UNIVERSITI PUTRA MALAYSIA

INTERRELATIONSHIPS AMONG MANAGERIAL INCENTIVES, LEVERAGE, DIVIDEND AND PERFORMANCE OF PUBLIC LISTED COMPANIES IN MALAYSIA

MAZIAR GHASEMI

GSM 2016 9

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By

MAZIAR GHASEMI

Thesis Submitted to the Putra Business School in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

June 2016

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DEDICATION

This thesis is dedicated

To

My parents and sister.

For their endless love, support and encouragement.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

INTERRELATIONSHIPS AMONG MANAGERIAL INCENTIVES, LEVERAGE, DIVIDEND AND PERFORMANCE OF PUBLIC LISTED COMPANIES IN MALAYSIA

By

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June 2016

Chairman : Nazrul Hisyam Ab Razak, PhD
Faculty : Putra Business School

Little work has been undertaken with regard to how the Agency Theory could be used to explain the simultaneous interrelation among internal solutions for agency problems. In addition, no general consensus has emerged after many years of investigation, only inconsistent findings from empirical evidence are gained. In the case of Malaysia, capital structure is formed by the highest belonging of family businesses government properties, and managerial ownership. Moreover, it is also argued that capital structure is very much dependent on the dominant nature of the ownership structure in the Malaysian context, and also personal tax exemption causes Malaysian shareholders to pressure managers into receiving more dividends. In addition, managerial ownership shows uncertainty in regard to managers' remuneration in Malaysian firms.

This study tries to shed the research gap through investigating the interrelation of managerial incentives with dividend, leverage, firm profitability in the light of agency problems within a firm. Three models are designed to fulfill these objectives by studying the simultaneous interrelation between (i) managerial incentives and leverage ;(ii) managerial incentives and dividend; and also (iii) investigating the synchronized interrelation between managerial incentives and firm profitability. This study examines 267 companies listed in the Main market of Bursa Malaysia during a nine-year period from 2005 to 2013. To solve these three models, some different econometrics methods are used, namely, 2SLS, 3SLS, 3SLS-CMP, and OLS.

The empirical outcomes of all three models show positive two-way causal relationships between managerial ownership and managerial remuneration, indicating that not only managerial ownership has a positive effect on managerial remuneration, but also managerial remuneration has a positive impact on managerial ownership as well. Moreover, Model one also reveals a negative one-way causal effect of managerial ownership on leverage, and also a positive effect of managerial

remuneration on leverage. However, leverage has no significant effect on managerial incentives.

In addition, the findings of the second model indicate that higher ownership levels by executives, simultaneously, lead to higher amounts paid in dividend by Malaysian listed firms, although the payout policy that follow higher dividend leads to a decrease in the level of ownership by managers. In addition, managers who paid more dividends are encouraged with more compensation by shareholders; however, the change in managerial remuneration has no immediate impact on dividend decision. Furthermore, Model three reveals the reverse interrelation between managerial ownership and performance. It means, when the firm generates a higher level of profit compared to the past performance, the level of managerial ownership will increase. However, the increase of the shares by managers, generally, leads to a decline in the firm profitability. The findings also show that there is no simultaneous interrelation between managerial remuneration and firm profitability in the main market of Bursa Malaysia.

This study has used empirical findings to show that the current corporate governance policies are not making the anticipated impacts on connecting performance and managerial incentives, and also not considering the full linkages between managerial incentives and financial internal controlling instruments. The theoretical arguments for this justification suggest the need for policy reviews which will enable shareholders and managers to mitigate the agency conflicts.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

HUBUNGAN TIMBAL-INSENTIF PENGURUSAN DENGAN HUTANG, DIVIDEN DAN PRESTASI BUKTI DARI MALAYSIA

Oleh

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Terdapat kurangnya kajian telah dilaksanakan dengan mengambil kira bagaimana teori agensi itu boleh digunakan untuk menjelaskan hubungan timbal serentak antara penyelesaian dalaman untuk masalah agensi. Di samping itu, ada konsensus umum telah muncul selepas bertahun-tahun penyelidikan, dan keputusan yang tidak konsisten dari bukti-bukti empirikal. Dalam kes Malaysia, struktur modal yang dibentuk oleh perniagaan dimiliki oleh keluarga dan bersifatkan kerajaan adalah yang tertinggi. Dengan menambah sebahagian besar daripada pemilikan pengurusan, isu ini menjadi lebih rumit. Selain itu, ia juga dinyatakan bahawa struktur modal amat bergantung pada sifat dominan struktur pemilikan dalam konteks Malaysia, dan juga pengecualian cukai peribadi menyebabkan pengurus ditekan oleh pemegang saham Malaysia agar diberi dividen yang lebih tinggi. Disamping itu, pemilikan pengurusan menunjukkan ketidakpastian berkenaan dengan ganjaram pengurus di firma-firma Malaysia.

Kajian ini cuba untuk mengurangkan jurang penyelidikan melalui menyiasat hubungan timbal-insentif pengurusan dengan dividen dan hutang berkaitan masalah agensi. Kajian ini juga bertujuan untuk meningkatkan pemahaman tentang bagaimana insentif pengurusan dan keuntungan firma pada masa yang sama mempengaruhi antara satu sama lain. Tiga model direka untuk memenuhi objektif-objektif ini dengan mengkaji hubungkait serentak antara (i) insentif pengurusan dan hutang, (ii) insentif pengurusan dan dividen; dan (iii) menyiasat hubungkait disegerakkan antara insentif pengurusan dan keuntungan firma. Kajian ini meliputi 267 syarikat yang tersenarai di Pasaran Utama Bursa Malaysia dalam tempoh sembilan tahun dari 2005 hingga 2013. Untuk menyelesaikan ketiga-tiga model, beberapa kaedah ekonometrik yang berlainan digunakan, iaitu 2SLS, 3SLS, 3SLS-CMP, dan OLS.

Hasil empirikal ketiga-tiga model menunjukkan bahawa hubungan dua hala penyebab yang positif antara pemilikan pengurusan dan imbuhan pengurusan, dimana menunjukkan bahawa bukan sahaja pemilikan pengurusan mempunyai kesan positif ke atas saraan pengurusan, juga ganjaran pengurusan mempunyai kesan

positif ke atas pemilikan pengurusan juga. Selain itu, Model satu juga mendedahkan satu hala kesan sebab dan akibat negatif daripada pemilikan pengurusan ke atas hutang, dan juga kesan positif imbuhan pengurusan pada hutang. Walau bagaimanapun, hutang tidak mempunyai kesan yang besar ke atas insentif pengurusan.

Di samping itu, hasil dari model kedua menunjukkan bahawa tahap pemilikan yang lebih tinggi oleh eksekutif, pada masa yang sama, membawa kepada jumlah yang lebih tinggi dibayar dividen oleh syarikat-syarikat tersenarai di Malaysia, walaupun dasar pembayaran yang mengikuti petunjuk dividen yang lebih tinggi untuk mengurangkan paras pemilikan oleh pengurus. Di samping itu, pengurus yang digalakan membayar lebih dividen akibat ganjaran yang ditinggi dibayar oleh pemegang saham; Walau bagaimanapun perubahan dalam pengurusan ganjaran mempunyai kesan tidak langsung kepada keputusan dividen. Tambahan pula, Model tiga mendedahkan hubungkait terbalik di antara pemilikan pengurusan dan prestasi. Ini bermakna, apabila firma itu menjana tahap keuntungan yang lebih besar berbanding dengan prestasi masa lalu, tahap pemilikan pengurusan akan meningkat. Walau bagaimanapun peningkatan saham oleh pengurus, secara amnya, membawa kepada penurunan dalam keuntungan firma. Penemuan kajian juga menunjukkan bahawa tidak ada hubungan timbal serentak antara imbuhan pengurusan dan keuntungan firma dalam pasaran utama Bursa Malaysia.

Kajian ini telah menggunakan penemuan empirical menunjukkan bahawa polisi-polisi dasar tadbir urus korporat semasa tidak membuat impak jangkaan untuk mengaitkan prestasi dan pengurusan insentif, dan juga tidak mengambil kira hubungan penuh antara insentif pengurusan dan instrumen kawalan dalaman kewangan. Hujah-hujah teori untuk penjelasan ini mencadangkan kajian semula dasar yang akan membolehkan pemegang saham dan pengurus mengurangkan konflik agensi.

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I certify that a Thesis Examination Committee has met on 3 June 2016 to conduct the final examination of Maziar Ghasemi on his thesis entitled " Interrelationships among Managerial Incentives, Leverage, Dividend and Performance of Public Listed Companies in Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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LIST OF ABBREVIATIONS

BOD	Board of Directors
BPCW	Breusch-Pagan/Cook-Weisberg
BPLM	Breusch-Pagan Lagrangian Multiplier
CEO	Chief Executive Officer
CG	Corporate Governance
CMP	Conditional Mixed Process
COI	Convergence-Of-Interest
DWH	Durbin-Wu-Hausman
DW	Durbin-Watson
ENT	Entrenchment
EPS	Earnings Per Share
ESOS	Employees' Share Option Scheme
FCF	Free Cash Flow
GLC	Government Linked Company
HS	Hausman Specification
KLCI	Kuala Lumpur Composite Index
KLSE	Kuala Lumpur Stock Exchange
LC	Life Cycle Theory
MANOWN	Managerial ownership
MANREMU	Managerial Remuneration
MCCG	Malaysian Code On Corporate Governance
MLE	Maximum-Likelihood Estimator
NDTS	Non-Debt Tax Shield

OLS	Ordinary Least Squares
PE	Price Earnings Ratio
PO	Pecking Order Theory
REIT	Real Estate Investment Trust
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
SEM	Simultaneous Equations Model
SPAC	Special Purpose Acquisition Company
SUR	Seemingly Unrelated Regression
TOT	Trade off Theory
2SLAD	Two-Stage Least Absolute Deviation
2SLS	Two-Stage Least Squares
3SLS	Three-Stage Least Squares

CHAPTER 1

INTRODUCTION

1.1 Background of the Research

Separation of corporate ownership may provide several benefits such as hierarchical decision making policy, firm size and developing investment strategies. However, it may bring harm in the sense that the managers have a lack of incentives to run the company efficiently and make it more profitable (Donaldson and Davis, 1991; Hill and Jones, 1992). Several mechanisms may serve to limit the conflicts of interest between managers and shareholders by aligning the interests of both groups. Based on the Agency Theory, managerial incentives that include ownership and remuneration align the interest between managers and shareholders. On the other hand, Jensen (1986) states that limiting action freedom of managers has a vital role to play in decreasing the agency costs, and presents the decline of free cash flow (FCF) as a solution. He indicates that some controlling approaches can resolve this dilemma, with leverage and dividends as two important financial solutions for this particular problem.

Managerial ownership (MANOWN) is a well-known solution to the principal-agent problem (McKnight and Weir, 2009; Singh and Davidson 2003). However, researchers have also found that high level of MANOWN can reduce the company value based on managerial entrenchment, thus external shareholders find it hard to monitor and control the actions of this kind of managers (DeAngelo and DeAngelo, 1985; Stulz, 1988), and managers could divert the outside investors' benefits to themselves (Benson and Davidson, 2010; Jeelinek and Stuerke, 2009). The Agency theory argues that managers are self-serving and governance mechanisms, including the executive compensation structure, help to align the incentives of top managers with the interests of shareholders (Jensen and Meckling, 1976). Thus, executive compensation is an important tool in both motivating and retaining firm executives.

Studies in developed countries have shown that ownership structure is one of the determinants of executive remuneration. Intuitively, it is stated that managers can determine their own remuneration packages if they have some ownership in the firm. Some studies showed positive relations (Allen, 1981; Holderness and Sheehan, 1988; Werner *et al.*, 2005) and some of them indicated negative relations (Attaway, 2000; McConaughy, 2000). Both MANOWN and managerial remuneration (MANREMU) are internal solutions to the agency problem, but their interrelation has been ambiguous (Attaway, 2000; McConaughy, 2000); the factors such as tax, regulation, culture and financial factors of the firm (e.g., leverage, dividends, and performance) may influence this interrelationship.

However, two different opinions exist about the agency dilemma between MANOWN and managerial remuneration. The Convergence-Of-Interest Hypothesis (COI) posits that increasing share ownership by managers will increase their interest aligned with the shareholders (Ang *et al.*, 2000; Fleming *et al.*, 2005), hence there is no need to pay more compensation (Conyon *et al.*, 2010; Fernandes *et al.*, 2013). Although entrenchment hypothesis (ENT) argues that owner-managers have more influence on deriving more remuneration from firms without considering their performance (Allen, 1981; Holderness and Sheehan, 1988; Werner *et al.*, 2005). Thus, when managerial incentives are studied, MANOWN and MANREMU should be investigated as endogenous variables (Lee and Chen, 2011). However, scholars are not totally engaged in the study of managerial incentives based on a mechanism that considers the MANOWN and MANREMU as endogenous variables and investigates simultaneous interrelation between them (O'Callaghan *et al.*, 2014).

However, managers are the ones who ultimately make decision about dividends and leverage. To be precise, these internal controlling instruments are methods that are impressed by managers. Conversely, dividends and leverage may affect the feasibility and attractiveness of managerial incentives. Therefore, agency solutions should be considered as mechanisms that other internal controlling instruments have interrelationships with managerial incentives.

The agency cost of the equity hypothesis suggests that debt mitigates shareholder-manager agency problems (Ahmed, 2008) by inducing lenders to monitor reducing FCF available to managers and forcing managers to focus on value maximization when facing the threat of bankruptcy (Grossman and Hart, 1982; Zwiebel, 1996). The leverage choice itself is subject to the agency problem between shareholders and managers (Zwiebel, 1996). It means raises in debt are directly associated to rises in risk, particularly the bankruptcy risk (Leland, 1998).

Remarkably debt not only declines FCF, but also raises bankruptcy probability. Leverage and remuneration are two policies for reducing the conflicts between shareholders and managers, but applying each one will lead to distress the other one (Agha, 2013). Managers also try to avoid the risk of leverage, because they want to protect their career. Thus, shareholders have to compensate this by giving higher remuneration to managers. Firms with high debt, however, will likely to have less FCF, and thus less likely to be able to pay high remuneration. According to the risk–averse hypothesis, managers will be less motivated to have higher ownership at the presence of debt (Ahmed, 2008); therefore, debt is utilized as a monitoring substitute for MANOWN. In other words, if MANOWN and leverage are used as substitute instruments in controlling the agency cost of FCF, a negative effect of leverage on MANOWN could therefore be expected.

On the other hand, the entrenchment hypothesis postulates that owner-managers are liable to involve in actions that are detrimental to the benefits of debt issuers (Jensen and Meckling, 1976) and attempt to restructure the capital based on their own benefits(Jensen, 1986). However, during the recent decade, studying the endogeneity between; MANOWN and leverage (Ghosh, 2007; Moussa and Chichti, 2014) and MANREMU and leverage (Ortiz-Molina, 2007; Zhang, 2009) has not been widely considered. In addition, investigation of the simultaneous interrelationship between managerial incentives (both ownership and compensation) and debt policy is a weak point of the literature (Shiyyab *et al.*, 2013).

Dividends policy is one of the utmost controversial issues and researched areas of the corporate finance (Brealey, 2012). According to Pecking Order (PO) Theory, firms will prefer to rely more on internal funds or retained earnings ; as a result, firms will have a tendency to pay less dividend and hence have higher retained earnings (Tong and Green, 2005). On the other hand, based on the Signaling Theory, shareholders expect managers of highly profitable firms to pay higher dividends in order to reduce agency costs and signal future profitability.

In addition, Lintner hypothesis (Lintner, 1956) indicate that dividend payout is rigid and sticky and managers prefer to pay it out in a steady trend. According to the COI hypothesis, MANOWN and dividends are served as monitoring instrument substitutes (Chen and Steiner, 1999) in controlling the agency matter of FCF; therefore a negative causal relationship between MANOWN and dividend could be expected. In contrast, with respect to the ENT hypothesis, owner-managers will be more motivated to distribute higher dividends to themselves as shareholders. In addition, the relation between MANREMU and other controlling instruments (dividends) is indistinctive.

According to the COI hypothesis, MANREMU and dividends are substitute methods due to reducing the agency problem. On the other hand, managers have high incentives to avoid paying dividends primarily because dividends decrease the amount of discretionary funds available inside the firm (White, 1996). Hence, shareholders have to pay more compensation to encourage them for high level of payout. To be precise, amendments in compensation schemes have caused changes in the firms' payout policies (Kahle and Kathleen, 2002). Moreover, managers who are entrenched and receive a larger part of compensation through salary and bonus rather than long-term rewards linked to the firm performance are less sensitive to shareholder values, and pay higher dividends (Ghosh and Sirmans, 2006). The importance of the study based on the causal relationship between MANOWN and dividend is mentioned by some scholars (Hardjopranoto, 2006; Persson, 2014). Moreover, the causal relationship between MANREMU and payout policy has been investigated in some developed markets (Ghosh and Sirmans, 2006; Shiyyab *et al.*, 2013) .

According to Conventional wisdom, the main aim of a company is to maximize its stock market value. Managers of the company are responsible for achieving that aim (Jerzemowska, 2006). But it becomes more apparent, when managers intend to maximize their own benefits. Therefore, vital issues for a firm's shareholders are how to control and induce managers to make decisions that minimize the agency costs while maximizing shareholders' wealth.

Therefore, managerial incentives not only are used to control the agency cost, but also encourage managers to show the best effort due to maximizing the firm value.

Subsequently, in order to provide a comprehensive perspective on managerial incentives, both roles of controlling and motivating should be investigated. The controlling role is associated with interrelation of managerial incentives with dividend and leverage, and the motivate role is associated with the interrelation of managerial incentives with firm profitability.

Moreover, firms undergo severe and fast changes in their ownership structure in response to the firm profitability (Demsetz and Lehn, 1985). Indeed, many researchers emphasize the endogenous relationship between executive compensation, executive ownership, and firm profitability (Chung and Pruitt, 1996; Core *et al.*, 1999a; Demsetz and Lehn, 1985; Kapopoulos and Lazaretou, 2007; Mehran, 1995). The COI hypothesis explains that increasing MANOWN will increase managers' interest, aligned with the interest of shareholders. Hence, the manager-owner tends to engage in the company value maximizing activities and is less expected to pursue non-value maximizing aims (Fama, 1980). There is also evidence that higher MANOWN cause a positive effect on the company's Performance (Isik and Soykan, 2013; Kapopoulos and Lazaretou, 2007). Nevertheless, several studies indicated that MANOWN does not always have a positive impact on corporate profitability.

Morck *et al.* (1988) states that when a manager owns only a small proportion of company's shares, he/she may still pursue share value maximization because of the discipline of corporate control markets and managerial labor. Though, as the managers become large investors and have the power to control the company, they can divert the outside investors' wealth to themselves.

There is also evidence that higher MANOWN have a negative effect on the performance of the company (Abdullah *et al.*, 2012b; Mokhtar *et al.*, 2014). Executive pay is a topic of great significance to practitioners, stakeholders and academics (Bruce *et al.*, 2007). Based on the Agency Theory, it is reasoned that the interests of managers and shareholders can be aligned by linking manager's compensation to the firm performance (Murphy, 1999). But in practice, remuneration is not only a solution to the agency problem, but is also an agency problem itself if the remuneration systems are not designed properly (Bebchuk, 2009).

Thus, differences in corporate governance (CG) systems may influence the effectiveness of this potential alignment compensation mechanism (Unite *et al.*, 2008). However, the entrenchment hypothesis claims that powerful managers, without paying attention to the firm's performance or benefits of shareholders, just pursue personal interest. Hence, based on the Agency Theory, shareholders implement two parallel strategies to reduce the agency cost and also to increase the firm profitability in order to maximize the firm value. Using debts, dividends, and managerial incentives are the most important internal methods for reducing the agency cost. In addition, managerial incentives are applied by shareholders to motivate managers to improve firm profitability.

However, Agency theory does not consider the level of managers' power when offering the methods for reducing agency conflict. Therefore COI and ENT hypotheses have tried to solve this problem. However, neither the Agency Theory, nor its related hypotheses theoretically mention the endogeneity between the agency solutions. Therefore, the mechanism of minimization of agency cost and maximization of firm profitability consist of different instruments and theoretically their interrelations cannot be explained from the beginning.

Consequently, the Agency Theory has been widely used across a variety of corporate finance concepts for the past three decades; little work has been undertaken with regard to how the Agency Theory could be used to explain endogeneity and simultaneous interrelation among internal solutions for Agency problem. In addition, no general consensus has emerged after many years of investigation, and scholars often disagree about the same empirical evidence.

1.2 Internal Agency Instruments in the Malaysian Context

Malaysia is one of the fast growing economies that has successfully developed from a commodity-based economy to one that focuses on manufacturing from the early 1980s through the mid-1990s. The origin of the 1997 financial crisis in Malaysia lies in the structural weaknesses in its domestic financial institutions which were supported by inaccurate macroeconomic policies and moral hazard(Corsetti *et al.*, 1999). Hence, there should be some instruments that align the interests of agents and principals (Judge *et al.*, 2003). The recommended mechanism is good CG by which this interest conflict can be resolved to some extent (Carter *et al.*, 2003; Shleifer and Vishny, 1997).

Thereafter, policymakers reformed CG in Malaysia several times by codifying Malaysian Code on Corporate Governance (MCCG), Capital Market Master Plan and Financial Sector Master Plan. Studying the contents of the CG code reveals that most of the instructions are founded on the idea of the Agency Theory. However, various reform of CG has been undertaking since the year 2000, the outputs are not consistent with the theoretical expectations in the Malaysian market (Haniffa and Hudaib, 2006; Htay *et al.*, 2013; Liew, 2006; Yusoff and Alhaji, 2012). The main reasons for this problem are due to the nature of the ownership structure (Htay *et al.*, 2013; Rahman and Ali, 2006; Vethanayagam *et al.*, 2006), political (Htay *et al.*, 2013) and cultural (Abdul Wahab *et al.*, 2015; Lai, 2004) background of Malaysian market and the adoption of inappropriate foreign CG template (Rahman and Ali, 2006).

The owner managed companies are widespread among Malaysian firms (Mat Nor and Sulong, 2007; Vethanayagam et al., 2006) and the proportion of MANOWN is so high compare to the developed countries.[1]Considering entrenched managers, based on the

1 (23.8% mentioned by Kamardin (2014), 42.5% by Aminiandehkordi et al. (2014) , 43% as mentioned by Sulong et al. (2013), 27 by Mustapha and Ahmad (2011),

high compare to the developed countries.[1]Considering entrenched managers, based on the high level of ownership, managerial activities may not be consistent with the interest of minority shareholders (Lai, 2004; Lefort and Urzúa, 2008), hence this concentrated MANOWN results in weak corporate governance system in Malaysia (Zulkarnain, 2007), and also MANOWN is an important aspect in influencing the firms' monitoring costs in the Malaysian market (Mustapha and Ahmad, 2011; Niemi, 2005). Moreover, the dividends received by executive through their share ownership represented another major source of their income in Bursa Malaysia (Cheah *et al.*, 2012). Therefore the relationship between MANOWN and dividend has also been complicated. However, the Malaysian ownership structure is changed as the national economy grows and business organizations flourish (Hassan *et al.*, 2014b).

Executive compensation are vigorously debated in Malaysia (Wooi and Ming, 2009). Since, executives have the power to control most decisions in their listed firms under Bursa Malaysia (Mohd Saleh *et al.*, 2009), executive remuneration has sharply increased during these decades in Malaysia (23% from 2001 to 2006 mentioned by Kaur and Rahim (2007) and 22% only in 2009 by Hamsawi (2011)) and this suggests that rent extraction through overcompensation is likely to be in tandem with the managerial power theory (Salim and Wan-Hussin, 2009).

However, the Executive remuneration of Government Linked Companies (GLCs) shows less growth compared to other companies (12% less mentioned by Minhat and Abdullah (2014)). Although, family-managed companies show uncertainty in executive remuneration (Dogan and Smyth, 2002; Vicknes, 2003), but owners-managed companies moved toward intense payout to the executives (Vicknes, 2003). Consequently, there are different remuneration policies among firms in Malaysia that cause difficulty to use executive remuneration as an instrument for the agency problem.

Corporate governance compliance commonly has not been reflected in management compensation methods among listed firm in Bursa Malaysia (Dogan and Smyth, 2002; Wooi and Ming, 2009). Moreover, the relationship between MANREMU and the other instrument of agency solutions seems so different in the Malaysian market, such as no relationship between debt and MANREMU (Amin *et al.*, 2014; Yatim, 2013) or MANREMU and dividend (Cheah *et al.*, 2012). As a developing country, Malaysia still lacks studies that look into the most important determinants of the dividend policy for the listed firms (Appannan and Sim, 2011). One of the conflicts of the dividend policy in Malaysian public listed companies is because of the personal tax exemption, in which managers are reluctant to cut or avoid omitting

1 (23.8% mentioned by Kamardin (2014), 42.5% by Aminiandehkordi et al. (2014) , 43% as mentioned by Sulong et al. (2013), 27 by Mustapha and Ahmad (2011), 21.42% by Anum Mohd Ghazali (2010), 21% by Zunaidah and Fauzias (2008), 34.5% by Haniffa and Hudaib (2006), 29 % by Kanapathy (2005)).

dividend, even when the performance of the companies is deteriorating due to shareholders' pressure (Ling *et al.*, 2008).

In addition, dividends received by directors through their shares ownership represented another main source of their earnings among Malaysian firms (Cheah *et al.*, 2012). However, Malaysian firms used dividend policy to reduce the agency problem (Ahmed, 2008) and dividend decisions are considered in CG mechanism which is influenced by other instruments (Esfahani Zahiri and Jaffar, 2012). In addition, capital structure is very much dependent on ownership structure (Ebel Ezeoha and Okafor, 2010), and also debt structure is influenced by managers' shareholdings in Malaysia (Joher *et al.*, 2006; Mustapha *et al.*, 2011). However, GLCs were continuously more heavily leveraged compared to the level of debt in other companies (Bliss and Gul, 2012; Ting and Lean, 2011).

To summarize, in Malaysia, the mentioned agency instruments have some differences compared to developed markets; first, the concentrated management ownership may lead to interest conflict between minor shareholders and managers, second, assessment of management compensation methods in Malaysia leads to vague results. Third, debt policy is influenced by MANOWN and because of the weak bond market; it is the main resource for financing in Malaysia. Forth, there are some different regulations about individual dividend tax and cultural values that call for doing a specific research on the issue in Malaysia as a developing country.

1.3 Problem Statement

Since Traditional Agency Theory has not considered the power of managers, then Convergence-of-Interest & Entrenchment hypotheses try to explain the relationships between managerial incentives and other agency instruments based on the power of managers. However, it seems that these hypotheses show that agency instruments can be substituted, complemented, or may have no relationship with each other.

As mentioned in the background of this study, not only managerial incentives affect leverage and dividend, but also leverage and dividend are making an impact on managerial incentives. Theoretically, Traditional Agency Theory and also the above-mentioned hypotheses do not consider the endogeneity between instruments directly; hence the interrelationships among agency solutions are not clear. Therefore, not only scholars cannot completely explain the mechanism of interrelations between agency instruments, this issue is also a black box in CG for both shareholders and managers.

The motivations of doing the research about mechanism agency instruments in the Malaysian context come from some specific characters of aforementioned instruments in this market that are extracted from section 1.2. The high level of MANOWN in the Malaysian market leads to increased likelihood of entrenched managers, therefore managers have to choose different policies to mitigate agency problems compared to the developed market with diffused ownership. Additionally, there is no regulation which provides the requirement of the approval of executive remuneration by shareholders in Malaysia. The payment of managerial compensation has sharply increased during the recent 10 years in the Main Market of Bursa Malaysia. However, the level of compensation in GLCs is lesser than other companies, and companies do not follow certain MANREMU strategies when family controlled firms or managers have high level of shares in the firms. In addition, the main method of compensation among the Malaysian listed firms is salary.

Moreover, some traits of dividends can cause different usage and function of dividends in a mechanism agency such as: the individual tax exempt dividends, pressure of shareholders to receive dividends, and the role of dividends as the second main source of executives' earnings in Malaysian listed companies. In addition, the weakness of Malaysian bond market makes bank loans become the main source for external firm finance (Fraser *et al.*, 2006; Tang and Yan, 2010; Trezzini and Gomez, 2000). However, the banking industry is relevantly controlled by the Malaysian government. On the other hand, the debt structure is strictly influenced by the owner-managers in Bursa Malaysia. Therefore, choosing the debt in the capital structure and also using it as an instrument to mitigate agency problems has created a complex relationship with ownership structure in Malaysian market.

Shareholders try to motivate managers by connecting managerial interest to firm profitability; therefore, if managerial interest is aligned with shareholders' interests, then CG would reach some of the most important objectives. Hence, understanding the interrelation between managerial incentives and performance is the lost ring of the chain in the comprehensive perception about managers' decision when facing the agency conflict. However, based on previous findings, the linkages between MANOWN and performance as well as MANREMU and performance are uncertain and different among Malaysian firms.

By now, the CG studies in Malaysia has not yet investigated managerial incentives and controlling internal instruments (dividend and leverage) as endogeneity variables in mechanisms based on the interrelation between them. Therefore, ignoring their interrelations leads to the incomprehensive interpretation of their empirical results. To understand the concurrent interrelations among these instruments, their interrelationships need to be investigated as a model and at the same time as well. In other words, based on a simultaneous equations model, studying the synchronous effects among these instruments can be possible.

Otherwise, if the relationships among these instruments are studied only equation by equation (i.e., not using the equations system), finding out their interrelation would not be possible. Moreover, by considering the fact that firms apply some of these methods at the same time, studying the simultaneous interrelations among these variables causes better perceptions of corporate governance decisions which are chosen by the managers and shareholders.

The simultaneous interrelation studies between the managerial incentives and financial controlling instrument as well as managerial incentives and performance in Malaysian context have not been performed until now. Taking all these conditions into consideration, the interrelations of agency solution mechanisms are still ambiguous in the Malaysian market.

1.4 Research Questions

Based on background of the research and the problem statement, this research will be designed to investigate the interrelation between managerial incentives (MANOWN and MANREMU) and each of the controlling instruments (i.e., leverage and dividends) according to a mechanism of agency solutions to reduce the agency cost. In addition, the interrelationship between managerial incentives and performance will be investigated to understand the interrelation between the interest of managers and firm profitability to maximize the firm performance. Regarding this objective, there are three main questions:

Q1: With regard to the Agency theory, convergence of interest and Entrenchment Hypotheses, how and to what extent do managerial incentives and dividends policy have an influence on each other to control the agency conflict as a simultaneous mechanism?

Q2: In line with the Agency theory, convergence of interest and Entrenchment Hypotheses, how and to what extent do managerial incentives and debt policy have an influence on each other to control the agency conflict as a simultaneous mechanism?

Q3: In agreement with the Agency theory, convergence of interest and Entrenchment Hypotheses, how and to what extent do managerial incentives and performance have an influence on each other to maximize firm profitability as a simultaneous mechanism?

1.5 Research Objectives

The general objective of this study is to examine the interrelation between managerial incentives, leverage and dividends, some of the internal solutions of the agency problems, and performance which reveal the role of managerial incentives in firm value maximization in the Malaysian Market based on the Agency theory, Entrenchment and convergence of Interest Hypothesis. The three sub-objectives are as follows:

1- To investigate whether there is any interrelationship between managerial incentives and dividend policy of the selected companies listed in the Main Market of Bursa Malaysia and if so, determine to what extent such an interrelation(s) is/are significant in the influence of each internal controlling instrument on other instruments at the same time.

2- To examine whether there is any interrelationship between managerial incentives and debt policy of the selected companies listed in the Main Market of Bursa Malaysia and if so, determine to what extent such an interrelation(s) is/are significant in the influence of each internal controlling instrument on other instruments at the same time.

3- To investigate whether there is any interrelationship between managerial incentives and firm profitability of the selected companies listed in the Main Market of Bursa Malaysia and if so, determine to what extent such an interrelation(s) is/are significant in the influence of each managerial incentive instrument on firm profitability and also firm profitability on each managerial incentive instrument at the same time.

1.6 Scope of Research

Based on the concentrated ownership, the high level of MANOWN, individual dividend tax exception, the importance of debt in comparison with the weak bond market in the Malaysian market, and the effect of managerial ownership on the capital structure, different mechanisms may be performed by listed Malaysian companies to solve the agency issues. In the meantime, the limited knowledge of interrelation of the internal agency solutions in the Malaysian market is the other reason for choosing Bursa Malaysia for this study.

Bursa Malaysia includes two Markets, namely; Main Market and ACE Market. The Main market consists of the companies with stable conditions and also available information for many years; hence the CG policies and the agency issues for these listed companies can be explained by the Agency Theory. However, the ACE market consists of the companies with high potential for growth which may need more resources for financing new projects and they also demand more risks. In addition, the information about the ACE listed firms is limited. Therefore listed firms in the ACE market implement different strategies and policy for solving the agency problems and also pursuing good CG.

Considering different natures between these two markets and also the importance of the Main market, only this market (i.e., the Main market) is selected for this study. However, future studies that focus on ACE market and scholars would be able to compare the results of the ACE and the main board.

In addition, each firm included in this study should have continuously used all mentioned instruments, meaning that paying out dividends, using debt in the capital structure, and its managers should have some shares of the firm. If the chosen firms did not have one or two of the above-mentioned criteria, the results would be bias. Therefore using all instruments by the firms was the main assumption of this study.

Besides, financial sectors, Real Estate Investment Trust sector that had different natures and followed some different rules or regulations are excluded from the sample. The final sample includes firms from industrial products, properties industry, consumer products, trading and services, plantation, construction, and technology sectors under the Main market.

Firms that is selected in this study are enlisted during the period of the study because the aim of this study is to examine the agency mechanisms in the regular firms (don't investigated delisted firms or the new listed firms). The limitations of the current research are the measurements of MANOWN and MANREMU.

Since the indirect MANOWN data which was disclosed in the annual reports of the firms were unclear, then calculating and computing the accurate indirect ownership comprehensively was not possible[2]. Thus direct ownership was the only feature investigated in this study. Furthermore, based on the complexity and limitations of calculating the value of equity-based compensations, MANREMU was evaluated according to bonus, salary, benefits of kin, allowance, and fees. Another reason that equity-based compensation had not been chosen for this study is related to the nature of equity-based compensation, which is used more as a long-term instrument for aligning the interest of managers with benefits of the shareholders. Moreover, according to previous studies, salary is the main method of managerial remuneration in the Malaysian market.

In order to choose the period of study, two factors were considered 1- the period of study including relevant and updated data 2- the period of study covering the requirements of econometrics methods to reach acceptable and reliable results. The newest annual reports of the listed firms in Bursa Malaysia, that were released when

2 However, Act 1983 (Section 99B) indicates that the chief executives and also the directors of the listed firms must reveal their interests in the firm to the related securities commission. But this article (section 99B) does not mention how firms should prepare the information about the indirect ownership and therefore the ultimate ownership of each executive cannot be calculated because of the vague indirect ownership. For instance, company A has 60% of the shares of company B. Executive X is a director of company B and also has some shares in company A. Moreover, executive X has 10% of the shares in the company B. The spouse of executive A also is the executive of company B. *Based on the common method of annual report in Malaysia*. Company B reports 60% of the indirect ownership of executive X in company B and also 70% of the indirect ownership of company B for his/her spouse. (According to part five of section 99B, indirect ownership of relatives includes a spouse, child or parent of the chief executive or director). It means the total indirect ownership of only these two executives are 130%. However, it is not possible to understand how much of the share of company A belonged to executive X? It is only a simple sample about the problem of indirect ownership calculation in Bursa Malaysia. To see a real example of this problem the reader is referred to see appendix 2 which indicates the information of direct and indirect ownership of annual report of Fiamma Holding Berhad in 2014.

the data collection started, are related to the year 2013. From the econometrics view, previous studies used the period of study between 6 to 8 years to find acceptable and reliable results by 3SLS and 2SLS methods (for instance, Farag et al. (2014) for 8 years, Persson (2014) for 7 years, and Kim et al. (2007) for six years). Consequently, the population of this study included 267 companies which were eligible for this research. The whole population was investigated for a period of 9 years from 2005 to 2013.

1.7 Significance of the Research

There are lacks of well defined theoretical frameworks on endogeneity and simultaneous interrelationships among instruments of agency solutions. Therefore, this study takes into consideration endogenous nature of agency problem solutions in CG issues. Applying three simultaneous equations models (SEM), this study conducts a comprehensive investigation of the interrelations between managerial incentives (ownership and compensation) and financial internal controlling instruments (dividend and leverage), and also managerial incentives and firm profitability. The significance of this research can be organized into three categories which are, Theoretical, methodological, and practical. The contributions of the proposed research as follow:

1.7.1 Theoretical Contribution

Owing to the facts that theoretical mechanisms of CG, has not considered the endogeneity and interrelations among agency instruments, this study investigates the interrelations between managerial incentives and financial internal agency solutions by using Convergence-Of-Interests Hypothesis as well as entrenchment hypothesis in a system based on simultaneous interrelation between instruments. In other words, instead of treating these theories as mutually exclusive, this study empirically tests whether these theories are substitutes, complements, or neither in the Malaysian market.

1.7.2 Methodological Contribution

The fundamental assumption of Ordinary Least Squares (OLS) estimator is based on uncorrelation between exogenous and the residual terms. Consequently, in terms of explaining interrelation (causality) among internal policies of the agency problem, the OLS leads to biased and inconsistent estimates.

Therefore, this study contributes to the growing number of pieces of research applying SEMs as an alternative to OLS regression to investigate CG mechanisms. By now, many studies have used Two Stage Least Squares (2SLS) and Three Stage Least Squares stage least squares (3SLS) as estimation methods, but they have suffered from heteroskedasticity problem. But using 3SLS- Conditional mixed process (3SLS-CMP) as a new econometrics method that solves heteroskedasticity problem in SEM is another methodological contribution. This study utilizes an econometrically and comprehensive defensible investigation of the interrelations between managerial incentives and internal agency instrument and also managerial incentives and firm performance based on a long-period of time (nine year), exhaustive sampling (267 firms), and different econometrics methods.

1.7.3 Practical Contribution

Unlike most studies conducted in developed countries, this research will try to explore the simultaneous relationship between managerial motivates and internal controlling instruments for eliminating agency problems in the Malaysian context. In addition, this study tries to bridge the research gap in Malaysia through comprehensively investigating the role of managerial incentives in reducing the agency issue and also maximizing the firm value in a framework of simultaneous interrelation between variables. Moreover, from a practitioners (investors, shareholders) point of view, this study contributes to better knowledge on how different CG policies affect one another, which can give some information on how they should reduce agency costs.

This research is also expected to provide some rewarding guiding principles for the policy makers as well as debt financers of the capital markets in Malaysia based on the interrelation between managerial incentives with dividends and leverage. In addition, it provides insight into the interrelation between managerial incentives and firm profitability which can be useful for investors and minor shareholders.

REFERENCES

Abdul Wahab, E. A., Allah Pitchay, A., and Ali, R. (2015). Culture, corporate governance and analysts forecast in Malaysia. *Asian Review of Accounting, 23*(3), 232-255.

Abdullah, F., Shah, A., and Khan, S. (2012a). Firm performance and the nature of agency problems in insiders-controlled firms: Evidence from Pakistan. *The Pakistan Development Review, 51*(4), 161-183.

Abdullah, H., Ahmad, Z., and Roslan, S. (2012b). The influence of ownership structure on the firms dividend policy based Lintner model. *International Review of Business Research Papers, 8*(6), 71-88.

Abdullah, S. N. (2006). Directors' remuneration, firm's performance and corporate governance in Malaysia among distressed companies. *Corporate Governance, 6*(2), 162-174.

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The Journal of Risk Finance, 6*(5), 438-445.

Abor, J. (2007). Debt policy and performance of SMEs: evidence from Ghanaian and South African firms. *The Journal of Risk Finance, 8*(4), 364-379.

Abor, J., and Fiador, V. (2013). Does corporate governance explain dividend policy in Sub-Saharan Africa? *International Journal of Law and Management, 55*(3), 201-225.

Abowd, J. M. (1990). Does performance-based managerial compensation affect corporate performance? *Industrial and Labor Relations Review*, 52-73.

Abu Mouamer, F. M. (2011). The determinants of capital structure of Palestine-listed companies. *The Journal of risk finance, 12*(3), 226-241.

Acharya, V. V., and Bisin, A. (2009). Managerial hedging, equity ownership, and firm value. *The RAND Journal of Economics, 40*(1), 47-77.

Adam, T., and Goyal, V. K. (2008). The investment opportunity set and its proxy variables. *Journal of Financial Research, 31*(1), 41-63.

Adaoglu, and Cahit. (2000). Instability in the Dividend Policy of the Istanbul Stock Exchange (ISE) Corporations: Evidence from an Emerging Market. *Emerging Market Review 1(3)*, 252-270.

Adnan, M. F., Sabli, N., and Abdullah, A. (2013). Relationship between Board Gender Diversity and Firm Performance: Evidence from Malaysian Firms. *Gading Businress and Management Journal 17*(2), 21-40.

Affandi, S., Mahmood, W. M. W., and Shukur, N. A. (2012). Capital Structure of Property Companies in Malaysia Based on Three Capital Theories. *South East Asian Journal of Contemporary Business, Economics and Law, 1*(1), 131-136.

Aggarwal, R., and Zhao, X. (2007). The leverage–value relationship puzzle: An industry effects resolution. *Journal of Economics and Business, 59*(4), 286-297.

Aggarwal, R. K., and Samwick, A. A. (1999). Executive compensation, strategic competition, and relative performance evaluation: Theory and evidence. *The Journal of Finance, 54*(6), 1970-1999.

Agha, M. (2013). Leverage, executive incentives and corporate governance. *Accounting & Finance, 53*(1), 1-30.

Ahmad, N., and Aris, Y. B. W. (2015). Does Age of the Firm Determine Capital Structure Decision? Evidence from Malaysian Trading and Service Sector. *International Business Management, 9*(3), 200-207.

Ahmad, Z., Abdullah, N. M. H., and Roslan, S. (2012). Capital structure effect on firms performance: Focusing on consumers and industrials sectors on Malaysian firms. *International Review of Business Research Papers, 8*(5), 137-155.

Ahmed, H., and Javid, A. Y. (2008). Dynamics and determinants of dividend policy in Pakistan (evidence from Karachi stock exchange non-financial listed firms). *Munich Personal RePEc Archive, 25*(2), 148-171.

Ahmed, H. J. A. (2008). Managerial ownership concentration and agency conflict using logistic regression approach: Evidence from Bursa Malaysia. *Journal of management research, 1*(1), 1-10.

Aivazian, V., Booth, L., and Cleary, S. (2003). Do emerging market firms follow different dividend policies from US firms? *Journal of Financial research, 26*(3), 371-387.

Akhtaruddin, M., and Hossain, M. (2008). Investment opportunity set, ownership control and voluntary disclosures in Malaysia. *Journal of Administration and Governance 3*(2), 25-39.

Al-Dhamari, R. A., and Ismail, K. N. I. K. (2013). Governance Structure, Ownership Structure and Earnings Predictability: Malaysian Evidence. *Asian Academy of Management Journal of Accounting and Finance, 9*(1), 1-23.

Al-Malkawi, H.-A. N. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences, 23*(2), 44-70.

Al-Matari, E. M., Al-Swidi, A. K., Fadzil, F. H., and Al-Matari, Y. A. (2012). The Impact of board characteristics on Firm Performance: Evidence from Nonfinancial Listed Companies in Kuwaiti Stock Exchange. *International Journal of Accounting and Financial Reporting, 2*(2), Pages 310-332.

Al-Shubiri, F. N. (2011). Determinants of changes dividend behavior policy: Evidence from the Amman stock exchange. *Far East Journal of Psychology and Business, 4*(2), 1-15.

Al-Twaijry, A. A. (2007). Dividend policy and payout ratio: evidence from the Kuala Lumpur stock exchange. *The Journal of Risk Finance, 8*(4), 349-363.

Al Farooque, O., van Zijl, T., Dunstan, K., and Karim, W. (2007). A simultaneous equations approach to analysing the relation between ownership structure and performance in Bangladesh. *Asia Pacific Journal of Accounting and Economics, 14*(2), 127-149.

Albert, M. (2013). *Executive Compensation and Firm Leverage.* Duke University.

Ali, S. M., Salleh, N. M., and Hassan, M. S. (2010). Ownership structure and earnings management in Malaysian listed companies: the size effect. *Asian Journal of Business and Accounting, 1*(2), 89-116.

Allen, D. E. (1993). The pecking order hypothesis: Australian evidence. *Applied Financial Economics, 3*(2), 101-112.

Allen, M. P. (1981). Power and privilege in the large corporation: corporate control and managerial compensation. *American Journal of Sociology*, 1112-1123.

Alli, K. L., Khan, A. Q., and Ramirez, G. G. (1993). Determinants of corporate dividend policy: A factorial analysis. *The Financial Review, 28*(4), 523-547.

Ameer, R. (2010). Determinants of corporate hedging practices in Malaysia. *International Business Research, 3*(2), 120-130.

Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock Exchange. *Investment Management and Financial Innovations, 4*(2), 103-112.

Amidu, M., and Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *Journal of Risk Finance, The, 7*(2), 136-145.

Amihud, Y., and Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *The bell journal of economics*, 605-617.

Amin, J. M., Kamarudin, K. A., and Ismail, W. A. W. (2014). What determines directors' remuneration in Malaysia? *Recent trends in Social and Behavioral Science- Lumban Gaol et al. (Eds)*, 469-473.

Aminiandehkordi, P., Ahmad, A., and Hamzeh, N. (2014). *The Moderating Effect of Management Ownership on the Relationship between Intellectual Capital Performance and Market Value of Company*. Paper presented at the 5th Asia-Pacific Business Research Conference, Hotel Istana, Kuala Lumpur, Malaysia.

Amran, N. A., and Ahmad, A. C. (2013). Effects of Ownership Structure on Malaysian Companies Performance. *Asian Journal of Accounting and Governance, 4*, 51-60.

Anderson, R. C., and Reeb, D. M. (2003). Founding-family ownership and firm performance: evidence from the S&P 500. *The journal of finance*, *58*(3), 1301-1327.

Ang, J. S., Cole, R. A., and Lin, J. W. (2000). Agency costs and ownership structure. *the Journal of Finance, 55*(1), 81-106.

Angbazo, L., and Narayanan, R. (1997). Top management compensation and the structure of the board of directors in commercial banks. *European Finance Review*, *1*(2), 239-259.

Anil, K., and Kapoor, S. (2008). Determinants of dividend payout ratios-a study of Indian information technology sector. *International Research Journal of Finance and Economics*, *15*(1), 63-71.

Anum Mohd Ghazali, N. (2010). Ownership structure, corporate governance and corporate performance in Malaysia. *International Journal of Commerce and Management*, *20*(2), 109-119.

Appannan, S., and Sim, L. W. (2011). *A Study on Leading Determinants of Dividend Policy in Malaysia Listed Companies for Food Industry Under Consumer Product Sector*. Paper presented at the 2 nd International Conference on Business and Economic Research, 945-976.

Arasteh, F., Nourbakhsh, M. M., and Pourali, M. R. (2013). The study of relationship between capital structure, firm growth and financial strength with Financial leverage of the company listed in Tehran Stock Exchange. *Interdisciplinary Journal of Contemporary Research In Business, 5*(7), 480-491.

Ardestani, H. S., Rasid, A., Zaleha, S., Basiruddin, R., and Mehri, M. (2013). Dividend payout policy, investment opportunity set and corporate financing in the industrial products sector of Malaysia. *Journal of Applied Finance and Banking*, *3*(1), 123-136.

Ary, D., Jacobs, L., and Razavieh, A. (2002). Introduction to research in education . Wadsworth Group: CA.

Atkinson, J., Apanaschik, G., and Pittman, D. (2009). Seizing opportunity, Linking risk and performance [Electronic Version], 1-28, Attaway, M. (2000). A study of the relationship between company performance and Executive remuneration. *American Business Review, 18*(1), 77-85.

Azim, M. I., Mei, J. C. A., and Rahman, S. (2011). Executives' Remuneration and Company Performance: An Evaluation. *Corporate Board: Role, Duties & Composition, 7*(2), 16-31.

Baharuddin, N. S., Khamis, Z., Mahmood, W. M. W., and Dollah, H. (2011). Determinants of capital structure for listed construction companies in Malaysia. *Journal of Applied Finance and Banking, 1*(2), 115-132.

Bai, G., and Elyasiani, E. (2013). Bank stability and managerial compensation. *Journal of Banking & Finance, 37*(3), 799-813.

Baker, G. P., Jensen, M. C., and Murphy, K. J. (1988). Compensation and incentives: Practice vs. theory. *The journal of Finance, 43*(3), 593-616.

Baker, H. K., Mukherjee, T. K., and Paskelian, O. G. (2006). How Norwegian managers view dividend policy. *Global Finance Journal, 17*(1), 155-176.

Baker, M., Mendel, B., and Wurgler, J. (2015). Dividends as Reference Points: A Behavioral Signaling Approach*. *Review of Financial Studies*, hhv058.

Banghøj, J., Gabrielsen, G., Petersen, C., and Plenborg, T. (2010). Determinants of executive compensation in privately held firms. *Accounting & Finance, 50*(3), 481-510.

Bao, Y. (2013). Executive Compensation, Cash Dividend Policy and Compensation Contracts Design. *Collected Essays on Finance and Economics*.

Barnhart, S. W., and Rosenstein, S. (1998). Board composition, managerial ownership, and firm performance: An empirical analysis. *Financial Review, 33*(4), 1-16.

Barton, S. L., Hill, N. C., and Sundaram, S. (1989). An empirical test of stakeholder theory predictions of capital structure. *Financial Management, 18*(1), 36-44.

Bartram, S. M., Brown, P. R., How, J. C., and Verhoeven, P. (2012). Agency conflicts and corporate payout policies: a global study. *Available at SSRN 1068281*.

Basmann, R. L. (1957). A generalized classical method of linear estimation of coefficients in a structural equation. *Econometrica: Journal of the Econometric Society, 25*(1), 77-83.

Bathala, C. T., Moon, K. P., and Rao, R. P. (1994). Managerial ownership, debt policy, and the impact of institutional holdings: an agency perspective. *Financial Management, 23*(Autumn), 38-50.

Bayo Moriones, A., and Larraza Kintana, M. (2009). Profit-sharing plans and affective commitment: Does the context matter? *Human Resource Management, 48*(2), 207-226.

Bebchuk, L. A. (2009). *Pay without performance: The unfulfilled promise of executive compensation*: Harvard University Press.

Bebchuk, L. A., Cohen, A., and Spamann, H. (2010). Wages of Failure: Executive Compensation at Bear Stearns and Lehman 2000-2008, The. *Yale J. on Reg., 27*, 257-282.

Bebchuk, L. A., and Fried, J. M. (2004). Executive compensation as an agency problem. *Journal of Economic Perspectives, 17*(3), 71-92.

Beiner, S., Drobetz, W., Schmid, M. M., and Zimmermann, H. (2006). An integrated framework of corporate governance and firm valuation. *European Financial Management, 12*(2), 249-283.

Belsley, D. A. (1988). Two-or three-stage least squares? *Computer Science in Economics and Management, 1*(1), 21-30.

Ben Caleb, E., Olubukunola, U., and Uwuigbe, U. (2013). Liquidity management and Profitability of manufacturing companies in Nigeria. *Journal of Business and Management, 9*, 13-21.

Ben Naceur, S., Goaied, M., and Belanes, A. (2006). On the determinants and dynamics of dividend policy. *International Review of Finance, 6*(1-2), 1-23.

Benito, A., and Young, G. (2003). Hard times or great expectations? dividend omissions and dividend cuts by UK firms. *Oxford Bulletin of Economics and Statistics, 65*(5), 531-555.

Benson, B. W., and Davidson, W. N. (2010). The relation between stakeholder management, firm value, and CEO compensation: A test of enlightened value maximization. *Financial Management, 39*(3), 929-964.

Berger, A. N., and Bonaccorsi di Patti, E. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. *Journal of Banking & Finance, 30*(4), 1065-1102.

Berle, A. A., and Means, G. (1932). *The modern corporation and Property*: New York, Mad ·lilIan Co.

Bessler, W., Drobetz, W., and Grüninger, M. C. (2010). International Tests of the Pecking Order Theory. *Midwest Finance Association (MFA)*, 1-47.

Bevan, A. A., and Danbolt, J. (2002). Capital structure and its determinants in the UK-a decompositional analysis. *Applied Financial Economics, 12*(3), 159-170.

Bhagat, S., and Bolton, B. (2008). Corporate governance and firm performance. *Journal of corporate finance, 14*(3), 257-273.

Bhagat, S., and Jefferis, R. H. (2005). *The econometrics of corporate governance studies*: Mit Press.

Bhattacharya, S. (1979a). An exploration of nondissipative dividend-signaling structures. *Journal of Financial and Quantitative Analysis, 14*(04), 667-668.

Bhattacharya, S. (1979b). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *Bell journal of economics, 10*(1), 259-270.

Bhattacharyya, N., Mawani, A., and Morrill, C. (2008). Dividend payout and executive compensation: theory and evidence. *Accounting & Finance, 48*(4), 521-541.

Bhattacharyya, S., and Cohn, J. B. (2010). *The temporal structure of equity compensation.* Paper presented at the AFA 2011 Denver Meetings Paper.

Black, F. (1976). The dividend puzzle. *The Journal of Portfolio Management*, *2*(2), 5-8.

Bliss, M. A., and Gul, F. A. (2012). Political connection and cost of debt: Some Malaysian evidence. *Journal of Banking & Finance, 36*(5), 1520-1527.

Bloom, M. C., and Milkovich, G. T. (1998). The relationship between risk, performance-based pay, and organizational performance. *Academy of Management Journal of Accounting and Economics, 41*, 283-297.

Bolek, M., and Wolski, R. (2012). Profitability or Liquidity: Influencing the Market Value-The Case of Poland. *International Journal of Economics and Finance, 4*(9), 182-190.

Booth, L., Aivazian, V., Demirguc-Kunt, A., and Maksimovic, V. (2001). Capital structures in developing countries. *The Journal of Finance, 56*(1), 87-130.

Börsch-Supan, A., and Köke, J. (2002). An applied econometricians' view of empirical corporate governance studies. *German Economic Review, 3*(3), 295-326.

Bradley, M., Jarrell, G. A., and Kim, E. (1984). On the existence of an optimal capital structure: Theory and evidence. *The journal of Finance, 39*(3), 857-878.

Brander, J. A., and Poitevin, M. (1992). Managerial compensation and the agency costs of debt finance. *Managerial and Decision Economics, 13*(1), 55-64.

Brealey, R., Leland, H. E., and Pyle, D. H. (1977). Informational asymmetries, financial structure, and financial intermediation. *The journal of Finance, 32*(2), 371-387.

Brealey, R. A. (2012). *Principles of corporate finance*: Tata McGraw-Hill Education.

Breuer, W., Rieger, M. O., and Soypak, K. C. (2014). The behavioral foundations of corporate dividend policy a cross-country analysis. *Journal of Banking & Finance, 42*, 247-265.

Breusch, T. S., and Pagan, A. R. (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica: Journal of the Econometric Society*, 1287-1294.

Brick, I. E., Palmon, O., and Wald, J. K. (2006). CEO compensation, director compensation, and firm performance: evidence of cronyism? *Journal of Corporate Finance, 12*(3), 403-423.

Brook, Y., Charlton Jr, W. T., and Hendershott, R. J. (1998). Do firms use dividends to signal large future cash flow increases? *Financial Management, 27*, 46-57.

Brookman, J. T., Chang, S., and Rennie, C. G. (2007). CEO Cash and Stock-Based Compensation Changes, Layoff Decisions, and Shareholder Value. *Financial Review, 42*(1), 99-119.

Bruce, A., and Buck, T. (2005). Executive pay and UK corporate governance. *Corporate Governance: Accountability, Enterprise and International Comparisons*, 117-136.

Bruce, A., Skovoroda, R., Fattorusso, J., and Buck, T. (2007). Executive bonus and firm performance in the UK. *Long range planning, 40*(3), 280-294.

Brunzell, T., Liljeblom, E., Löflund, A., and Vaihekoski, M. (2014). Dividend policy in Nordic listed firms. *Global Finance Journal, 25*(2), 124-135.

Bryman, A. (1992). Quantitative and qualitative research: further reflections on their integration. *Mixing methods: Qualitative and quantitative research*, 57-78.

Bulan, L., Subramanian, N., and Tanlu, L. (2007). On the timing of dividend initiations. *Financial Management*, 31-65.

Carr, L. L. (1997). Strategic determinants of executive compensation in small publicly traded firms. *Journal of Small Business Management, 35*(3), 1-12.

Carter, D. A., Simkins, B. J., and Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial review, 38*(1), 33-53.

Cassar, G., and Holmes, S. (2003). Capital structure and financing of SMEs: Australian evidence. *Accounting and Finance, 43*(2), 123-147.

Céspedes, J., González, M., and Molina, C. A. (2010). Ownership and capital structure in Latin America. *Journal of Business Research, 63*(3), 248-254.

Chakraborty, I. (2013). Does capital structure depend on group affiliation? An analysis of Indian firms. *Journal of Policy Modeling, 35*(1), 110-120.

Chan Kim, W., Hwang, P., and Burgers, W. P. (1989). Global diversification strategy and corporate profit performance. *Strategic management journal, 10*(1), 45-57.

Chan, W., and Devi, S. (2009). Malaysia's Dividend Rule: A Blot in Corporate Governance? *Accountants Today, September 26, 29*, 26-29.

Cheah, K. G., Lim, L. B., and Yen, W. S. (2012). Executive Director Compensation in Malaysia: A Study of Firms with Substantial Shareholding. *OIDA International Journal of Sustainable Development, 5*(05), 23-30.

Chee, H., and Md Taib, F. (2005). *Management ownership and firm performance: evidence from Malaysia.* Paper presented at the 6th Asian Academy of Management Conference, Ipoh, Perak.

Chen, C. R., and Steiner, T. L. (1999). Managerial ownership and agency conflicts: A nonlinear simultaneous equation analysis of managerial ownership, risk taking, debt policy, and dividend policy. *Financial Review, 34*(1), 119-136.

Chen, M.-Y. (2006). Managerial ownership and firm performance: an analysis using switching simultaneous-equations models. *Applied Economics, 38*(2), 161-181.

Chen, M. Y. (2010). Managerial compensation and R&D investments: the role of the external managerial labour market. *International Review of Applied Economics, 24*(5), 553-572.

Cheng, M.-T. (2009). Relative Effects of Debt and Equity on Corporate Operating Performance: A Quantile Regression Study. *International Journal of Management, 26*(1), 141-145.

Cheung, Y.-L., Stouraitis, A., and Wong, A. W. (2005). Ownership concentration and executive compensation in closely held firms: Evidence from Hong Kong. *Journal of Empirical Finance, 12*(4), 511-532.

Chowdhury, A., and Chowdhury, S. P. (2010). Impact of capital structure on firm's value: Evidence from Bangladesh. *Business and Economic Horizons, 3*(3), 111-122.

Chu, E. Y., and Song, S.-I. (2013). Financial Constraints, Executive Compensations and Large Shareholders in Malaysia. *Executive Compensations and Large Shareholders in Malaysia*, 1-25.

Chung, K. H., and Pruitt, S. W. (1996). Executive ownership, corporate value, and executive compensation: A unifying framework. *Journal of Banking & Finance, 20*(7), 1135-1159.

Claessens, S., Djankov, S., Fan, J. P., and Lang, L. H. (1999). *Expropriation of minority shareholders: Evidence from East Asia*: World Bank, Washington DC.

Cohen, W. M., and Walsh, J. P. (2000). R&D spillovers, appropriability and R&D intensity: a survey based approach. *Economic Evaluation of Technological Change*, 22-29.

Coles, J. L., Lemmon, M. L., and Meschke, J. F. (2012). Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance. *Journal of Financial Economics, 103*(1), 149-168.

Connelly, B. L., Certo, S. T., Ireland, R. D., and Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management, 37*(1), 39-67.

Connelly, B. L., Hoskisson, R. E., Tihanyi, L., and Certo, S. T. (2010). Ownership as a form of corporate governance. *Journal of Management Studies*, *47*(8), 1561-1589.

Conyon, M. J. (1997). Corporate governance and executive compensation. *International journal of industrial organization, 15*(4), 493-509.

Conyon, M. J., Core, J. E., and Guay, W. R. (2010). Are US CEOs paid more than UK CEOs? Inferences from risk-adjusted pay. *Review of Financial Studies*, *24*(2), 1-50.

Conyon, M. J., and Peck, S. I. (1998). Board control, remuneration committees, and top management compensation. *Academy of Management Journal, 41*(2), 146-157.

Cook, R. D., and Weisberg, S. (1983). Diagnostics for heteroscedasticity in regression. *Biometrika, 70*(1), 1-10.

Core, J. E., Holthausen, R. W., and Larcker, D. F. (1999a). Corporate governance, chief executive officer compensation, and firm performance. *Journal of financial economics, 51*(3), 371-406.

Core, J. E., Robert W. Holthausen, and Larcker, D. F. (1999b). Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics, 51,* 371-406.

Cornett, M. M., Marcus, A. J., and Tehranian, H. (2008). Corporate governance and pay-for-performance: The impact of earnings management. *Journal of Financial Economics, 87*(2), 357-373.

Corsetti, G., Pesenti, P., and Roubini, N. (1999). What caused the Asian currency and financial crisis? *Japan and the world economy, 11*(3), 305-373.

Cowling, M. (2004). The growth–profit nexus. *Small Business Economics, 22*(1), 1-9.

Cresp í-Cladera, R., and Gispert, C. (2003). Total board compensation, governance and performance of Spanish listed companies. *Labour, 17*(1), 103-126.

Croci, E., Gonenc, H., and Ozkan, N. (2012). CEO compensation, family control, and institutional investors in continental Europe. *Journal of Banking & Finance, 36*(12), 3318-3335.

Cronqvist, H., Makhija, A. K., and Yonker, S. E. (2012). Behavioral consistency in corporate finance: CEO personal and corporate leverage. *Journal of financial economics*, *103*(1), 20-40.

Crutchley, C. E., and Hansen, R. S. (1989). A test of the agency theory of managerial ownership, corporate leverage, and corporate dividends. *Financial Management*, 36-46.

Dalton, D. R., Daily, C. M., Certo, S. T., and Roengpitya, R. (2003). Meta-analyses of financial performance and equity: fusion or confusion? *Academy of Management Journal, 46*(1), 13-26.

Darabos, M. (2014). Managerial Ownership As An Incentive For Managerial Actions. *Economic and Social Development: Book of Proceedings,* 583-593.

Datta, S., Iskandar-Datta, M., and Patel, A. (1999). Bank monitoring and the pricing of corporate public debt. *Journal of Financial Economics, 51*(3), 435-449.

Davidson, R., and MacKinnon, J. G. (1995). Estimation and inference in econometrics. *Econometric Theory, 11*, 631-635.

Davis, J. H., Schoorman, F. D., and Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management review, 22*(1), 20-47.

DeAngelo, H., and DeAngelo, L. (1985). Managerial ownership of voting rights: A study of public corporations with dual classes of common stock. *Journal of Financial economics, 14*(1), 33-69.

DeAngelo, H., and DeAngelo, L. (2007). Capital structure, payout policy, and financial flexibility. *Marshall School of Business Working Paper No. FBE*, 2-6.

DeAngelo, H., DeAngelo, L., and Skinner, D. J. (2008). Corporate payout policy. *Foundations and trends in finance, 3*(2), 95-287.

DeAngelo, H., DeAngelo, L., and Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory. *Journal of Financial economics, 81*(2), 227-254.

DeAngelo, H., and Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics, 8*(1), 3-29.

Deesomsak, R., Paudyal, K., and Pescetto, G. (2004). The determinants of capital structure: evidence from the Asia Pacific region. *Journal of multinational financial management, 14*(4), 387-405.

Dehan., and Parker., C. (2014). Capital Structure over the Life Cycle. *Advance In Business Research, 5*(1), 16-32.

Demsetz, H. (1983). Structure of Ownership and the Theory of the Firm. *Journal of Law and Economics, 26,* 375-390.

Demsetz, H., and Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *The Journal of Political Economy, 93*, 1155-1177.

Demsetz, H., and Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of corporate finance, 7*(3), 209-233.

Denis, D. J., and Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial economics, 89*(1), 62-82.

Desai, H., Li, Z., and Zhang, S. (2010). *The Effect of Accounting versus Economic Determinants on the use of Broad-based Option Plans*: Working Papero. Document Number)

Diamond, D. W. (1989). Reputation acquisition in debt markets. *The journal of political economy*, 828-862.

Dogan, E., and Smyth, R. (2002). Board remuneration, company performance, and ownership concentration:Evidence from publicly listed Malaysian companies. *ASEAN Economic Bulletin, 19*(3), 319-347.

Donaldson, G. (1984). *Managing corporate wealth*. New York: Praeger.

Donaldson, L., and Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of management, 16*(1), 49-64.

Dong, Z., Wang, C., and Xie, F. (2010). Do executive stock options induce excessive risk taking? *Journal of Banking & Finance, 34*(10), 2518-2529.

Doucouliagos, H., Haman, J., and Askary, S. (2007). Directors' remuneration and performance in Australian banking. *Corporate governance: an international review, 15*(6), 1363-1383.

Drakos, A., and Bekiris, F. (2010). Corporate performance, managerial ownership and endogeneity: A simultaneous equations analysis for the Athens stock exchange. *Research in International Business and Finance, 24*(1), 24-38.

Durbin, J. (1954). Errors in variables. *Revue de l'Institut international de statistique,* 23-32.

Durbin, J., and Watson, G. S. (1951). Testing for serial correlation in least squares regression. II. *Biometrika*, 159-177.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 650-659.

Ebaid, I. E.-S. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *Journal of Risk Finance, The, 10*(5), 477-487.

Ebel Ezeoha, A., and Okafor, F. O. (2010). Local corporate ownership and capital structure decisions in Nigeria: a developing country perspective. *Corporate Governance: The international journal of business in society, 10*(3), 249-260.

Eckbo, B. E., and Verma, S. (1994). Managerial shareownership, voting power, and cash dividend policy. *Journal of Corporate Finance, 1*(1), 33-62.

Ekanayake, S. (2004). Agency theory, national culture and management control systems. *Journal of American academy of business, 4*(1 and 2), 49-54.

Eljelly, A. M. (2004). Liquidity-profitability tradeoff: an empirical investigation in an emerging market. *International Journal of Commerce and Management, 14*(2), 48-61.

Eriotis, N., and Vasiliou, D. (2006). The Link between Dividend Policy and Corporate Leverage: An Empirical Analysis of the Greek Market. *Spoudai, 56(1)*, 64-75.

Eriotis, N., Vasiliou, D., and Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: an empirical study. *Managerial Finance, 33*(5), 321-331.

Esfahani Zahiri, A., and Jaffar, R. (2012). The Effect of Corporate Governance and Capital Structure on Dividend Payment: Evidence from Malaysia. *Recent Advances in Management, Marketing and Finance,* 75-80.

Estrada, J. (2005). Adjusting P/E ratios by growth and risk: the PERG ratio. *International Journal of Managerial Finance, 1*(3), 187-203.

Etemadi, H., Dilami, Z. D., Bazaz, M. S., and Parameswaran, R. (2009). Culture, management accounting and managerial performance: focus Iran. *Advances in accounting, 25*(2), 216-225.

Ezeoha, A., and Botha, F. (2012). Firm age, collateral value, and access to debt financing in an emerging economy: evidence from South Africa. *South African Journal of Economic and Management Sciences, 15*(1), 55-71.

Ezeoha, A. E., and Okafor, F. O. (2010). Local corporate ownership and capital structure decisions in Nigeria: a developing country perspective. *Corporate Governance, 10*(3), 249-260.

Faccio, M., Lang, L. H., and Young, L. (2001). Dividends and expropriation. *American Economic Review*, 54-78.

Fahlenbrach, R., and Stulz, R. M. (2011). Bank CEO incentives and the credit crisis. *Journal of Financial Economics, 99*(1), 11-26.

Fair, R. C. (1984). *Specification, estimation, and analysis of macroeconometric models*: Harvard University Press.

Fairchild, R., Guney, Y., and Thanatawee, Y. (2014). Corporate dividend policy in Thailand: Theory and evidence. *International Review of Financial Analysis, 31*, 129-151.

Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *The journal of political economy*, 288-307.

Fama, E. F., and French, K. R. (1998). Taxes, financing decisions, and firm value. *The Journal of Finance, 53*(3), 819-843.

Fama, E. F., and French, K. R. (2001). Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial economics, 60*(1), 3-43.

Fama, E. F., and French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of financial studies, 15*(1), 1-33.

Fama, E. F., and Jensen, M. C. (1983a). Agency problems and residual claims. *Journal of law and Economics*, 327-349.

Fama, E. F., and Jensen, M. C. (1983b). Separation of ownership and control. *Journal of law and economics*, 301-325.

Farag, H., Mallin, C., and Ow-Yong, K. (2014). Governance, ownership structure, and performance of entrepreneurial IPOs in AIM companies. *Corporate Governance: An International Review, 22*(2), 100-115.

Farrar, D. E., and Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The Review of Economic and Statistics*, 92-107.

Fernandes, N. (2008). EC: Board compensation and firm performance: The role of “independent” board members. *Journal of Multinational Financial Management, 18*(1), 30-44.

Fernandes, N., Ferreira, M. A., Matos, P., and Murphy, K. J. (2013). Are US CEOs paid more? New international evidence. *Review of Financial Studies, 26*(2), 323-367.

Fidrmuc, J. P., and Jacob, M. (2010). Culture, agency costs, and dividends. *Journal of Comparative Economics, 38*(3), 321-339.

Fields Jr, J. S., Goodman, B. L., Guthrie, G. L., Starke, W. J., and Stuecheli, J. A. (2010). Protecting ownership transfer with non-uniform protection windows: Google Patents.

Filatotchev, I., and Allcock, D. (2010). Corporate governance and executive remuneration: A contingency framework. *The Academy of Management Perspectives, 24*(1), 20-33.

Filatotchev, I., Jackson, G., and Nakajima, C. (2013). Corporate governance and national institutions: A review and emerging research agenda. *Asia Pacific Journal of Management, 30*(4), 965-986.

Finkelstein, S., and D'aveni, R. A. (1994). CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command. *Academy of Management journal, 37*(5), 1079-1108.

Firth, M., Lohne, J. C., Ropstad, R., and Sjo, J. (1996). The remuneration of CEOs and corporate financial performance in Norway. *Managerial and Decision Economics, 17*(3), 291-301.

Fleming, G., Heaney, R., and McCosker, R. (2005). Agency costs and ownership structure in Australia. *Pacific-Basin Finance Journal, 13*(1), 29-52.

Fosberg, R. H. (2004). Agency problems and debt financing: leadership structure effects. *Corporate Governance, 4*(1), 31-38.

Fraser, D. R., Zhang, H., and Derashid, C. (2006). Capital structure and political patronage: The case of Malaysia. *Journal of Banking & Finance, 30*(4), 1291-1308.

Frielinghaus, A., Moster, B., and Firer, C. (2005). Capital Structure and firm's life stage. *South African Journal of Business Management, 36*(4).

Friend, I., and Lang, L. H. (1988). An Empirical Test of the Impact of Managerial Self-interest on Corporate Capital Structure. *The Journal of Finance, 43*(2), 271-281.

Friend, I., and Puckett, M. (1964). Dividends and stock prices. *The American Economic Review*, 656-682.

Gao, H., and Li, K. (2014). Large shareholders and CEO performance-based pay: New evidence from privately-held firms. *Available at SSRN 2047997*.

García Padrón, Y., María Cáceres Apolinario, R., Maroto Santana, O., Concepción Verona Martel, M., and Jordán Sales, L. (2005). Determinant factors of leverage: An empirical analysis of Spanish corporations. *The Journal of Risk Finance, 6*(1), 60-68.

Geiler, P., and Renneboog, L. (2014). Executive remuneration and the payout decision.

Geiler, P., and Renneboog, L. (2016). Executive remuneration and the payout decision. *Corporate Governance: An International Review, 24*(1), 42-63.

Ghazali, Z. (2008). *The use of ESOS as interest alignment mechanism in Malaysia: a mismatched of a problem and solutions [HG4028. S7 Z19 2008 f rb]*. Universiti Sains Malaysia.

Ghazali, Z., and Taib, F. M. (2015). It Pays to Be an Executive in Malaysia. *The Journal of Developing Areas, 49*(5), 225-237.

Ghosh, A., Moon, D., and Tandon, K. (2007). CEO ownership and discretionary investments. *Journal of Business Finance & Accounting, 34*(5 and 6), 819-839.

Ghosh, C., and Sirmans, C. (2006). Do managerial motives impact dividend decisions in REITs? *The Journal of Real Estate Finance and Economics, 32*(3), 327-355.

Ghosh, S. (2007). Leverage, managerial monitoring and firm valuation: A simultaneous equation approach. *Research in Economics, 61*(2), 84-98.

Gil-Alana, L. A., Iniguez-Sanchez, R., and López-Espinosa, G. (2011). Endogenous problems in cross-sectional valuation models based on accounting information. *Review of Quantitative Finance and Accounting, 37*(2), 245-265.

Gill, A., Biger, N., and Tibrewala, R. (2010). Determinants of dividend payout ratios: evidence from United States. *The Open Business Journal, 3*(1), 8-14.

Givoly, D., Hayn, C., Ofer, A. R., and Sarig, O. (1992). Taxes and capital structure: Evidence from firms' response to the Tax Reform Act of 1986. *Review of Financial Studies, 5*(2), 331-355.

Gleason, K. C., Mathur, L. K., and Mathur, I. (2000). The interrelationship between culture, capital structure, and performance: evidence from European retailers. *Journal of Business Research, 50*(2), 185-191.

Gombola, M. J., Haskins, M. E., Ketz, J. E., and Williams, D. D. (1987). Cash flow in bankruptcy prediction. *Financial Management*, 55-65.

Gomez-Mejia, L., and Wiseman, R. M. (1997). Reframing Execufive Compensation: An Assessment and Outlook. *Journal of Management, 23*(3), 291-374.

Gomez-Mejia, L. R., Tosi, H., and Hinkin, T. (1987). Managerial control, performance, and executive compensation. *Academy of Management Journal, 30*(1), 51-70.

Goranova, M., Alessandri, T. M., Brandes, P., and Dharwadkar, R. (2007). Managerial ownership and corporate diversification: a longitudinal view. *Strategic Management Journal, 28*(3), 211-225.

Graham, J. R., and Harvey, C. R. (2001). The theory and practice of corporate finance: Evidence from the field. *Journal of financial economics, 60*(2), 187-243.

Greene, W. H. (2003). *Econometric analysis*: Pearson Education India.

Grossman, S. J., and Hart, O. D. (1982). Corporate financial structure and managerial incentives. In *The economics of information and uncertainty* (pp. 107-140): University of Chicago Press.

Grullon, G., Michaely, R., and Swaminathan, B. (2002). Are Dividend Changes a Sign of Firm Maturity? *The Journal of Business, 75*(3), 387-424.

Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance, 15*(4), 385-404.

Gujarati, D. N. (2012). *Basic econometrics*: Tata McGraw-Hill Education.

Gujarati, D. N., and Porter, D. (2009). Basic Econometrics Mc Graw-Hill International Edition.

Gul, F. A. (1999). Government share ownership, investment opportunity set and corporate policy choices in China. *Pacific-Basin Finance Journal, 7*(2), 157-172.

Gupta, A., and Banga, C. (2010). The determinants of corporate dividend policy. *Decision, 37*(2), 63-77.

Hackbarth, D., Hennessy, C. A., and Leland, H. E. (2007). Can the trade-off theory explain debt structure? *Review of Financial Studies, 20*(5), 1389-1428.

Hackman, J. R. (1990). Groups that work (and those that don't). *San Francisco*.

Hadlock, C. J., and James, C. M. (2002). Do banks provide financial slack? *the Journal of Finance, 57*(3), 1383-1419.

Hall, G. C., Hutchinson, P. J., and Michaelas, N. (2004). Determinants of the capital structures of European SMEs. *Journal of Business Finance & Accounting, 31*(5-6), 711-728.

Hamsawi, R. (2011). Top Ringgit for head honchos (Publication., from HighBeam Research: https://www.highbeam.com

Haniffa, R., and Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance & Accounting, 33*(7-8), 1034-1062.

Hardjopranoto, W. (2006). Interdependent Analaysis of Leverage, Dividend, and Managerial Ownership Policies: Agencies Perspective *Gadjah Mada International Journal of Business, 8*(2), 179-199.

Haron, H., and Akhtaruddin, M. (2013). Determinants of Directors' Remuneration in Malaysian Public Listed Companies. *Indian Journal of Corporate Governance, 6*(2), 17.

Harris, M., and Raviv, A. (1990). Capital structure and the informational role of debt. *The Journal of Finance, 45*(2), 321-349.

Hassan, H., Hassan, S., Karim, N. A., and Salamuddin, N. (2014a). *Non Linearity between Ownership Concentration and Firm Value.* Paper presented at the 1st AAGBS international conference on business management, Penang Malaysia.

Hassan, S., Christopher, T., and Evans, R. (2003). Directors' remuneration and firm performance: Malaysian evidence. *Malaysian Accounting Review, 2*(1), 57-67.

Hassan, S., Othman, Z., and Harun, M. (2014b). Ownership Structure Variation and Firm Efficiency. *Asian Social Science, 10*(11), 233-241.

Hatemi-J, A. (2004). Multivariate tests for autocorrelation in the stable and unstable VAR models. *Economic Modelling, 21*(4), 661-683.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251-1271.

Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of accounting and economics, 7*(1), 85-107.

Heider, F., and Ljungqvist, A. (2015). As certain as debt and taxes: Estimating the tax sensitivity of leverage from state tax changes. *Journal of Financial Economics, 118*(3), 684-712.

Helfert, E. A. (2001). *Financial analysis: tools and techniques: a guide for managers*: McGraw-Hill New York.

Heng, T. B., Azrbaijani, S., and San, O. T. (2012). Board of Directors and Capital Structure: Evidence from Leading Malaysian Companies. *Asian Social Science, 8*(3), 123-136.

Hill, C. W., and Jones, T. M. (1992). Stakeholder-agency theory. *Journal of management studies, 29*(2), 131-154.

Hill, R. C., Griffiths, W. E., and Lim, G. C. (2008). *Principles of econometrics* (Vol. 5): Wiley Hoboken, NJ.

Himmelberg, C. P., Hubbard, R. G., and Palia, D. (1999). Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of financial economics, 53*(3), 353-384.

Ho, H. (2003). Dividend policies in Australia and Japan. *International Advances in Economic Research, 9*(2), 91-100.

Holderness, C. G. (2009). The myth of diffuse ownership in the United States. *Review of Financial Studies, 22*(4), 1377-1408.

Holderness, C. G., and Sheehan, D. P. (1988). The role of majority shareholders in publicly held corporations: An exploratory analysis. *Journal of financial economics, 20*, 317-346.

Howatt, B., Zuber, R. A., Gandar, J. M., and Lamb, R. P. (2009). Dividends, earnings volatility and information. *Applied Financial Economics, 19*(7), 551-562.

Htay, S. N. N., Salman, S. A., and Shaugee, I. (2013). Invisible Hands behind the Corporate Governance Practices in Malaysia. *World Journal of Social Sciences*, *3*(1), 119-135.

Hung, C. Y., Albert, C. P. C., and Eddie, H. C. M. (2002). Capital structure and profitability of the property and construction sectors in Hong Kong. *Journal of Property Investment & Finance, 20*(6), 434-453.

Huynh, K. P., and Petrunia, R. J. (2010). Age effects, leverage and firm growth. *Journal of Economic Dynamics and Control, 34*(5), 1003-1013.

Ibrahim, M. K., Ibrahim, N., Ismal, W., Adibah, W., and Kamarudin, K. A. (2005). Determinants of directors' remuneration: Malaysian evidence 1998-2001. *Social And Management Research Journal*, *2*(1), 48-60.

Ibrahim, Y., Uddin, M. M., Mohd, K. N. T., and Minai, M. S. (2013). Agency Costs and the Long-Run Performance of Debt Issuers. *Asian Academy of Management Journal of Accounting and Finance*, *9*(1), 67-87.

Isik, O., and Soykan, M. E. (2013). Large shareholders and firm performance: evidence from Turkey. *European Scientific Journal, 9*(25), 23-37.

Ismail, S. B., Yabai, N. V., and Hahn, L. J. (2014). Relationship between CEO Pay and Firm Performance: Evidences from Malaysia Listed Firms. *Journal of Economics and Finance, 3*(6), 14-31.

Iyengar, R. R. J., Williams, H. J., and Zampelli, E. M. (2005). Sensitivity of executive pay to accounting performance measures in all-equity firms. *Accounting & Finance*, *45*(4), 577-595.

Izan, H., Sidhu, B., and Taylor, S. (1998). Does CEO pay reflect performance? Some Australian evidence. *Corporate governance: an international review*, *6*(1), 39-47.

Jaafar, S. B., and James, K. (2013). Determinant of Director Remuneration in Malaysia Public Listed Companies. *International Journal of Trade, Economics and Finance, 4*(6), 353-357.

Jaafar, S. B., and James, K. (2014). Director Remuneration Pay: Trends During and After the Financial Crisis of 2007 to 2009. *Australasian Accounting Business & Finance Journal, 8*(3), 56.

Jaafar, S. B., James, K., and Wahab, E. A. A. (2012a). Remuneration Committee and Director Remuneration in Family-Owned Companies: Evidence from Malaysia. *International Review of Business Research Papers, 8*(7), 17-38.

Jaafar, S. B., Wahab, E. A. A., and James, K. (2012b). Director remuneration and performance in Malaysia family firms: an expropriation matter? *World Review of Business Research, 2*(4), 204-222.

Jagongo, A., and Makori, D. (2013). Working Capital Management and Firm Profitability: Empirical Evidence from Manufacturing and Construction Firms Listed on Nairobi S ecurities Exchange, Kenya.

Jang, S. S., and Park, K. (2011). Inter-relationship between firm growth and profitability. *International Journal of Hospitality Management, 30*(4), 1027-1035.

Jeelinek, K., and Stuerke, P. S. (2009). The non-linear relation between agency costs and managerial equity ownership. *International Journal of Managerial Finance, 5*(2), 156-178.

Jensen, G. R., Solberg, D. P., and Zorn, T. S. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative analysis, 27*(02), 247-263.

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *American Economic Review, 76*(2), 323-329.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *the Journal of Finance, 48*(3), 831-880.

Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics, 3*(4), 78-79,305.

Jensen, M. C., and Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of political economy, 98*(2), 225-264.

Jerzemowska, M. (2006). The Main Agency Problems and Their Consequences. *Acta Oeconomica Pragensia, 2006*(3), 9-17.

Jiang, Y., and Peng, M. W. (2011). Principal-principal conflicts during crisis. *Asia Pacific Journal of Management, 28*(4), 683-695.

Joher, H., Ali, M., and Nazrul, M. (2006). The impact of ownership structure on corporate debt policy: two stage least square simultaneous model approach for post crisis period: evidence from Kuala Lumpur Stock Exchange. *International Business & Economics Research Journal (IBER), 5*(5), 51-64.

Joher, H., Ali, M., and Nazrul, M. (2011). The impact of ownership structure on corporate debt policy: two stage least square simultaneous model approach for post crisis period: evidence from Kuala Lumpur Stock Exchange. *International Business & Economics Research Journal (IBER), 5*(5), 51-64.

Johnson, R. A., and Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal, 42*(5), 564-576.

Jones, C. P. (2008). How Important is the P/E Ratio in Determining Market Returns? *The Journal of Investing, 17*(2), 7-14.

Judge, W. Q., Naoumova, I., and Koutzevol, N. (2003). Corporate governance and firm performance in Russia: an empirical study. *Journal of World Business, 38*(4), 385-396.

Kahle, and Kathleen. (2002). When a buyback isn't a buyback: Open-market repurchases and employee options. *Journal of Financial Economics, 63*, 235–261.

Kahneman, D., and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 263-291.

Kalay, A. (1982). Stockholder-bondholder conflict and dividend constraints. *Journal of financial economics, 10*(2), 211-233.

Kale, J. R., and Noe, T. H. (1990). Risky debt maturity choice in a sequential game equilibrium. *Journal of Financial Research, 13*(2), 155-166.

Kamardin, H. (2014). Managerial Ownership and Firm Performance: The Influence of Family Directors and Non-Family Directors. *Ethics, Governance and Corporate Crime: Challenges and Consequences (Developments in Corporate Governance and Responsibility) Emerald Group Publishing Limited, 6*, 47-83.

Kamarul Zaman, S. (2011). *The Effect of Corporate Governance Mechanisms on Firm Perfomance: Malaysian Perspective.* Universiti Utara Malaysia.

Kanapathy, K. V. (2005). *Independent Non-Executive Directors, Managerial Ownership And Firm Performance In Malaysian Public Listed Companies.* Universiti Sains Malaysia.

Kania, S. L., and Bacon, F. W. (2005). What factors motivate the corporate dividend decision. *ASBBS E–Journal, 1*(1), 97-107.

Kapopoulos, P., and Lazaretou, S. (2007). Corporate ownership structure and firm performance: evidence from Greek firms. *Corporate Governance: An International Review, 15*(2), 144-158.

Kato, H. K., Loewenstein, U., and Tsay, W. (2002). Dividend policy, cash flow, and investment in Japan. *Pacific-Basin Finance Journal, 10*(4), 443-473.

Kaur, G., and Rahim, N. (2007). Who gets the big money. *Malaysian Business, 1*, 16-17.

Kester, W. C. (1986). Capital and ownership structure: A comparison of United States and Japanese manufacturing corporations. *Financial management*, 5-16.

Kim, Y. H., Rhim, J. C., and Friesner, D. L. (2007). Interrelationships among capital structure, dividends, and ownership: evidence from South Korea. *Multinational Business Review, 15*(3), 25-42.

Kirkpatrick, G. (2009). *Corporate governance lessons from the financial crisis* (Vol. 1): OECD Financial Market Trends.

Korajczyk, R. A., Lucas, D. J., and McDonald, R. L. (1992). Equity issues with time-varying asymmetric information. *Journal of Financial and Quantitative Analysis, 27*(03), 397-417.

Krivogorsky, V., Grudnitski, G., and Dick, W. (2009). Bank Debt and Performance of Continental European Firms. *Available at SSRN 1209022*.

Kroll, M., Simmons, S. A., and Wright, P. (1990). Determinants of chief executive officer compensation following major acquisitions. *Journal of Business Research, 20*(4), 349-366.

Kroll, M., Wright, P., and Theerathorn, P. (1993). Whose interests do hired top managers pursue? An examination of select mutual and stock life insurers. *Journal of Business Research, 26*(2), 133-148.

Kula, D., Bobek, M., Čamska, D., and Hajek, J. (2012). *Impact of the financial crisis on profitability and liquidity of companies in metallurgical industry in the Czech Republic.* Paper presented at the METAL Conference, 23-25.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. W. (2000). Agency problems and dividend policies around the world. *The Journal of Finance, 55*(1), 1-33.

Lai, D. (2004). Corporate governance in Malaysia: The underlying Chinese business culture. *Adelaide, South Australia: University of South Australia*, 314-344.

Larcker, D. F., and Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of Accounting and Economics, 49*(3), 186-205.

Latane, B., Williams, K., and Harkins, S. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of personality and social psychology, 37*(6), 822.

Lee, S.-P., and Chen, H.-J. (2011). Corporate governance and firm value as determinants of CEO compensation in Taiwan: 2SLS for panel data model. *Management research review, 34*(3), 252-265.

Lee, S.-P., Isa, M., and Lim, W.-L. (2012). Dividend Changes and Future Profitability: Evidence From Malaysia. *Asian Academy of Management Journal of Accounting and Finance, 8*(2), 93-110.

Lefort, F., and Urzúa, F. (2008). Board independence, firm performance and ownership concentration: Evidence from Chile. *Journal of Business Research, 61*(6), 615-622.

Leland, H. E. (1998). Agency Costs, Risk Management, and Capital Structure (Digest Summary). *Journal of finance, 53*(4), 1213-1243.

Lester, D. L., Parnell, J. A., and Carraher, S. (2003). Organizational life cycle: A five-stage empirical scale. *The International Journal of Organizational Analysis, 11*(4), 339-354.

Lewellen, W., Loderer, C., and Martin, K. (1987). Executive compensation and executive incentive problems: An empirical analysis. *Journal of accounting and economics, 9*(3), 287-310.

Li, D., Moshirian, F., Nguyen, P., and Tan, L.-W. (2007). Managerial ownership and firm performance: Evidence from China's privatizations. *Research in International Business and Finance, 21*(3), 396-413.

Lie, E. (2005). Operating performance following open market share repurchase announcements. *Journal of Accounting and Economics, 39*(3), 411-436.

Lien, Y.-C., Piesse, J., Strange, R., and Filatotchev, I. (2005). The role of corporate governance in FDI decisions: Evidence from Taiwan. *International Business Review, 14*(6), 739-763.

Liew, P. K. (2006). The Perceived Roles of Corporate Governance Reform in Malaysia: The Views of Corporate Practitioners. *University of Essex, 25*, 1-26.

Lin, D., Kuo, H.-C., and Wang, L.-H. (2013). Chief executive compensation: An empirical study of fat cat CEOs. *The International Journal of Business and Finance Research, 7*(2), 27-42.

Ling, F. S., Abdull Mutalip, M., Shahrin, A. R., and Othman, M. S. (2008). Dividend policy: Evidence from public listed companies in Malaysia. *International Review of Business Research Papers, 4*(4), 209-222.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 97-113.

Lipson, M. L., and Mortal, S. (2009). Liquidity and capital structure. *Journal of Financial Markets, 12*(4), 611-644.

Loderer, C., and Martin, K. (1997). Executive stock ownership and performance tracking faint traces. *Journal of Financial Economics, 45*(2), 223-255.

Loh, L., and Venkatraman, N. (1993). Corporate governance and strategic resource allocation: the case of information technology investments. *Accounting, Management and Information Technologies, 3*(4), 213-228.

López-Iturriaga, F. J., and Rodríguez-Sanz, J. A. (2012). Ownership structure, financial decisions, and institutional setting: an international analysis through simultaneous equations. *Economics Research International, 2012,* 1-12.

Lu-Andrews, R., and Yu-Thompson, Y. (2014). CEO Inside Debt, Asset Tangibility, and Investment. *Available at SSRN 2448858*, 1-43.

Lu, J. W., and Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic management journal, 22*(6-7), 565-586.

Lumpkin, G. T., and Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review, 21*(1), 135-172.

Mahmood, W., and Zakaria, R. (2007). Profitability and capital structure of the property and construction sectors in Malaysia. *Pacific Rim Property Research Journal, 13*(1), 92-105.

Majumdar, S. K., and Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance. *Public Choice, 98*(3-4), 287-305.

Marris, R., and Mueller, D. C. (1980). The corporation, competition, and the invisible hand. *Journal of Economic Literature*, 32-63.

Martani, D., and Mulyono, R. K. (2009). The effect of financial ratios, firm size, and cash flow from operating activities in the interim report to the stock return. *Chinese Business Review, 8*(6), 44-55.

Martínez-Sola, C., García-Teruel, P. J., and Martínez-Solano, P. (2014). Trade credit and SME profitability. *Small Business Economics, 42*(3), 561-577.

Mat Nor, F., and Sulong, Z. (2007). The interaction effect of ownership structure and board governance on dividends: Evidence from Malaysian listed firms. *Capital market review, 15*(1and2), 73-101.

Matolcsy, Z. P. (2000). Executive Cash Compensation and Corporate Performance During Different Economic Cycles*. *Contemporary Accounting Research, 17*(4), 671-692.

May, D. O. (1995). Do managerial motives influence firm risk reduction strategies? *The Journal of Finance, 50*(4), 1291-1308.

McConaughy, D. L. (2000). Family CEO vs. Non-family CEOs in the familycontrolled firm: An examination of the level and sensitivity of pay to performance. *Family Business Review, 13*(2), 121-131.

McGee, R. W. (2009). Corporate Governance in Asia: A Comparative Study. In *Corporate Governance in Developing Economies* (pp. 135-141): Springer.

McKnight, P. J., and Weir, C. (2009). Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis. *The Quarterly Review of Economics and Finance, 49*(2), 139-158.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of financial economics*, *38*(2), 163-184.

Mehta, A. (2012). An empirical analysis of determinants of dividend policy-evidence from the UAE companies. *Global Review of Accounting and Finance*, *3*(1), 18-31.

Mehta, C., Jain, P., and Yadav, S. S. (2009). Rationale of Stock Dividends/Bonus Shares: An Empirical Study of Private Sector Enterprises in India. *Journal of Financial Management and Analysis, 22*(1), 28-39.

Merhebi, R., Pattenden, K., Swan, P. L., and Zhou, X. (2006). Australian chief executive officer remuneration: pay and performance. *Accounting & Finance, 46*(3), 481-497.

Michaelas, N., Chittenden, F., and Poutziouris, P. (1999). Financial policy and capital structure choice in UK SMEs: Empirical evidence from company panel data. *Small business economics*, *12*(2), 113-130.

Michelacci, C., and Suarez, J. (2004). Business creation and the stock market. *The Review of Economic Studies*, *71*(2), 459-481.

Miller, D., and Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management science, 30*(10), 1161-1183.

Miller, M. H., and Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *the Journal of Business, 34*(4), 411-433.

Miller, M. H., and Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of finance, 40*(4), 1031-1051.

Minhat, M., and Abdullah, M. (2014). Executive compensation in government-linked companies: evidence from Malaysia. *Applied Economics, 46*(16), 1861-1872.

Mintzberg, H. (2009). No more executive bonuses! *Wall Street Journal, 30*, A17.

Mizutani, F., and Nakamura, E. (2014). Managerial incentive, organizational slack, and performance: empirical analysis of Japanese firms' behavior. *Journal of Management & Governance, 18*(1), 245-284.

Modigliani, F., and Miller, M. H. (1963). Corporate income taxes and the cost of capital: a correction. *The American economic review*, 433-443.

Modigliani, F., and Modigliani, L. (1997). Risk-adjusted performance. *The Journal of Portfolio Management, 23*(2), 45-54.

Mohd Saleh, N., Rahman, C. A., and Ridhuan, M. (2009). Ownership structure and intellectual capital performance in Malaysia. *Asian Academy of Management Journal of Accounting and Finance, 5*(1), 1-29.

Mokhtar, N., Ali, S., and Hassan, A. A. (2014). *Managerial shareholding and performance of listed companies in Malaysia.* Paper presented at the 5th International Conference on Business and Economic Research, Pullman Hotel, Kuching, Sarawak, Malaysia

Moores, K., and Craig, J. (2008). Agency differences in professional family businesses: the known and the unknown. *Business papers*.

Moradi, M., Salehi, M., and Honarmand, S. (2010). Factors Affecting Dividend Policy: Empirical Evidence of Iran. *Poslovna izvrsnost, 4*(1), 45-61.

Morck, R., Shleifer, A., and Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of financial economics, 20*, 293-315.

Morellec, E. (2001). Asset liquidity, capital structure, and secured debt. *Journal of Financial Economics, 61*(2), 173-206.

Morsy, A., and Rwegasira, K. (2010). Does Demutualization Matter to the Financial Performance of Stock Exchanges? An Investigation of Demutualized Member of the Stock Exchanges of the World Federation Exchanges. *International Research Journal of Finance and Economics*(40), 155-167.

Moussa, F. B., and Chichti, J. (2014). A nonlinear simultaneous equation analysis of managerial ownership and debt policy: Evidence from Tunisian Stock Exchange. *International Journal of Accounting and Financial Reporting, 3*(2), Pages 225-254.

Muhammad, A. Q., Muhammad, I., and Tanveer, A. (2012). What determines leverage in Pakistan? A panel data analysis. *African Journal of Business Management, 6*(3), 978-985.

Mumtaz, R., Rauf, S. A., Ahmed, B., and Noreen, U. (2013). Capital structure and financial performance: Evidence from Pakistan (Kse 100 Index). *Journal of Basic and Applied Scientific Research, 3*(4), 113-119.

Murphy, K. J. (1985). Corporate performance and managerial remuneration: An empirical analysis. *Journal of accounting and economics, 7*(1), 11-42.

Murphy, K. J. (1999). Executive compensation. *Handbook of labor economics, 3*, 2485-2563.

Mustapha, M., and Ahmad, A. C. (2011). Agency theory and managerial ownership: evidence from Malaysia. *Managerial Auditing Journal, 26*(5), 419-436.

Mustapha, M., Ismail, H., and Minai, B. (2011). *Determinants of debt structure: empirical evidence from Malaysia.* Paper presented at the Proceedings of the 2nd International Conference on Business and Economic Research, 2523-2540.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2), 147-175.

Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, *39*(3), 574-592.

Myers, S. C., and Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics, 13*(2), 187-221.

Myers, S. C., and Rajan, R. G. (1995). The paradox of liquidity. 733-771.

Myung, I. J. (2003). Tutorial on maximum likelihood estimation. *Journal of mathematical Psychology, 47*(1), 90-100.

Nahar Abdullah, S. (2006). Directors' remuneration, firm's performance and corporate governance in Malaysia among distressed companies. *Corporate Governance: The international journal of business in society*, *6*(2), 162-174.

Neely, A., Gregory, M., and Platts, K. (2005). Performance measurement system design: a literature review and research agenda. *International Journal of Operations & Production Management*, *25*(12), 1228-1263.

Newey, W. K., and West, K. D. (1986). A simple, positive semi-definite, heteroskedasticity and autocorrelationconsistent covariance matrix (pp. 1-11): National Bureau of Economic Research Cambridge, Mass., USA.

Niemi, L. (2005). Audit effort and fees under concentrated client ownership: Evidence from four international audit firms. *The International Journal of Accounting, 40*(4), 303-323.

Nikolaos, E. (2005). The Effect of Distribution Earnings and Size of the Firm to its Dividend Policy. *International & Economics Journal*, *4*(1), 67-74.

Niresh, J. A. (2012). Trade-Off between Liquidity & Profitability: A Study of Selected Manufacturing Firms in Srilanka. *International Refereed Research Journal, 3*(4), 34-40.

Nnadi, M., Wogboroma, N., and Kabel, B. (2013). Determinants of dividend policy: Evidence from listed firms in the African Stock Exchanges. *Panoeconomicus, 60*(6), 725-741.

Nold III, H. A. (2012). Linking knowledge processes with firm performance: Organizational culture. *Journal of Intellectual Capital, 13*(1), 16-38.

Noordin, N., Rajaratnam, S. D., Said, S. A., Mohd Hanif, F., and Juhan, R. (2012). Dividend and Profit Allocation Practices of Performing Cooperatives in Malaysia. *Oñati Socio-Legal Series, 2*(2), 156-175.

Nourayi, M. M., Bhattacharyya, N., Mawani, A., and Morrill, C. K. (2008). Dividend payout and executive compensation: theory and Canadian evidence. *Managerial Finance, 34*(8), 585-601.

Ntim, C. G., Lindop, S., Osei, K. A., and Thomas, D. A. (2013). Executive Compensation, Corporate Governance and Corporate Performance: A Simultaneous Equation Approach. *Managerial and Decision Economics, 36*(2), 67-96.

Nyonna, D. Y. (2012). Simultaneous Determination of Insider Ownership and Leverage: The Case of Small Businesses. *Economics & Business Journal: Inquiries & Perspectives, 4*(1), 9-20.

O'Neill, G. L., and Iob, M. (1999). Determinants of executive remuneration in Australian organizations: An exploratory study. *Asia Pacific Journal of Human Resources, 37*(1), 65-75.

O'Callaghan, S., Ashton, J., and Hodgkinson, L. (2014). *Executive compensation and ownership structure in private UK firms*.Unpublished manuscript.

Odit, M., and Gobardhun, Y. (2011). The Determinants Of Financial Leverage Of SME's In Mauritius. *International Business & Economics Research Journal (IBER), 10*(3), 113-126.

Ofek, E., and Yermack, D. (2000). Taking stock: Equity-based compensation and the evolution of managerial ownership. *The Journal of Finance, 55*(3), 1367-1384.

Oladipupo, A., and Okafor, C. (2013). Relative contribution of working capital management to corporate profitability and dividend payout ratio: Evidence from Nigeria. *International Journal of Business and Finance Research, 3*(2), 11-20.

Onwuegbuzie, A. J., and Collins, K. M. (2007). A Typology of Mixed Methods Sampling Designs in Social Science Research. *Qualitative Report, 12*(2), 281-316.

Ooi, C.-K., and Lai, M.-M. (2009). An Emprical Investigation on Determinants of Executive Directors' Remuneration in Bursa Malaysia *Corporate Ownership & Control* 6(3), 570-584.

Ortiz-Molina, H. (2007). Executive compensation and capital structure: The effects of convertible debt and straight debt on CEO pay. *Journal of Accounting and Economics, 43*(1), 69-93.

Ow-Yong, K., and Kooi Guan, C. (2000). Corporate governance codes: A comparison between Malaysia and the UK. *Corporate Governance: An International Review, 8*(2), 125-132.

Ozkan, N. (2007). Do corporate governance mechanisms influence CEO compensation? An empirical investigation of UK companies. *Journal of Multinational Financial Management, 17*(5), 349-364.

Ozkan, N. (2011). CEO compensation and firm performance: an empirical investigation of UK panel data. *European Financial Management, 17*(2), 260-285.

Pal, K., and Goyal, P. (2007). Leading Determinants of Dividend Policy: A Case Study of the Indian Banking Industry. *Decision (0304-0941), 34*(2).

Pandey, I. (2004). Capital structure, profitability and market structure: Evidence from Malaysia. *Asia Pacific Journal of Economics and Business, 8*(2), 78.

Pandey, I. M. (2003). Corporate dividend policy and behaviour: the Malaysian evidence. *Asian Academy of Management Journal, 8*(1), 17-32.

Pantea, M., Gligor, D., and Anis, C. (2014). Economic determinants of Romanian firms' financial performance. *Procedia-Social and Behavioral Sciences, 124*, 272-281.

Park, K., and Jang, S. S. (2010). Insider ownership and firm performance: An examination of restaurant firms. *International Journal of Hospitality Management, 29*(3), 448-458.

Park, K., and Jang, S. S. (2013). Capital structure, free cash flow, diversification and firm performance: A holistic analysis. *International Journal of Hospitality Management, 33*, 51-63.

Patra, T., Poshakwale, S., and Ow-Yong, K. (2012). Determinants of corporate dividend policy in Greece. *Applied Financial Economics, 22*(13), 1079-1087.

Paulo Esperança, J., Matias Gama, A. P., and Azzim Gulamhussen, M. (2003). Corporate debt policy of small firms: an empirical (re) examination. *Journal of small business and enterprise development, 10*(1), 62-80.

Pearson, K. (1896). Mathematical Contributions to the Theory of Evolution.--On a Form of Spurious Correlation Which May Arise When Indices Are Used in the Measurement of Organs. *Proceedings of the royal society of london, 60*(359-367), 489-498.

Pecina, E., and Orsag, S. (2015). Capital Structure of Croatian Enterprises. *Australian Journal of Sustainable Business and Society, 1*(2).

Peng, M. W., Au, K. Y., and Wang, D. Y. (2001). Interlocking directorates as corporate governance in Third World multinationals: Theory and evidence from Thailand. *Asia Pacific Journal of Management, 18*(2), 161-181.

Perez de Toledo, E. (2010). *The relationship between corporate governance and firm value: A simultaneous equations approach for analyzing the case of Spain.* Paper presented at the CAAA Annual Conference.

Persson, R. (2014). Simultaneous determination of Debt, Dividend, and Inside Ownership policies: Evidence from Sweden. *Mittuniversitete*, 1-12.

Porta, R., Lopez-de-Silanes, F., and Shleifer, A. (1999). Corporate ownership around the world. *The journal of finance, 54*(2), 471-517.

Porta, R., LOPEZ-DE-SILANES, F., Shleifer, A., and Vishny, R. W. (1997). Legal determinants of external finance. *The journal of finance, 52*(3), 1131-1150.

Qian, G., Li, L., Li, J., and Qian, Z. (2008). Regional diversification and firm performance. *Journal of International Business Studies, 39*(2), 197-214.

Qureshi, M. A., Imdadullah, M., and Ahsen, T. (2012). What determines leverage in Pakistan? A panel data analysis. *African Journal of Business Management, 6*(3), 978-985.

Raheman, A., and Nasr, M. (2007). Working capital management and profitability–case of Pakistani firms. *International review of business research papers, 3*(1), 279-300.

Rahman, R. A., and Ali, F. H. M. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial Auditing Journal, 21*(7), 783-804.

Rahman, R. A., and Zawawi, S. N. H. M. (2005). Is there a lelationship between directors remuneration and firm performance? . *Corporate Board: role, duties & composition, 1*(2), 40-48.

Rajan, R. G., and Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The journal of Finance, 50*(5), 1421-1460.

Ramli, N. M. (2010). Ownership structure and dividend policy: Evidence from Malaysian companies. *International Review of Business Research Papers, 6*(1), 170-180.

Ramly, Z. (2013). Corporate Governance, Shareholder Monitoring and Cost of Debt in Malaysia. *International Science Index, 7*(4), 494-504.

Randøy, T., and Nielsen, J. (2002). Company performance, corporate governance, and CEO compensation in Norway and Sweden. *Journal of Management and Governance, 6*(1), 57-81.

Rashid, M., Mat Nor, F., and Ibrahim, I. (2013). Evidence of Dividend Catering Theory in Malaysia: Implications for Investor Sentiment. *Contemporary Economics, 7*(4), 99-110.

Riley, J. G. (2001). Silver signals: Twenty-five years of screening and signaling. *Journal of Economic literature*, 432-478.

Roden, D. M., and Lewellen, W. G. (1995). Corporate capital structure decisions: evidence from leveraged buyouts. *Financial Management*, 76-87.

Roodman, D. (2009). Estimating fully observed recursive mixed-process models with cmp. *Available at SSRN 1392466*.

Roodman, D. (2011). Fitting fully observed recursive mixed-process models with cmp. *The Stata Journal, 11*(2), 159-206.

Rose, C. (2005). Managerial Ownership and Firm Performance in Listed Danish Firms:: In Search of the Missing Link. *European Management Journal, 23*(5), 542-553.

Rosenstein, S., and Wyatt, J. G. (1997). Inside directors, board effectiveness, and shareholder wealth. *Journal of financial Economics, 44*(2), 229-250.

Ross, S. A. (1973). The economic theory of agency: The principal's problem. *The American Economic Review*, 134-139.

Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The Bell Journal of Economics*, 23-40.

Ross, S. A., Westerfield, R., and Jordan, B. D. (2008). *Fundamentals of corporate finance*: Tata McGraw-Hill Education.

Rozeff, M. S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of financial Research, 5*(3), 249-259.

Ruan, W., Tian, G. G., and Ma, S. (2009). Managerial ownership, capital structure and firm value. *Corporate Ownership & Control*, *7*(2), 71-82.

Safari, M. (2015). Remuneration Committee's Impact on Firm Dividends in Malaysia: A Panel Approach. *Journal of Global Economics, Management and Business Research, 1*(1), 1-11.

Saleem, Q., and Rehman, R. U. (2011). Impacts of liquidity ratios on profitability. *Interdisciplinary Journal of Research in Business, 1*(7), 95-98.

Saleh, N. M., Iskandar, T. M., and Rahmat, M. M. (2005). Earnings management and board characteristics: Evidence from Malaysia. *Jurnal Pengurusan, 24*(4), 77-103.

Salehnejad, S. H., and Shahiazar, M. A. (2014). The Relationship Between Capital Structure Aand The Life Cycle Listed In Tehran Stock Exchange. *Kuwait Chapter of the Arabian Journal of Business and Management Review, 3*(6), 76.

Salim, B., and Wan-Hussin, W. N. (2009). Remuneration committee, ownership structure and pay-for-performance: evidence from Malaysia. *Available at SSRN 1515166*, 1-42.

Sargan, J. D. (1958). The estimation of economic relationships using instrumental variables. *Econometrica: Journal of the Econometric Society*, 393-415.

Satkunasingam, E., and Shanmugam, B. (2006). The consequences of culture on shareholder activism in Malaysia. *Journal of Applied Management Accounting Research, 4*(1), 45-56.

Saunders, A., Strock, E., and Travlos, N. G. (1990). Ownership structure, deregulation, and bank risk taking. *the Journal of Finance, 45*(2), 643-654.

Sawicki, J. (2009). Corporate governance and dividend policy in Southeast Asia pre- and post-crisis. *The European Journal of Finance, 15*(2), 211-230.

Schulze, W. S., Lubatkin, M. H., Dino, R. N., and Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organization science, 12*(2), 99-116.

Seifert, B., and Gonenc, H. (2010). Pecking Order Behavior in Emerging Markets. *Journal of International Financial Management & Accounting, 21*(1), 1-31.

Shakir, R. (2008). Board size, executive directors and property firm performance in Malaysia. *Pacific Rim Property Research Journal, 14*(1), 66-80.

Shapiro, S. P. (2005). Agency theory. *Annual review of sociology*, 263-284.

Sheikh, N. A., and Wang, Z. (2011). Determinants of capital structure: an empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance, 37*(2), 117-133.

Shen, C. H.-h. (2014). Pecking order, access to public debt market, and information asymmetry. *International Review of Economics & Finance, 29*, 291-306.

Shinozaki, S. (2014). *Capital Market Financing for SMEs: A Growing Need in Emerging Asia*. Manila: Asian Development Bank. ADB Working Paper Series on Regional Economic Integrationo. Document Number)

Shiyyab, F., Girardone, C., and Zakaria, I. (2013). Pay for no performance? Executive pay and performance in EU banks (Publication., from University of Essex:

Shleifer, A., and Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance, 52*(2), 737-783.

Short, H., and Keasey, K. (1999). Managerial Ownership and the Performance of Firms: Evidence from the UK. *Journal of corporate finance, 5*(1), 79-101.

Short, H., Zhang, H., and Keasey, K. (2002). The link between dividend policy and institutional ownership. *Journal of Corporate Finance, 8*(2), 105-122.

Shukeri, S. N., Shin, O. W., and Shaari, M. S. (2012). Does board of director's characteristics affect firm performance? Evidence from Malaysian public listed companies. *International Business Research, 5*(9), 120-127.

Singh, M., and Davidson , W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance, 27*(5), 793-816.

Singhal, R., and Zhu, Y. E. (2013). Bankruptcy risk, costs and corporate diversification. *Journal of Banking & Finance, 37*(5), 1475-1489.

Smith, K. (1980). Profitability versus liquidity tradeoffs in working capital management. *Readings on the management of working capital*, 549-562.

Sogorb-Mira, F. (2005). How SME uniqueness affects capital structure: Evidence from a 1994–1998 Spanish data panel. *Small business economics, 25*(5), 447-457.

Spence, M. (2002). Signaling in retrospect and the informational structure of markets. *American Economic Review*, 434-459.

Stulz, R. (1988). Managerial control of voting rights: Financing policies and the market for corporate control. *Journal of financial Economics*, *20*, 25-54.

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of financial Economics, 26*(1), 3-27.

Suhaila, M. K., Mahmood, W., and Mansor, W. (2008). Capital structure and firm characteristics: Some evidence from Malaysian companies. *University Library of Munich, MPRA Paper Series*

Sulong, Z., Gardner, J. C., Hussin, A. H., Sembilan, U. K. N., Sanusi, Z. M., and McGowan Jr, C. B. (2013). Managerial Ownership, Leverage and Audit Quality Impact on Firm Performance: Evidence from the Malaysian Ace Market. *Accounting & Taxation, 5*(1), 59-70.

Sun, S. L., Zhao, X., and Yang, H. (2010). Executive compensation in Asia: A critical review and outlook. *Asia Pacific Journal of Management*, *27*(4), 775-802.

Tabachnick, B. G., and Fidell, L. S. (1999). *Using multivariate statistics*. New York: HarperCollins.

Tahir, W. M. M. W., and Sinnasamy, G. (2012). *Dividend policy: Evidence of Government-Linked Companies (GLCs).* Paper presented at the Innovation Management and Technology Research (ICIMTR), 2012 International Conference on, 280-284.

Tang, D. Y., and Yan, H. (2010). Market conditions, default risk and credit spreads. *Journal of Banking & Finance*, *34*(4), 743-753.

Taub, A. J. (1975). Determinants of the firm's capital structure. *The review of economics and statistics*, 410-416.

Taufil-Mohd, K. N., Md-Rus, R., and Musallam, S. R. (2013). The effect of ownership structure on firm performance in Malaysia. *International Journal of Finance and Accounting*, *2*(2), 75-81.

Terrence, G., and Jomo, K. S. (2000). Malaysia's Political Economy: Politics, Patronage and Profits. *Economic Development and Cultural Change*, *48*(4), 893-895.

Theeravanich, A. (2013). Director compensation in emerging markets: A case study of Thailand. *Journal of Economics and Business, 70*, 71-91.

Theil, H. (1961). Economic forecasts and policy. Amsterdam: North-Holland.

Tian, G.-L., Zhang, H.-Y., and Cao, Y.-R. (2006). Dividend changes and Future Earnings Performance: Evidence from UK Market. *Journal of Modern Accounting and Auditing, 2*(2), 40-47.

Ting, I. W. K., and Lean, H. H. (2011). Capital structure of government-linked companies in Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, *7*(2), 137-156.

Tirole, J. (2010). *The theory of corporate finance*: Princeton University Press.

Titman, S., and Wessels, R. (1988). The determinants of capital structure choice. *The Journal of finance*, *43*(1), 1-19.

Tong, G., and Green, C. J. (2005). Pecking order or trade-off hypothesis? Evidence on the capital structure of Chinese companies. *Applied Economics*, *37*(19), 2179-2189.

Tongkong, S. (2012). Key factors influencing capital structure decision and its speed of adjustment of Thai listed real estate companies. *Procedia-Social and Behavioral Sciences, 40,* 716-720.

Tosi, H. L., and Greckhamer, T. (2004). Culture and CEO compensation. *Organization Science, 15*(6), 657-670.

Tosi, H. L., Werner, S., Katz, J. P., and Gomez-Mejia, L. R. (2000). How much does performance matter? A meta-analysis of CEO pay studies. *Journal of Management, 26*(2), 301-339.

Trezzini, B., and Gomez, E. T. (2000). Malaysia's Political Economy. Politics, Patronage and Profits. *Contemporary Southeast Asia, 22*(3), 620-623.

Tse, C.-B., and Rodgers, T. (2011). Can corporate tax shields explain the long-term borrowing behaviour of Chinese listed firms? *International Review of Financial Analysis, 20*(2), 103-112.

Unite, A. A., Sullivan, M. J., Brookman, J., Majadillas, M. A., and Taningco, A. (2008). Executive pay and firm performance in the Philippines. *Pacific-Basin Finance Journal, 16*(5), 606-623.

Valipor, H., and Rostami, V. (2009). Asymmetric information and dividend policy in emerging markets: Empirical evidences from Iran. *International Journal of Economics and finance, 1*(1), 203.

Vethanayagam, J., Yahya, S., and Haron, H. (2006). *Independent non-executive directors, managerial ownership and firm performance in Malaysian public listed companies.* Paper presented at the Proceeding Symposium on Accountability, Governance and Performance.

Vicknes, S. (2003). Top earners in Malaysia. *Accountants Today, 16*(10), 12-15.

Vo, D. H., and Nguyen, V. T.-Y. (2014). Managerial Ownership, Leverage and Dividend Policies: Empirical Evidence from Vietnam's Listed Firms. *International Journal of Economics and Finance, 6*(5), 274-284.

Wahab, A., Aswadi, E., Haron, H., Yahya, S., and Lok, C. L. (2011). Does corporate governance matter? Evidence from related party transactions in Malaysia. *Evidence from Related Party Transactions in Malaysia*, 131-164.

Wahab, E. A. A., and Rahman, R. A. (2009). Institutional investors and director remuneration: do political connections matter. *Corporate Governance and Firm Performance*, 139-169.

Wald, J. K. (1999). How firm characteristics affect capital structure: an international comparison. *Journal of Financial research, 22*(2), 161-187.

Weisbach, M. S. (1988). Outside directors and CEO turnover. *Journal of financial Economics, 20*, 431-460.

Welch, I. (2004). Capital structure and stock returns. *Journal of Political Economy, 112*(1), 106-132.

Werner, S., Tosi, H. L., and Gomez-Mejia, L. (2005). Organizational governance and employee pay: How ownership structure affects the firm's compensation strategy. *Strategic Management Journal, 26*(4), 377-384.

White, L. F. (1996). Executive compensation and dividend policy. *Journal of Corporate Finance, 2*(4), 335-358.

Wintoki, M. B., Linck, J. S., and Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics, 105*(3), 581-606.

Wooi, H. C., and Ming, M. T. C. (2009). Directors' Pay-Performance: A Study on Malaysian Government Linked Companies. *Centre for policy research and international studies*, 1-19.

Wooldridge, J. (2012). *Introductory econometrics: A modern approach*: Cengage Learning.

Woolridge, J. (2008). Econometric Analysis of Cross Section and Panel Data MIT Press Books: The MIT Press, edition.

Woolridge, J. M. (2002). Econometric analysis of cross section and panel data: Cambridge, ma: mit Press.

Wu, D.-M. (1974). Alternative tests of independence between stochastic regressors and disturbances: Finite sample results. *Econometrica: Journal of the Econometric Society*, 529-546.

Wu, L., and Yue, H. (2009). Corporate tax, capital structure, and the accessibility of bank loans: Evidence from China. *Journal of Banking & Finance, 33*(1), 30-38.

Xu, J. (2012). Profitability and capital structure: Evidence from import penetration. *Journal of Financial Economics, 106*(2), 427-446.

Yamashita, K., bin Mohd Hanefah, H. M., and Noguchi, A. (2010). Stock Options Rules in Malaysia and Japan: A Comparative Analysis. *Journal of International Business Research, 9*, 99.

Yatim, P. (2013). *Directors' Remuneration and Corporate Governance in Malaysia.* Paper presented at the The 7th Asia Pacific Interdisciplinary Research in Accounting Conference.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of financial economics, 40*(2), 185-211.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., and Jiang, Y. (2008). Corporate governance in emerging economies: A review of the principal–principal perspective. *Journal of Management Studies, 45*(1), 196-220.

Yu, H.-C., Pennathur, A. K., and Hsieh, D.-T. (2007). How Does Public Debt Compliment the Interrelationships Between Banking Relationships and Firm Profitability? *International Research Journal of Finance and Economics, 12,* 36-55.

Yu, L., Wang, L., and Shang, M. (2015). *An Empirical Study of Relationship Between Executive Compensation and Performances of Chinese Listed Company—Based on Simultaneous Equations Model.* Paper presented at the Proceedings of the Ninth International Conference on Management Science and Engineering Management, 189-200.

Yue, H.-Y. (2011). Determinants of corporate capital structure under different debt maturities. *International Research Journal of Finance and Economics, 66*, 99-106.

Yusoff, W. F. W., and Alhaji, I. A. (2012). Corporate governance and firm performance of listed companies in Malaysia. *Trends and Development in Management Studies, 1*(1), 43-65.

Zainudin, N. (2006). Liquidity-profitability trade-off: is it evident among Malaysian SMEs? *International Journal of Management Studies (IJMS), 13*(2), 107-118.

Zajac, E. J., and Westphal, J. D. (1997). Managerial incentives in organizations: Economic, political, and symbolic perspectives. *Organizational decision making*, 133-157.

Zeitun, R., and Tian, G. G. (2007). Capital structure and corporate performance: evidence from Jordan. *Australasian Accounting Business and Finance Journal, 1*(4), 40-61.

Zellner, A. (1962). An efficient method of estimating seemingly unrelated regressions and tests for aggregation bias. *Journal of the American statistical Association, 57*(298), 348-368.

Zenovia, G. M., and Andrei, D. (2013). From Traditional Theory of Firm To New Microeconomics *Analele Universita ŢII Din Oradea, 2*, 355-359.

Zhang, Y. (2009). Are debt and incentive compensation substitutes in controlling the free cash flow agency problem? *Financial Management, 38*(3), 507-541.

Zhao, J. (2013). Entrenchment or incentive? CEO employment contracts and acquisition decisions. *Journal of Corporate Finance, 22*, 124-152.

Zhou, X. (2000). CEO pay, firm size, and corporate performance: evidence from Canada. *Canadian Journal of Economics/Revue canadienne d'économique, 33*(1), 213-251.

Zulkarnain, M. (2007). *Towards better corporate governance and transparency.* Paper presented at the Conference on Managing Knowledge in the Borderless World, Selangor, Malaysia, February.

Zunaidah, S., and Fauzias, M. N. (2008). Dividends, ownership structure and board governance on firm value: Empirical evidence from Malaysian listed firms. *Malaysian Accounting Review, 7*(2), 55-94.

Zwiebel, J. (1996). Dynamic capital structure under managerial entrenchment. *The American Economic Review*, 1197-1215.

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