to be an omitted factor which should be included, therefore, Hoberg and Prabhala (2009) stated that the risk was an important factor affecting the dividend policy. Here they defined the risk under several situations, for example, if the manager is conservative, he or she might avoid the risk to cut the dividend (Linter, 1956).

To avoid the ambiguous definition of dividend net payer or not net payer (Grullon et al., 2011), and to explore more in details in dividend premium on firm's level, not the overall market level, in the current study, the lagged one year price to dividend ratio is used. Cochrane (1992) pointed out that the covariance of price and dividend ratio must contain information of future dividend's change. He argued that the value weighted variance of price to dividend ratio had a negative relationship with real dividend growth, while, equally valued weighted price dividend ratio had a positive relationship with dividend growth, so, the price to dividend ratio for each firm should have more predictive power and avoid the ambiguous definition of dividend net payer problems, also, the variable can be used under the situation that dividend payments are not continuous.

2.4.7 Agency Theory: CEO index (CIND)

Managerial entrenchment hypothesis, which is categorized as one class under Agency Theory, implies that if the CEO has concentrated ownership, he or she cannot be monitored by a board of directors or other corporative control mechanisms, he or she may act in selfishly. Prior studies on this hypothesis linked the managerial entrenchment hypothesis with dividend policy directly found that under managerial entrenchment conditions, both the likelihood of dividend payout and level of such payout are significantly and positively (negatively) related to factors that increase (decrease) executive entrenchment levels (Farinha, 2002; Hu and Kumar, 2004; Chemmanur et al., 2009). But most of these studies use cross sectional data about the CEO categorized by dividend payers and non-dividend payers. In fact, these studies ignored an important point that CEO's power status which could be changing over time, so, the empirical test results from cross sectional could not reflect the reality that the change of CEO's power status in time series situations.

In the current study, the CEO index for each firm overcome the ignorance in prior studies on the changing CEO's power status over the time (Shleifer and Vishny, 1989; Hu and Kumar, 2004; Adams et al., 2005). If a CEO owns a significant part of outstanding shares of the firm, for example, more than 20% of total outstanding shares, so, he or she is the Concentrated Ownership-CEO. The CEO Indexes are used to measure the high or low levels of the concentrated ownerships among CEOs, and such high (low) CEO Indexes implied the high (low) possibility for a CEO to be a Concentrated Ownership-CEO under the Agency theory, or entrenched CEO, according to the the managerial entrenchment hypothesis (Morck et al., 1988, Wiwattanakantang, 2001).

However, the CEO's power status may come from several sources and under different conditions (Adams et al., 2005). For instance, if a CEO has a longer tenure, with a good professional knowledge, or capability, he or she has more related parties in board of directors, meanwhile, the outside directors inside the board is less, as a result, the percentage of independent directors to total directors of the board will be lower. Also,

the board size is small enough for such a CEO to dominate or influence other directors in favor of the CEO's decisions, so, this CEO will have high power status even if this CEO has no inside share holdings (Eisenberg et al., 1998; Adams et al., 2005; Belen et al., 2006; Coles et al., 2008).

So, in the current study, the CEO Index is employed to measure the relative CEO's power status in overall firms, no matter whether this CEO is Concentrated Ownership-CEO or Non-Concentrated Ownership-CEO.

2.4.8 The "Bird in the Hand" Theory and Loss Aversion Behavior: Loss Aversion for Individual Investors and Managers (LVI, LENT, BW)

La Porta et al. (2000) supported the "Bird in the Hand" theory by stating that individual investors might not believe the current retained earnings could be the dividend in the future, so, they prefer the current dividend payout. Breuer et al. (2014) pointed out that the more patient individual investors are, the less dividend payout ratios, while, the loss aversion was positively related to dividend payout ratios, this result echoed the Miller (1986)'s conclusion that investors prefer cash, and such preference could partially explain Black (1976)'s "dividend puzzle". Thanatawee et al. (2014) also concluded that the investors have power to force the firms to pay dividend and the individual investors are conservative (Tangjitprom, 2013).

Shapiro and Zhuang (2013) pointed out that the manager determines the dividend policy and payment level according to outside investors' preference, and firm's current earnings. If the outside investors' reference point or threshold is high, few firms will pay dividend, but, if the threshold is low, many firms will pay but at a low level. However, the individual investors with different initial endowment set up their risk preference points differently and adjust these points according to their experience for gain and loss (Shefrin and Statman, 1984; Tversky and Kahneman, 1991: Benartzi and Thaler, 1995; Koszegi and Rabin, 2006).

Bases on prior studies, the current research use individual loss aversion utility function, proxy by LVI as the demand side of dividend. Further. This variable also can reflect the individual investors' adjusting risk preference points for each year over the research time span.

As the management decides the dividend payment each year, so, the management or CEO in prior studies and in current study is classified as supply side of the dividend (Linter, 1959; Gordon, 1963; Black, 1976; Feldstein and Green, 1983; Denis and Osobov, 2008; Lambrecht and Myers, 2012; Shapiro and Zhang, 2013). However, when a manager or CEO exhibits loss aversion behavior, will the loss aversion of manger or CEO affect the dividend policy? Some researchers have studied this factor, for example, since Linter's (1956) survey and interviews, many authors applied loss aversion of managers' utility function on dividend "non-smoothing" or disability and used reference point (prior dividend payout) as a costly signal to outside investors. These authors argued that the dividend policy could not be static. In fact, managers had loss aversion behavior may adjusted such dividend payout dynamically by referring to the reference point (using past dividend as reference point for future dividend payout). This argument is aligned with many aspects of data and other related dividend activities, such as dividend announcements. Caliskan et al. (2015) studied the CEO risk preference on dividend policy, they included several factors, such as firms' risk, CEO conservative, inside debt, CEO's equity compensation, and parameters of Delta and Vega (proxies to conservative policy and risk tolerance respectively), and concluded that if CEO exhibit high loss aversion behavior, they tend to pay dividend out.

But, there are no prior research papers focusing on the effects on dividend payment decision when there is a Concentrated Ownership-Concentrated or Concentrated Ownership-CEO with loss aversion behavior. As lack of data of stock option and deferred compensation of CEO of listed firms in Thailand, in current study, the market prices are used as the proxy to calculate the loss aversion utility values for managers, proxy by LENT.

According to the research model of Lambrecht and Myers (2012), when managers try to maximize the value of the utility by choosing optimal payout and compensation policy ratio, then, the target payout ratio depended on all net current and future income, the target payout ratio was expressed as the percentage of outside shareholders (a) multiplied by the rate of return of all incomes (Yt). also, the payout level was affected by manager's impatience, which represented as 13/0) (BW), where, the f3 is the market discount factor equals to 1/1+p, p is risk free rate; while, co is managerial subjective discount rate, so, 1/co measures impatience of managers, the higher P/w (BW), the higher current payout amount. However, if the manager or CEO holds a significant portion of shares of that firm, he or she may be associated with concentrated ownership, so, the conclusion that the high managerial impatience, the high current payout amount would be in doubt. But, on the supply side, this impatience parameter can be used to predict the dividend payment decision.

2.4.9 The Free Cash Flow Hypothesis: Return on Total Assets (ROA)

Thanatawee (2011) tested the life cycle theory and free cash flow hypothesis by using data of Thai listed firms, he found that the dividend payout ratio has a positive relationship with market to book ratio and Return on total assets (ROA). The firms with higher ROA paid higher dividend, and also, the large firms paid higher dividend, but, one puzzle was that there was a positive relationship between the leverage ratio or debt ratio and the dividend yield. More important, as ROA represents the profitability of firms, so, this variable also reflects the management or CEO's ability to make the firms financially sustainable. Coles et al. (2003) pointed out that the ROA was an important factor and sensitive to CEO's turnover ratio in public firms.

Table 2.2: Description of Independent Variables

Variable Name	Description	Referent Author, Year
Single Ownership (CEO Index- CIND)	**Ownership Structure:** *A shareholder who has effective influence over any major corporate decisions if he owns at least 20% of a company's shares and hold the top management position.*	**Wiwattanakantang, 1999, P. 377** (In Current Study, use the Mean 20% as the threshold on p 377, if more than 20%, he or she is an Concentrated Ownership-CEO)
CEO with loss aversion (LENT)	**Loss aversion** *Multiplicative variable*	**Berkelaar et. al, 2004, p 975**
Impatience of Managers (B W)	**Risk Aversion** *"Increasing impatience raise current payout at expenses of future payout"*	**Lambrecht and Myers, 2012, P.1774**
Dividend Growth (DGH)	**Dividend Smooth:** *"examine the relationship of DYRPM to the ex post risk premium that we observe year by year "*	**Rozeff, 1984, P. 71**
loss Aversion of CEO Loss Aversion of Individual Investor (LVI)	**Loss Aversion** *"Utility function of individual is steeper in the negative area than that in positive area, feel more pain to loss than to gain"*	**Tversky and Kahneman, 1991, P. 1039** **Berkelaar et. al, 2004, p 975**
	Reference dependence: *"The value of gain or loss defined relative to a reference point"*	**Tversky and Kahneman, 1991, P1039**

Table 2.2 Description of Independent Variables (continued)

Variable Name	Description	Referent Author, Year
Price to Dividend Ratio (PD)	**Covariance between Price and Dividend:** *"The change in the price must reflect news about future dividends"*	**Cochrane J. H., 1992, P.244**
FIRM	**Life Cycle Theory** *"Among dividend payers, larger and more profitable firms have higher payout ratios"*	**Fama and French, 2001, p21**
Return On Assets (ROA)	**Profitability** *Operating-Income divided by total assets*	**Thanatawee, 2011, P 55**
Growth Opportunity (RETA)	**Growth Opportunity** *"Retained Earing/ Total Asset" (RE/TA), used instead of RE/TE*	**Thanatawee, 2011, P. 55**
Stock Liquidity (TN)	**Stock liquidity** *"The equity value traded for each period divided by that equity's market capitalization of that period"*	**Banerjee et al. 2007, P.1786**
Debt Ratio (DE)	**Debt Ratio,** *"The Ratio of Total Debt to Total Assets (book value)"*	**Thanatawee, 2011, P. 55**
Earnings carried Forward (EF)	**Pecking Order Theory** *"the change in earnings are largely absorbed by change in debt"* and" *payers in part absorb earnings changes with dividend change"*	**Fama and French, 2002, P. 26** **Lambrecht and Myers, 2012, P.1778**

CHAPTER III

RESEARCH FRAMEWORK AND METHODOLOGY

The purpose of this chapter is to describe and relate theories and hypotheses in both modern finance and behavioral finance fields which can be applied to the variables included in the current research model. Meanwhile, in this chapter, the instruments applied to the questions under the research questions in current study are also discussed. The methodology in the current study aims to investigate more deeply about the relationship between Concentrated Ownership-CEO and Loss Aversion Behavior on Dividend Payment Decision of Listed Firms in Thailand.

In this chapter, the development of research methodology is composed in four sections: Section I. the Resources of Data and Criteria for Sample Collections. Section II. Variables used in current study. Section III. The Logit Model. Section IV. Research Hypotheses.

Another distinguished point of the current study is that the current study integrates both supply side and demand side of dividend simultaneously into the test, so, it is necessary to classify the factors in both sides as well as firms' behavior factors clearly.

3.1 The Resources of Data and Criteria for Sample Collections

The population of samples included all listed firms on Stock Exchange of Thailand (SET) and Market for Alternative Investment (MAI) during the year 2011 and 2015. According to the prior studies on similar topics and the specific features in the current studies, the firms who are in the following categories are excluded. This is because, first, the current study aims to explore the Concentrated Ownership-CEOs' effects on firms'

dividend payment decision. So, the position of CEO must be appointed through the board of directors of the companies by majority of votes, not appointed by either Government Agency or by Crown Property Bureau. Second, as the mutual fund and some financial firms prohibit the CEO to hold shares to avoid interest conflicts, so, it will be impossible for CEOs in these firms to have concentrated ownership through holding a significant of shares. Third, some financial firms, for example, the banks, may have high debt ratio or high leverage level, but such high debt ratio or high leverage level has different meaning with non-financial firms. Fourth, to avoid the data lost or incomplete, the firms listed either in SET or MAI after 2011 are excluded as well. As a result, five categories of firms are excluded in the current study.

1) Stated Owned firms
2) Crown Property Bureau Owned.
3) Mutual Funds
4) Financial Firms
5) Firms listed after 2011.

In the current study, the sample size is categorized into 22 categories: Agriculture; Food and Beverage; Fashion; Home and Office products; Commerce; Personal Products and Pharmaceuticals; Automotive; Construction Materials; Construction services; Electronic components; Energy and Utilities; Health care services; Industrial Material and Machines; Information and Communication Technology; Insurance; Media and Publishing; Packaging; Petrochemical and Chemicals; Property Development; Steel; Tourism and Leisure; Transportation and Logistics.

Under each category, the numbers of firms include:

1) Agriculture: 8 firms;
2) Food and Beverage: 29 firms;
3) Fashion: 21 firms;
4) Home and Office products: 9 firms;
5) Commerce: 14 firms;

6) Personal Products and Pharmaceuticals : 4 firms;
7) Automotive: 15 firms
8) Construction Materials: 15 firms;
9) Construction Service: 17 firms;
10) Electronic component: 10 firms;
11) Energy and Utility: 17 firms;
12) Health care service: 13 firms;
13) Industrial Material and Machines: 7 firms;
14) Information and Communication Technology: 24 firms;
15) Insurance: 14 firms
16) Media and Publishing: 22 firms;
17) Packaging: 12 firms;
18) Petrochemical and Chemicals: 8 firms;
19) Property Development: 43 firms;
20) Steel: 24 firms;
21) Tourism and Leisure: 11 firms;
22) Transportation and Logistics: 9 firms.
23) MAI Market: 41 firms

Total: 387 firms (SET Market 346 samples; MAI Market 41 samples)

3.1.1 Research Instruments:

In the current study, the logit regression function and Non-Parameter Independent Group t-Test: Mann-Whitney U Test are applied.

The Logit regression function is an instrument to predict the output, or outcome in binary pattern based on the probabilities from the relationships between dependent variables and independent variables. As the output result is either 0 or 1, so, this logistic regression function also can also be called "qualitative response" or "discrete choice" model.

Instead of use R square to measure the fitting of model to the dependent variables, the logistic regression function use McFadden's pseudo R square test to measure such fitting.

Non-parameter Independent Group Mann Whitney U-Test is used to compare the differences statistically between components which are used to measure CEO's power status under the dividend payers and non-dividend payers, also, this Non-parameter Independent Group Mann Whitney U-Test is used to test the difference between firms' performance between groups defined as followed .

In current study, the sample firms were divided into three groups:

1) The Overall firms group
2) The Concentrated Ownership-CEO group: This group is categorized as that if the CEO and his or her related parties in same company directly or indirectly hold more than 20% shares of total outstanding shares of the firm, and there is no any outside block shareholder, such group is called "The Concentrated Ownership-CEO Group"
3) The Non-Concentrated Ownership-CEO group: This group is defined as that if the CEO and his or her related parties in same company directly or indirectly hold less than 20% shares of total outstanding shares, or do not have any share of the firm, and there is no any outside block shareholder, such group is called "Non-Concentrated Ownership-CEO Group"

3.1.2 Collection of Data:

The resources of the raw data or primary data were collected from resources:

1) www.setsmart.com
2) www.set.or.th
3) websites of some listed firms
4) www.bot.or.th

The files' names of raw data were listed as following:

1.) Company profile: download the Form 56-1 or Annual in both Thai and English Language if available to check the shareholders structures and the relationships

between CEO and his/her related parties, also, use these documents to double check the CEO duality, Board Size, Independent director's numbers.

2.) Company highlight (Yearly): collect data of Net Profit, Market Capitalization, Debt ratio, Dividend Yield, Turnover ratio, Return on Asset (ROA)

3.) Company rights and benefits (Yearly): to check the dividend source and cash dividend amount.

4.) Company financial statement (Yearly): to calculate the Retained Earning to total Assets. (RETA)

5.) Company historical trading (Yearly): to check the yearly ended Market Price.

6.) Company management (Yearly): to check the CEO name and their Tenure, as well as the CEO duality, Board size, Independent directors and their numbers.

7.) Company shareholders (Yearly): to check the CEO ownership and block shareholders availability.

8.) The Interest Rates in Financial Market of Thailand was collected from www.bot.or.th; to check the 20 years' Government Bond Yield as the risk free rate used in the current study.

3.2 Variables used in current study:

Dividend Payment Decision (DVP): the Binary dummy Dependent Variable of Dividend Policy, if a firm pays dividend, then DVP equals to 1 (Pay), otherwise, 0 (Not Pay).

3.2.1 CEO Behavioral Factors (Supply Side Factors)

From prior researches, the management or CEO has an important role to determine the dividend policy, so, the factors or variables related to the management or CEO are classified into the CEO Behavior Factors:

1) CEO's Power Status: proxy by CEO index (CINDt): the high CEO index implies the CEO has high effective influence on decision making process of the firm, so, there is high probability for such a CEO to be a Concentrated Ownership-CEO if this CEO directly or indirectly holds more than 20% of shares of the firm (Wiwattanakantang, 1999, p376-377). According to the Agency Theory and Managerial Entrenchment Hypothesis, the dividend payment decision is used as a tool to reduce the agency costs, but, if there is a Concentrated Ownership-CEO, whether or not, the firm with a Concentrated Ownership-CEO will pay dividend is in doubt.

Also, according to prior studies (Adams et al., 2005), CEO's power status may come from other sources except the inside shareholdings, so, the CEO Index must be used to measure the CEO's power status for both the CEOs with insider shareholdings which are more than 20% threshold and the CEOs who own less than 20% threshold or do not have inside shares.

Based on the findings of Hu and Kumar (2004), the probability of dividend payment and level of such payments were significant and positively (negatively) related to factors that increase (decrease) executive concentrated ownership or entrenchment level, so, the CEO Indexes can be used to measure the level of CEO entrenchment too.

The CEO Index (CIND) are compromised by the following factors:

- CEO inside ownership: the percentage of shares hold by CEO to total outstanding shares, Cutoff point is 20%. In the current study, if a CEO together with his or her related parties own over than 20%, it is defined as an Concentrated Ownership-CEO (Wiwattanakantang, 1999, p376-377):

  If a CEO himself or herself, or together with his or her related parties owns a significant part of total outstanding share of the firms more than or equal to 20%, then, the CEO ownership component is 1, otherwise is 0. When the value equals to 1, means this CEO is a Concentrated Ownership-CEO.

- CEO tenure: log of years in CEO position. (Allgood et al., 2000, p373):

  CEO tenure is calculated in logarithm value of years since the CEO took the position, and measure this CEO's relative tenure status in whole sample firms by using the logarithm value divided by the mean of all CEOs' logarithm values involved.

- The Independent director's percentage: percentage of outside directors, or independent directors. The number of outside directors divided by total number of board directors (Belen et al., 2006, p390):

  The percentage of independent directors in the board for each firm is compared with the mean of the percentage of independent directors of all firms involved by using the mean divided by each firm's percentage of independent of directors.

- CEO dominance: percentage of directors with same family name or directors who are related to CEO to total directors of board. The number of directors related to the CEO divided by total number of board directors. (Coles et al., 2008, p343):

  The CEO dominance in the board is compared with the mean of the value of such CEO dominance of all firms involved by using the CEO dominance of each firm divided by the mean of CEO dominance values of all firms involved

- Board size: log of Board numbers. (Eisenberg et al. 1998, p43):
  Board size is calculated in logarithm value of the numbers in the board, and is compared with the mean of the board size of all firms by using mean of all samples' board size divided by each firm's board size.

- CEO capability: dummy variable, measured by two consecutive years' positive net profits, if two consecutive annual net profit is positive (the net profits for the current year and lagged one year), and the current return on total assets is positive too, then, equals to 1, otherwise, 0.

CEO capability dummy variable is used to calculate each CEO's relative capability status in whole sample firms by using each CEO's dummy variable value divided by the mean of all CEOs' dummy variable values.

- **Measurement:** Sum up the results from point 1 to point 6 and divided by 10 to ensure that the CEO index is marked in decimal point pattern for easier comparisons.

2) **Managerial Impatience: proxy by BWt.** According the research paper of Lambrecht and Myers (2012), the managerial impatience is expressed by 13/w (BW). The managerial impatience means that when managers face uncertain future outcome, they will be risk averse under a concave utility function. The higher 13/co (BW), the higher current payout amount:

- **Measurement:** 13 divided by w.

- **Equation:** $BWt\ ((3 / w) - \frac{\frac{}{l+p}}{\frac{ROAt\_i\ I + 1ROA_t}{2}}$

Where 13 equals to 1/1+p, p is the risk free rate

Risk free rate equals to 20 years' Thailand Government bond coupon yield *("In corporate finance and valuation, this will lead us towards long-term government bond rates as risk free* rates"--Aswath Damodaran, 2008, p31).

w is the subjective consecutive two years' mathematic averaged of absolute Return on Asset (for time $_t$ and time $_t$-1). As the w is the managerial subjective discount rate for time $_t$+i return, which cannot be in negative value, meanwhile, to avoid the problem denominator to be zero and the value of BW to be an extreme large number (when denominator to be very small number), the absolute value of Return on Asset is reasonable to be applied. So, if the denominator in above

equation is lower, the managerial impatience would be higher, or vice versa, the managers would pay dividend at a high level *("Increased impatience, i.e., (high fl/co) raised current payout at the expense of future payout"*--- Lambrecht and Myers, 2012, p 1774-1775)

3) **CEO with Loss aversion behavior: proxy by $LENT_t$: LENT is a Multiplicative variable.** Several studies pointed out that if managers who are conservative may pay less dividend, and overconfident manager may pay more under different conditions, such as firm's size, age, capital intensity, and the dividend policy is different across industries (Bertrand et al., 2003; Chen et al., 2011; Dittmar and Duchin, 2014). To reflect the loss aversion behavior associated with Concentrated Ownership-CEO and Non-Concentrated Ownership-CEO, this multiplicative variable is used to either reduce the level of the CEO Index or increase the level of the CEO Index.

- **Measurement:** The loss aversion behavior is expressed by the following function to be used to calculate the loss aversion utility value of each CEO

- Adopted the loss aversion utility function by Berkelaar et al. (2004) which was modified from Kahneman and Tversky (1979), the Loss Aversion utility function with reference point 0 (for both gain and loss) is defined as:

$$Ut(W) \begin{cases} -A(0-W)^{Y^1} & \text{for } W < \\ +B(W-0)^{72} & \text{for } W > 0 \end{cases}$$

In Which: A = 2.25, B = **1,** and yl= y2 = 0.88 (Berkelaar et al., 2004, p 975).

W equals to current market price of a firm's stock; 0 equals to market price of the firm's stock in last period.

- Using absolute value of the loss aversion utility multiplied by the CEO Indexes which are higher than the mean of all CEO indexes to get the value of LENTt

- **Equation:** LENT $_t$= (I Loss Aversion Utility Value of CEO)(CEO Index)

As the CEO indexes cannot be a negative value, so, the absolute value of loss aversion utility is applied.

4) **Dividend Growth: proxy by DGH_t4.** From prior studies (Rozeff, 1984, p 71), if a CEO with loss aversion utility may smooth the dividend, so, if the firm paid the dividend in the last period, he or she may pay in current period (Linter, 1959; Gordon, 1963, Caliskan et al., 2015).

   - **Measurement:** The real dividend payout of each firm in last year divided by the real dividend payout in the year before last year.

   - **Equation:** $DGH\ t\text{-}i = \dfrac{\text{Dividend payout } t\text{-}i}{\text{Dividend payout}_{t-2}}$

Where Dividend payout is calculated by current year's dividend yield of a firm multiplied by the current share price of that firm.

3.2.2 Investors Behavior Factor (Demand Side Factors)

Based upon previous studies, the investors or individual investors prefer dividend rather than capital gain, especially, these individual investors are willing to pay higher prices for dividend payers. So, the factors or variables related to the investors are categorized into the Investors' Behavior Factors:

1) **Demand for dividend from Individual Investors with Loss Aversion behavior: proxy by LVI t_i.** When the investors are risk averse, these risk averse investors always prefer to buy shares of dividend payer than that of non-dividend payers (Linter, 1962; Gordon, 1963; La Porta et al., 2000), so, the prices of dividend payers are higher than that of non-dividend payers. So, the dividend premium

would be higher and changing from one period to another period (DeAngelo et al., 2004).

- **Measurement:**
  - According to Kahneman and Tversky (1979) and Berkelaar et al. (2004), the Utility function with reference point 0 (for both gain and loss) is defined as:

$$LVI_{t-1} = Ut(W) \begin{cases} -A(0-W)^{Y1} \text{ for } W < \\ +B(W-0)^{72} \text{ for } W > \end{cases}$$

In Which: A = 2.25, B = 1, and 71= y2 = 0.88 (Berkelaar et al., 2004, p 975)

Where W equals to **Relative Dividend Received** in last year,
0 equals to **Relative Dividend Received** in the year before last year.

- **Equation of Relative Dividend Received:**

Relative Dividend Received = (Dividend Yield — Mean of Dividend Yields of all sample firms) (Current Market Price)

In the current study, the Relative Dividend Received is employed based on two reasons: First, in the current study, dividend payers were scattered across all industries involved, given that each industry have different characteristics, so, to measure relative dividend yield of a firm in the whole market, the firm's dividend yield must be used to compare with the mean of dividend yield of the all sample firms. Second, the Relative Dividend Received can be used to avoid the problem that the denominator to be zero.

2) **Price to Dividend Ratio: proxy by PD** Cochrane J. H. (1992) pointed out equally valued weighted price to dividend ratio has a positive relationship with dividend growth. So, the prices should have information about the future dividend policy.

- **Measurement:** current market price divided by Relative Dividend Received in the current year.

  - Calculate the relative dividend received in last year by using dividend yield of a sample firm minus the mean of dividend yield of all firms involved to get the relative dividend yield of the firm in last year, and multiplied by the firm's market price in last year.

  - Using the relative dividend yield multiplied by absolute value of market price of the firm divided relative dividend received from the firm last year.

- **Equation:**

  PD t_i = (Dividend Yield — Mean of Dividend Yields of all sample firms) (Log-11 current market price / **Relative Dividend Received))**

In the current study, the dividend yield varied across all 22 industries, so, to measure relative dividend yield of a firm in the all sample firms, the firm's dividend yield must be used to compare with the mean of dividend yield of the all sample firms, further, to avoid the problem that the denominator is zero, for example, in last year there is no dividend paid, then, the dividend yield is zero, thus, the relative dividend yield is a must in the equation.

3.2.3 Firm Behavior Factors

Based on characteristics of each industry, for example, labor intensive, capital intensive, firms are different across each industry and are heterogeneous concerning these size, age, debt levels, profitability, internal financial resource and external financial resource. So, the factors or variables related to a firm are summarized into Firm Behavior Factors:

1) **Firm Size: proxy by FIRMt.** Under Life cycle theory, if a firm in its mature stage, the firms have less new investments opportunities, for reducing the possible agency costs, such firms will always pay out dividend and at high level (Fama and French, 2001).

- **Measurement:** The logarithm value of a sample firm's market capitalization in current year.

2) **Profitability of firms: proxy by ROAt.** If firms are at a mature stage, the firms were associated with high return on total asset ratio (ROA), and these firms always paid high dividend, also large firms to pay higher dividend (Fama and French, 2001; Thanatawee, 2011; Grullon et al., 2002).

- **Measurement:** a sample firm's current ROA in current year divided by the mean of all sample firms' ROA.

- **Equation:**

$$ROAt = \frac{\textbf{ROAt}}{\text{Mean of ROAs of all sample firms in current year}}$$

3) **Retained Earnings to Total Assets Ratio: proxy by RETA$_{t-i}$.** DeAngelo et al. (2006) pointed out that the higher ratio of retained earnings to total equities or retained earnings to total assets, the higher probability for firms to pay dividend, this is also consistent with the life cycle theory.

- **Measurement:** a sample firm's retained earnings (Unappropriated) divided by its total assets.

- **Equation:**

$$RETA\ t\text{-}i = \frac{\text{Last year's Retained Earnings (Unappropriated) of each firm}}{\text{The Firm's total Assets in last year}}$$

4) **TNt:** presents the Stock liquidity or Turnover ratio, means that *"The equity value traded for each period divided by that equity's market capitalization of that period"* (Bekaert at al., 2007, p 1786). According to Clienteles Effects Hypothesis, catering theory and life cycle theory, if the dividend payers have higher price than non-payers, then, there will be two problems, one of them is the illiquidity of share traded either for very higher price of dividend payer or with very low liquidity of share traded, so the firms of low liquidity should initiate or keep dividend payout as compensation for risk to shareholders (Banerjee et al.,

2007 and Griffin, 2010). However, this variable is used to focus on stock liquidity only, no matter whether the market prices of shares are high or low.

- **Measurement:** The logarithm value of turnover ratio.

5) **The change of two consecutive years' of Debts: proxy by DEt_** (t4). For testing the Pecking Order Theory, the debt level or debt ratio of a firm always be used as dependent variable (Fama and French, 2002; Frank and Goyal, 2003). Their findings revealed that the pecking order predict the changes of earnings were absorbed by changes of debts, while, dividend changes were reflected by changes on earnings too, so the change of debt does matter to the dividend payment decision.

- **Measurement:** Compare the debt ratio of a sample firm in two consecutive years.
- **Equation:**

$$DE\ t - (t\text{-}1) \quad \frac{\{\ DEt - DE}{100}$$

6) **Earnings carried forward: proxy by EF** Fama and French (2002) pointed out that the changes of earnings did matter to both dividend changes and debts changes. Lambrecht and Myers (2012) also established a model to test the relationships with all net present incomes, taxes, managerial risk aversion, and growth opportunity. They assumed that there was a target payout ratio, if the management or CEOs really pay dividend out at target ratio, then, there is no effect on future dividend policy. However, if the management or CEOs did not pay dividend at target payout ratio under asymmetric information condition, then, the retained earnings could be used to pay back the debts in next period, as a result, the higher earnings carried forward, the higher probability for the firm to pay dividend.

- **Measurement:**

- Calculate the target payout ratio: using return on total assets in last year multiplied by the percentage of shares held by outside shareholders (In the current study, as the threshold for an Concentrated Ownership-CEO is 20% of total outstanding shares, so, the percentage of shares held by non-managerial shareholders is 80% and is constant for all years).

- Using the target payout ratio to minus the last year dividend yield, then, minus the debt ratio in current year if the debt ratio in current is more than 0.

- **Equation:**

If next year debt ratio is more than 0:

EF = **Target Payout Ratio t_i —** last year dividend yield — (current year debt ratio /100)

If next year Debt ratio is 0:

EF = **Target Payout Ratio -** last year dividend yield

Where **Target Payout Ratio t_i =** (Percentage of outside shareholders) (ROA_{t}_i)

3.2.4 Dummy Variable: DLVI

For testing the change of demand effect from individual investors under different conditions, This variable is used to reflect and compare the changes of demand effect from individual investors on firm's dividend payment decision under condition that there is a Concentrated Ownership-CEO, or Non-Concentrated Ownership-CEO, and to answer the question that: will the demand effect be changed or different when the CEOs with or without loss aversion behavior?

If CINDt is more than the Mean of all CINDs in one sample group

DLVI = LVI (for testing the change of demand effect under CEO Indexes which are higher than the mean of all CEO Indexes only)

If $CIND_t$ is less than the Mean of all CEO Indexes in one sample group

DLVI = 0

3.3 **The Logit Model**

3.3.1 Using Concentrated Ownership-CEO Factor to estimate the probability for a firm to pay dividend (DVP =1) or not pay dividend (DVP=0):

Pr, (DVP =1)

+ 131CINDt + p2Bw t 0/030 p3 DGHt_i + 134 LVIt_i + 135PDt-1 + 136FIRMt

+ 137ROA_t + 138 RETAt_i + 139 TN_t + 1310 DEt-(t-1) + pi iEFt_i Ei

Where c, is the random error term

3.3.2 Using Concentrated Ownership-CEO with loss aversion utility to estimate the probability for a firm to pay dividend (DVP =1) or not pay dividend (DVP=O):

Pr, (DVP =1)

13 + 131$LENT_t$ + 132BW_t (p/wt) 133DGHt_i + $34 LVI_t_i + 135PDt_i + P6 $FIRM_t$

+ 137ROAt + 138$RETA_t$_i + 139TNt + PioDEL-0-1>+ pi iEFt_i 61

Where c, is the random error term

3.3.3 Using Concentrated Ownership-CEO Factor and Dummy Variable for LVI to estimate the probability for a firm to pay dividend (DVP =1) or not pay dividend (DVP=O):

Pr, (DVP =1)

13 + PICINDt + 132BWt (picot) + 133DGHt-1 +134LVIt-i + psPDt-i + 136FIRMt

+ 137ROA$_t$ + 138 RETA$_{t_}$ + 139TNt + 131oDEt-(t-1) + 131 iEFt-i + 1312DLVI +

Where c, is the random error term

3.3.4 Using Concentrated Ownership-CEO with loss aversion utility and Dummy Variable for LVI to estimate the probability for a firm to pay dividend (DVP =1) or not pay dividend (DVP=O):

Pr, (DVP =1)

13o + PiLENTt + 132BW t (pico$_t$) + 133DGHt-1 +134LVIti + f35PDt_i + f36FIRMt

+ 137ROA$_t$ + 138RETA$_{t_}$1 + 139TNt + [31oDEt-(t-1) + 1311EFt-i + 112DLVI +

Where c, is the random error term

Table 3.1 Summary of Dependent Variable and Independent Variable

Variable	Proxy For	Related Theory	Expected Sign
Dependent Variable Dividend Payment Decision—DVP (1,or 0)	Variable Names		
Independent Variables			
$CIND_t$	CEO Index	Agency Theory	Positive (+)
LENTt	CEO with Loss Aversion utility	Loss Aversion Hypothesis	Negative(-)
BW_t ((3/co)	Manger's risk Toleration	Risk Aversion Theory	Either (+) or (-)
DGHt-i	Dividend Growth	Signal Theory	Positive (+)
LVIt-i	Loss Aversion of Individual Investor	Loss Aversion Hypothesis	Positive (+)
PDt_i	Price to Dividend Ratio	Signal Theory	Positive (+)
$FIRM_t$	Firm Size	Life cycle Theory	Positive(+)
ROA_t	Return On Assets	Signal, Life Cycle Theories	Positive (+)
RE/TAt-i	Retained Earing/ Total Assets	Life Cycle Theory Pecking Order Theory	Positive (+)
TNt-(t-l)	Stock Liquidity	Life Cycle Theory, Catering Theory	Negative (-)
Debt Ratio (DE) t-(t-1)	The Ratio of Total Debt to Total Assets(book value)	Agency Theory, Pecking Order Theory	Negative (-)
DFt-i	Dividend carried Forward	Pecking Order Theory	Either (+) or (-)
DLVI	Dummy Variable		Either (+) or (-)

3.4 Research Hypotheses:

Based on the research objectives in this study:

The Hypotheses are:

1) Hi: The Concentrated Ownership-CEO will effectively influence the dividend payment decision of firms

2) Hz: The Concentrated Ownership-CEO with loss aversion behaviour will effectively influence the dividend payment decision of firms.

3) H3: When there is a Concentrated Ownership-CEO, the demand effect from individual investors with loss aversion behaviour on firms' dividend payment decision will be reduced.

4) H4: When there is a Concentrated Ownership-CEO with loss aversion behaviour, the demand effect from individual investors with loss aversion behaviour on firms' dividend payment decision will be increased.

CHAPTER IV

PRESENTATION OF DATA AND CRITICAL DISCUSSION OF RESULTS

This chapter presents the descriptive statistics and logit regression results of data collected from 2011 to 2015 of listed firms in Thailand included in the current study. This chapter answers the hypotheses by the findings from both descriptive statistics and logistic regression results.

In this chapter, the research results are presented in four sections: Section I. The description statistics of listed firms in Thailand. Section II. The logistic regression results. Section III. Answers of the hypotheses in current study based on statistical results. Section VI. Robust the research results and methodology used.

4.1 Descriptive Statistics

4.1.1 Summary of Variables

Table 4.1 summarized all variables included in the current study. From Table 4.1, the CEO behavioral factors, such as the percentage of dividend payers was higher among three groups measured by mean. For example, the mean for Concentrated Ownership-CEO group was 0.7711, which was the highest value, at the same time, the mean of CEO Index was also the highest value in the same group. Meanwhile, the Non-Concentrated Ownership-CEO group had both the lowest means of percentage of dividend payers and the mean of CEO Index.

The mean of managerial impatience (BW) under the Concentrated Ownership-CEO group was also higher.

Referring to the mean of Dividend Growth variable (DGH), the value was not highest for the Concentrated Ownership-CEO group, but, the standard deviation was also smaller than that under other two groups.

When a Concentrated Ownership-CEO shows loss aversion behavior, the mean of CEO Indexes of Concentrated Ownership-CEO with loss aversion utility (LENT) is also highest within three groups.

Among the investors' behavioral factors, the mean of values of individual investors with loss aversion behavior (LVI) is highest for the Concentrated Ownership-CEO group, however, the Minimum and Maximum values were both existing in the Non-Concentrated Ownership-CEO group.

For the independent variable Price to Dividend Ratio variable (PD), the means of three groups were very close to each other. But, the highest value of mean was in the Non-Concentrated Ownership-CEO group, while, the lowest value of mean was in the Concentrated Ownership-CEO group.

For the firms' behavioral factors, under the Concentrated Ownership-CEO group, except the lowest mean for the independent variable Firm Size-FIRM, other means were highest among all three groups, while, the Maximum values and the Minimum values of each independent variables were scattered between the three groups.

Table 4.1 Characteristics of Variables in Three Groups

Characteristics of Variables in Overall Firms Group

Variables Names		DVP	CIND	BW	LENT	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	EF
Group Name														
All Samples	**Mean**	0.7426	0.5372	0.1995	0.2388	1.3933	-0.3129	-0.0052	0.6499	0.9186	0.1289	-0.1979	-0.0006	0.0097
Firms Group	**Median**	1.0000	0.5321	0.1147	0.2620	0.8455	-0.0036	-0.0142	0.6411	0.9076	0.1500	-0.1214	0.0000	0.0185
	Max	1.0000	1.1342	10.7667	1.2766	220.3526	37.5323	0.1598	0.8873	8.5851	0.8300	2.2240	9.3722	1.0029
	Min	0.0000	0.0907	0.0128	0.0000	0.0000	-58.2464	-0.3259	0.4986	-10.9414	-4.5000	-3.3010	-9.4163	-9.3311
	S.D.	0.4373	0.1577	0.4095	0.2060	6.3993	2.9222	0.0412	0.0678	1.4707	0.4026	0.6842	0.3078	0.2424

Characteristics of Variables in Non-Concentrated Ownership-CEO Group

Variables Names		DVP	CIND	BW	LENT	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	EF
Group Name														
Non-Entrenched	**Mean**	0.7185	0.4561	0.1960	0.1908	1.5027	-0.3354	-0.0048	0.6545	0.8526	0.1069	-0.2380	0.0002	0.0012
CEO and Non-Block	**Median**	1.0000	0.4702	0.1111	0.1386	0.8381	0.0023	-0.0146	0.6445	0.8867	0.1500	-0.1505	0.0000	0.0179
Shareholders Group	**Max**	1.0000	0.8110	10.2000	0.6385	220.3526	37.5323	0.1598	0.8873	7.9871	0.8300	1.9480	9.3722	1.0029
	Min	0.0000	0.2006	0.0128	0.0000	0.0000	-58.2464	-0.0582	0.5076	-10.9414	-4.5000	-3.3010	-9.4163	-9.3311
	S.D.	0.4500	0.0981	0.4333	0.1742	8.8264	3.6439	0.0405	0.0685	1.6139	0.5211	0.7098	0.4852	0.3598

Characteristics of Variables in Concentrated Ownership-CEO Group

Variables Names		DVP	CIND	BW	LENT	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	EF
Group Name														
Entrenched CEO	**Mean**	0.7711	0.6644	0.2112	0.3028	1.4372	-0.2410	-0.0049	0.6413	0.9869	0.1627	-0.1654	0.0003	0.0167
Group	**Median**	1.0000	0.6724	0.1151	0.2820	0.8668	-0.0088	-0.0132	0.6340	0.9156	0.1500	-0.1122	0.0000	0.0185
	Max	1.0000	0.9446	10.7667	1.2766	100.4802	16.9271	0.1483	0.8538	8.5851	0.7600	2.2240	1.2340	0.5128
	Min	0.0000	0.3461	0.0147	0.0000	0.0000	-37.7060	-0.3259	0.5146	-8.4414	-1.1300	-3.1549	-1.2764	-1.6122
	S.D.	0.4204	0.1077	0.4582	0.2745	4.8606	2.1042	0.0415	0.0649	1.3789	0.2208	0.6441	0.0698	0.1274

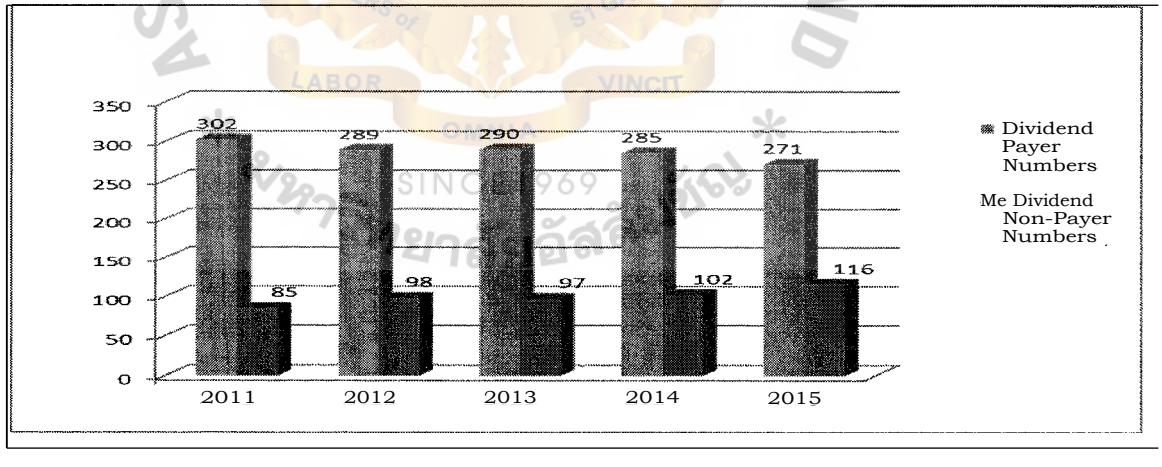
DVP: Dividend Policy (Pay or not Pay); CIND: CEO Index; BW: Managerial Impatience; LENT: CEO Index with loss aversion; DGH: Dividend Growth; LVI: Individual Investors' loss aversion; PD: Price to Dividend Ratio; FIRM: Firm Size; ROA: Return on total Assets; RETA: Retained Earnings to total Assets Ratio; TN: Turnover Ratio; DE: Debt Ratio change; EF: Earnings carried forward.

4.1.2 Descriptive Statistics of Samples Firms and Dividend Payers and Non-Payers

Figure **4.1** reveals that in the Thailand Stock Exchange Market. Including the Market for Alternative Investment (MAI), the dividend payers included in samples firms were reduced from 302 firms in year 2011 to be 271 firms in year 2015. Meanwhile, the number of dividend payers were reduced, the number of non-dividend payers were increased from 85 in year 2011 to be 116 in year 2015.

This phenomenon is not unexpected. According to the findings of Fama and French (2001), Baker and Wurgler (2004) and Shapiro et al. (2013), such phenomenon had been attributed to the characteristics of firms listed in the stock market and sample collected periods. Their findings argued that if there were many small firms with lower profitability but had more growth opportunities, such firms would not pay dividend and if the management did not cater demand of investors via dividend policy. This phenomenon could not be avoidable.

Figure 4.1 Dividend Payer Numbers and Non-Payer Numbers During 2011 to 2015



As the current study focuses on Concentrated Ownership-CEO effects on dividend payment decision of listed firms in Thailand, because, if a Concentrated Ownership-CEO controls a portion of share of the firms, so, he or she is difficult to be monitored, as a result, it is an important factor that exists among listed firms in Thailand when researchers study on the dividend payment decision. The changes of number of firms with

and without a Concentrated Ownership-CEO during the year 2011 and 2015 are presented in Table 4.2:

Table 4.2 Number of Concentrated Ownership-CEO and Non-Concentrated Ownership- CEO Firms

	All Sample Firms	Firms with Concentrated Ownership-CEO		Firms without Concentrated Ownership-CEO		Total Percentage
2011	387	166	42.89%	144	37.21%	80.10%
2012	387	169	43.67%	143	36.95%	80.62%
2013	387	164	42.38%	147	37.98%	80.36%
2014	387	164	42.38%	155	40.01%	82.39%
2015	387	154	39.79%	164	42.38%	82.17%

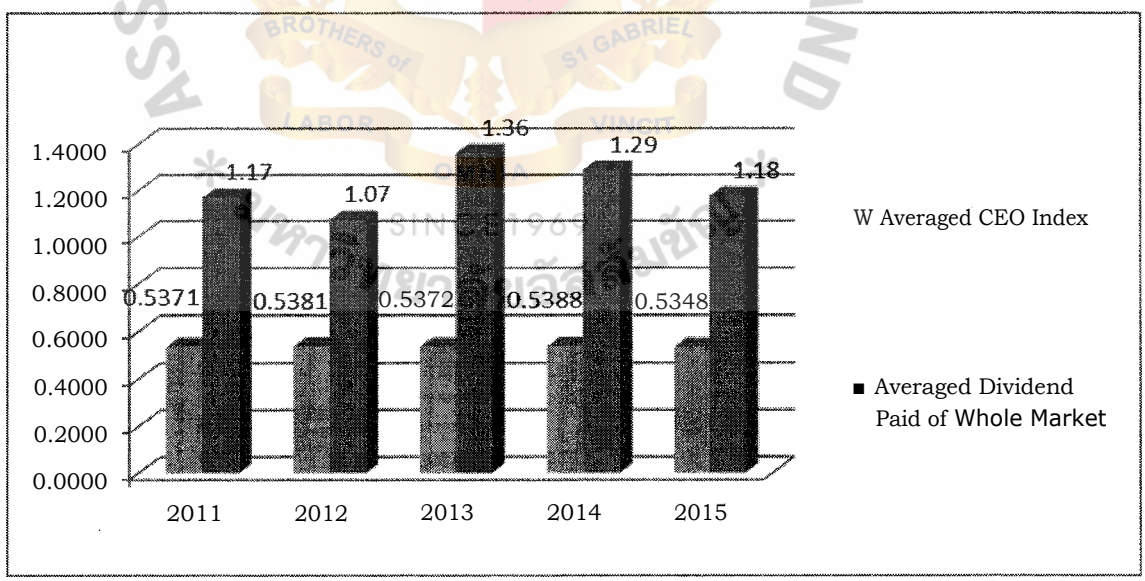
The comparisons of the numbers of firms with Concentrated Ownership-CEO and Non-concentrated ownership- CEO with total sample firms involved, and total percentage of firms in two groups to the total sample firms.

From Table 4.2, the number of listed firms with Concentrated Ownership-CEO included in current study were reduced from 166 in year 2011 to 154 in year 2015, even so, the percentage of firms with Concentrated Ownership-CEO was still high in total 387 sample firms, for example, in year 2015, the percentage of firms with Concentrated Ownership-CEO was still high at 39.79%. However, in year 2015, the percentage of firms without Concentrated Ownership-CEO exceeded the percentage of firms with Concentrated Ownership-CEO. But, the total percentage of firms of these two groups was over 80% of the total firms included every year, so, in current study, other types of firms, for example, the firms with only outside block shareholders, or firms with both Concentrated Ownership-CEO and outside block shareholders are not involved.

Because of the high percentages of firms with Concentrated Ownership-CEO involved in the sample firms, the comparisons between the five years' averaged CEO indexes of whole market, the yearly averaged dividend payout amount of whole market, and the firms' performance must be investigated more deeply. Figure 4.2 shows the comparisons between the CEO Indexes and the five years' averaged dividend.

From Figure 4.2, the averaged amount of dividend for whole market was not reduced between year 2011 and 2015, while the CEO indexes did not vary too much during the same period. This result together with Figure 4.1 was aligned with the findings of DeAngelo et al. (2004) and Denis and Osobov (2008), in which the authors stated that the percentage of dividend payers might be decreased, but, as the dividend payers were larger firms and dividend payout at high levels, so, the averaged amount of dividend payout was not reduced. For instance, there was an averaged 1.17 baht dividend amount of whole market in year 2011, and 1.18 baht dividend amount of whole market in year 2015.

Figure 4.2 Averaged CEO Index and Averaged Amount (Baht) of Dividend Paid For Whole Market



The Figure 4.1 and Figure 4.2 together present a puzzle that when the five years' averaged dividend payout of whole market varied across year 2011 to 2015, the five

years' averaged CEO Indexes of whole market were relatively constant during the same period. This puzzle seems to be contradict with findings in prior studies either in modern finance field or in behavior finance field. For example, under agency theory (Jensen and Meckling, 1976), the dividend is a mechanism to reduce the agency cost (Jensen et., al 1992; La Porta et., al 2000) if the agency cost is high, the dividend payout level should be high too, but, from Figure 4.2, the five years' averaged dividend payout reached its highest level in year 2013, but, the five years' averaged CEO Index which represent the CEO power or status is even lower than that in year 2012 (0.5381 in year 2012, 0.5372 in year 2013); also, under managerial concentrated ownership hypothesis (Morck et., al 1988), the likelihood of dividend payout and level of such payout must be positively (negatively) related to factors that increase (decrease) executive entrenchment levels after controlling other factors (Farinha, 2002; Hu and Kumar, 2004; and Chemmanur et., al 2009), but, this likelihood or relationship cannot be found from Figure 4.1 and Figure 4.2

Some research papers on CEO characteristics pointed out that managers differ among themselves on risk preference, knowledge, and background, individual CEO's characteristics does matter, for example, managers who are conservative or overconfident affect a firm's dividend policy, if the managers who are conservative may pay less dividend or omit the dividend, or managers under a firm's provision or by a law (La Porta et., al 2000), meanwhile, the dividend policy was also different across industries, markets and demand ability under different situation such as firm's size, age, capital intensity (Bertrand et., al 2003; Chen et., al 2011; Dittmar and Duchin, 2014). Such variety is presented in Table 4.3, for example, in Agriculture Industry, the sample firms involved were 8 firms, among them, the firms with Concentrated Ownership-CEO were 5 firms from 2011 to 2013, but increased to 6 firms in 2014 and 2015; but, in Automotive industry, the sample firms involved were 15 firms, the firms with Concentrated Ownership-CEO were 10 firms, but reduced to 9 firms in year 2014 and 2015; some industries had a constant ratio of firms with Concentrated Ownership-CEO to total firms involved, for example, Tourism and Leisure industry, Transportation and Logistic industry, Personal products and Pharmaceuticals industry, Petrochemical and Chemical industry. These results are in line with findings of prior studies (Bertrand et al., 2003;

Chen et al., 2011; Dittmar and Duchin, 2014). But, the puzzle why CEO indexes of whole market were relatively constant while the five years' averaged net profits and the five years' averaged dividend amount were varied is still in doubt.

Table 4.3 Total Sample Firms and Number of Firms with Concentrated Ownership-CEO

Industrial Names	Total Number	2011 Numbers of Firms With **C.O. CEO**		2012 Numbers of Firms With **C.O. CEO**		2013 Numbers of Firms With **C.O. CEO**		2014 Numbers of Firms With **C.O. CEO**		2015 Numbers of Firms With **C.O. CEO**	
AGRI	8	4	50%	5	63%	4	50%	6	75%	6	75%
AUTO	15	9	60%	9	60%	9	60%	8	53%	8	53%
COMMERCE	14	4	29%	4	29%	3	21%	4	29%	4	29%
CONMAT	15	7	47%	7	47%	7	47%	7	47%	7	47%
CONSERV	17	9	53%	8	47%	8	47%	9	53%	7	41%
ELECTRON	10	6	60%	6	60%	6	60%	6	60%	5	50%
ENERGY	17	8	47%	8	47%	7	41%	6	35%	6	35%
FASHION	21	4	19%	4	19%	4	19%	5	24%	5	24%
FOOD	29	13	45%	13	45%	13	45%	11	38%	11	38%
HEALTH	13	4	31%	5	38%	4	31%	4	31%	4	31%
HOME PRO	9	1	11%	2	22%	2	22%	2	22%	2	22%
INDUSTRY M.	7	5	71%	4	57%	4	57%	3	43%	3	43%
ICT	24	12	50%	12	50%	10	42%	10	42%	10	42%
INSURANCE	14	5	36%	5	36%	5	36%	5	36%	5	36%
MEDIA	22	11	50%	12	55%	11	50%	9	41%	8	36%
PACKAGING	12	6	50%	6	50%	6	50%	6	50%	6	50%
PERSONAL P.	4	1	25%	1	25%	1	25%	1	25%	1	25%
PETROCHEM	8	2	25%	2	25%	2	25%	2	25%	2	25%
PRO.DVP	43	21	49%	21	49%	22	51%	24	56%	20	47%
STEEL	24	11	46%	12	50%	12	50%	11	46%	10	42%
TOURISM	11	4	36%	4	36%	4	36%	4	36%	4	36%
TRANSPORT	9	2	22%	2	22%	2	22%	2	22%	2	22%
MAI	41	17	41%	17	41%	18	44%	19	46%	18	44%
	387	166	43%	169	44%	164	42%	164	42%	154	40%

AGRI: Agriculture industry; AUTO: Automotive industry; CONMAT: Construction Material industry; CONSERV: Construction Service industry; ELECTRON: Electric Components Industry; ENERGY: Energy and Utility industry; FOOD: Food and Beverage industry; HEALTH: Health Care Service industry; HOME PRO: Home and Office products industry; INDUSTRY M: Industry Material; ICT: Information Communication Technology industry; MEDIA: Media and Publishing industry; PERSONAL P: Personal Products and Pharmaceuticals; PETROCHEM: Petrochemical and Chemical industry; PRO.DVP: Property Development industry; TOURISM: Tourism and Leisure industry; TRANSPORT: Transportation and Logistic industry; MAI: Market of Altemative Investment. **C.O. CEO**: Concentrated Ownership-CEO.

Table 4.4 and Table 4.5 discover more details about the features of listed firms involved in current study. Table 4.4 reveals the number of dividend payers with Concentrated Ownership-CEO and without Concentrated Ownership-CEO and Table 4.5 compares factors of the firms between the overall firms and firms with Concentrated Ownership-CEO.

Table 4.4 presents the percentages of dividend payers to the total firms with and without Concentrated Ownership-CEO in each year. In each year, the percentage of dividend payers with Concentrated Ownership-CEO were higher than that of firms without Concentrated Ownership-CEO.

Table 4.5 reveals the similarity and diversity on several factors of firms in each industry between the overall sample firms and firms with Concentrated Ownership-CEO. For instance: all the five years' averaged CEO indexes are higher for firms with Concentrated Ownership-CEO than that of overall sample firms, but, the net profit, market capitalization, dividend amount and prices varied among industries. For example, in Agriculture industry, the five years' averaged net profit, market capitalization, dividend payout and price were not much different between the firms with Concentrated Ownership-CEO and overall sample firms; but, in the Automotive industry, the five years' averaged net profit, market capitalization, dividend payout and price were higher for the overall sample firms than that of firms with Concentrated Ownership-CEO.

In most industries, the five years' averaged net profits, market capitalizations, dividends amount, and prices were lower for firms with Concentrated Ownership-CEO, except for few industries, such as the Health Care Service Industry, Transportation and Logistic Industry. In these two industries, the five years' averaged net profits and market capitalizations were higher for the firms with Concentrated Ownership-CEO, the five years' averaged dividends amount were also higher for Health Care Service industry, but lower in the Transportation and Logistic industry.

Beside the Agriculture industry, there were other three industries with higher market price and dividend payout than that of overall firms: Electronic and Components industry, Packaging industry, and Personal Products and Pharmaceuticals industry.

So, the puzzle can be explained by three observations, First, the firms with Concentrated Ownership-CEOs were associated with lower net profits, lower market capitalizations, dividends paid and market prices. However, the number of firms with Concentrated Ownership-CEO was almost half of the overall sample firms included in current study and most of these firms paid dividends in each year. Second, even numbers of dividend payers from firms with Concentrated Ownership-CEO were declined, such reductions were compensated with the increasing number of firms without Concentrated Ownership-CEO during year 2011 to year 2015. Table 4.6 presents these facts. From Table 4.6, the yearly averaged dividend amount from firms with Concentrated Ownership-CEO increased from 0.81 in year 2014 to 0.921 in year 2015 even when the dividend payers were reduced from 121 in year 2014 to 107 in year 2015, however, the dividend amount from firms without Concentrated Ownership-CEO were much higher than that of firms with Concentrated Ownership-CEO in every year from 2011 to 2015. So, the five years' averaged dividends paid in the whole market were not decreased and the five years' net profits were even increased; Third, the five years' CEO indexes for firms with Concentrated Ownership-CEO were higher but such numbers decreased from 166 to 154 among the total 387 sample firms, as a result, the five years' averaged CEO indexes are almost constant during year 2011 to year 2015. The Table 4.7 discovers that the dividend payers with Concentrated Ownership-CEO were associated with lower net profit when compared with that of dividend payer without the Concentrated Ownership-CEO.

Table 4.4 Number of Payers Among Concentrated Ownership-CEO and Non-Concentrated Ownership-CEO Firms

Concentrated ownership		Number of Payers		Non-Concentrated ownership	Number of Payers	
	CEO Firms	In Concentrated Ownership-CEO Group		CEO Firms	In Non-Concentrated ownership- CEO Group	
	Observations	Observations		Observations	Observations	
2011	166	138	83.13%	144	111	77.08%
2012	169	132	78.11%	143	109	76.22%
2013	164	132	80.49%	147	103	70.07%
2014	164	121	73.78%	155	110	70.97%
2015	154	107	69.48%	164	108	65.85%
			77.00%			72.04%

The comparisons of the numbers of firms with Concentrated Ownership-CEO and Non-Concentrated Ownership-CEO and The comparison of the dividend payers of firms with Concentrated Ownership-CEO and firms without Concentrated Ownership-CEO (Non-Concentrated Ownership-CEO Group)

Table 4.5 Five Year's CEO Index and Firms' Performance Categorized by Each Industry

INDUSTRY	CEO INDEX		NET PROFIT		MARKET CAP.		DVD		PRCIE	
	Overall	C.O.CEO	Overall	C.O.CEO	Overall	C.O.CEO	Overall	C.O.CEO	Overall	C.O.CEO
AGRI	0.6205	0.7138	475,123.83	461,243.88	6,500,740.92	6,221,885.59	3.04	3.86	46.29	55.10
AUTO	0.6199	0.7355	311,935.22	242,688.48	3,604,336.36	3,108,236.92	2.97	1.09	63.18	29.76
COMMERCE	0.5558	0.7122	2,306,331.25	827,892.40	65,796,764.30	24,291,662.40	1.35	0.26	70.18	15.47
CONMAT	0.5471	0.7098	782,901.87	703,924.61	12,773,711.56	10,118,499.26	1.30	0.71	39.82	21.90
CONSERV	0.5374	0.6195	380,782.20	387,582.01	8,856,010.26	8,359,694.43	0.23	0.13	10.12	7.37
ELECTRON	0.5310	0.6131	899,360.49	353,229.37	12,195,551.12	5,587,598.35	1.71	1.80	33.31	42.61
ENERGY	0.5313	0.6633	1,712,223.18	297,591.18	19,391,002.09	7,317,494.55	1.27	0.63	29.50	12.79
FASHION	0.4750	0.5762	136,527.32	- 8,511.25	2,860,364.58	896,848.38	1.52	0.15	33.89	11.41
FOOD	0.5579	0.6930	1,108,309.22	772,883.25	20,725,875.70	13,039,115.63	1.20	1.18	44.14	40.40
HEALTH	0.5593	0.6769	1,042,295.39	1,882,211.09	30,569,926.78	60,352,606.43	3.25	3.65	237.01	157.63
HOME PRO	0.5132	0.5918	166,431.51	4,165.29	1,980,690.06	363,850.00	2.69	2.87	40.38	27.87
INDUSTRY M	0.5419	0.6375	142,795.57	90,906.70	2,399,741.22	1,883,701.20	0.36	0.12	9.98	7.03
ICT	0.5278	0.6636	2,763,049.39	111,911.75	51,083,775.83	19,421,314.58	1.29	0.26	21.72	8.61
INSURANCE	0.5377	0.6486	410,362.42	71,859.11	10,705,796.57	1,827,395.41	2.57	1.43	86.62	47.97
MEDIA	0.5294	0.6405	269,653.65	517,441.64	8,238,882.98	12,643,048.64	0.71	0.63	19.81	14.93
PACKAGING	0.5621	0.7146	256,626.68	183,912.66	2,940,291.19	2,737,233.57	2.28	3.43	56.25	77.71
PERSONAL P	0.5379	0.6591	177,798.77	98,300.33	2,799,519.18	1,070,550.00	1.30	4.06	27.27	79.30
PETROCHEM	0.5033	0.6893	449,928.61	97,657.02	5,436,532.03	1,268,976.38	1.96	0.64	36.67	8.10
PRO.DVP	0.5438	0.6551	1,005,995.29	872,899.23	15,339,905.86	14,850,935.28	0.30	0.17	8.93	7.17
STEEL	0.5157	0.6575	- 173,405.03	64,582.55	2,852,389.88	1,953,018.85	0.23	0.15	5.46	2.90
TOURISM	0.4878	0.6985	227,432.19	271,179.07	6,812,601.67	7,961,460.41	1.96	0.92	92.32	42.82
TRANSPORT	0.4716	0.6370	- 95,054.97	2,110,875.75	14,454,668.26	45,466,859.42	0.69	0.35	23.63	10.95
MAI	0.5405	0.6531	31,032.21	34,777.18	1,327,253.19	1,505,165.54	0.18	0.16	5.43	5.18

5 years' averaged values of CEO Index, Net Profit, Market Capitalization, Dividend Paid and Market Yearly Close Prices for Each Industry.
Overall: Overall Firms Group. E.CEO: Entrenched CEO Group. Market Cap:: Market Capitalization. DVD: Dividend Paid Amount.
AGRI: Agriculture industry; AUTO: Automotive industry; CONMAT: Construction Material industry; CONSERV: Construction Service industry; ELECTRON: Electric Components Industry; ENERGY: Energy and Utility industry; FOOD: Food and Beverage industry; HEALTH: Health Care Service industry; HOME PRO: Home and Office products industry; INDUSTRY M: Industry Material; ICT: Information Communication Technology industry; MEDIA: Media and Publishing industry; PERSONAL P: Personal Products and Pharmaceuticals; PETROCHEM: Petrochemical and Chemical industry; PRO.DVP: Property Development industry; TOURISM: Tourism and Leisure industry; TRANSPORT: Transportation and Logistic industry; MAI: Market of Alternative Investment.
C.O.CEO: Concentrated Ownership-CEO

Table 4.6 Yearly Dividend Paid Between
Concentrated Ownership-CEO Group and Non-Concentrated Ownership-CEO Grou

	C.O. CEO Group		Non C.O. CEO Group	
	Total Dividend Payers	Dividend Paid	Total Dividend Payers	Dividend Paid
2011	138	0.771	111	1.601
2012	132	0.756	109	1.270
2013	132	0.975	103	1.792
2014	121	0.810	110	1.709
2015	107	0.921	108	1.339
5 years' averaged		0.8466		1.5422
p-value: 0.009**				

Non-Parameter Independent Group T-test: Mann-Whitney U Test
C.O.CEO Group: Concentrated Ownership-CEO Group
Non C.O. CEO Group: Non-Concentrated Ownership CEO Group

Table 4.7 Yearly Net Profits Between
Concentrated Ownership-CEO Group and Non-Concentrated Ownership-CEO Group

	C.O. CEO Group		Non C.O. CEO Group	
	Total Dividend Payers	Net Profit	Total Dividend Payers	Net Profit
2011	138	337,474.21	111	802,099.87
2012	132	420,334.69	109	942,447.94
2013	132	456,293.75	103	787,332.65
2014	121	536,114.04	110	1,218,684.56
2015	107	427,585.14	108	812,078.26
5 years' averaged		435,560.37		912,528.66
p-value: 0.009**				

Non-Parameter Independent Group T-test: Mann-Whitney U Test
C.O. CEO Group: Concentrated Ownership-CEO Group.
Non C.O.CEO Group: Non-Concentrated Ownership-CEO Group.

4.1.3 Descriptive Statistics of CEO index's Components and Independent Variables

From Table 4.4, both firms with Concentrated Ownership-CEO and firms without Concentrated Ownership-CEO paid dividends during the year 2011 to 2015, and the Table 4.5 shows that the CEO Indexes of firms with Concentrated Ownership-CEO are higher than that of overall firms involved in the current study. However, there is no statistical significant relationship between the dividend payers, non-payers with the CEO

Indexes. Furthermore, Table 4.6.and Table 4.7 show that both dividends amount as well as net profits under Non-Concentrated Ownership-CEO group were much higher than that under Concentrated Ownership-CEO group for all the five years. So, it is necessary and essential to explore in detail on CEO Index's components and difference in independent variables between the dividend payers and non-dividend payers among all sample firms. Table 4.8, Table 4.9, Table 4.10 and Table 4.11 disclose the differences of CEO index's components and the difference in independent variables between the dividend payers and non-dividend payers among all sample firms.

Table 4.8 presents the fact that the averaged CEO Index for dividend payers are higher than that for non-dividend payers in each year from 2011 to 2015. The CEO ability components for dividend payers are also higher than that for non-dividend payer during the same time period.

Table 4.9 reveals the differences from Table 4.8 statistically. From all 5 components, 4 components are statistically different between the dividend payer and non-dividend payers, except the component stand for the percentage of independent directors inside the board.

Table 4.10 shows that among the means of all independent variables in each year categorized by dividend payer and non-dividend payer. From the table, the means of CEO Index (CIND), Dividend growth (DGH), Price to dividend ratio (PD), Firm size (FIRM), Return on total assets (ROA), Retained earnings to total assets ratio (RETA) and Earnings carried forward (EF) are all higher for dividend payers than that for non-dividend payers. While, the Managerial impatience (BW), and Stock liquidity (TN) have the lowest values in each year, other two independent variables: Demand for dividend from individual investors with loss aversion behavior (LVI) and Debt change (DE) were varied among each year.

Table 4.11 discloses the five's averaged means of independent variables categorized by dividend payer and non-dividend payer. In the table 4.11, the five year's averaged means

of CEO Index, Dividend growth, Price to dividend ratio, Firm size, Return on total assets, Retained earnings to total assets ratio and Earnings carried forward are all statistically significant higher for dividend payers than that of non-dividend payers, meanwhile, the five year's averaged means of the Managerial impatience and Stock liquidity are statistically significant lower for dividend payers than that of non-dividend payers, but, for independent variable Demand for dividend from individual investors with loss aversion behavior and Debt change, the five year's averaged means of these two independent variables are not statistically different between the mean of dividend payers and non-dividend payers.

Table 4.8 Components of CEO Index, Categorized by Dividend Payer and Non-Payer

Year	Sample Groups	CEO TENURE	P.INDEP. DIR	CEO DOMIN	BOARD SIZE	CEO ABILITY
2011	All Firms	0.793	0.380	0.196	0.998	0.757
	Dividend firms	0.879	0.380	0.197	1.006	0.881
	Non-dividend firms	0.622	0.377	0.189	0.968	0.318
2012	All Firms	0.836	0.381	0.198	0.998	0.711
	Dividend firms	0.889	0.382	0.198	1.009	0.872
	Non-dividend firms	0.680	0.380	0.199	0.964	0.235
2013	All Firms	0.839	0.383	0.199	1.000	0.744
	Dividend firms	0.903	0.382	0.204	1.008	0.903
	Non-dividend firms	0.648	0.384	0.183	0.968	0.268
2014	All Firms	0.865	0.386	0.197	1.000	0.695
	Dividend firms	0.907	0.387	0.201	1.010	0.849
	Non-dividend firms	0.745	0.382	0.187	0.970	0.265
2015	All Firms	0.865	0.389	0.194	1.000	0.661
	Dividend firms	0.910	0.394	0.199	1.008	0.838
	Non-dividend firms	0.754	0.378	0.183	0.981	0.250

CEO Tenure: log of years in CEO position. P.INDEP.DIR: Percentage of Independent Directors-the number of outside directors in the boar divided by total number of directors in the board. CEO DOMIN: CEO Dominance- the number of directors with same family name or directors who are related to CEO divided by total number of directors in the board. Board Size: log of Board numbers. CEO ABILITY: dummy variable, measured by two consecutive years' positive net profits and the positive current return on total assets.

Table 4.9 Test of Components of CEO Index

Year	Components of CEO Index					
	Group	CEO TENURE	P. INDEP.DIR.	CEO DOMIN.	BOARD SIZE	CEO ABILITY
2011	Dividend firms	0.879	0.380	0.197	1.006	0.881
2012	Dividend firms	0.889	0.382	0.198	1.009	0.872
2013	Dividend firms	0.903	0.382	0.204	1.008	0.903
2014	Dividend firms	0.907	0.387	0.201	1.010	0.849
2015	Dividend firms	0.910	0.394	0.199	1.008	0.838
	Mean	0.898	0.385	0.200	1.008	0.869
	Group	CEO TENURE	P. INDEP.DIR.	CEO DOMIN.	BOARD SIZE	CEO ABILITY
2011	Non-dividend firms	0.622	0.377	0.189	0.968	0.318
2012	Non-dividend firms	0.680	0.380	0.199	0.964	0.235
2013	Non-dividend firms	0.648	0.384	0.183	0.968	0.268
2014	Non-dividend firms	0.745	0.382	0.187	0.970	0.265
2015	Non-dividend firms	0.754	0.378	0.183	0.981	0.250
	Mean	0.690	0.380	0.188	0.970	0.267
	Difference of Mean:	0.208	0.005	0.012	0.038	0.602
p - Value		(0.009)**	(-0.138)	(0.036)*	(0.009)**	(0.009)**

Non-Parameter Independent Group T-test: Mann-Whitney U Test

CEO Tenure: log of years in CEO position. P.INDEP.DIR: Percentage of Independent Directors-the number of outside directors in the boar divided by total number of directors in the board. CEO DOMIN: CEO Dominance- the number of directors with same family name or directors who are related to CEO divided by total number of directors in the board. Board Size: log of Board numbers. CEO ABILITY: dummy variable, measured by two consecutive years' positive net profits and the positive current return on total assets.

Table 4.10 Independent Variables Means for Overall Samples, Categorized by Dividend Payer and Non-payer

Year	Independent Variables											
	Groups	CIND	BW	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	EF
2011	All Firms	0.537	0.162	0.086	-0.119	-0.004	0.632	0.082	0.142	1.162	0.00174	0.024
	Dividend firms	0.564	0.134	1.073	-0.098	0.006	0.643	0.105	0.229	0.807	0.00459	0.043
	Non-dividend firms	0.442	0.262	0.074	-0.194	-0.04	0.591	-0.001	-0.176	2.421	-0.00841	-0.046
2012	All Firms	0.538	0.160	2.733	-0.447	-0.004	0.650	0.087	0.109	1.670	-0.00136	0.007
	Dividend firms	0.569	0.131	3.551	-0.513	0.008	0.659	0.111	0.215	1.114	-0.00119	0.026
	Non-dividend firms	0.446	0.246	0.288	-0.250	-0.038	0.616	0.017	-0.205	3.309	-0.00187	-0.050
2013	All Firms	0.537	0.190	1.240	-0.582	-0.011	0.649	0.073	0.121	1.707	0.00018	0.023
	Dividend firms	0.571	0.150	1.591	-0.564	-0.002	0.657	0.101	0.241	1.148	-0.00034	1.591
	Non-dividend firms	0.435	0.313	0.172	-0.634	-0.036	0.621	-0.011	-0.237	3.379	0.0017	-0.044
2014	All Firms	0.539	0.210	0.913	-0.094	-0.005	0.662	0.060	0.134	1.614	0.02466	-0.014
	Dividend firms	0.564	0.154	1.136	-0.109	0.004	0.669	0.086	0.255	1.101	-0.00015	0.040
	Non-dividend firms	0.468	0.367	0.289	-0.052	-0.03	0.642	-0.013	-0.204	3.046	0.09528	-0.166
2015	All Firms	0.535	0.275	1.219	-0.323	-0.002	0.656	0.056	0.139	1.247	-0.02815	0.009
	Dividend firms	0.564	0.168	1.638	0.037	0.009	0.668	0.084	0.256	1.075	0.00101	0.030
	Non-dividend firms	0.466	0.521	0.253	-1.155	-0.026	0.630	-0.008	-0.131	1.643	-0.09541	-0.037

Note: CIND: CEO Index; BW: Managerial Impatience; DGH: Dividend Growth; LVI: Individual Investors' Loss Aversion; PD: Price to Dividend Ratio; FIRM: Firm Size; ROA: Return on Assets; RETA: Retained Earnings on total Assets; TN: Liquidity; DE: Debt Ratio; EF: Earnings carried forward.

Table 4.11 Test of Independent Variables' Means For Overall Sample, Categorized by Dividend Payer and Non-Payer

Year	Independent Variables										
Groups	CIND	BW	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	EF
2011Dividend firms	0.564	0.134	1.073	-0.098	0.006	0.643	0.105	0.229	0.807	0.00459	0.043
2012Dividend firms	0.569	0.131	3.551	-0.513	0.008	0.659	0.111	0.215	1.114	-0.00119	0.026
2013Dividend firms	0.571	0.150	1.591	-0.564	-0.002	0.657	0.101	0.241	1.148	-0.00034	1.591
2014Dividend firms	0.564	0.154	1.136	-0.109	0.004	0.669	0.086	0.255	1.101	-0.00015	0.040
2015Dividend firms	0.564	0.168	1.638	0.037	0.009	0.668	0.084	0.256	1.075	0.00101	0.030
Mean	0.566	0.147	1.798	-0.249	0.005	0.659	0.097	0.239	1.049	0.000784	0.346
Groups	CIND	BW	DGH	LVI	PD	FIRM	ROA	RETA	TN	DE	DF
2011Non-dividend firms	0.442	0.262	0.074	-0.194	-0.04	0.591	-0.001	-0.176	2.421	-0.00841	-0.046
2012Non-dividend firms	0.446	0.246	0.288	-0.250	-0.038	0.616	0.017	-0.205	3.309	-0.00187	-0.050
2013Non-dividend firms	0.435	0.313	0.172	-0.634	-0.036	0.621	-0.011	-0.237	3.379	0.0017	-0.044
2014Non-dividend firms	0.468	0.367	0.289	-0.052	-0.03	0.642	-0.013	-0.204	3.046	0.09528	-0.166
2015Non-dividend firms	0.466	0.521	0.253	-1.155	-0.026	0.630	-0.008	-0.131	1.643	-0.09541	-0.037
Mean	0.451	0.342	0.215	-0.457	-0.034	0.620	-0.003	-0.191	2.760	-0.00174	-0.069
Difference of Mean	0.115	-0.195	1.583	0.208	0.039	0.039	0.10	0.43	-1.711	0.00252	0.415
p - Value	(0.008)**	(0.009)**	(0.009)**	(0.35)	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.009)**	(0.754)	(0.009)**

Non-Parameter Independent Group T-Test: Mann-Whitney U Test

Note: CIND: CEO Index; BW: Managerial Impatience; DGH: Dividend Growth; LVI: Individual Investors' Loss Aversion; PD: Price to Dividend Ratio; FIRM: Firm Size; ROA: Return on Assets; RETA: Retained Earnings on total Assets; TN: Liquidity; DE: Debt Ratio Changes; EF: Earnings carried forward.

4.2 Logit Regression Results:

Table 4.11 summarized all the independent variables categorized by dividend payer and non-dividend payers for all sample firms. The results supported the descriptive statistics in Table 4.1. For example, the CEO Index for dividend payers is higher than that for non-dividend payers, and other independent variables for dividend payers are significantly different with non-dividend payers, except the independent variable Demand for dividend from individual investors with loss aversion behavior and Debt change.

From Table 4.1 and Table 4.11, the CEO's role has significant effects on firms' dividend payment decision. As the CEO indexes are comprised of several CEO's characteristics, one of them is the inside ownership of a firm. When a manager or CEO controls a significant portion of the equity of that firm, this manager or CEO should have higher CEO index, and there is higher chance to become entrenched CEO (Berger et., al 1997; Wiwattanakantang, 2001; Baratiya et., al 2013). The relationship between the CEO indexes together with other independent variables and the dividend payment decision is a probability with cumulative distribution function, so, the relationship must be expressed by a logit regression function (Morck et al, 1988; Hu and Kumar, 2004). Table 4.12 and Table 4.13 show the logit regression results for Overall firms group, the Concentrated Ownership-CEO group and the Non-Concentrated Ownership-CEO group respectively.

In Table 4.12, under Overall firms group, each independent variable has either significant positive or negative relationship with the dependent variable --- Dividend Payment Decision; under the Concentrated Ownership-CEO group, each independent variable has either significant positive or negative relationship with the dependent variable, except for the independent variables: Demand for dividend from individual investors with loss aversion behavior (LVI), Price to dividend ratio (PD) and Debt change (DE); under the Non-Concentrated Ownership-CEO group, each independent variable also has either

significant positive or negative relationship with the dependent variable, except for two independent variables: the Managerial impatience (BW) and Dividend growth (DGH).

Comparing the three groups, all independent variables have same and expected sign of coefficient either positive or negative, except the independent variable Debt change. However, the significant levels are different between each independent variable.

In Table 4.13, the significant relationships of independent variables with dependent variable and expected signs of coefficients are similar to that in Table 4.12, but, the coefficient of independent variable: the CEO with loss aversion behavior (LENT) has no significant relationship with the dependent variable under the Overall firms group only.

From Table 4.12 and 4.13, there are some important findings under the three groups.

First, all the coefficients either have highest values or lowest values under Concentrated Ownership-CEO group, except the CEO index and Firm size in Table 4.12. But in table 4.13, all the coefficients either have highest values or lowest values under Concentrated Ownership-CEO group. These results suggest that all independent variables under Concentrated Ownership-CEO group have extreme effects on dividend policy in either positive or negative ways and under different conditions, for instance, whether the CEO has loss aversion behavior or not, if the CEO has this behavior, then, all independent variables have extreme effects. For example, the independent variables Retained earnings to total assets ratio (RETA) and Return on total assets (ROA), the coefficients are 7.39 in Table 4.12, 7.74 in Table 4.13 and 0.53 in Table 4.12, 0.56 in Table 4.13 respectively. Therefore, if these two independent variable increase or decrease by one unit, the effects of these change either increase or decrease will have more influences on the probability for firms to pay dividend when compared with the effects from same variables under other two groups, these results reveal that the effects of RETA and ROA are more important factors related to dividend policy under the Concentrated Ownership-CEO

group than that of other two groups. The similar explanation can be implied on each independent variable under the Concentrated Ownership-CEO group when compared with other two groups, except the CEO index and Firm size in Table 4.12, and Demand for dividend from individual investors with loss aversion behavior (LVI), Price to dividend ratio (PD) and Debt change (DE) in both Tables.

Second, under the Concentrated Ownership-CEO group, the coefficients of demand side variables: and Demand for dividend from individual investors with loss aversion behavior (LVI), Price to dividend ratio (PD) have no significant relationships with the dependent variables and are associated lowest values with expected signs, especially for the independent variable Price to dividend ratio (PD). But, under other two groups (Overall firms group and Non-Concentrated Ownership-CEO group), no matter whether the CEOs were with or without loss aversion utility, the coefficients of and Demand for dividend from individual investors with loss aversion behavior (LVI), Price to dividend ratio (PD).

Third, when comparing the coefficients of independent variables which do not have significant relationships to dependent variable under Concentrated Ownership-CEO group, such as, Demand for dividend from individual investors with loss aversion behavior (LVI), Price to dividend ratio (PD) and Debt change (DE), the coefficients of these three independent variables under Non-Concentrated Ownership-CEO are all higher than that under overall firms group, and all of these three independent variables have significant and positive relationships with the dependent variable.

Fourth, under the Non-Concentrated Ownership-CEO, the coefficient of CEO Index (CIND) is the highest and has positive significant relationship with firms' dividend payment decision. However, when these CEOs have loss aversion behavior (in Table 4.13), the coefficient of the CEO with loss aversion behavior (LENT) has the lowest value (negative).

For testing the changes of demand effect from the individual investors on dividend payment decision under the conditions that firms have a Concentrated Ownership-CEO or a Concentrated Ownership-CEO with loss aversion, the dummy variable DLVI is applied in the logit model. The results are shown in Table 4.14 and Table 4.15.

If there are some changes on demand effect from the individual investors on dividend payment decision, for example, when there is a Concentrated Ownership-CEO, the effects of demand from individual investors may be reduced, or when there is a Concentrated Ownership-CEO with loss aversion, the effects of such demand may be increased, then, DLVI should have a significant and positive relationship with the dependent variable, at the same time, the LVI should have a significant and positive relationship with the dependent variable too, but, the coefficient would be less than 0.099 in Table 4.12, and more than 0.104 in Table 4.13 under the Overall firms group. Meanwhile, DLVI should have a significant and positive relationship with the dependent variable, at the same time, the LVI should have a significant and positive relationship with the dependent variable too, but, the coefficient would be more than 0.12 in Table 4.12, and more than 0.12 in Table 4.13 under the Non-Concentrated Ownership-CEO group.

As this dummy variable is used to test whether or not the demand effect for dividend from individual investors will be changed if there is a Concentrated Ownership-CEO. In other words, if there is a Concentrated Ownership-CEO, the demand effect will be reduced as DLVI would share out the demand effect from the independent variable: Demand for dividend from individual investors with loss aversion behavior (LVI) under the Overall firms group and Non-Concentrated Ownership-CEO group. As the higher CEO Index, the high probability for firms to pay dividend, and the DLVI is defined as the Demand for dividend from individual investors with loss aversion behavior under higher CEO Indexes. So, under the Overall firms group, if the DLVI really share out the demand

effect under higher CEO indexes firms, then, the coefficient of Demand for dividend from individual investors with loss aversion behavior (LVI) should be reduced.

From Table 4.14 and Table 4.15, two significant findings must be emphasized, first, under the Overall firms group, when the dummy variable added into the logit regression, and compare the coefficients of LVI in both Table 4.12 and Table 4.14, the coefficients are almost at the same level (0.099 in Table 4.12 and 0.096 in Table 4.14) and both have significant relationships with the dependent variable, but, dummy variable DLVI has no any significant effect on the dependent variable, also, from Table 4.13 and Table 4.15, the coefficients of LVI are still at the same level (0.104 in Table 4.3 and 0.108 in Table 4.15) when the Concentrated Ownership-CEO has loss aversion behavior, and the dummy variable DLVI still has no any significant relationship with the dependent variable. These results point out that the dummy variable does share some demand effect from the under the higher CEO index condition as expected, but, these effects are not significant whether or not there is a Concentrated Ownership-CEO or there is a Concentrated Ownership-CEO with loss aversion. These effects are also reflected under the Non-Concentrated Ownership-CEO group. For example, comparing the coefficient of LVI in Table 4.12 and in Table 4.14, demand effect shared out by the dummy variable is much more than that in Table 4.12 (the coefficient of DLVI is 0.14 in Table 4.14, compared with the 0.12 of LVI in Table 4.12), the similar effect from the dummy variable exists when there is CEO with loss aversion behavior (the coefficient of DLVI is 0.153 in Table 4.15, comparing with the 0.12 of LVI in Table 4.13). However, as all the coefficients of this dummy variable are not significantly related to the depend variable, therefore, the demand effect the individual investors neither reduced nor increased no matter if the CEO is Concentrated Ownership-CEO and no matter whether the CEO has loss aversion behavior or not.

When comparing the power of explanatory for logit model for three groups, based on McFadden R-squared value, the logit model performs the best when it is applied to the Concentrated Ownership-CEO group, its McFadden R-squared value is 0.522 and 0.523

in Table 4.12 and Table 4.13 respectively. When comparing the Akaike Info Criterion (AIC) and Schwarz Criterion (BIC) by each group, the logit model fits better when including LENT as an independent variable in Concentrated Ownership-CEO group.

Table 4.12 Logit Analysis Results: By Using CIND

Dependent Variable: DVP (Dividend Payment Decision: Pay or Not Pay)

Group Name	Overall Firms		C.O.CEO		Non C.O.CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-4.17	(0.000)**	-5.69	(0.0004)**	-5.26	(0.001)**
CIND	2.15	(0.000)**	2.81	(0.0316)*	5.07	(0.0009)**
BW	-1.31	(0.0001)**	-1.87	(0.0009)**	-0.902	(0.0883)
DGH	0.575	(0.000)**	1.18	(0.000)**	0.18	(0.200)
LVI	0.099	(0.0002)**	0.12	(0.0554)	0.12	(0.0029)**
PD	15.26	(0.000)**	1.47	(0.7056)	24.46	(0.000)**
FIRM	5.68	(0.000)**	5.93	(0.0093)**	6.26	(0.0037)**
ROA	0.337	(0.000)**	0.53	(0.0005)**	0.28	(0.039)*
RETA	3.97	(0.000)**	7.39	(0.000)**	2.11	(0.0008)**
TN	-0.52	(0.000)**	-0.71	(0.0003)**	-0.45	(0.0083)**
DE	6.08	(0.0274)*	0.407	(0.8956)	9.20	(0.0001)**
EF	6.69	(0.000)**	2.96	(0.0207)*	9.32	(0.0001)**
McFadden R-squared	0.496		0.522		0.521	
AIC	0.587		0.544		0.601	
S.C (BIC)	0.621		0.613		0.675	

*. Significant at 5% level; **. Significant at 1% level.
Overall Firms: Overall Firms Group. C.O CEO: Concentrated Ownership-CEO Group. Non C.O. CEO: Non-Concentrated Ownership-CEO Group.

Table 4.13 Logit Analysis Results: By Using LENT

Dependent Variable: DVP (Dividend Payment Decision: Pay or Not Pay)

Group Name	Overall Firms		C.O.CEO		Non C.O.CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-2.86	(0.0004)**	-3.45	(0.0168)*	-2.31	(0.0822)
LENT	-0.34	(0.3705)	-1.11	(0.0188)*	-1.58	(0.0352)*
BW	-1.36	(0.0001)**	-1.99	(0.0004)**	-1.03	(0.0515)
DGH	0.58	(0.000)**	1.17	(0.000)**	0.208	(0.1556)
LVI	0.104	(0.0001)**	0.12	(0.0649)	0.12	(0.0018)**
PD	15.41	(0.000)**	1.74	(0.6563)	26.38	(0.000)**
FIRM	5.43	(0.000)**	5.81	(0.0107)*	5.63	(0.0065)**
ROA	0.40	(0.000)**	0.56	(0.0002)**	0.37	(0.0054)**
RETA	4.23	(0.000)**	7.74	(0.000)**	2.17	(0.0006)**
TN	-0.51	(0.000)**	-0.77	(0.0001)**	-0.45	(0.0073)**
DE	6.76	(0.0148)*	-0.44	(0.8795)	10.56	(0.000)**
EF	7.30	(0.000)**	2.88	(0.0229)*	10.71	(0.000)**
McFadden R-squared	0.489		0.523		0.513	
AIC	0.596		0.543		0.610	
S.C (BIC)	0.630		0.612		0.684	

*. Significant at 5% level; **. Significant at 1% level.

Overall Firms: Overall Firms Group. C.O.CEO: Concentrated Ownership-CEO Group. Non C.O.CEO: Non-Concentrated Ownership-CEO Group.

Table 4.14 Logit Analysis Results: By Using CIND and DLVI

Dependent Variable: DVP (Dividend Payment Decision: Pay or Not Pay)

Group Name	Overall Firms		C.O.CEO		Non C.O.CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-4.17	(0.000)**	-5.79	(0.0003)**	-5.28	(0.0009)**
CIND	2.17	(0.000)**	2.96	(0.0251)*	5.24	(0.0006)**
BW	-1.31	(0.0001)**	-1.84	(0.001)**	-0.89	(0.0816)
DGH	0.576	(0.000)**	1.16	(0.000)**	0.194	(0.176)
LVI	0.096	(0.0009)**	0.077	(0.2736)	-0.001	(0.9898)
PD	15.23	(0.000)**	1.72	(0.6529)	25.08	(0.000)**
FIRM	5.67	(0.000)**	5.93	(0.0093)**	6.18	(0.0041)**
ROA	0.34	(0.000)**	0.54	(0.0004)**	0.27	(0.0472)*
RETA	3.97	(0.000)**	7.51	(0.000)**	2.09	(0.0009)**
TN	-0.52	(0.000)**	-0.71	(0.0003)**	-0.42	(0.016)*
DE	6.10	(0.0278)*	0.36	(0.9077)	9.45	(0.0001)**
EF	6.71	(0.000)**	2.80	(0.0205)*	9.57	(0.0001)**
DLVI	0.015	(0.8094)	0.096	(0.3694)	0.14	(0.2201)
McFadden R-squared	0.496		0.522		0.523	
AIC	0.588		0.545		0.602	
S.C (BIC)	0.626		0.620		0.682	

*. Significant at 5% level; **. Significant at 1% level.

Overall Firms: Overall Firms Group. C.O.CEO: Concentrated Ownership-CEO Group. Non C.O.CEO: Non-Concentrated Ownership-CEO Group

Table 4.15 Logit Analysis Results: By Using LENT and DLVI

Dependent Variable: DVP (Dividend Payment Decision: Pay or Not Pay)

Group Name	Overall Firms		C.O.CEO		Non C.O.CEO	
Total Observations	1935		817		753	
Independent Variables						
Intercept	-2.87	(0.0004)**	-3.45	(0.0169)*	-2.24	(0.092)
LENT	-0.33	(0.3814)	-1.14	(0.0163)*	-1.74	(0.022)*
BW	-1.36	(0.0001)**	-1.97	(0.0004)**	-1.01	(0.0521)
DGH	0.58	(0.000)**	1.15	(0.000)**	0.219	(0.1346)
LVI	0.108	(0.0005)**	0.076	(0.3043)	-0.007	(0.9442)
PD	15.43	(0.000)**	2.01	(0.6016)	27.11	(0.000)**
FIRM	5.44	(0.000)**	5.82	(0.0106)*	5.57	(0.0071)**
ROA	0.40	(0.000)**	0.57	(0.0002)**	0.36	(0.0067)**
RETA	4.23	(0.000)**	7.87	(0.000)**	2.14	(0.0008)**
TN	-0.51	(0.000)**	-0.77	(0.0001)**	-0.42	(0.0141)*
DE	6.75	(0.0145)*	0.40	(0.88891)	10.83	(0..000)**
EF	7.28	(0.000)**	2.73	(0.0238)*	10.98	(0.000)**
DLVI	-0.01	(0.8128)	0.086	(0.4279)	0.153	(0.1882)
McFadden R-squared	0.489		0.523		0.515	
AIC	0.596		0.544		0.611	
S.C (BIC)	0.634		0.619		0.691	

*. Significant at 5% level; **. Significant at 1% level.
Overall Firms: Overall Firms Group. C.O.CEO: Concentrated Ownership-CEO Group. Non C.O.CEO: Non-Concentrated Ownership-CEO Group.

4.3 Hypotheses Examinations:

1. Hl: The Concentrated Ownership-CEO will effectively influence the dividend payment decision of firms.

   From the logit regression results in Table 4.12 under the Overall firms group and Concentrated-Ownership-CEO group, supported by significant different CEO dominance in Table 4.9 and the significant difference on CEO Index between mean of dividend payer and non-dividend payer in Table 4.11, the Concentrated Ownership-CEO can effectively influence the dividend payment decision of firms.

   From Table 4.12, the coefficient of the independent variable CEO Index (CIND) is significant positive related to the dependent variable at 5% significant level under the Concentrated-Ownership-CEO group and at 1% significant level under Overall firms group. When the. CEO Index increases, the probability of firms to pay dividend will increase. Table 4.4 also supports the conclusion that during the year 2011 to 2015, the percentage of dividend payers in Concentrated Ownership-CEO group is higher than that in Non-Concentrated Ownership-CEO group for every year.

2. I-12: The Concentrated Ownership-CEO with loss aversion behaviour will effectively influence the dividend payment decision of firms.

   From the logit regression results in Table 4.13 and echoed by another independent variable: managerial impatience (BW), the Concentrated Ownership-Concentrated Ownership-CEO with loss aversion behavior will effectively influence the dividend payment decision of firms. In Table 4.13, the coefficient of independent variable: CEO with loss aversion behavior (LENT) has a significant negative relationship with the dependent variable at 5% significant level, when the LENT increases, the probability of firms to pay dividend will reduce, at the same time, the coefficient of another independent variable BW, which represents the

managerial impatience, has more significant and more negative relationship level with the dependent variable compared with the logit results in Table 4.12 and 4.13.

3. H3: When there is a Concentrated Ownership-CEO, the demand effect from individual investors with loss aversion behaviour on firms' dividend payment decision will be reduced.

From logit regression results in Table 4.12 and 4.13, two groups: the overall firms and Non-Concentrated ownership group, the independent variable: the demand of dividend from individual investors with loss aversion behavior (LVI) has significant and positive relationships with the dependent variable. The values of such coefficients are 0.098 and 0.12 respectively for overall firms group and Non-Concentrated Ownership-CEO group, while, these values changed to be 0.104 and 0.12 respectively when the CEO with loss aversion behavior (LENT) is included in the logit regression. However, for the purpose to test the change of these demand effects, another dummy variable DLVI is introduced into the logit model, and the results are presented in Table 4.14.

From the results presented in Table 4.14, there is no significant change on effect of demand from individual investors, for example, in all sample firms group, the coefficient was changed from 0.098 in Table 4.12 to be 0.096 in Table 4.14, but, there is no significant relationship between DLVI and dependent variable under this group. While, there is no significant relationship between the dependent variable with either LVI or DLVI under the Concentrated Ownership-CEO group in both Table 4.12 and Table 4.14. When DLVI is included in Non-Concentrated Ownership-CEO group, the LVI is changed to be non-significant and DLVI has no significant relationship with the dependent variable too, this implied that under the Non-Concentrated Ownership-CEO group, even if he or she is not Concentrated Ownership-CEO but with high CEO Index (CIND), the demand effect from individual investors has no effect on the firm's dividend payment

decision. As the result, this hypothesis is not supported by all these logit regression results.

4. H4: When there is a Concentrated Ownership-CEO with loss aversion behaviour, the demand effect from individual investors with loss aversion behaviour on firms' dividend payment decision will be increased.

   In Table 4.13, when there is a Concentrated Ownership-CEO with loss aversion behavior, the coefficient of individual investors with loss aversion behavior LVI are significant under Overall Firms Group and Non-Concentrated Ownership-CEO group. However, similar to the results in Table 4.14, when add the dummy variable DLVI into the logit regression, there is only significant relationship between the LVI and dependent variable under Overall firms group, and it's coefficient is 0.104 in Table 4.13 and 0.108 in Table 4.15, but there is no significant relationship between DLVI and dependent variable under this group. When DLVI is applied to Non-Concentrated Ownership-CEO group, the LVI became non-significant with dependent variable and DLVI has not significant relationship with the dependent variable as well. So, this hypothesis is not supported by the logit regression results.

Briefly, the Concentrated Ownership-CEO has a significant and effective influence on firms' dividend payment decision. When the Concentrated Ownership-CEO has a loss aversion behavior, he or she may reduce the probability to pay dividend if the degree of his or her CEO's power status increase. The demand effect from individual investors on dividend payment decision of firms are trivial for management to consider when they make the dividend payment decision as the coefficients of LVI for all three groups are too small, further, from the results of dummy variable DLVI in logit model in Table 4.14 and Table 4.15, the effects of demand of individual investors for dividend have no significant relationships on firms' dividend payment decision.

4.4 Robust Tests:

From Table 4.12 and 4.13, the logit model perform well for the concentrated ownership group, however, as the lowest values of Akaike info criterion (AIC) and Schwarz criterion (BIC) are 0.543 and 0.612 respectively when including the CEO with loss aversion behavior (LENT) as an independent variable. So, the predictability of logit model should be tested. If the total accuracy of the out of sample predictability is the best and constant for the concentrated ownership group, then, the answers to the hypotheses will be creditable and reliable.

Table 4.16 and 4.17 demonstrate the out of sample test on predictability of logit model with 0.8 and 0.5 as thresholds respectively.

The predictive output of each firm classified by dividend payer or non-dividend payer in year 2015 derived from logit regression based on 4 years (2011 to 2014)' data. By using more than or equals to 0.8 and 0.5 as the thresholds to categorize each firm's dividend payment decision. For example, if the value more than or equals to 0.8 or 0.5, then, this firm is assumed this firm as a dividend payer, so, the dependent variable DVP equals to 1, otherwise, equals to 0.

In Table 4.16, when the threshold is set as more than 0.80, the total out of sample predictive accuracy are all above 75.61%, and the total predictive accuracy for the Concentrated Ownership-CEO group is the highest either by using CEO Index (87.01%) or by using CEO with loss aversion behavior (88.31%). Meanwhile, in Table 4.17, when the threshold is set as more than 0.50, the total out of sample predictive accuracy are all above 84.76%. The total predictive accuracy for the Concentrated Ownership-CEO group is not the highest. But, under 0.50 threshold, the predictive accuracy are highest for dividend payers in 2015 either by using CEO Index (97.2%) or by using CEO with loss aversion behavior (98.13%) respectively.

The Total observation accuracies for Concentrated Ownership-CEO group are relative constant under both thresholds. For example, under 0.80 threshold, the total accuracy is 87.01% when using CEO Index, and 88.31% when using CEO with loss aversion behavior; when the total accuracy under 0.50 threshold, the total accuracies are changed to be 86.36% and 87.01% under CEO Index and CEO with loss aversion behavior respectively. These results express that the total accuracies are not affected much by using different thresholds under the Concentrated Ownership-CEO group even the predictive accuracy for the Non-Dividend payer in this group are reduced. Generally, the logit model has more accurate and constant predictive power on dividend payers in 2015.

Table 4.16: Out of Sample Tests: Dividend Payer and Non-Payer in 2015 By Using *0.8 as Threshold*

Overall Firms Group

	Actual Observations	Predicted by using CIND		Predicted by using LENT	
Dividend Payer	271	217	80.07%	214	78.97%
Non-Dividend Payer	116	99	85.34%	99	85.34%
Total Observations	387	316	81.65%	313	80.88%

Concentrated Ownership-CEO Group

	Actual Observations	Predicted by using C1ND		Predicted by using LENT	
Dividend Payer	107	96	89.72%	96	89.72%
Non-Dividend Payer	47	38	80.85%	40	85.11%
Total Observations	154	134	87.01%	136	88.31%

Non-Concentrated Ownership-CEO Group

	Actual Observations	Predicted by using C1ND		Predicted by using LENT	
Dividend Payer	108	80	74.07%	78	72.22%
Non-Dividend Payer	56	47	83.93%	46	82.14%
Total Observations	164	127	77.44%	124	75.61%

Predictive outputs for dividend payer and non-dividend payer in year 2015 for each group by using out of sample robust test. Using 0.8 as threshold.

Table 4.17: Out of Sample Tests: Dividend Payer and Non-Payer in 2015 By Using *0.5 as Threshold*

Overall Firms Group

	Actual Observations	Predicted by using CIND		Predicted by using LENT	
Dividend Payer	271	262	96.68%	264	97.42%
Non-Dividend Payer	116	76	65.52%	79	68.10%
Total Observations	387	338	87.34%	343	88.63%

Concentrated Ownership-CEO Group

	Actual Observations	Predicted by using CIND		Predicted by using LENT	
Dividend Payer	107	104	97.20%	105	98.13%
Non-Dividend Payer	47	29	61.70%	29	61.70%
Total Observations	154	133	86.36%	134	87.01%

Non-Concentrated Ownership-CEO Group

	Actual Observations	Predicted by using CIND		Predicted by using LENT	
Dividend Payer	108	100	92.59%	102	94.44%
Non-Dividend Payer	56	39	69.64%	38	67.86%
Total Observations	164	139	84.76%	140	85.37%

Predictive outputs for dividend payer and non-dividend payer in year 2015 for each group by using out of sample robust test. Using 0.5 as the threshold.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, all findings are summarized and discussed to reach the conclusions about the topic of the current study, and finally, the future studies are recommended. This Chapter is divided into four sections: Section I. Summary of all findings. Section II. Discussion of all findings and important issues related to the research topic of the current study. Section III. Conclusions. Section IV. Theoretical Implication, Empirical Implication and Suggestions about future study points related to the topic and limitations of the research.

5.1 Summary of Findings

The current study focuses on the Concentrated Ownership-CEO, Loss Aversion Behavior on Dividend Payment Decision of Listed Firms in Thailand. The total sample firms included are 387 firms. Among them, the number of firms with Concentrated Ownership-CEO and the number of firms without Concentrated Ownership-CEO were changing during the year 2011 and 2015. Generally, the number of firms with Concentrated Ownership-CEO reduced from 166 firms in 2011 to 154 firms in 2015, while, the firms without Concentrated Ownership-CEO increased from 144 firms in 2011 to 164 firms in 2015. Those firms with the Concentrated Ownership-CEOs were scattered in every industry in the Stock Exchange of Thailand (SET) and Market for Alternative Investment (MAI). The percentages of firms with Concentrated Ownership-CEOs to the total sample firms involved in each industry were also changing during this research time span, while, the five years' averaged CEO indexes were relative constant, five years' averaged dividend amount were not reduced even though the number of dividend payers were decreased. Such phenomenon really owed an adequate exploration in prior studies on the

similar topics, for example, the relationships between the managerial status and dividend policy.

One distinguished point of current study is that in this study, the CEO's power status is measured by CEO index and these CEO indexes have been used for capturing the changes for all firms individually during the time period of the current study. Also, by using the CEO index as a tool to compare with the averaged factors' values of all sample firms, such as the overall averaged dividend payers' percentage, net profit, market capitalization, dividend amount and market price, these CEO indexes do not only relax the assumption in prior studies that the CEO's power status or characteristics were constant, but also discover the fact about the heterogeneity of CEO's power status across each industry and between each listed firm in Thailand.

As the CEO Index is an important factor in the current study related to dividend policy, it is necessary and essential to examine the CEOs' characteristics or components what are used to measure the CEO index, such as the CEO ownerships, relative CEO tenure, relative the percentage of independent directors in the board, relative CEO dominance in board, relative board size and relative CEO ability. The descriptive statistical results show that all these components are all higher for dividend payers than that of non-dividend payers, except the percentage of independent directors in the board. So, a higher CEO index implies the higher probability for the firm to pay dividend which is good to shareholders who are associated with loss aversion behavior. Nevertheless, higher CEO Indexes may not ensure that the CEO is a Concentrated Ownership-CEO, he or she may be just a CEO with more influence derived from other sources, such as higher tenure, lower percentage of independent directors in the board, small board size, as well as his or her capability. But, needless to say that the higher CEO Index, the higher probability for a firm with such a CEO to pay dividend.

The descriptive statistics in current study find that when firms were categorized by dividend payers or non-dividend payers, the dividend payers in firms with Concentrated Ownership-CEO dropped sharply from 2011 to 2015, while, the dividend payers in firms

without Concentrated Ownership-CEO were more constant during the same time period. However, the percentages of dividend payers with the Concentrated Ownership-CEO were still higher than the percentage of dividend payers without the Concentrated Ownership-CEO. But, the overall five years' averaged dividend amount by firms without Concentrated Ownership-CEO were much higher than that by firms with Concentrated Ownership-CEO.

Above findings provided the explanation to the phenomenon that the dividend payers reduced from 302 firms in 2011 to 271 firms in 2015, but, the overall averaged dividend paid amount did not decrease, at the same time, the CEO indexes were relatively constant, and not varied either according to reduced dividend payers numbers, or corresponded to yearly dividend amount levels.

Under Agency theory and the managerial concentrated ownership hypothesis, if a manager or CEO controls a significant portion of share or stock of that firm, he or she becomes a Concentrated Ownership-CEO, or even an Entrenched CEO. As the result, he or she may not maximize all shareholders' benefits. Under such situation, whether this Concentrated Ownership-CEO pays dividend or not, and whether such Concentrated Ownership-CEO with loss aversion behavior pays dividend or not, how and to what extent, this Concentrated Ownership-CEO effectively influence the firm's dividend payment decision? The logit regression results answer this question.

From the results of logit regression under all three groups: Overall firms group, Concentrated Ownership-CEO group and Non-Concentrated Ownership-CEO group, there are significant and positive relationships between the CEO Index on dividend payment decision: higher CEO Index, higher probability for the firm to pay dividend, given that higher CEO Index, the high probability of this CEO is a Concentrated Ownership-CEO.

When using another independent variable: CEO with loss aversion behavior instead of CEO Index in the logit model, the results express that there is no significant relationship between the CEO with loss aversion utility and dependent variable under the overall firms group only. But, under the Concentrated Ownership-CEO group and Non-Concentrated Ownership-CEO group, this independent variable CEO with loss aversion behavior have significant and negative relationships with the dependent variable: the higher loss aversion the CEO has, the lower probability for the firm to pay dividend.

The above findings suggest that higher CEO Index, whether or not he or she is an Concentrated Ownership-CEO or just a CEO with high CEO Index, the probability for the firm with such a CEO to pay dividend is higher. When this CEO has loss aversion behavior, the probability to pay dividend is lower, especially for the Concentrated Ownership-CEO group and Non-Concentrated Ownership-CEO group.

Beside the CEO Index, another distinguished point of current study is that the current study integrate factors of supply side and demand side on dividend payment decision at the same side of logit regression function to analyze the effects on dividend policy simultaneously.

On supply side, other CEO behavioral factors also have effects on the dividend payment policy. For example, from the results of logit regressions, the independent variables stand from supply side, such as: the Managerial Impatience factor (BW) and the Dividend Growth factor (DGH) are significantly either in negative or positive way related to the dependent variable respectively under the overall firms group and Concentrated Ownership-CEO group, but, these two independent variables have no significant relationships with dependent variable under the Non-Concentrated Ownership-CEO group.

Meanwhile, on demand side, the Individual Investors' behavioral factors, such as independent variables from demand side: Demand for dividend from individual investors' loss aversion behavior in lagged one year (LVI) and Price to Dividend ratio in lagged on

year (PD) are significant and positively related to dividend payment decision under overall firms' group and the Non-Concentrated Ownership-CEO group. The coefficients of demand for dividend from Individual Investors' loss aversion utility and Price to Dividend ratio in lagged on year are all higher for Non-Concentrated Ownership-CEO group than that under Overall firms group, but, this significant and positive relationship cannot be found under the Concentrated Ownership-CEO group.

For the Firms' behavioral factors, such as Firm size (FIRM), Return on total Assets (ROA), Retained Earnings to Total Asset ratio (RETA), Debt changes DE), and Earnings carried forward (EF), almost all of these independent variables have positive and significant relationships with the dependent variable under all three groups, except that the Debt change variable (DE) which has not significant relationship with the dependent variable under the Concentrated Ownership-CEO group. The stock liquidity factor (TN) also has a significant and negative relationship with dependent variable under all three groups. These significant or non-significant relationships of each independent variable with dependent variable are in same patterns no matter under a Concentrated Ownership-CEO, or Non-Concentrated Ownership-CEO and no matter whether a Concentrated Ownership-CEO, Concentrated Ownership-CEO with loss aversion or not.

When a dummy variable DLVI was included into the logit model to test the change of demand effects for dividend from individual investors on firms' dividend payment decision, the empirical results suggest that there is no change in this demand effect. Furthermore, after adding the dummy variable DLVI under the Non-Concentrated Ownership-CEO group, the logit regression results proved that under higher CEO Index, or in other words, if there is a CEO with high CEO Index, the individual investors would not be satisfied on relative dividend received as same as they were under the Concentrated Ownership-CEO group. This result reinforced the fact that under higher CEO Index condition, the independent variable: Demand for dividend from individual investors with loss aversion utility would have no significant effect on dividend payment decision.

Comparing the coefficients of independent variables between three groups, all the coefficients either have highest values or lowest values under Concentrated Ownership-CEO group, except the CEO Index and Firm Size in Table 4.12 and CEO with loss aversion utility in Table 4.13, these results suggest that all independent variables, except the CEO Index, Firm Size and CEO with loss aversion behavior under Concentrated Ownership-CEO group, have extreme effects on dividend payment decision in either positive or negative way.

As the McFadden R-Squared values under three groups are all near or more than 0.50, for example, the McFadden R-Squared value is 0.496 and 0.489 for overall firm group, 0.522 and 0.523 for Concentrated ownership group, 0.521 and 0.513 for Non-Concentrated Ownership-CEO group by using independent variable CEO Index (CIND) and a CEO with loss aversion behavior (LENT) respectively; From these R-Squared values, together with Akaike Info Criterion (AIC) and Schwarz Criterion (BIC) values, the logit model perform better under the Concentrated Ownership-CEO group, particularly when using a CEO with loss aversion behavior (LENT) as one independent variable in the logit model. The robust results from out of sample predictions on dividend payers and non-payers in 2015 under three different groups confirmed this point.

Overall, the logit model fit well for Concentrated Ownership-CEO group no matter what by using CEO Index (CIND) or a CEO with loss aversion behavior (LENT) because the total predication accuracy under Concentrated Ownership-CEO group is constant by either using CEO index or CEO with loss aversion among the three groups and under two different thresholds.

5.2 Discussions

As many listed firms are controlled by a single shareholder or related shareholders, so the ownerships of listed firms in Thailand are concentrated (Suehiro A., 2001; Wiwattanakantang, 2001; Polsiri, 2004; Thanatawee, 2013). The findings of the current study echoed these prior conclusions, for example, among 387 samples firms involved in the study, the firms with Concentrated Ownership-CEO were varied from 42.89% to

39.79% from year 2011 to 2015. These Concentrated Ownership-CEOs control at least 20% of total outstanding shares (Wiwattanakantang, 1999, p376-377). In other words, the phenomenon that firms with a Concentrated Ownership-CEO is very common among the listed firms of Thailand.

Both descriptive and statistical results from Table 4.8, Table 4.9, Table 4.10 and Table 4.11, as well as the results from the logit regression (Table 4.12) in current study confirm the findings of Farinha (2002), Hu and Kumar (2004) that under Managerial Entrenchment Hypothesis: when the degree of CEO index (C1ND) increase, the probability for firms to pay dividend increase correspondingly.

Nevertheless, the dividends amount and dividend payment decision from the sample firms are varied across industries and also differ among CEOs depending on their risk preference, knowledge, and background. For example, CEOs' conservative or overconfident characteristics also affect the dividend payment decision (Bertrand et al., 2003; Chen et al., 2011; Dittmar and Duchin, 2014).

The descriptive results presented in Table 4.5 and the logit regression results of the independent variable: managerial impatience (BW) and CEO with loss aversion behavior (LENT) which are presented in Table 4.12, 4.13 echoed the conclusions of Bertrand et al. 2003; Chen et al., 2011; Van der Werf SA. 2013, Dittmar and Duchin, 2014, Breuer et al., 2014 on two points: First, the dividend amount paid were different across industries associated with different levels of CEO Indexes, the industries with higher CEO Indexes seem to underperform to the firms with lower CEO Indexes. Second, when the managerial impatience is higher and the CEO is loss averse, he or she may not to pay dividend in the current period. But, the finding about the managerial impatience in current study is contradictory to the conclusions of Lambrecht and Myers (2012) on the point that when the firms in maturity stage and keep pay out the dividend, when managerial impatience increased, then, the current payout rose. But, in the current study, the managerial impatience has a significant and negative relationship with dependent

variable, thus, when managerial impatience increase, the probability for a firm to pay dividend will be reduced.

Another independent variable: Dividend Growth (DGH) implies the dividend smooth behavior, because managers may "fear" to avoid the dividend cut in the future (Lintner, 1959; Gordon, 1963). This independent variable has a significant and positive relationship with dependent variable under both Concentrated Ownership-CEO group and Overall firms group (Table 4.12 and Table 4.13). These results are supported by findings of Leary et al. (2011); Chen et al. (2009, 2012). At the same time, these results partially remedy the prior ambiguous conclusions about the Signal theory. In prior studies, the Signal theory is only valid when there is asymmetric information existing, management will use dividend as a signal to inform outside shareholders honestly (Rozeff, 1984; Fama and French, 1988; Kumar, 1988; Goetzmann et al., 1993; Graham et al., 2005; Engsted et al., 2010; Michaely and Roberts, 2012). But, the Concentrated Ownership-CEO may smooth the dividend payment either honestly or dishonestly (Bhattacharya, 1979; Miller and Rock, 1985). If the CEO use dividend as a tool to make a signal to market dishonestly, then, the Signal Theory is not valid.

The dividend payout is a mechanism to reduce the excess cash in hand of managers or CEOs to keep these managers or CEOs being aligned with the interests of all shareholders to avoid conflicts or agency costs (Stulz, 1988; La Porta et al., 2000). But, if the managers or CEOs are under concentrated ownership conditions, do they make dividend policy to maximize all shareholders' wealth? In other words, can these dividend payout or dividend payment decision maximize the wealth of all shareholders and satisfy the demand for dividend from individual investors? Therefore, it is necessary and essential for the current study to analyze the dividend payment decision from the demand side.

In the current study, two independent variables stand for the demand side of dividends: the Demand from individual investors with loss aversion behavior: LVI (Feldstein and Green, 1983; Redding et al., 1998; Shapiro and Zhuang, 2013; Breuer et al., 2014). As

individual investors with loss aversion, he or she may have different initial endowment; such initial endowment does matter to individual investors when they set up their preferences on risk aversion and sensitivity to the reference points on gain or loss, and furthermore, individuals may adjust these reference points according to their experiences for gain and loss all the time, even when they are long term investors, they are assumed to examine their portfolio too frequently to adjust the reference point. (Shefrin and Statman, 1984; Tversky and Kahneman, 1991, Benartzi and Thaler, 1995; Koszegi and Rabin, 2006; Baker et al., 2015). As a result, when the individual investors received dividend payment at a higher level in last year, they could adjust their referent points according to their gain, such referent points became the new thresholds for management to decide whether or not to pay dividend at this higher point, or the management may just smooth the dividend payment while ignore these referent points of individual investors.

The main ways that individual investors use to demand the dividends can be either by votes or by pay higher prices for firms' shares which pay dividend and consistent with their payout ratio policy. The first way is ignored by tax clientele and clientele effect under the different tax bracket and different risk preference among individual investors. For example, the individual may be widows, senior persons, non-profit organization, and financial institution, they always prefer current dividends, while, under the tax clientele effect, the firms use to attract more institutional investors via paying dividend, if so, there should be one or more institutional investors (block shareholders) hold more than 10% of total outstanding shares (Ozcan et al., 2013 p25). Under the condition that there is a Concentrated Ownership-CEO and one or more block shareholders, together with individual investors' tax bracket differences, the votes for against or demand of dividend are impossible to get united.

The second way has been generalized as "Catering theory" (Baker and Wurgler, 2004), in which, Baker and Wurgler argued that if the dividend premium is high, the management intend to initiate to pay dividend (but not necessary to increase the dividend amount), and such catering incentives was confirmed by DeAngelo et al. (2004) and Tangjitprom N. (2013).

Shapiro and Zhuang (2013) generalized the signaling model of Baker and Wurgler (2012). The authors stated that managers would determine the dividend policy or threshold value and pay out level according to outside investors' preference, firms' current earnings, managerial opinions (optimistic or not) to the capital gain in short time span combined with the predicted future profitability distribution function. They argued that if the first period earnings is under the threshold point, then, the firms will pay nothing, otherwise, they will pay dividend out. When the value of such threshold is low, many will pay dividend but at a low level, if the threshold is high, less firms will pay dividend, but if they pay, the level is high.

So, whatever the referent point used in prior studies, either dividend premium or threshold values, the prices for dividend payers should be higher enough to the prices for non-dividend payers. Cochrane J.H. (1992) recognized this point, and analyzed the relationship between the covariance of price and dividend and expressed that the price's change must contain information of future dividend's change. Based on his analysis, he argued that the value weighted variance of price to dividend ratio has a negative relationship with real dividend growth, while, equally valued weighted price dividend ratio has a positive relationship with dividend growth.

As the current study explores the dividend policy on firms' level and related to each CEO's status on power, the dividend premium between the dividend payers and non-dividend payers in Catering Theory could not be reasonably applied, instead, the Price to Dividend ratio of each firm in last year is better to be employed. In current study, the independent variable: Price to Dividend ratio in lagged on year (PD) confirmed the conclusion of Cochrane J.H. (1992): the independent variable Price to dividend ratio in lagged on year (PD) have significant and positive relationships with dependent variable with highest value under Overall firms group and Non-Concentrated Ownership-CEO group, however, this significant and positive relationship with dependent variable does not exist under the Concentrated Ownership-CEO group.

The empirical testes' results of the current study do not only support the findings of Cochrane J.H (1992), but also disclose that under which group, the demand for dividend from individual investors who has loss aversion can be satisfied or not.

Based on findings of the current study, the individual investors' demand of dividend always be satisfied in overall firms group and Non-Concentrated Ownership-CEO. However, as the coefficients of demand from individual investors with loss aversion behavior (LVI) in two Tables (Table 4.12 and Table 4.13) are too small to be related to the dependent variable, another independent variable Price to Dividend ratio in lagged on year (PD) seems have more important role in demand of dividend. In both Table 4.12 and 4.13, the coefficient of Price to Dividend ratio in lagged on year (PD) are highest among coefficients of other independent variables in overall firms group and Non-Concentrated Ownership-CEO group, such results imply that the lagged one period Price to Dividend ratio increase, then, the probability for firms to pay dividend will increase much more than that from other factors. This result also shows that individual investors try to pay higher prices for the dividend payout firms in lagged one period to exchange the current dividend payout.

Thus, the significant and positive relationship between Demand from individual investors with loss aversion behavior (LVI) and Price to Dividend ratio in lagged on year (PD) with dividend payment decision in current study under Overall firms group and Non-Concentrated Ownership-CEO group does reflect the fact that the demand from individual investors for dividends are satisfied under these two groups.

However, the independent variables Demand from individual investors with loss aversion behavior (LVI) and Price to dividend ratio in lagged on year (PD) do not have significant positive relationships under the Concentrated Ownership-CEO group no matter whether the CEO has loss aversion behavior or not. These results are not unexpected. From Table 4.4, the firms under the Concentrated Ownership-CEO group were higher than firms under the Non-Concentrated Ownership-CEO group in year 2011, but, became lower in year 2015, and in the same Table, the firms under Concentrated Ownership-CEO group

who paid dividends reduced sharply than that under Non-Concentrated Ownership-CEO group. Table 4.1, Table 4.6 and Table 4.7 together reveal that under Concentrated Ownership-CEO group, the firms were small, and dividend payout were much lower than that under Non-Concentrated Ownership-CEO group because of their lower net profits even if the percentages of payers under Concentrated Ownership-CEO group were higher than that in Non-Concentrated Ownership-CEO group.

For testing the possible changes on demand effects from individual investors with loss aversion, the dummy variable DLVI is applied in the logit model. However, the results show that there are no significant changes on demand effects related to the dividend policy, in other words, the demand effects for dividend from individual investors with loss aversion is neither reduced nor increased no matter the CEO is Concentrated Ownership-CEO or not and no matter whether the CEO has loss aversion behavior or not.

These results may be caused by several reasons, for instance, when a CEO is Concentrated Ownership-CEO, no matter this CEO has loss aversion behavior or not, he or she may smooth the dividend payment, he or she may pay dividend out to cater the demand of individual investors if the threshold value is reasonable. This conclusion can be supported by the logit results under the Overall groups and Non-Concentrated Ownership-CEO group in Table 4.12 and Table 4.13. The significant relationship between the independent variables of managerial impatience (BW) and Dividend growth (DGH) on dependent variable, together with the non-significant relationship between independent variables: demand from individual investors with loss aversion behavior (LVI) and Price to dividend ratio in lagged on year (PD) on dependent variable under the Concentrated Ownership-CEO group can also provide the reasons: under this group, the Concentrated Ownership-CEO based on his or her loss aversion behavior or managerial impatience may smooth the dividend by paying dividend at a lower level, such payment never satisfy the demand of individual investors and ignore the referent points of individual investors. Moreover, in Table 4.14 and Table 4.15, after adding the dummy variable DLVI under the Non-Concentrated Ownership-CEO group, the demand from individual investors with loss aversion behavior (LVI) became insignificant, such a result

confirms again that under high Concentrated Ownership-CEO condition or high CEO index, the demand for dividend from individual investors with loss aversion is never satisfied.

Referring to the Firms' behavioral factors, the results of logit regression in Table 4.12 and 4.13 support the descriptive statistical results: the main determinants to dividend payment decision variable are Firm size (FIRM), Retained Earnings to Total Assets ratio (RETA), Return on total assets (ROA), Stock liquidity (TN), Debt change (DE) and Earnings carried forward (EF). For example, under the Concentrated Ownership-CEO group, the coefficient of Retained Earnings to Total Assets ratio (RETA) is the highest in both Table 4.12 and Table 4.13, and the coefficient of Firm size (FIRM) is the second highest in both tables. These mean that if the factor of Retained earnings to total assets ratio (RETA), then the probability for firms under Concentrated Ownership-CEO group to pay dividend increase more high than that effects under other two groups. These results also reveal that the firms under Concentrated Ownership-CEO group are smaller and these CEOs heavily emphasize on retained earnings because of their risk aversion or loss aversion behavior. These results are supported by Table 4.1: the averaged mean of Retained Earnings to Total Assets ratio (RETA) was highest, and the average mean of Firm size was the lowest. Therefore, the individual investors would not be satisfied with the dividend payment. The Price to Dividend ratio (PD) effect were also insignificant under this group, these results are partially in line with the life cycle theory (Fama and French, 2001; Grullon et al., 2002; DeAngelo et al., 2006). But, the findings in current study confirm that the small listed firms in Thailand with profits also like to pay dividend (Komrattanapanya, 2013).

The profitability of firms which is presented by Return on total asset or ROA has a significant and positive relationships with dependent variable for all three groups no matter the CEO is Concentrated Ownership-CEO or not, and no matter the CEO has loss aversion behavior or not. From Table 4.12 and 4.13, the coefficients of Return on total assets (ROA) has significant and positive relationship with dependent variable with highest values under the Concentrated Ownership-CEO group when compared with other

two groups. This results suggest that among the three groups, the effect of incremental unit on ROA is more than that in other two groups on dividend payment decision of firms. This point is supported by Table 4.7, in which the net profits under Concentrated Ownership-CEO group is lower than that under the Non-Concentrated Ownership-CEO group. The statistics from Table 4.6 and Table 4.11 are also confirmed that the dividend amount under the Concentrated Ownership-CEO group is lower than that under Non-Concentrated Ownership-CEO group and the Return to total asset ratio (ROA) is higher for dividend payers. These findings are aligned with the Life Cycle Theory (Fama and French, 2001; Grullon et al., 2002; Coles et al., 2003; Thanatawee, 2011) that if firms are mature stage, the firms were associated with high Return on total asset ratio ROA), and these firms always paid high dividend, also large firms to pay higher dividend. Meanwhile, this findings are also in line with the conclusion of Komrattanapanya (2013) that small firms in Thailand like to pay out dividend.

Another independent variable Stock liquidity (TN) has a significant and negative relationship with the dependent variable under all three groups no matter whether the CEO is Concentrated Ownership-CEO or not and no matter whether this CEO has loss aversion behavior or not. However, from the Table 4.12 and Table 4.13, the coefficient of this independent variable is the lowest under the Concentrated Ownership-CEO group, this is not unexpected that under this group, a significant portion of outstanding shares is held by management or CEO and his or her related parties, so, the turnover of shares traded in the market is in illiquidity, also, from Table 4.11, the Turnover ratio for dividend payers is significant lower than that for non-dividend payers, as a result, the dividend is treated as a compensation for such illiquidity risk for all individual investors under three groups (Banerjee et al., 2007; and Griffin, 2010).

The independent variable Debt ratio change (DE) has a significant and positive relationships with the dependent variable under two groups: the Overall firms group and Non-Concentrated Ownership-CEO group, but, there is no such relationship under the Concentrated Ownership-CEO group. From Table 4.1, the mean of overall firms group on debt ratio changes is negative (-0.0006), while, the maximum value and minimum value

both fallen into the Non-Concentrated Ownership-CEO group. These descriptive statistics show that over the current study time period, the averaged debt ratios changes were lower for the whole market, however, as the debt policy may be influenced by firm's characteristics, therefore, the demand of debt was varied among firms and industries (Jensen et al., 1992). Under the Pecking Order Theory, if firms fund new investments, then, the internal funds must be used, if the internal funds are not sufficient, the external funds, such as the debt is the first choice to be used (Fama and French, 2002; Frank and Goyal, 2003).

The findings in current study confirmed the trade-off model's prediction (Fama and French, 2002) that managements evaluate the cost and benefit by employing debts. If the firms have few sources from earnings, these firms will have higher leverage ratio, also, if the investment opportunities are-controlled, the trade.-off model forecasted that the more profitable firms would have high debt ratio. From Table 4.11, the dividend payers have higher profitability (ROA) and more internal funds (RETA) associated with the averaged positive value on Debt changes (DE). In contrast, the non-dividend payers have lower profitability and internal funds with averaged negative value on Debt changes (DE). But, there is no significant difference between the changes of debt among the dividend payers and non-dividend payers. Furthermore, from Table 4.12 and 4.13, the positive and significant relationships between the Debt change and dividend payment decision under the overall firms group and Non-Concentrated Ownership-CEO group, while there is no such significant relationship under the Concentrated Ownership-CEO group, these results against the Pecking Order Theory predicts that the more profitable firms should have lower debt ratios. However, these results can be explained by several reasons: First, during the current study period, the averaged debt ratio was reduced for the whole market, so, for the management or CEOs, who did not have inside ownerships or even hold some of shares of firms but not exceeded the 20% threshold, may prefer to rely on more debts rather than issuing new equities to protect their voting rights when there is a need to fund a new investment and pay out dividend, given that the internal resources are not sufficient. Second, the Concentrated Ownership-CEO may use debt as a tool in both directions: these Concentrated Ownership-CEO may use less debts to reduce firm's risk and avoid

pressure from creditors, or they may use more debts to reduce possibility of hostile takeover (Stulz, 1988; Shleifer and Vishny, 1989; Berger et al., 1997). Third, the debt always be treated as the cheapest source when firms seek outside funds. However, the first explanation seems to go against the findings of Jensen et al. (1992), but their findings were based on the rationality that the agency costs would be reduced if inside ownership is high, so, the creditors can monitor the management to reduce the agency costs which is good to all shareholders. If there were no much high inside ownerships, the debts could be higher. The second explanation is in line with the findings of Wiwattanakantang (1999) that owner-managers prefer more debts. The third explanation is supported by Pecking Order Theory.

As in prior studies, there are ambiguous empirical results on Pecking Order Theory. The findings of these empirical tests argued that the Pecking Order Theory is found to be in good support when firm sizes are large only. To remedy this ambiguous results on Pecking Order Theory, another alternative independent variable Earnings carried forward (EF) is used to retest the Pecking Order Theory in current study. This independent variable is derived from the argument of Fama and French (2002) and factors used in the theoretical model of Lambrecht and Myers (2012).

The results of logit regression of independent variable Earnings carried forward (EF) support the Pecking Order Theory no matter the CEO has loss aversion behavior or not. As the coefficients of Earnings carried forward (EF) are significant and positively related to the dependent variable in all logit regressions and for all three groups, such results suggest that if the dividend carried forward really realized, or the CEOs did not pay dividend at target ratio in lagged one year, and the remaining cash is also enough to offset the current debts, the firms tend to pay dividends out. So, this results partially support the Pecking Order Theory no matter the firms' sizes are large or small, and whether the CEO has loss aversion behavior or not.

The independent variable Earnings carried forward (EF) has the lowest value of coefficients under the Concentrated Ownership-CEO group, and almost be at same level

whether the CEO has loss aversion behavior or not, but, has highest average mean in Table 4.1 under the Concentrated Ownership-CEO group and in Table 4.11 for dividend payers. These results reflect the fact that the Concentrated Ownership-CEOs do not pay dividend at target payout ratio, they still emphasize on the retained earnings as the most important factor when the CEO make dividend payment decision because of their lower net profits or loss aversion behavior. These results also disclose that when there is a Concentrated Ownership-CEO, he or she "save" more by paying dividends at a much lower level compared with the theoretical target payout ratio.

5.3 Conclusions:

The current study aims to discover the relationships between Concentrated Ownership-CEO, Loss Aversion Behavior and dividend policy of listed firms in Thailand.

By examining the hypotheses presented in current study, and based on the findings, the research objectives can be concluded as following:

1. The Concentrated Ownership-CEO does have effective influence on firms' dividend policy. The effect is significantly and positively related to the firms' dividend policy at 5% confident level. However, the degree of such effect is not the highest among three groups.

2. The Concentrated Ownership-CEO with loss aversion utility also has a significant and negative influence on firms' dividend payment decision. This result expresses the fact that when the Concentrated Ownership-CEO shows loss aversion behavior, he or she actually reduces the probability to pay dividend when his or her concentrated ownership degree increased. At the same time, the coefficient of another independent variable: managerial impatience (BW) has a more significant effect (at 1% significance level) and more negative relationship (coefficient is -1.97) with the dependent variable from the logit regression result when the CEO index with loss aversion included. The Managerial impatience in the current study

suggests that when CEO foresee uncertainty about the future return subjectively, they always reduce the probability to pay out dividend.

3. The demand effects from the demand of individual investors with loss aversion behavior on firms' dividend payment decision are significant and positive under the firms without Concentrated Ownership-CEO group and overall sample firms group. However, such demand is not significantly related to dividend payment decision of the firms with Concentrated Ownership-CEOs. These results reflects the fact that the dividend payment from firms with Concentrated Ownership-CEOs never satisfy the demand for dividend from the individual investors with loss aversion behavior. This result may be due to the lower dividend payout level given that the net profits with these firms are lower than that of other types of firms, for example, the individual investors are satisfied with the relative dividend received under other two groups: the Overall firms group and Non-Concentrated Ownership-CEO group, especially, under the Non-Concentrated Ownership-CEO group, some CEOs are also associated with high CEO index, the Demand of individual investors with loss aversion is still satisfied, but, such demand effect will not be changed no matter under which group.

4. Finally, when there is a CEO with loss aversion, the Demand effects for dividend from individual investors with loss aversion will not be increased. This result shows that the even if a Concentrated Ownership-CEO with loss aversion behavior or a Non-Concentrated Ownership-CEO with high CEO Index, the Demand effects for dividend from individual investors with loss aversion behavior is still ignored, in other words, the Demand for dividend from individual investors with loss aversion behavior can be satisfied under some conditions, but, such effect of demand is passive, the individual investors cannot change the degree of demand effect.

Above conclusions reveal the realities about the dividend payment decision of listed firms in Thailand and firms' CEO characteristics during the research time period. First, as the firms with Concentrated Ownership-CEO are smaller and associated with lower net profits, even if these firms pay dividends, such dividend payments are at very low levels, and these dividend amount do not satisfy the demand from individual investors with loss aversion behavior. At the same time, the characteristics of CEO, such as the CEO's impatience, loss aversion, and dividend smooth behavior also affect the dividend payment decision of firms.

Second, as the number of firms with Concentrated Ownership-CEOs are almost half of sample firms involved, and scattered in every industry in the Stock Exchange of Thailand and Market for Alternative Investment, so, the dividend policy is not only affected by the CEO index but also affected by firms' specific factors such as Firm size, and Retained Earnings to Total Assets ratio, Return on total assets, Stock Liquidity in the market, Debt changes, and Earnings carried forward.

Third, from all logit regression results, the Price to Dividend ratio in lagged year play the most important role for demand for current dividend payout, especially for the Overall sample firms and firms without Concentrated Ownership-CEO group.

Fourth, both the individual investors' demand for dividend and the willingness to pay higher prices in last year to exchange the current dividend payment are ignored by Concentrated Ownership-CEOs, either because of the lower net profit, the dividend smooth behaviors, and loss aversion behavior under this group.

Fifth, the effects of demand from individual investors with loss aversion will not be changed no matter whether a firm is with or without a Concentrated Ownership-CEO, and no matter whether the CEO is with or without loss aversion.

The first and second points explain the problems as to why the dividend yields are varied among some firms in different industries with high Retained Earnings to Total Assets

ratios, because the some Concentrated Ownership-CEOs tend to smooth the dividend payment behavior because these firms are small and the net profits are lower, or even negative in certain years, while some Non-Concentrated Ownership-CEOs do not smooth dividend, instead, they may pay or not pay dividend according to some rules (Thailand Public Limited Companies ACT) or conditions (retained earnings, future profitability), or under the companies' provisions (the percentage of net profit must be paid out). These various dividend payment decisions seem to be "abnormal" if the rationality under several theories in modern finance field are applied, for example, the Life Cycle Theory, the Pecking Order Theory, and Signal Theory, the results from this study just partially confirmed these theories and hypotheses, however, as there is no investment factor for each firm involved in the test, so, the empirical test results of the current study cannot be used to argue against these theories or hypotheses totally. But, these points do explore more deeply the reasons for the findings of Komrattanapanya (2013) that different industries seem to have different propensity to pay dividend, and small firms with profit also like to pay dividend too.

The third, fourth and fifth points explain that if there is a Concentrated Ownership-CEO, no matter whether he or she is loss averse or not, this CEO always ignores the demand effect from the individual investors either by the loss aversion behavior or by heavily emphasizing on retained earnings to total assets ratios. Thus, the dividend payments he or she made are never satisfied by individual investors with loss aversion behavior under their risk preferences and adjusting referent points. Those firms with Concentrated Ownership-CEOs pay out lower dividends either imitate the firms with good reputations or dishonestly signal to outside shareholders about the firms' performance currently and in the future. Because the firm with good quality management and reputation team had lower debt leverage and less asymmetric information, so, they needed not use high dividend to signal outside investors like others, such firms would pay lower dividends and the quality of management was negatively related to leverage ratio and dividend payout ratio, and positively with firm's level of investment. (Farinha, 2002; Hu and Kumar, 2004; Chemmanur et al. 2009).

Generally, a Concentrated Ownership-CEO is a common phenomenon among the listed firms of Thailand. The firms with Concentrated Ownership-CEOs are smaller in firm size and associated with lower net profits. Even if these firms pay dividend at higher percentage than that of firms without Concentrated Ownership-CEO, such dividend payments are rarely meet with the demand of individual investors with loss aversions behavior even if the individual investors will pay higher prices in last period to exchange the current dividend payment. The reasons are that the Concentrated Ownership-CEOs heavily emphasize on the retained earnings, pay debts back and smooth the dividend either honestly or dishonestly and these dividend payment decision are also influenced by their managerial impatience or loss aversion behavior. Therefore, these Concentrated Ownership-CEOs will not be monitored by either creditors, or inside separate and control mechanism to pay dividend at target payout ratio under the demand of outside shareholders.

Conversely, when firms without Concentrated Ownership-CEOs, these firms usually pay dividends, and the dividend payment from these firms do satisfy the demand of individual investors with loss aversion behavior even if the Non-Concentrated Ownership-CEOs may also have loss aversion behavior. These firms outperform the firms with Concentrated Ownership-CEOs on firms' several aspects, for example, the net profits and firms' size. At the same time, the CEOs, who have the lower level of managerial impatience but high loss aversion behavior degree between three groups, rarely smooth dividend payment and do not heavily focus on the retained earnings. So, they normally pay dividends out as much as possible they can. However, these dividend payment may cause the firms to rely more on outside debts. Such behavior in turn improves the performance for these firms via reducing the agency costs, and asymmetric information problems.

Overall, the results of current study support several theories and hypotheses in modern finance field. For example, these results support the Agency Theory, Catering Theory and partially support the Life Cycle Theory, Signal Theory, and Pecking Order Theory. These

results also support some theories, hypotheses in behavioral finance field, for instance, Managerial Entrenchment Hypothesis, Loss Aversion Behavior under the prospect theory.

5.4 Theoretical Implications, Managerial Implications, Limitations of the Research and Suggestions of Future Study

- **Theoretical Implications:**

5.4.1 The New Measurement of CEO's Power Status

This study uses CEO indexes to reflect the ever changing status of a CEO's power in each firm and across each industry over the research period. In contrast to several prior studies on the concentrated ownership or managerial entrenchment in which the concentrated ownership degree or managerial entrenchment level were assumed to be constant, such as Shleifer and Vishny (1989), Farinha (2002), Hu and Kumar (2004), Kalcheve et al. (2007) Chemmanur et al. (2009) and Lambrecht and Myers (2012). The CEO indexes in the current study reveal that the CEO indexes are changing almost every year on individual firm level, compromised by the components involved based on CEO's power sources, such as CEO ownership, the Percentage of independent directors in board, CEO Tenure, Board size, CEO dominance in the board and CEO's ability. So, these indexes capture the differences of CEO's power status in each firm and in every industry which was suggested by Bertrand et al. (2003), Chen et al. (2011), and Dittmar and Duchin (2014). Further, such CEO index does not only take the Concentrated Ownership-CEO condition into the consideration when analyzing the dividend payment decision of firms, but also included the condition that there are some Non-Concentrated Ownership-CEOs who do not have portion of outstanding share of firms but with high influence in management of firms. So, such CEO index is a necessary and essential factor when studying the firms' dividend payment decision. Furthermore, such CEO Indexes can be used to measure the level of managerial entrenchment if the inside shareholding is more than 25% of total outstanding shares.

- **Managerial Implications**

The descriptive statistics and logit regression results in current study could be used as tools either for regulators of the Stock Exchange of Thailand or individual investors as well as institutional shareholders to analyze the firms they want to monitor or invest. For example, first, there is no difference in percentage of independent directors between the dividend payers and non-dividend payers of listed firms of Thailand, but, the CEO dominance in the board for dividend payers are higher than that in non-dividend payers, this reflects the lack of effective monitoring of management in listed firms of Thailand, even if there are separate and control mechanisms. Second, as the number of firms with Concentrated Ownership-CEO are almost half of total of the sample firms involved, and the concentrated ownership degrees are even higher in several industries based on the percentage of firms with Concentrated Ownership-CEOs involved. The dividend payment from these firms are rarely met with demand of individual investors, so, how to protect the individual investors' benefit is an important issue for regulators to consider under such high concentrated ownerships circumstance, for instance, do these firms with Concentrated Ownership-CEO really follow their dividend policy stated in their companies' provisions, or they can ignore the demand for dividends from outside shareholders as they want to operate unrestrainedly by smoothing dividend either honestly or dishonestly? Do these Concentrated Ownership-CEOs want to pay back the debts as much as they can to avoid the monitoring from creditors while they omit or reduce the reasonable dividends owed to individual investors? Individual investors and institutional investors can use these results to decide which firm they will invest in, for example, the share prices for firms with Concentrated Ownership-CEO underperform that of firms without Concentrated Ownership-CEO in many industries, if these investors want capital gain, they could invest in the firms without Concentrated Ownership-CEOs. However, at the same time, the firms without Concentrated Ownership-CEO also pay higher averaged dividends, so, these investors must study the firms carefully according to their risk preferences as well as their tax brackets.

■ Limitations of the Research and Suggestions of Future Study

There are some limitations of the research. First, only cash dividend is calculated because of the lack of information on share repurchase, but, the cash dividend is the main demand of individual investors. Second, CEO with loss aversion utility could be used by stock options, or deferred compensations of CEOs. But, because of the lack of such information in listed firms of Thailand, the current study uses market prices as the indirect way to reflect the loss aversion of manager or CEO's loss aversion behaviors. Third, as the sum of numbers of firms with Concentrated Ownership-CEO and firms without Concentrated Ownership-CEO is over than 80% of total firms involved, so, the current study ignored other types of firms, for example, the firms with both Concentrated Ownership-CEO and a large block shareholder simultaneously, and firms with only a large block shareholder. Fourth, as some independent variables are first employed empirically, such the managerial impatience (BW) and Earnings carried forward (EF), the measurements of these variables could be explored more.

There are some suggestions for future study on the dividend policy: for instance, find more precise measurements (parameters) for the loss aversion for management or CEO and individual separately, as well as the objective measurement for the Managerial impatience (BW), and Earnings carried forward (EF). Furthermore, the regional comparison of dividend payment decisions and their CEOs' characteristics may also be conducted.

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