

**The Effectiveness of Corporate Governance on Real Earnings Management in selected  
Malaysian Companies**

**By**

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Graduate School of Business Universiti Utara Malaysia, in Partial Fulfilment of the  
Requirement for the Degree of Master of Science in Finance**

## **DECLARATION**

I hereby declare that the content of this thesis is solely based on my original work and has not been previously submitted for any other degree in Universiti Utara Malaysia or any other institutions. The quotations and citations used in writing this research have been duly acknowledged.

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## **ABSTRACT**

The practice of real earnings management occurs at companies where investors' protection is high and stringent corporate governance measures are put to place. The study examines the relationship between corporate governance attributes and real earnings management. In this study real earnings management is measured using three proxies, abnormal discretionary expenses, abnormal production cost, and abnormal cash flow from operations. The corporate governance attributes examined are board structure characteristics and audit committee characteristics. The sample consist of top 100 companies rated high based on Malaysia Corporate Governance Index 2011 (MCG Index) on best practices of corporate governance. Financial companies are excluded resulted to a final sample of 78 companies. The relationships of board structure and audit committee are tested using Ordinary Least Square regression. The results reveal that certain corporate governance variables are effective in constraining real earnings management activities. The findings of the hypothesised variables, board structures and audit committee. The study find that only board size and directors expertise constrain earnings management, but none of the audit committee variables show significant relationship with real earnings management. It can be conclude that board size and directors expertise are constraining factors in constraining real earnings management. The finding of the study is important for market participant and policy makers in defining effective corporate governance mechanism that could address the issue of real earnings management.

## ABSTRAK

Amalan pengurusan perolehan sebenar berlaku di syarikat-syarikat di mana perlindungan pelabur adalah langkah tadbir urus korporat yang tinggi dan ketat diletakkan ke tempat. Kajian ini mengkaji hubungan antara ciri-ciri tadbir urus korporat dan pengurusan pendapatan sebenar. Dalam kajian ini, pengurusan perolehan sebenar diukur menggunakan tiga proksi, perbelanjaan budi bicara yang tidak normal, kos pengeluaran yang luar biasa, dan aliran tunai yang tidak normal daripada operasi. Ciri-ciri tadbir urus korporat yang diperiksa adalah ciri-ciri struktur papan dan ciri-ciri jawatankuasa audit. Sampel terdiri daripada 100 syarikat diberi nilai tinggi berdasarkan Indeks Malaysia Tadbir Urus Korporat 2011 (MCG Index) mengenai amalan terbaik tadbir urus korporat. Syarikat-syarikat kewangan dikecualikan mengakibatkan sampel akhir 78 syarikat. Hubungan struktur lembaga pengarah dan jawatankuasa audit diuji menggunakan Biasa kurangnya Square regresi. Keputusan menunjukkan bahawa pembolehubah tertentu tadbir urus korporat yang berkesan dalam mengekang aktiviti-aktiviti pengurusan perolehan sebenar. Hasil pembolehubah hipotesis, struktur lembaga pengarah dan jawatankuasa audit. Kajian ini mendapati bahawa saiz papan sahaja dan kepakaran pengarah mengekang pengurusan perolehan, tetapi tiada pembolehubah jawatankuasa audit menunjukkan hubungan yang signifikan dengan pengurusan perolehan sebenar. Ia boleh membuat kesimpulan bahawa saiz papan dan kepakaran pengarah mengekang faktor yang mengekang pengurusan perolehan sebenar. Penemuan kajian ini adalah penting bagi peserta pasaran dan pembuat dasar dalam menentukan mekanisme tadbir urus korporat yang berkesan yang boleh menangani isu pengurusan perolehan sebenar.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

Companies around the globe are mandated to produce financial statement in the form of annual reports at the end of their financial year. Financial statement of a company displays the picture of an organization's outcome and consequence of its activities. Management often uses this report for planning and control. Of this information, reported earnings are important elements that reflect the past operations and predict the future. Reported earnings are the addition of cash flow from operation and accruals.

In preparing the financial statement various statutory requirements and regulatory rules are adhered to, such as company law, accounting standards, taxation law etc. Among the preparers of the reported earnings, managers and auditors of company play very magnificent roles and these roles may be influenced by the economic settings of the environment that they operate.

The reported earnings are metrics that portray company status, effectiveness of management and depict its economic realities and financial prospects. Reported earnings numbers are important and serve as a candle light in providing costly, applicable and pertinent information to users, be it internal and external (e.g., shareholders, employees, investors, debt holders, managers and financial analyst) in making business decisions.

The heavy dependence on the earnings by the internal and external users creates an avenue for managers to use accounting discretion in arriving at earnings figures. One of the objectives of this act is to meet earnings forecast and thresholds, analyst expectations, executive compensation, debt covenant, capital finance and to influence regulatory decisions (Bernard & Skinner, 1996; Healy & Palepu, 2001; Roychowdhury, 2006). The reason is to avoid reputation damage and strong negative share price reaction that may adversely damage the economy.

Managers engage in acts whereby accounting policies (such as GAAP) or real actions (e.g., reducing R&D) are being used in order to achieve the targeted earnings objectives, a process that is being referred to as “earnings management”. Earnings management occurs when management present false information on the financial position of the company through the use of discretionary accruals and real activities based manipulation in inappropriate manner. Moreover, providing false information could stupefy the users in making decisions and strongly affect the capital market.

Financial accounting information reported has been referred to as not an exact science because companies do report earnings that actually do not exist, since this shows the performance and governance efficiency (Healy & Palepu, 2001). As this information is used for various relevant purposes such as investment decisions for local and foreign investors, compensation policies etc. These make investors dedicate interest to earnings management phenomenon and the quality of information released by companies. The relevance of these accounting numbers encourage managers to manage and distort earnings at the expense of shareholders (Rahman & Ali, 2006).

Earnings management involves management wrongdoings, mischief and use of discretions in reporting accounting numbers, structuring of transactions, to influence the financial information that could mislead shareholders and stakeholders on the underlying economic performance of the company or contractual outcomes that depends on accounting numbers (Healy & Wahlen, 1998). This can be achieved using two different strategies and have some consequence and effects for users of the financial statement, especially investors (Ibrahim, Xu, & Rogers, 2011) although the act is not illegal.

It has been evidenced that two important strategies are mostly common and used interchangeably (Bartov & Cohen, 2009; Cohen & Zarowin, 2010; Gunny, 2010; Haw, Ho, & Li, 2011; Ibrahim, et al., 2011; Roychowdhury, 2006; Zang, 2011). These strategies are accrual-based concept and real activities based concept (Cohen & Zarowin, 2010; Gunny, 2010). The former is easy to practice and has low manipulation cost (Chen & Tsai, 2010) and that the latter is less costly to managers but unlikely to drawn the attention of regulatory scrutiny and auditors investigation (Cohen, Dey, & Lys, 2008).

Badertscher (2011) viewed earnings management from three different perspective (e.g. earnings management within the GAAP, outside the GAAP and real earnings management) and classification shifting (Haw, et al., 2011). The real earnings management is carried out through adjusting the timing of operating, financing and investment activities, which could have a long term consequence on the company (Badertscher, 2011). Graham, Harvey, and Rajgopal (2005) document that media and

analyst attention have been mostly confined to accrual type of earnings management, whereas managers tried to shift to real earnings management which have not received much media attention in the post-Sarbanes-Oxley era. Sometimes managers employ real activities manipulation when there are difficulties such as high quality auditors in using the accrual earnings management (Chi, Lisic, & Pevzner, 2011). In addition, Chi et al., (2011) reveals that stringent auditing measures engulf companies to result to real earnings management.

The Managers opportunistic behaviour are likely to influence earnings management (Cohen, et al., 2008). This is identified for incentives and private gains (Liu, 2012) bonus plan, debt covenants, to influence contractual outcome. In a nutshell, earnings management makes it difficult for shareholders to make informed decisions because the real performance of the company is unknown. For example, a capital market is said to be efficient when prices of securities is a reflection of information flow, since financial information is used in setting security prices. The irregularities and inappropriateness of reported earnings, in particular earnings management (Haw, et al., 2011; Liu, 2012), made investors sceptical about the information and reported earnings provided by companies. Moreover, the financial statement is expected to provide relevant information on uncertainty and timing of cash flow (Abed, Al-Attar, & Suwaidan, 2012).

The quality of accounting information plays a significant role in capital market efficiency and stock price is a reflection of accounting information. A faulty financial information lead to poor economic decisions that may cost the public a lot because there



is possibility that the value of securities may be under or overvalued (Sahlan, 2011; Xie, Davidson, & DaDalt, 2003). Hence, a robust capital market goes hand in hand with a good corporate governance ecosystem with transparency, equality, accountability and shareholders right (MCCG 2012).

To restore confidence and integrity of the information provided, corporate governance is one of the mechanisms in the regulatory framework in curbing these actions. The corporate governance regulatory frameworks are rules, structures and institution within and around organization. It deals with allocation of resources and how a company helms and affairs are to be managed, governed, and regulated with a view to achieve long term return to both shareholders and other stakeholders. In fact, one of the main factors that denote the quality of corporate governance and investors' protection are frequency or magnitude of earnings management. However, the frequency and magnitude of earnings management around corporate events raise attention from regulators and academicians in providing measures to tackle the practice.

Corporate governance has become a topical and long standing issue among researchers in the field of accounting and finance and financial economics literature. Corporate governance is a key policy agenda and needed for the development of a market oriented economy (Claessens & Yurtoglu, 2012) and instils investor confidence and integrity and accountability of financial information (Claessens & Yurtoglu, 2012; Tsamenyi & Uddin, 2009).

However, three distinct reforms have been embarked upon by the regulatory agencies (such as revamp of the MCCG 2002, 2007 and currently 2012, CMSA 2007, and BMLR) which, is to ensure market investor confidence, transparency, accountability and market reputation. Emphases of the new corporate governance code are board of governance, shareholders rights, the role of gatekeepers and intermediaries. Inclusive in the role of board governance is role of independent non-executive directors and audit committee in general.

Malaysia, being one of the East Asian countries is categorised as an emerging market (Mohamad, Rashid, & Shawtari, 2012) and characterised by factors that could result to information asymmetry such as close ties business network, political influence and prevalence of family controlled companies (Haw, et al., 2011). Moreover, Haniffa and Cooke (2002) pinpoint that environmental factor may influence the corporate accounting disclosure practice of companies. Over the years, the country has revamped its corporate governance code three times, of which the corporate governance code 2012 is the current amendments to the 2007 MCCG.

Furthermore, being one of the East Asian markets. The Malaysian market is resilient and known with long-standing race based investment. One of the reform drives by Najib Razak in 2009 is the elimination of quota on ownership of companies to improve their competitiveness and efficiency so as to attract foreign investors. In addition, an important issue in the popular press entails diversifying the board into gender, ethnicity, background and skills. The need for a diverse board is to enable company's survival for the twenty first centuries. According to a report release by Global Metric Index in 2011,

indicates that global aggregate of women on corporate board has increase steadily from 9.2%-9.8%. The report indicated that there has been an increase in the leadership of committees such as audit committees, remuneration committees among others.

Similarly, recent ranking by the Asia Corporate Governance Association and CLSA Asian-pacific Markets positioned Malaysia at the 4<sup>th</sup> position jointly with Japan on investor protection. This Indicate a 3% rise in points from 52% in 2010 to 55% in 2012 (The Star September 28, 2012). This serve as a boost to financial market development as this would push in foreign investors because investors are safeguard against their rights. The country was ranked 18<sup>th</sup> on easy of doing business out of 130 economies and indication that the country has strong corporate governance infrastructure. Despite the overhauling of its corporate governance code, high accounting standard in preparation of financial report, one identifiable area is still the area of GAAP, which remains at 80% and more doubtful view is on audit quality. These indicate that companies still produce low – quality financial statement.

More recently in December 2012, the Asean Corporate Governance Scorecard indicate an improvement of 7.5% in 2009-7.8% in 2011-mid 2012 the percentage point rise to 10.5% on female representation on board of top 500 companies (Bushon, 2012). In addendum to government policies, Bursa Malaysia listing requirements chap 15 part B(A) has also stipulate that listed companies must provide in its annual report sentences introducing its policy on board composition as regard independence, expertise, mix of skills, gender and the criteria used in selecting the board of directors. In attestation to this, the qualitative statement on the nominee quality must also be stated.

The economic settings, social and institutional environment are different from that of developed countries. For example, UK economic settings, social and institutional environment are helpful and motivate the board of director to perform its monitoring role effectively. Besides, reporting quality in each country is different and institutional, political and legal system of a country can be a determinant factor for financial reporting. (Wahab, Haron, Lok, & Yahya, 2011) document that Malaysia capital market is associated with political connection and relationship-based economy coupled with its multi-cultural state of the community. The country also has a weak governance structure and less transparent on like its counterpart in the developed economies such as UK, USA, Australia, Canada etc. (Johl, Jubb, & Houghton, 2007). One can also conclude that the stock market of developed economies are larger than that of developing economies, coupled with low ownership concentration, high cooperate disclosure and strong enforcement of law.

## **1.2 Problem Statements**

The pervasiveness of earnings management (Healy & Wahlen, 1998), terrorist attack (Iatridis, 2012) and its provocations (Lo, 2008) , series of share price manipulation, tumbling in 2005 (Gunasegaram, 2010) and accounting scandals in the Malaysia capital market (Taing, 2011), where share prices nosedived from RM12.20 to 50cent in 2010, have been a growing concern and raised questions on the quality of financial information released by management, leading investors to doubt the reliability of financial information. Basically, investors rely on financial information for investment decision and to facilitate the efficient distribution of resources (Healy & Wahlen, 1998). Owing

to the importance attached to this information, managers use discretion in reporting earnings numbers.

With substantial evidence from series of corporate events such as bond issuance (Pae & Quinn, 2009) seasonal equity offerings (Cohen & Zarowin, 2010), IPOs (Kamel, 2012) and scandals have shown that managers manipulate earnings, and motives why companies manipulate reported earnings (e.g. to increase managers compensation if companies performance is align with managers personal benefits, job security, capital market pressure, window dressing prior to offering so as to influence stock valuation and for tax benefits) (Healy & Wahlen, 1998). This action is known as earnings management.

Studies have shown that average large public listed companies in Malaysia managed their reported earnings, whereby the use of accounting discretion decreases and companies are more likely to restate prior earnings (Jalil & Rahman, 2010; Rahman & Ali, 2006). These can be done using different strategies such as accounting earnings management otherwise known as accrual-based earnings management from GAAP loopholes (e.g. inventory valuation methods, depreciation among others), real earnings management (e.g. delaying normal operating activities) and classification shifting.

An interview survey of more than 400 CFOs conducted by Graham et al. (2005) revealed that 80% of CFOs divulge that, in order to meet earnings, they would decrease research and development, advertising, and maintenance expenditures; while fifty-five percent said they would delay a new project. Subsequent studies have shown similar

results of the prevalence of this behaviour by managers (Bartov & Cohen, 2009; Cohen, et al., 2008; Cohen, Mashruwala, & Zach, 2010; Ibrahim, et al., 2011; Kang & Kim, 2012; Roychowdhury, 2006). This type of behaviour is called “Myopic behaviour” (Zhao, Chen, Zhang, & Davis, 2012). An international recent studies by Enomoto, Kimura, and Yamaguchi (2012) using sample from different countries find that companies prefer to manage earnings through the operational activities rather than accrual earnings management, albeit this happen in countries with stronger investor’s protection.

In related studies, Roychowdhury (2006) and Sari, Warsono, and Suryaningsum (2010) argued that in economies with strong investor protection, managers of companies are likely to shift to other strategy of manipulating reported earnings, specifically real earnings management strategy. This is due to the fact that accrual earnings management is likely to draw attention of auditors and regulatory scrutiny and its ease in detection. The countries sampled by Sari et al. (2010) to detect the prevalence of these activities are seven Asia countries, namely Malaysia, Indonesia, Japan, Korea Singapore, India and Hong Kong. In addition, Chen and Nowland (2011) assert that certain mechanisms set out in the code are effective. For example, their findings show a significant increase from 55%-79% over the sample period with half of it occurring around the introduction of the code. There is an increase in average of audit committee independence. But there is persistence of companies reducing their board and audit committee independent to the code recommendations level.

The corporate governance interest have heightened in the global arena in the 20<sup>th</sup> and 21<sup>st</sup> century both in developed and emerging countries following series of corporate debacles and collapse such as managerial scandals, corporate breakdowns and undue profit maximization in order to meet, beat or match target, by so called blue chips companies in the global arena, from America to Europe down to Asia (e.g., Enron, WorldCom, Parmalat, FujiXerox, HealthSouth, Adelphia, Tyco, Marconi, Tarling). More recently, in the year 2012, is Groupon in the US that was attributed to lack of financial expertise in the audit committee (Grenier, Ballou, & Philip, 2012).

In Asia, corporate debacles came to limelight in Singapore (Tarling v PP in 1970s) followed by the Asian financial crises. More recently, are accounting scandals involving “Olympus” in 2011 in Japan (The Economist), where accounting irregularities to the tune of \$1.5million was discovered. Likewise in India, financial frauds investigation conducted by the Serious Fraud Investigation Office (SFIO) in 2009 found that Daewoo motors India ltd and DSQ Software Ltd “Satyam” reported earnings of 50.4billion rupees (\$1.03billion) of cash and 3.76 billion rupees of earned interest that do not exist.

Similarly in Malaysia, the accounting scandals in the year 2007-2008, where Transmile and Megan Media, GP Ocean, Nasioncom and Ocean Capital Bhd were involved generated a lot of questions regarding trust of shareholders and stakeholder coupled with capital market and regulators (Sahlan, 2011). For example the group sales revenue of Transmile was inflated by RM333million in the financial year 2006 and RM197million in the financial year 2005, showing that the group’s revenue jumped to RM989.2million

from RM550million a year earlier and RM157.5million as against RM74.8million in financial year 2005 (Taing, 2011).

The occurrence of these scandals eroded debates on regulatory oversight, unreliability of the financial statement (Kalelkar & Nwaeze, 2011), loss of investor confidence and ineffective corporate governance system despite the measures put in place years ago. All these failures and corporate scandals have subjected the relevant and importance of financial information into doubt. As a result of these irregularities and inappropriateness, indications for the need of corporate governance to salvage the situation came to lime light. In fact, all these scandals raised questions about transparency and accountability of management on the power entrusted in them in providing relevant information to the shareholders and stakeholders.

Corporate governance is one of mechanisms put in place by the regulatory authorities in monitoring and controlling the managers and has been regarded as common cure to the woes against this myopic and unruly behaviour of manager (Faleye, Hoitash, & Hoitash, 2011). However, it was expected that the corporate governance would amplify the long-term trust between the management of a company, shareholders and stakeholders. As it would ensure that providers of capital are compensated in lieu of return on capital invested and ensure that decisions made by management are free from conflict of interest (Claessens & Yurtoglu, 2012; Shleifer & Vishny, 2012). The effectiveness of these mechanisms is expected to deter management from engaging in this behaviour. It is on this note that this study considers the impact of corporate governance mechanisms



on real earnings management, since their impacts have been put to doubt, particularly, board characteristics and audit committee.

### **1.3 Research Questions**

Agency problem occur as a result of conflict of interest between the principal otherwise known as shareholders and agent (managers). Aligning the interest of both is what corporate governance stands for. Prior researches have highlighted the importance of two compositions of board structure, which is independence of the board and existence of audit committee. However evidence related to the importance of the two compositions has been inconsistent and controversial. Therefore, the corporate governance mechanisms that is to be considered are board structure and audit committees coupled with various subheads that have been examined by few researchers in different context. In fact, studies on relation between some corporate governance mechanisms and real earnings management are scarce. In order to address this phenomenon, the research questions are as follows:

- I. Do board structures have effect on real earnings management?
- II. Do audit committee characteristics constrain real earnings management?

### **1.4 Objectives of the study**

To investigate the association between board structure and real earnings management

To investigate the effect of audit committee characteristics on real earnings management

### **1.5 Significance of the study**

It is a well-known fact among regulators, analysts and investors that managers engage in earnings management. In fact, motives for managing earnings also differs among countries (Othman & Zeghal, 2006).

Earlier empirical studies in Malaysia, such as (Ahmad-Zaluki, Campbell, & Goodacre, 2011; Hashim & Devi, 2008; Hyo Jin & Soon Suk, 2008; Ismail & Weetman, 2008; Jalil & Rahman, 2010; Johl, et al., 2007; Kamardin & Haron, 2011; Mohamad, et al., 2012; Rahman & Ali, 2006; Sahlan, 2011; Saleh, Iskandar, & Rahmat, 2007) have investigated some relationships between the corporate governance mechanisms and earnings management, using (accrual) proxy either by discretionary accruals, abnormal working capital accruals, and board performance among others. But it can be concluded that none of these studies have thought of examining the impact of these mechanisms on the aspect of real operating and investment decisions of the company. The present study would consider most of the subheads in each of these variables, specifically, gender diversity, CEOs age, backgrounds and role of analyst in constraining earnings management. In this case, the study wishes to close this gap.

In addition, most the studies on accrual earnings management are inconsistent and have succinct association with some corporate governance variables in their findings. In fact none of these studies have used data after the revamp of the corporate governance code 2007 and 2012 code. However, the projection is that the amendment would have some impact on the structure of the board and committees. Since, the environment that Malaysian companies operate is different from other part of the world (Saleh, et al.,

2007). Therefore the present study would reveal clue to regulators and market participant on the new method used by management in manipulating earnings. This would indicate a clear picture of whether there is a parallel shift of companies in Bursa Malaysia from accrual based earnings management to real operating decision. It is often referred to as being a “myopic behaviour” carried out by managers of companies, and as such has long term consequence on company.

Despite the clamour and increasing shift by management to this very practice which has been identified to have strong long term impact on companies and it is identified as a new strategy used by managers nowadays to manage earnings. None of the aforementioned studies above happen to investigate the existence of real earnings management, in spite of its direct impact on cash outcome (Cohen, et al., 2010) around season equity offerings (Cohen & Zarowin, 2010). The aforementioned above suggest that, the present study would investigate whether Malaysian companies also engaged in this act that is said to be costly and harder to detect as enunciated by (Graham, et al., 2005).

This would enable the regulatory authorities and standard setter to be steadfast in proving measures that will curb and limit the practices if possible occurrence of it is found. Since effective corporate governance mechanisms enhance board’s oversight functions and improve the quality of reported earnings. It will enable authorities and regulators to know the elements of the corporate governance variables that are more effective in curbing these practices.

Another important contribution is to the investors, both foreign and local in investment decision making, knowing this would attract foreign investors as serve a a guide in investment decision making. This is because effective monitoring would enable the companies to produce good financial reporting and credible information that would portray the economic position of the company. Having a clear picture of whether managers have switched from the normal practice to new terrain is important in selecting the mixture of their portfolio and their confidence on the market. On the other hand, it would enhance investor confidence and increase the economic health of the companies, so that, both the future value of the company and shareholders interest would not be damage.

This study would contribute to existing corporate governance literature, particularly association between corporate governance variables and earnings management, real earnings management in particular. The quality of financial reporting is important for investment decision and the long term performance of the company depend on decision taken at present. To recap it all, corporate governance is a significant contributor to have a sound economic performance and integrity in the market. This can also be derived from the consequence of poor corporate governance during the financial crisis and corporate scandals.

### **1.6 Scope of the study**

The study investigates the effect of board characteristics variables and audit committee characteristics as they influence normal operating activities of the organisations. The study covers top 100 public listed companies on the main board of Bursa Malaysia that

are rated based on the corporate governance index by the Minority Shareholders Watchdog Group on best corporate governance practices in 2011. Due to time constraint, only these 100 companies are considered for this particular year that they were rated.

In addition, during the course of this research, some of the company's financial statement for 2012 has not been released. So this makes it difficult to access 2011 data. Financial institution companies are excluded because they have different form of reporting and regulations from other industries. The study uses secondary data; the financial data are extracted from DataStream and the corporate governance data are hand collected from the annual report, which is downloaded through the Bursa Malaysia Website. None available data from the DataStream are supplemented from data in the annual report.

### **1.8 Organisation of the Study**

This study is structured into five chapters. This chapter evolved from background of the study that gives an insight to occurrence of earnings management and strategies use by managers in managing earnings. Also in this chapter are problem statement that is the circumstances that warrant the study, research questions, research objectives, significance of the study and ambit that the study focuses on.

Chapter Two deals with underpinning theory related to the study under review, which the main focus is related to agency theory, which dwells on the role played by board of directors and audit committee in constraining agency conflict. The chapter also provide

some empirical literatures related to earnings management, corporate governance and each of the corporate governance mechanism with their sub-heads. In addition, the research hypothesis is established to determine their relationship with corporate governance variables.

Chapter Three provides the research methods and design used in the study. It explains the source of data used and justification for selecting the sample, data collection method, the definition and measurement of both the dependent variable and independent variables, model specification and some related instrumental variables.

Chapter Four reports the results of the empirical findings that examine the association between corporate governance variables (board structures and audit committee characteristics) on real activity based earnings management. Here descriptive and correlative analysis is being made, followed by analysing each model.

Chapter Five, summarises the overall findings, conclusion limitation and recommendation for future research are discussed in this chapter.

## **CHAPTER TWO**

### **THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

#### **2.1 Introduction**

The earlier chapter gives notion on understanding the topic being discussed and the aims and objectives to be achieved in this study. In order to exercise the stated objectives and pre-empting appropriate measures needed in driving the force of this study, the chapter introduces the theoretical framework for the study. In understanding this, the underlying theories considered includes agency theory, stewardship theory and managerial hegemony theory. The main focused underlying theory is agency theory, which addresses the conflict that occurs between the principal and agents in pursuance of certain specific goals. In aligning their relationship, corporate governance comes into play. Of the corporate governance monitoring mechanisms are board of directors and audit committee. Hence various association and empirical findings would be discussed to be able to develop hypothesis.

#### **2.1 Underlying Theory**

Corporate governance can be explained from various theories. The underpinning theory in this research is mainly tended towards agency theory.

##### **2.2.1 Agency theory**

Agency theory has been a long standing theory related to several fields e.g., economics and finance in ensuring sufficient economic organisation (Fama, 1980) sociological

literatures (Shapiro, 2005) and managerial behaviours (Jensen & Meckling, 1976) yet, it has received series of criticism. The proponents of agency theory such as Jensen and Meckling (1976) and Fama (1980) pinpoint that the theory was propounded to provide measures that could resolve the conflict that arises between security holders and managers. In reducing the conflict between the two parties, corporate governance mechanisms could play important role (Eisenhardt, 1989). Indeed, Eisenhardt (1989) conclude that agency theory is supportive to organizational theory in the area of risk and uncertainty, incentives and information system. Despite the wide usage of agency theory as it relate to research on corporate governance, it has also been criticised due to series of financial scandals around the globe, one of it is focusing on one direction of relationship, stewardship theory and separation of ownership and control.

Specifically, agency theory propels the agency relationship that arises where one party being the principal delegates some duties to another party known as the agent (Fama, 1980). In addition, agency problem arises due to deviance act of the managers from that of the shareholder. Certainly, there is tendency that agent may either act partially or may not even act in the best interest of the principal, but agency theory has indicated that managers have discretion in expropriation of fund provider by the supplier of capital and there is likely to be deviance in reporting earnings. One of the reasons for agitating for accounting earning disclosure and reporting is because of agency problem that arises between corporate managers and shareholders (Healy & Palepu, 2001). The two basic assumption of agency theory involve information asymmetry and opportunism behaviour of the managers (Shapiro, 2005). The information asymmetry can be categorise into moral hazard and unfavourable dimension (Hashim & Devi, 2008).



The information asymmetry arises because being an insider in the company, managers have access to the available information and they are also in the position to feed the executives who to act on the information provided by managers. Mostly the information is also use by stakeholders. In categorising those that are best informed and can easily access the financial information, at the top of it is Manager, followed by outside directors and shareholders (Armstrong, Guay, & Weber, 2010) . As a result of achieving the company objectives and maximizing the shareholders wealth, managers do everything possible to achieve the aim.

On the other hand, issue related moral hazard happens after the existence of the agency relationship and conflict arises when managers are unable to act in the best interest of the provider of capital. Agency theory suggests that the information asymmetry that occurs could be rejuvenated if effective corporate governance mechanisms are put in place.

Additionally, the information environment is also important in designing and introducing the mechanism that could be effective in mitigating the conflict (Armstrong, et al., 2010). Effective corporate governance would serve as sophisticated measures to align and protect the interest of managers with shareholders and stakeholders for the organisation success and efficiency (Armstrong, et al., 2010; Kamardin & Haron, 2011; Kang & Kim, 2012) and significant for a country's economic growth (Claessens & Yurtoglu, 2012).

Consequently, agency theory suggest that board of director and audit committee play significant role in ensuring that companies engage in corporate governance of best practices. The board of directors' effectiveness through its various monitoring machineries and disciplinary measures could manoeuvre the management behaviour in engaging in opportunistic behaviour, albeit instigating investor goodwill (Healy & Palepu, 2001; Mohamad, et al., 2012), specifically the role of outside director and incentives to management (Armstrong, et al., 2010).

The board of director is considered as an internal control mechanism in protecting the shareholders interest from managerial opportunistic behaviour. The board of director perform varieties of action in terms of fiduciary responsibility in monitoring and implementation of strategy so as to ensure that management act in the interest of shareholders (Zhang, 2012). The ability of the board to discharge its monitoring, strategic, service and resource dependence role indicate an effective board (Kamardin & Haron, 2011).

Moreover, the substance and composition of the board is also a determinant in ensuring that boards are effective. In a similar vein, argument of agency theory is that the inclusion and having a board dominant of independence director and non-executive director influences the board in discharging their responsibilities in monitoring the managers (Liu, 2012).

In another vein, conflict may arise between managers and auditors in selection of accounting method to use. The auditors may dunc to the manager's tune since they are

appointed by them. In order not to produce unbiased report the audit committee also acts independently in order to resolve the conflict that may arise between the auditor and managers. An active audit committee is expected to serve as an important monitoring mechanism (Saleh, et al., 2007).

In addition, agency theory is of the view that audit committee can also play some roles in constraining earnings management, particularly, when the board is composed of independent directors who are likely to employ independent judgement in monitoring the management financial reporting activities, which could have impact in ensuring that the financial information is transparent and not misleading. Understanding what audit committee is, Beasley, Carcello, Hermanson, and Neal (2010) revealed that audit committee members seek to be effective in financial reporting process rather than serving on ceremonial audit committee in line with agency theory but contrary to institutional theory.

Conclusively, harmonizing and aligning the interest of managers and shareholders, the introduction of having independent minded board and non-executive directors is pre-empt to be effective in monitoring the management and ensuring that there is no deviation on corporate objectives of companies they chair, albeit constrain earnings management.

Furthermore, proponent of agency theory is of the view that having a separate person manning the position of Chairmanship and CEO is of utmost important due to the fact that both the decision making and control function are handled by different individual.

As regard to this, the power of this individual is reduced. But findings related to this argument have been inconsistent especially studies related to company performance and earnings management. Armstrong, Guay, and Weber (2010) document that transparency of reported financial information could solve both shareholders and stakeholders agency problem.

### **2.1.2 Managerial Hegemony**

The theory asserts that managers hand pick those that are to serve on board. With this assertion, managers would strive to choose most of their colleagues and ties to fill the available vacancies in the board. In spite of this, it is unlikely for members of the board who are being regarded as independent directors to be independent in taking decisions because these members would preferable be loyal to the manager rather than shareholders (Beasley, et al., 2010) impliedly, the committee would be under management shoulder and dependent. Considerably, it would be difficult to conclude that members sitting on board and several committees are independent and effective in performing their monitoring role.

Similarly, managerial hegemony theory suggests that the board may not serve as a good corporate governance mechanism because of dominance nature of managers on members sitting on corporate boards. For example most of the information needed by the manager is produced by the executives. As such, this can undermine the effectiveness of the board in performing their monitoring roles (Rahman & Ali, 2006). In some cases, members sitting on board are not endowed with the knowledge to be able to carry out their monitoring and advisory role. In addition, since the CEO is part of the

selection process it would be difficult for there to be an independent judgement from the directors.

### **2.1.3 Stewardship Theory**

Prior studies such as Donaldson and Davis (1991) and Davis, Schoorman, and Donaldson (1997) have argued that stewardship theory is an alternative to agency theory. Argument of stewardship theory is that managers are expected to serve as a steward, that is, based on the assumption that, they are trusted and believe to act in shareholders' interest. Contrary to agency theory that is based on managerial opportunism, which regard managers as an agent that leads the board to serve as a controlling and monitoring mechanisms. Moreover, managers can be compensated not only with financial incentives but with non-financial incentives. In another vein, stewardship theorists disregard that there exist a conflict of interest between agent and principal. As such, they regard the managers as honest, trustworthy and collectivistic rather than be opportunistic. From corporate governance mechanism point of view, if managerial opportunism seeks to exist, separation of chairmanship and chief executive officer role would ensure strong controlling and directing of company resources in achieving the company stated objectives.

## **2.2 Conceptual and empirical definition of corporate governance**

Understanding what corporate governance is has been topical and long standing issue among researchers in the field of accounting and finance and financial economics literature. This has also been discussed by practitioners, regulators and academicians as a key policy agenda needed for the development of a market oriented economy

(Claessens & Yurtoglu, 2012) and serve as a shocker absorber to cushion the effect of earnings management being perpetrated by managers and enhance the quality of earnings reported (Marra, Mazzola, & Prencipe, 2011).

All about corporate governance is governance structure of companies (Brown, Beekes, & Verhoeven, 2011). Corporate governance ambit is about control, monitoring and direction of a company in solving agency problem. Corporate governance has been key policy issue around the globe, particularly in Asia. The term has been a subject of concern to all academics and policy makers. Specifically, after the Asian financial crisis in 1997- 1998 series of reforms and frameworks have been embarked upon (Cabalu, 2005; Liew, 2009). The reforms address the guidance and effective monitoring of boards accountability to company and shareholders.

Prior studies in emerging economies have discussed on issues related to corporate governance of best practices (Haniffa & Cooke, 2002; Hassan, 2011; Rahman & Ali, 2006; Sahlan, 2011; Saleh, et al., 2007) and prior to being listed as a public listed companies (Ahmad-Zaluki, et al., 2011). Corporate governance provides mechanisms on how assets of a company are managed, controlled and directed, in the interest of supplier of finance and in order to ensure efficient expropriation of resources by managers, to instils investor confidence, integrity and accountability (Claessens & Yurtoglu, 2012; Lin & Hwang, 2010; Liu, 2012; Mohamad, et al., 2012; Tsamenyi & Uddin, 2009) in order to attain company goals (Kang & Kim, 2012).

Corporate governance mechanism can be categorised into internal control mechanism and external control mechanism. The internal control mechanism is the most common mechanism known (e.g. board of director and their shareholdings). Apart from this, the external control mechanism comprises of block holders, market for corporate control and debt. Research on corporate governance is not only important in advanced economies but much attention is needed in developing economies because of its weak financial institutions and regulations in addressing problems related to corporate governance (Lin, 2010). It is worthy to know that effective corporate governance is related with better operating performance and market valuation (Klapper & Love, 2004).

What led to the introduction of corporate governance in the advancing economy is associated with the Asian financial crisis in 1997, capital market development, international donors led economic reforms (Claessens & Fan, 2002; Tsamenyi & Uddin, 2009). Through semi- structured interview and documentary analysis, Malaysian corporate managers opined that what led to corporate governance reforms (MCCG 2002) by companies after the crisis is to instil foreign investor confidence, pressure from international donors (e.g. IMF, World Bank, OECD) and to fulfil the various regulatory authorities requirements (Liew, 2009), although Malaysia was the only country that did not apply for IMF loan after the catastrophe. Moreover, the reform enables management to seat up on its roles and responsibilities in making strategic decision, but issues related to ownership concentration, interlocking and family ownership are still problem of concern. Indeed there are sparse researches on the effectiveness of the corporate governance reform (Liew, 2009).

Poor and ineffective corporate governance system in a country could cause instability, increase market vulnerabilities and devastating effect on the economy, because insiders have an edge to information that would ensure transparency and integrity in the market (Claessens & Yurtoglu, 2012). An important contributory factor to the causes of the Asian financial crises has been attributed to weak corporate governance system, limited right to minority shareholders, lack of transparency and accountability of those entrusted to manage the corporate sectors in those countries (Cabalu, 2005; Claessens & Fan, 2002; Claessens & Yurtoglu, 2012; Liew, 2009).

Most of the countries affected by the insurgence are Malaysia, Thailand, Indonesia, Philippine and Korea. But the poor corporate governance system has made the crisis so severed and had deleterious effect on the economy of these countries. Claessens and Fan (2002) could not find supporting views that companies in Asia were not badly managed, but was due to high leverage, engagement in risky investment rather than diversification. Specially, share price plummeted to a drowning figure and corporate misconduct. Sometimes poor corporate governance can affect the economy of a country, because management of these companies pays more attention in increasing share price, meeting earnings estimate for the short-termism of their companies rather than long-terms objectives.

In addition, ineffective corporate governance has generated media attention in the recent global financial meltdown and Euro Zone crisis that were associated with liquidity shortfall in banking industries and subprime mortgage failure, which resulted to collapse of business and loss of investor wealth, makes the government to offer bailout policies.



Albeit, important mechanisms put in place by the regulatory authorities is the fiduciary role of the board of directors in safeguarding investors' interest against any opportunistic behaviour of the manager (Mohamad, et al., 2012).

But the insurgence of various crisis and scandals called for a review of the role of board of directors and audit committees since it is the board of directors that would appoint those to seat on various committees. At core, these elevate the importance of good corporate governance practice. Cabalu (2005) and Claessens and Yurtoglu (2012) documented that achieving corporate governance of best practices depends on the regulatory, institutional and legal environment of that particular country. Good corporate governance increases companies' access to external finance, lower cost of capital, reduces volatility to financial crisis to enhance economic growth and development (Claessens & Yurtoglu, 2012).

In respect of these constraints, to restore integrity in capital market and to ensure that information released by companies are reliable and dependable, international bodies, private groups and each countries have provided measures and amendment to countries code of corporate governance. Of the international bodies is Organization for Economic Corporation (OECD), International Monetary Fund (IMF) International Finance Corporation (IFC), Asian Development Bank, Global Corporate Governance Forum etc.(Liew, 2009; Mallin, 2010; McGee, 2009). Countries code of corporate governance includes, Sarbanes Oxley Act in the US, Cadbury report 1992 in the UK, Corporate governance principles and recommendation in Australia, Malaysia code of Corporate governance (Liu, 2012; Mallin, 2010; McGee, 2009).

Corporate governance codes have been issued in more than 64 countries and huge of it were issued in 1990s and 2000s (Chen & Nowland, 2011). Corporate governance practices in advanced countries are different and are characterized by weak legal system and highly associated with better operating performance (Klapper & Love, 2004). Shen and Chih (2007) investigate the impact of corporate governance on earnings management using firm-level-governance data, taken from Credit Lyonnais Security Asia, of nine Asia countries. The results pinpoint that firms with good corporate governance are inclined to conduct less earnings management, mitigate large size firms in engaging in earnings smoothing since they are apt to conduct earnings smoothing because of size effect. Also, Claessens and Fan (2002) document that conventional corporate governance mechanisms are ineffective to cushion the impact of Asia crisis but mitigate the effect of the crisis. Cleasen (2012), document that relationship between corporate governance and performance, valuation and cost of capital, still need more empirical studies to be carried out. For example, boards of director were dominated by insiders. Alternative mechanisms suggested by Claessens and Fan (2002) are external auditors, equity analysts, dividend policy among others. Evidence have shown that analyst activity depend on institutional factors and quality of financial information disclosed.

### **2.2.1 Companies Commission of Malaysia Act 1965**

In upholding best practice of corporate governance, the companies' commission has imposed a greater demand for reasonable competence among company directors and their trustworthiness. In order to enhance the standard of corporate governance, the code

of ethics was formulated. This code explicitly state what a company director is, duties and responsibilities. The code defined a director as an individual who is rather an executive or non-executive director as well as executive and non-executive chairpersons. The code state that a director should limit his directorship of companies to what his/her capacity can endure in order to be able to discharge its duties effectively. A director is also expected to exercise independent judgment in all company related matters.

### **2.2.2 Malaysia Code of Corporate Governance**

For prosperity of any nation, there is need for high standard corporate governance, including effective dialogue between companies and shareholders. In this case, companies are expected to take decisions that will enhance shareholders value. In order to increase market confidence and strengthen market reputation and control, the bursa Malaysia requires companies to disclose the implementation of the code and the reason for non-compliance therein. The country is also one of the emerging market economies. Basically corporate governance is about decision making but the custom and normative system of the society also play a significant role (Claessens & Yurtoglu, 2012). They define corporate governance as the association between parties (e.g., shareholders, creditors, supplier of finance, employees) and the company.

The Asian crisis in 1998/1999 is significant factor towards the establishment of the corporate governance code in 2000, and subsequently revised in 2007 and 2012. The introduction of the first corporate governance code came to lime light in March 2000 and became effective in July 2001, followed by the second code in October 2007 and finally the third code was introduce in 2012 and became effective date for MCCG 2012

is 31<sup>st</sup> December 2012. The first code addresses the issue of board independence, separation of CEOs responsibilities and various committees. For example, one-third of the board are expected to be independence, different individual manning the position of chairman and CEO, establishment of audit committee and remuneration committee and audit committee members majority of whom should be independent.

The 2007 code categorically state that an evaluation process needs to be implementing to assess the contributions of board members and criteria used in appointing directors on board and committee that they belong. Key amendment to the code strengthens the role and responsibilities of the board of directors and audit committee in discharging their duties effectively. As it is stated that nominating committee must consider the expertise, educational qualification, experience and professionalism and the ability to discharge the portfolio given to a particular individual and committee.

Prior to the Asian financial crisis in 1997/98, the then KLSE required companies listed on the exchange to establish an audit committee. But there wasn't much emphasis on its compliance not until the introduction of Malaysia code of corporate governance in 1999 but effective in 2002. The 2007 code also highlight the criteria for the appointment, composition and the frequency of meeting of audit committee. On issues related to audit committee, the audit committee members are expected to be among the members and composed of not less than three members. They are expected to be non-executive directors and one of the members must belong to Malaysia Institute of Accountants or three years' experience thereof, specifically must have financial expertise. Indeed, the

chairman of the committee must also be an independent director. Their scope is to review the adequacy and competency of internal audit function.

The bursa Malaysia is an approving authority for all secondary equity fund raising such as private placement, right issues, securities issuance for asset acquisition that do not change the core operation of the business. The bursa Malaysia being a hotshot, promote corporate governance so as to sustain market integrity. Under bursa Malaysia listing requirement chapter 15 on corporate governance policies that must be adhere to by the proposed company to be listed on the main market. The board of directors shall be at least two directors or one-third of the board of director should be independent. A director is not expected to hold more than twenty five directorship in companies. Here listed companies are required to report on their compliance in the annual reports.

The MCCG 2012 supersedes that of revamped code 2007 with an effective date in 2009. The code spelt out the principle and specific recommendations on structures and process that company should adopt in making corporate governance of best practice and integral part of the business and culture.

The code is based on eight principles. Some of the principles of the new code dwell on multiple directorships, upholding the integrity of the audit committee and aligning the interest of company with the shareholders. The code recommend that separate individual should hold the position of CEO and chairman and that the chairman should be a non-executive director on the board. In a situation where the chairman is not an independent director, the board should compose of majority of independent directors. Regarding independence of directors, the code dwells on capping the tenure of independent director

to nine years and in fostering effective monitoring, and that the board have access to continue education programme. The code has spelt out that notification must be given to the chairman before a director could accept new directorship from other companies.

### **2.3 Conceptual definition of earnings management**

Earnings management is of utmost important to both the shareholders and stakeholders because of its negative effect in investment and management decisions. Earnings management involves management use of accounting discretion in reporting of accounting numbers that undermine the reliability and integrity of the company (Haw, et al., 2011; Healy & Wahlen, 1998). The practice affects the quality of financial reporting and increases information asymmetry between the management and shareholders (Hadani, Goranova, & Khan, 2011), which could impactful affect shareholders value (Park & Shin, 2004). It involves the selection of accounting choice and real action that sooth likely objective managers are aiming at in the course of reporting financial information. This act has considerably received public, media and regulatory attention in recent years. The act is often classified as opportunistic and efficient earnings management (Lin, 2010), it is opportunistic when it entails a deceitful and purposeful way through which managers' use their inference in determination of reported earnings that could influence contractual outcomes, mislead investors in investment decision making. However, it is efficient when management want to communicate private information to investors so as to improve the informational content between managers, shareholders and stakeholders interested in the information (Lin, 2010).

### **2.3.1 Empirical studies on earnings management**

Lin (2010) classify earnings management into managers opportunistic behaviour or efficient behaviour. He extend further that Managers engage in opportunistic behaviours for different specific purposes; job security, promotions, when management incentives are based on company performance (e.g. remuneration and bonus), more especially is in meeting earnings expectations (Kang & Kim, 2012; Xie, et al., 2003). For example, Othman and Zeghal (2006) identified that motives of managing earnings differs among countries. They documented that Euro-Continental accounting model manage earnings for contractual debt cost and effective tax rate, while Anglo-American countries manipulate earnings when issuing equity.

Since the desired need of the management is different from that of shareholders, there is likely possibility of occurrence of agency problem because impliedly information provided to investors is misleading and deceitful. Whereas this information is used in setting security prices in the capital market, in fact investors also use this information in deciding on its investment decision.

Basing investment decisions on this false information undermine the integrity of capital market of an economy and affect long-run stock performance of the company. In another vein, managers' motive for engaging in earnings management includes speculative motive and altruistic motive. They assert that managers strive in manipulating earnings in order to avoid fall in share prices, reduce taxation burden, earnest of becoming a listed company. They extend further that speculative motive is driven due to pressure from shareholders, stakeholders and board of directors.

Empirical studies have also shown that managers engage in earnings management (Gunny, 2010) and trade-off between two different strategies (Zang, 2011). The methods used have also been distinctly categorized into three namely misallocation of income items, accrual-based earnings management or changes in accounting method and real earnings management (Gunny, 2010). The real earnings management affects future cash flow and has economic consequence on the long term prospect of the company.

According to Park and Shin (2004) earnings management does not violate General Accepted Accounting Principles, whilst accounting frauds comprises of earnings manipulation that violate GAAP. In reporting accounting earnings, GAAP allows managers to use their discretion in choosing out of the alternative option that is being provided. Under GAAP, managers can manage earnings through selection of accounting methods, application of accounting method and timing of asset acquisition and dispositions. Altering of accounting numbers can be done either through delaying expenses and advancing revenue in order to increase the reported earnings, vice versa.

Accounting earnings management (accrual based earnings management) involves the use of GAAP such as using LIFO, FIFO or weighted average method for inventory valuation depreciation methods and account receivables (Healy & Wahlen, 1998; Matsuura, 2008; Visvanathan, 2008), not only that it is costly and preferred by management to meet income (Osma, 2008).

Meanwhile, real earnings management involves activities related to real production, operating and investment decisions such as cutting research and development, high



production cost and low discretionary expenses (Matsuura, 2008; Visvanathan, 2008). The latter is considered as a good tool for earnings management practices because it is a signal of better performance, which could have positive impact on company's value (Gunny, 2010) does not have effect on company's' value (Roychowdhury, 2006) and may impair company value (Cohen & Zarowin, 2010; Hashemi & Rabiee, 2011; Sari, et al., 2010; Visvanathan, 2008; Zhao, et al., 2012) because manipulation done in the current period could have a negative effect on the cash flow in future period. Specifically, it allows manager to attain reporting goal. For example, a RM1 saved on research and development in the current period could lead to an increase in pre-tax income with a steep on the income figure of that particular financial reporting year. Similarly, capitalization of research and development cost was suggested reduce management behaviour.

In contrast, Seybert (2010) found that mandating the capitalization of this cost do not mitigate the level of real earnings management practice. The act could also reduce company value because in cutting down the R&D expenses, there is possibility that some viable project may be ignored (Seybert, 2010). In fact managing real activities is less costly to managers because it might not draw the attention of regulator and auditors (Cohen, et al., 2008). For this reason managers are more eager to use this type of earnings management to guard against reputational cost (Roychowdhury, 2006).

Ample of studies have shown that those entrusted with the management of the company managed reported earnings and engage in earnings management, this event is practiced both in advanced and developing economies. Albeit these are done using different

strategies, particularly accrual based practices and real based practices (Demers & Wang, 2010; Graham, et al., 2005; Gunny, 2010; Matsuura, 2008; Roychowdhury, 2006; Visvanathan, 2008). Graham et al. (2005) specifically report the widespread of occurrence of real earnings management activities because most researchers and media focuses more on accrual earnings management, while the opposite is for real earnings management (Seybert, 2010). The real earnings management is perpetrated during the financial year either monthly or quarterly, whereas accrual earnings management is made after the financial year.

In addition, studies after the introduction of Sarbanes Oxley Act indicate that earnings management decreases, but there is a shift from accrual earnings management to real earnings management, because the level of real earnings management has been increasing while that of accrual earnings management has been on decrease after the strengthen of the Act (Cohen, et al., 2008; Cohen & Zarowin, 2010; Zang, 2011) for income smoothing (Matsuura, 2008) and in the year of seasoned equity offerings (SEO) (Cohen & Zarowin, 2010; Ibrahim, et al., 2011).

Apart from studies in the developed economy, several studies have also been investigated in developing countries. For example, Rusmin, Scully, and Tower (2013) investigate whether managers manipulate earnings to meet or beat earnings target in 328 transportation companies in seven Asian countries ( India, Japan, Malaysia, Singapore, Hong Kong, China and Korea) over the period of 2004-2009 and the impact of audit quality, economic condition and firm size in constraining earnings management. They found evidence of companies managing earnings to opportunistically smooth income to

meet the benchmark. Here managers engage in income increasing earnings management if a current year earnings is smaller than prior year earnings. The economic crisis and firm size influence income increasing earnings management. whereas study conducted by Matsuura (2008) revealed that managers use the two strategies interchangeably to smooth income in Japan.

Empirical evidence by Charoenwong and Jiraporn (2009) revealed that non-financial companies in Singapore form of earnings management is to avoid reporting losses and to avoid reporting negative earnings growth. In a nutshell to meet earnings threshold, while that of financial and non-financial companies in Thailand display earnings management behaviour. They extend further that in Singapore, the existence of earnings management does not change both in the pre and post-economic crisis period, whereas non- financial companies in Thailand stop managing their earnings after the crisis. Furthermore, government linked companies have a strong corporate governance structure and they do not avoid reporting losses contrary to non government linked companies.

Besides, Chen, Lin, Wang, and Wu (2010) identified the full impact of earnings management by examining the magnitude of earnings management. They find that companies magnitude of manipulate earnings could be in order to avoid reporting earnings decrease rather than to avoid reporting negative earnings. But the more prominent motive is in order to meet earnings benchmark. In addition, Roosenboom, Van Der Goot, and Mertens (2003) using a sample of 64 Dutch IPOs over the period of 1984-1994 , they found that managers manipulate their companies' earnings in the first year as a public company and not in the preceding year. Thus, negative relationships

exist between the level of discretionary accruals and long run stock price performance over the next 3 years.

Similar studies by Ahmad-Zaluki et al. (2011) using Malaysian data found evidence of income increasing earnings management with Malaysian IPOs companies during period of Asian economic crisis. In a similar vein, Pae and Quinn (2009) investigate whether bond issuers engage in earnings management during the time of entering the bond market, using a sampling of US public companies that raised bond over the period of January 1992- December 2002. They found that bond issuers not only engage in accrual earnings management in order to boost accounting numbers prior to the issuing year then subsequently decrease their earnings accruals after the issuance, but also use real operating activities, though bond issuers prefer to use accrual based earnings management.

Furthermore, Zang (2011) while investigating the associated with using the two strategies, found that the cost and timing of these two strategies are different. He extend further that real earnings management occur during the financial year and realized at the financial year end, subsequent managers still have the chance to use the accrual earnings management. In addition higher cost of real earnings management activities result to lower cost of accrual earnings management. In order to meet short-term earnings pressure (Gunny, 2010), for example managers sometime manipulate cuts in research and development expenditure (Osma, 2008). Managers compromise the short term goals of the company to its long term goal. The study is also important because of its negativity.

Having found that managers can manipulate earnings through different methods such as accrual earnings management and real earnings management, the former which involves using accounting estimates and the latter involve misallocation or deferring of normal operating activities of the company. The former act is easier to detect through strong regulatory scrutiny that draws the attention of auditors, while the latter is difficult to detect and prevalent in countries with strong investors protection.

### **2.3.2 Real earnings management**

There are substantial evidences that managers engage in earnings management, but most importantly issue that has become a hot spot and triggered corporate finance and accounting researchers is the continuous switch in the use of some normal activities in managing earnings. The act distort corporate and investment decisions that could affect the financial market of a country. Although researchers have discussed extensively on the other aspect discussed earlier (accrual earnings management), but the aspect of real earnings management has not been discussed extensively in related literatures. Even though, available literatures are examined and documented from developed economies.

Real activities manipulation involves deviance from normal operating activities of the company in order to mislead stakeholders and shareholders that certain financial goals have been met (Cohen, et al., 2008; Roychowdhury, 2006). The aftermath of the corporate disasters that drew the attention of media, auditors and regulatory in enforcing more stringent conditions was said to have changed the managers choice of manipulating earnings from accrual based technique to real action method. This practice

is carried out using three important tools (overproduction, low discretionary accrual and low operating cash flows) all of which is to maximize their reported earnings. One of such tool is for low discretionary expenses is grazing research and development cost. Considering the importance attached to this information, the disparity between the set goals and information disclosed to shareholders could lead to information asymmetry (Osma, 2008). Research on real earnings management is a current issue and studies on these are scanty.

According to Roychowdhury (2006), real earnings management practices are perpetrated through three distinct methods. This involves manipulating normal operating activities and investment activities in order to achieve targeted earnings. In other words, use of cash flow from operations, production cost and discretionary expenses. Thus, real earnings management involve activities that relate to real production and investment decision such as research and investment decisions (Matsuura, 2008). In terms of timing, real earnings management occurs before the use of accrual earnings management. Even mandating the capitalization of research and development cost rather than expensing it does not guarantee the reduction in real earnings management practices.

In justifying the existence of real earnings management, empirical evidence by Roychowdhury (2006) revealed that managers introduce price discount in order to increase sales, engage in overproduction so as to reduce the value for cost of goods sold (COGS) and reduce discretionary expenses in order to improve profit margins. All these are employed in order to avoid reporting earnings loss, meeting short-term earnings target that may have long term consequence on the company value.

In another related study, Gunny (2010) examined the impact of using real operating activities (namely: timing of assets sale, reduction in R&D, reduction in SG&A and over production) of companies in meeting future performance and company value forecast. The findings show a positive association between real earnings management and meeting earnings benchmarks for future company performance. The author concludes that managers manipulate earnings in order to accelerate financial reporting outcome. Thus, this is achieved when they deviate from normal operating activities or change in accounting methods. In some cases, companies perpetrate real earnings management, if there is restriction in managing earnings through the use of accruals earnings management. So, using real earnings management is in line with the signalling hypothesis and inconsistent with the opportunistic benefit of managing earnings. Since engaging in the act is mainly to attain earnings benchmarks.

However, in examining whether companies faced by some litigation process employ alternative method of earnings management, Ibrahim et al. (2011) suggest that accrual earnings management is more likely to be detected by outside investors compared to real earnings management that has to do with other component of the statement of financial position and income statement around equity offerings. Their empirical evidence indicates the presence of both accrual and real earnings management in the SEO period.

In addition, Cohen et al. (2008) investigate the level of accrual and real-based earnings management during the pre (1987-2001) and post (2002-2005) Sarbanes Oxley Act

(SOX) 2002. They found that level of accrual earnings management increases preceding the enactment of Sarbanes Oxley Act from 1987-2001, but decreases after the introduction of the Act. Consequently they found real earnings management to be on increase after the post Sarbanes Oxley Act and accrual earnings management on decrease. This is an indication that companies have identified another strategy of meeting earnings benchmark and after the passage of SOX Act companies changed from accrual method of managing earnings to real-based earnings management. Likewise, unexercised stock-options are positively associated with income-increasing accrual earnings management during the period preceding SOX and option based compensation decreased. In general over the sample period income- increasing earnings management increases and income decreasing earnings management decreases, but after the SOX Act income – increasing earnings management decreases.

Ibrahim et al. (2011) investigated earnings management patterns of companies that are subject to litigation around the seasoned equity offerings settings. . They found that income-increasing accruals and real earnings manipulation for seasoned equity offerings in the year prior to the offering in the pre-Sarbanes Oxley period and found evidence of a shift to real account manipulation post-Sarbanes Oxley period. They found that investors are paying less attention to earnings management through the increase of receivables and find support that they are paying more attention to real manipulation measures and their litigation decisions in the post-Sarbanes Oxley period. In a nutshell there is a parallel shift from accrual earnings management to real earnings management. The conclusion on this may not be generalized to other settings.



Zang (2011) using a large archival data of companies from 1987-2008, found that companies use both accrual and real earnings management interchangeably and that using real earnings preceded that of accrual earnings management. Having explained real earnings as a purposeful act where reported earnings are being manipulated in a particular direction through restructuring of an operation, changing the timing of investments, financial transactions which has suboptimal business consequences. Indeed, the level of real activities management is positively related to the cost of accrual earnings management.

In addition, few studies also consider the effect of real and accrual earnings management during seasonal equity offerings. For example, Cohen and Zarowin (2010) found that there is a positive correlation between cost associated with real and accrual-based earnings management, and that companies use both actions especially in the year seasoned equity offerings (SEO). Specifically, they identified that company's use real earnings management around seasonal equity offerings and the impact is more costly and deleterious than using accrual based earnings management. This signifies that, companies using real earnings management are likely to underperform than expected around seasonal equity offerings.

On behavioural approach and reasons, Chen and Tsai (2010) examine the earnings management behaviours of managers and accountants in 902 listed companies in Taiwan over the period of 2005-2007, they conclude that earnings management in Taiwan's companies are discretionary accruals and production distribution manipulations. The later is to enhance distributed dividend and the later is for manager's capital gain.

Cohen, Mashruwala, and Zach (2010) investigate the actions of managers in real earnings management using advertising expenses (such as various media distributions) in meeting quarterly analyst benchmark. Considering the importance placed on advertising cost on sales and its flexibility of adjustment without making noise, using monthly advertising cost, they found that average managers engage in reducing advertising expenses in order to meet quarterly earnings target, avoid reporting loss and not to have declining earnings in the same quarter from previous year. However, in order to meet earnings from the same quarter in previous year they increase advertising cost. The increase in advertising expenses mostly occurred in two periods towards the end of the quarter period (that is, the third and fourth quarter) because of its subsequent effect on sales figures.

One would wonder whether non-profit making organizations (such as communities, universities and religious organizations) engage in earnings management practices, since they are not under any external pressure. Although they may have motive of inflating income to avoid reporting zero earnings and reduce income to avoid granting of discount and scrutiny from regulators and donors.

Recent study by Eldenburg, Gunny, Hee, and Soderstrom (2011) investigate the presence of earnings management in 95 non-profit making hospitals in California from 1998-2003. Using detailed operational activities data compared to other studies on publicly traded companies where data are restricted to three or four components. They

found that managers managed real operating activities to achieve positive income and decrease earnings to avoid regulatory and stakeholders' scrutiny.

Juxtaposing the occurrence of real transaction management, Chapman and Steenburgh (2011) using a sample of 114,870 observations of soup manufacturers, they evidenced that managers are shifting from their normal operating activities depending on their financial year and value in order to change the purchasing behaviour of the consumer and meeting earnings target. These activities are managing the marketing plan through increasing market price discounts, advertising and research and development expenditure, all in order to manage earnings, which have impact on the long term prospect of the company. The implication is that, the feature advertisement and changing the forms of sales promotion would have positive impact on the near short term performance of the company, but also a costly consequence on the long term prospect of the company.

Sometimes managers' choices of accounting usage are influenced by its impact on management compensation. This is because the equity compensation serves as an incentive to management. If the incentives are aligned to reported earnings there is no doubt that manager would engage in short term earnings management in order to exercise its stock-option. Here it can be concluded that managers behave opportunistically if their incentives is aligned with earnings.

In conclusion, the real earnings management have economic consequence and affect the operating activities, whereas the accrual earnings management does not have effect on

the operating activities of the company. In fact most of the empirical studies have documented that managers have shift attention directly from the accrual earnings management to real earnings management after the SOX Act 2002 (Ibrahim, et al., 2011).

From the above empirical studies, there is no doubt that there exists another strategy used by managers in manipulating earnings that have been indicated above that it has long term cost on the company. One possible reason for a switch in this type of earnings management practice is not farfetched from the fact that accrual earnings management could heighten the attention of the regulator than real earnings management practice.

#### **2.4 Empirical studies on corporate governance mechanisms and earnings management**

Trivializing and reducing the consequence of corporate debacles have been a topical issue among researchers where the important role played by corporate governance have received more attention in the last decades (Visvanathan, 2008). In fact identifying the appropriate mechanisms is still a notion where findings are still inconclusive (Hyo Jin & Soon Suk, 2008).

Agency theory has indicated that some of the corporate governance mechanisms play an important role in improving performance and mitigating earnings management, since they serve as monitoring mechanism. In line with this theory, several accounting and finance literatures have found array of association between corporate governance variables and earnings management. In aftermath of the Asian financial crisis, corporate

managers have opined that adherence to the practice is to comply with regulatory requirements, pressure from international agencies and foreign investor confidence (Liew, 2009). But empirical studies on the effectiveness of these reforms have not been examined (Liew, 2009).

Over the years, issues related to board governance have been discussed and understood from different perspectives (e.g. independent directors, CEO duality etc.). But an important agenda in the global arena is the need to strengthen board independence. The board of director is an important mechanism of corporate governance of companies (Alves, 2011). Other mechanisms include; auditors, market for control and laws and regulations, which are expected to be accountable to shareholders. They play advising and monitoring role in preventing the management against opportunistic behaviour and potential exploitation of minority shareholders by block shareholders (Alves, 2011; Liu, 2012; Marra, et al., 2011; Mohamad, et al., 2012).

Kamardin and Haron (2011) separated the monitoring role into management oversight and performance evaluation role using factor analysis. At the centre of this, is the independent director, which is often regarded as an advocate of a good and sound governance system (George, 2013). The independent director ensure that managers of companies act in line with the objectives of the company, maximize shareholders wealth and facilitate the decision making process of the company (Osma, 2008).

The board of directors is an important corporate governance mechanism used in monitoring performance of CEOs, and providing advice related to the business and

affairs of the company. In addition, they have the fiduciary duties and serve as an instrument in controlling and monitoring the activities of the managers in order to protect the interest of shareholders (Park & Shin, 2004). They basically rely on information that is being provided by the executives, in fact, reliance on this leads to information asymmetry (George, 2013). On the other hand, even if the directors are independent, another vitiating factor is that they may not have the knowledge expertise in managing the company.

Besides the board of directors, others committees (e.g., audit committees, executive remuneration committee and nomination committee) also play significant role in aligning the interest of shareholders and stakeholders with those entrusted to manage the company. Given that earnings management is deceitful and detrimental due to the false information on valuation of a company. The board of directors and various committees could play a magnificent role in mitigating earnings management. As it has been discussed earlier that one of the reason for management engaging in earnings management is to inflate earnings figure in order to avoid reporting loss or low figure to prior year earnings.

Several plethora studies have investigated the significance of boards and several committees in preventing earnings management. In Australian context, Liu (2012) examined the impact of board monitoring and contracting function in constraining earnings management. Using a sample of 138 listed companies on Australian Securities Exchange over the period of 2004-2007, the findings indicate that with the nature of Australian market, managers are more concern about the performance of the market in

order to reduce the vulnerability of stock prices. Board independence does not have impact on earnings management practice, the existence of CEO duality influence the level of earnings management practice among Australian companies with the introduction of new corporate governance recommendation code 2009. A thorough examination of the findings also shows that earnings management decreases from 2004-2007.

Similarly, He, Wright, Evans, and Crowe (2009) investigate the impact of Australian Stock Exchange principle of good corporate governance code 2007, by considering whether board independence is effective in monitoring management so as not to misbehave and engage in earnings management practices. They found that separating the compensation policies and non-executive director into fixed and variable components, and the later in independent and grey directors have different impact on earnings management. They conclude granting a fixed incentive to independent directors has significantly reduced the level of earnings management.

In a related study, Alves (2011) examine the effect of various subheads of board structure on earnings management as introduced by the Portuguese Securities Market Supervisory Authorities Recommendations, using a sample of 34 non-financial Portuguese companies over the period of 2002-2007. The results shows that board structures negatively affect earnings management, but the existence of audit committee seem to be ineffective in constraining earnings management activities.

Peasnell, Pope, and Young (2005) examine whether earnings management practice is a determinant factor on effectiveness of boards and audit committee using sample of UK companies over the period of 1993-1996. They found that companies with higher proportion of outsiders on the board have a negative influence on the management ability to be able to manipulate reported earnings upward in order not to record loss. On the other hand, outside directors' ability to influence managers when companies record high profit and wanted to record income decreasing abnormal accruals is weak. On audit committee, there is no evidence that this committee has influence on earnings management.

Xie et al. (2003) investigated the impact of board of directors, audit committee and executive committee in curbing earnings management practice among 110 companies listed on S&P index over the period of 1992, 1994 and 1996 and using discretionary accruals as a proxy for earnings management. They found that both the board of directors and audit committee members are important corporate governance mechanism in constraining earnings management. Specifically, those with financial expertise are associated with low level of discretionary accruals.

Klein (2002) examined the relationship between board characteristics and audit committee on earnings management using a sample of 692 publicly traded companies year after the enactment of NYSE listing guide in 1999. Of all the companies, 73.8% have board with a majority of independent director. The findings indicate a negative association between independent directors sitting on audit committee and board and level of abnormal accruals. Although regarding the magnitude of earnings management,



there is no difference between companies with fully independent directors on committees and companies without independent directors on committee. In a nutshell, earnings management is negatively related to independent board and audit committee.

Epps and Ismail (2009) analyzed the effect of board of directors' characteristics on earnings management. They documented that firms in US engage in two types of accrual management: income-increasing firms and income-decreasing firms. Results show that 88% of income-decreasing firms have boards that are controlled by a majority of independent directors and 51% of income-decreasing discretionary firm have classified boards and 48.8% have annually elected boards, whereas 40% of the income-increasing firms have boards that are controlled by a majority of independent outsiders.

In another related study on earnings restatement, Agrawal and Chadha (2005) examined the role play by corporate governance mechanisms in restating earnings, using a sample of 158 US companies. They found that most of the corporate governance mechanism examined (e.g., board independence, audit committee) are unrelated to earnings restatement inclusively is the provision of non-audit services by outside directors.

Marra et al. (2011) examined the effectiveness of board of directors and audit committee in mitigating earnings management after the mandatory regulatory accounting framework (IFRS). They found that both board independence and audit committee are effective in constraining earnings management. This implies that the existence of high level of disclosure and transparency as pronounce by IFRS strengthen the internal

monitoring role of board of directors and audit committee in constraining earnings management.

Similarly, Park and Shin (2004) investigate the impact of board structure on earnings management practice in Canada. They found managers manipulate earnings upward to avoid reporting loss or earnings reduction. Although there was no correlation between board independence and the level of earnings management practices among companies listed on Toronto Stock exchange. Likewise director's tenure is found to have no significant relationship with earnings management. However, directors on board, who are officers of financial intermediaries and institutional directors constrain earnings management. one of the possible hindrances as suggested by Park and Shin (2004) is lack of financial expertise and knowledge from members sitting on corporate boards. An indication that, these directors may not be aware of how earnings management is being perpetrated, which makes it difficult for them to detect and curb.

Integrating the findings of 48 prior studies related to the effect of corporate governance mechanisms on earnings management through a meta-analysis, Lin and Hwang (2010) found 12 significant relationships between corporate governance mechanisms and earnings management. Amongst are board independence and its expertise with a negative relationship with earnings management, audit committee independence, size, expertise and number of meetings with a negative relationship with earnings management. However, audit committee share ownership is positively correlated with earnings management.

Recent study by Chen and Nowland (2011) investigate the effectiveness of corporate governance (e.g. board independence, CEO duality, committee structure and independence) in four East Asian markets and adherence to various corporate governance codes by companies in these countries. Using a sample of balanced panel data of 1408 observation firm year from 128 non- financial companies from the four countries over a period of 10years (1999-2009). Malaysia (38), Hong Kong (31), Taiwan (39), Singapore (20), they found a significant increase on board of directors, remuneration committees from the four countries over the period but most especially in Malaysia and Singapore. Interestingly companies with higher level of independent board or committee have to comply with the recommendations of the code in reducing the number, for example 19 companies from three of the countries adhered to the recommendation; Malaysia, Singapore and Hong Kong.

Hyo Jin and Soon Suk (2008) investigate how corporate governance mechanisms mitigate earnings management for Korean companies. They document that board independence and ownership concentration are the only independent variables that constrain earnings management, while audit committee is insignificantly correlated with the level of earnings management. More so, the leverage ratio and company size affect the possibility of perpetrating earnings management after controlling for them as a control variables. Banderlipe (2009) examined the impact of corporate governance variables in mitigating earnings management in Philippines context. The results show that multiple directorship holdings by the independent directors and managerial ownership of the board are important in restraining incentives for earnings management, also firm size and return on asset are said to be significant among the controlling factors.

Mohammad et al. (2012) examine the impact of corporate governance mechanism on earnings management practices of thirty-five government linked corporations. They document that with the introduction of government transformation programme, earnings management practices is on the high side. Even in their findings only board meetings and CEO duality has impact in mitigating earnings management activities. While post-transformation period results indicate that some of the corporate governance variables (director independency, board meetings and presence of financial expertise in the audit committees) mitigate earnings management. One of the limitations of their study is the use of small sample focusing on government controlled company and homogeneity of the cross-sectional statistical approach used.

Rahman and Ali (2006) using abnormal working capital as a proxy for earnings management examined the effectiveness of board of directors, audit committee and concentrated ownership on earnings management. Using a sample of 97 companies listed on Bursa Malaysia over the period of 2002-2003. They found that both board independence and audit committee are ineffective in constraining earnings management. One of the possible reasons for the insignificant relationship of other corporate governance variable is managerial hegemony theory, which contradicts the agency theory.

Hashim and Devi (2008) examined whether the MCCG 2000, specifically higher proportion of independent non-executive directors and separation of chairman from

CEO of the company have impact on earnings management. Their findings indicate that having a higher proportion of independent director on corporate board is positively associated with income increasing earnings accruals. Kamardin and Haron (2011) examined the impact of internal corporate governance monitoring functions on board performance. The multiple directorships are negatively related to the monitoring role, while non-executive director is positively related with earnings management.

Afterwards, Sahlan (2011), using a sample of 50 top companies and 50 bottom companies listed on corporate governance index issued by minority shareholders Watchdog Group (MSWG) and Nottingham University Business School, the main objective of the study is to examine the impact of Bursa Listing requirement reforms on the incidence of earnings management practices among public listed companies over a period of (1997-2007) which include the pre and post reforms period. The results show that earnings management practices reduces in the post –reform period compared to the pre-reform period using the modified Jones model (1991) in detecting earnings management practices. He further extends that the quality of corporate governance likewise the quality of financial reports released by these companies.

Ponnu (2008) examine the effect of board structures and CEO duality on earnings management. Using return on assets and return on equity as a proxy for company performance and a large sample of public listed company in Malaysia. The findings indicate that none of the selected corporate governance mechanism has impact on company performance.

Johl et al. (2007) argue that in period of economic crisis such as Asia crisis in 1997/98, there is likelihood that companies would manage their earnings. In constraining this, the non-big 5 and big 5 auditors' opinions play important role. Their findings show that a Big 5 auditor is positively associated with high level of abnormal accruals.

In Jordan context, Abed et al. (2012) examine the influence of Jordanian code of corporate governance 2009 on earnings management. They found that there is no significant association between the level earnings management practice and corporate governance mechanisms. But of all the corporate governance mechanisms, only the board size has impact on earnings management.

Wang and Campbell (2012) investigated the existing impact of state ownership, IFRS, board of director on earnings management, using 1,329 Chinese public listed companies from 1998-2009. They found with the current environment in China, state ownership constrain earnings management. Increasing the number of independent director helps to deter earnings management practice but the existence of non-independent director does not have significant influence, although if state ownership is significant, board of director does not have any impact on earnings management. After controlling for age and size of companies, they found that earnings management goes down with size but goes up with age. On the other hand implementation of IFRS does not have any significant influence. Ahmad-Zaluki et al. (2011) using a sample of 250 Malaysian IPOs over a period of 1990-2003 found income-increasing earnings management in the IPO year.

In a nutshell, Rahman and Ali (2006) found that only board size has a relationship with earnings management and that there is no significant relationship with independent director, but Sahlan (2011) found that board independent can play a role in reducing the incidence of earnings management. Meanwhile, Saleh et al. (2007) found a relationship between audit committee composition and earnings management and that the presence of independent audit committee constrains earnings management. In contrary, Sahlan, (2011) found that audit committtee is positively associated with discretionary accruals and that no correlation between the competence of audit committee and earnings management (Rahman & Ali, 2006). One of the limitations identified by Saleh et al. (2007) in their study is that the study cannot be generalized in countries with strong investor's protection.

In light of these and given the inconsistencies in the findings and the importance attached to these mechanisms. Rahman and Ali (2006) suggested that future research should examine the effectiveness of the board of directors in constraining earnings management. Their argument is that this act may be costly and detrimental to shareholders.

#### **2.4.1 Impact of other factors on earnings management**

Jalil and Rahman (2010) documented that it is not only the internal corporate governance mechanisms that influence earnings management but external players. In agreement to this fact they examine the impact of institutional shareholdings such as Malaysia Shareholder Watchdog Group (MSWG) on earnings management. They

document that MSWG are very effective in constraining earnings management. But the most effective institutional holders in constraining opportunistic earnings management behaviour are the Permodalan Nasional Berhad (PNB). An indication that shareholder activism plays a significant role in constraining and mitigating earnings management.

In another related study on the impact of crisis on earnings management, Iatridis (2012) examine the degree at which terrorist attack on three countries; namely UK, Spain and Istanbul affect the level of earnings management embarked by companies in these countries. The findings indicate that since the incidence of the attack, earnings management practice has been on increase in two countries except from UK that is not affected. Although what signify difference in the result is the institutional settings of different environment, which UK is characterised with shareholder - oriented settings.

## **2.5 Empirical studies on corporate governance variables and real earnings management.**

Corporate governance variables play a significant role as monitoring mechanisms against the activities of managers especially in financial reporting process. Numerous studies have considered the relationship between corporate governance variables (such as board and audit committee characteristics) and earnings management, particularly using discretionary accrual as a proxy of earnings management. But studies related to using the real earnings management have been scanty especially in the East Asia zone that Malaysia belongs. In relation to sparse of research on this type of earnings management, and the attention given to it by researchers nowadays, the present study is



to consider the impact of these variables on real earnings management. Up till date, there are scanty of studies on real earnings management. The available studies are as follows:

Enomoto, Kimura, and Yamaguchi (2012) examined real and accrual based earnings management from international perspective using a sample of 32 countries with data from 289,055 firm-year over the period 1991-2010. They find that companies prefer to manage earnings through the operational activities than the accounting choices, albeit this happen in countries with stronger investor's protection. The audit quality and regulatory scrutiny does not show any significant impact in constraining real earnings management.

Osma (2008) examine the role of board of directors in mitigating certain aspect of real earnings management, that is research and development. It was documented that independent directors have the expertise and technical knowhow in constraining real earnings management activities (R&D reduction) so as to achieve short term goals such as meeting earnings target etc. in addition, dominance of insider of board may support the managers decisions in skimming research and development cost.

In examining the effect of enhanced audit quality in constraining real earnings management, Chi et al. (2011) documented that when manager has higher incentive to manage earnings, auditors industry expertise and auditors fees of companies is associated with higher level of real transactions management. Their sample of study is companies that have strong incentive to manage earnings upward either through meeting or beating earnings target or issuance of seasoning equity offerings. In a nutshell, it can

be concluded that higher audit quality result to higher real earnings management. The implication of the findings is that when incentives are attached to earnings target, and for the fact that the auditors already have the industry expertise and experience of companies to be audited, this lead to higher level of abnormal production, lower level of cash flow and lower level of abnormal discretionary expenses.

Visvanathan (2008) examined the role corporate governance variables from real earnings management perspective, since managers engage in both accounting and real operating activities in meeting accounting numbers. The results indicate that of all the corporate governance variables, specifically board characteristic (e.g., size, independence and CEO duality) only board independence has a significant negative association with real earnings management, whereas other variables such as audit committee characteristics are found to be insignificant in reducing the level of real earnings management. This signifies indication that, there is need for more machinery to be put in place that could reduce the divergence from the normal operating activities in order to meet certain desired objectives by managers. This could be in form of deceiving the manager that certain financial goals have been met.

Kang and Kim (2012) examined the effect of corporate governance in influencing managerial decisions in manipulating the real activities of the company. The findings indicate that board size and its independence restrain managers from engaging in real activity based earnings management. An indication that manager's aggressiveness in overproduction and cutting down discretionary expenses could be mitigated by having a larger board size, whereas aggressive sales promotion could be reduced as the number of

independent director increases. However, if loss is being made corporate governance mechanism seems not to have any impact on real earnings management.

Zhao et al. (2012) examined the effect of takeover protection on real earnings management. They suggest that pressure from takeover discourage managers from engaging in real earnings management as a costly means to pre-empt future performance of the company. In conclusion, managers under takeover pressure are likely to resort to earnings manipulation.

Real earnings management could have negative impact on the future value of the firm. Cohen and Zarowin (2010) found evidence that presence of Big 8 auditors, auditors tenure and litigation and level of net operating assets of a company as a determinant factor for companies to engage in the use of real earnings management during seasonal equity offerings. Similarly, Zang (2011) using large sample data of suspected companies finds that real activities management is coerced by financial health, competitive status of the firm, excessive monitoring from institutional investors and the immediate tax consequence of the manipulation. While the presence of high quality auditors, compliance to Sarbanes Oxley Act (SOX) and the flexibility of accounting techniques in prior periods and length of operating cycles constrain accrual based earnings management.

Demers and Wang (2010) through an empirical and theoretical studies found that younger managers (if less than 56) are reluctant to use income-increasing approach and real earnings management than those with older age, which is an indication of a

significant negative relationship with real earnings management, specifically abnormal production cost and abnormal discretionary expenses. They also extend further that older CEOs like 64 who has 1-6 years to retirement age would engage in more income increasing earnings management compared to younger CEOs who has 10-20 years to retirement age would engage in low income increasing earnings management because of the aftermath of the actions being taken. In a nutshell, younger CEOs exercise low level of real earnings management and income increasing earnings management compared to older CEOs because the former has a long term value destruction effects. The tenure was also found to be significant with abnormal discretionary expenses.

In developing countries, in particular Asian, Sari et al. (2010) investigated the systematic ways through which companies in seven East Asian countries, namely, Malaysia, Indonesia, Japan, Korea, Singapore, India and Hong Kong managed earnings. Considering the fact that investor protection is a significant factor to earnings management activities. They found a positive/negative relationship between real earnings management, accrual earnings management and investor protection such as disclosure quality, legal enforcement, outside investor rights. Consequently, managers are switching to the use of real earnings management because attention of regulatory authority and media have been drafted towards accrual earnings management. In addition, managers have choice of managing earnings either through accruals and real earnings management in countries with weak investor protection.

Empirical evidence by Hashemi and Rabiee (2011) examine whether the characteristics of the board limit real earnings management practices in Tehran companies over the

period of 2004-2010. They found that out of the board characteristics variables, only board size and proportion of independent director on the board is considered to have significant effect on the incidence of earnings management. These two variables have a negative relationship with real earnings management. In detail, board size and higher proportion of independent directors on corporate board of public listed company in Tehran limit the level of real earnings management.

In summary, the relationship of certain corporate governance variables and real earnings management have been inconsistent, Visvanathan (2008) reported that corporate governance tools may not be of interest in ensuring the integrity of financial reporting process. The reason is not far-fetched from the fact that it was only the independent director that was found to have a negative relationship with the deviation from normal operating activities. In line with the mechanisms and amendment to the corporate governance code as introduced by the securities commission, The present study would focus on the various corporate governance mechanism especially board structure and audit committee by simplifying the variables in subheads and including the purview of impact of board diversity.

## **2.6 Hypotheses development**

### **2.6.1 Board composition**

Composition of the board plays important role in corporate governance, and the structures that contribute to its effectiveness are very minute. The board of directors is saddled with series of responsibilities such as appointment, supervisions, organizational strategies, remuneration policy, all in order to ensure accountability to authorities,

internal and external users of financial statement. The board of directors mostly approve the investment and operational decision of the company (Kang & Kim, 2012). In other words, they assign the decision making process to managers but the credibility and integrity of the financial report still lies with the directors on corporate board. An important attribute of a board include its size, independence and demographic attributes of directors sitting on it (Kamardin & Haron, 2011). An effective board can be known through improved performance, reduced earnings management, less shareholder litigation among others.

### **2.6.2 Board of director**

Several studies have examined the important role of board of directors as a corporate governance variable in reducing the incidence of earnings management practices (Agrawal & Chadha, 2005; Park & Shin, 2004; Peasnell, et al., 2005; Xie, et al., 2003). In Malaysia, the studies vary from government linked corporations (Mohamad, et al., 2012; Rahman & Ali, 2006) and public listed companies (Rahman & Ali, 2006; Sahlan, 2011). On the other hand, on company performance (Ponnu, 2008). Most these studies were focused towards accrual earnings management, and restatement. But very few studies have considered its association with real earnings management.

### **2.6.3 Board of directors' independence**

An independent director is someone who is a non-executive director and he/she is worthy of character, integrity, independently minded and able to align the interest of shareholders and other stakeholders of the company (McCabe & Nowak, 2008; Ponnu, 2008). This type of director is saddled with the responsibilities of enhancing

transparency of financial information (Marra, et al., 2011). In enhancing the monitoring role, companies sometimes increase the number of independent directors. McCabe and Nowak (2008) through a qualitative study indicate that independent directors are responsible to shareholders, able to devote their time to board duties and demonstrate spirit of independence and balance of power between board and management. Some scholars also found that, they play important role in influencing the incident of earnings management in a company (Marra, et al., 2011).

Marra et al. (2011) indicated that existence of majority of independent director on corporate boards of companies listed in Milan stock exchange reduces the incidence of earnings management. whereas, Liu (2012) documented that board independence is associated with higher level of earnings. This signifies that board independence is positively related with earnings management practice in Australian context. However, Agrawal and Chadha (2005) concluded that board independence is uncorrelated with earnings restatement. moreover, Park and Shin (2004) results shown that proportion of independent director on board is uncorrelated with the level of earnings management.

On the other hand, Xie et al. (2003) found that companies with higher number of independent outside directors are associated with lower level of discretionary accrual, which implies that it has a negative relationship with discretionary accruals. In harmony with this findings, Alves (2011) documented that, the higher the proportion of non-executive director, the lower the magnitude of managers engaging in earnings management. This result is consistent with that of Abed et al. (2012) from Jordanian experience. Kamardin and Haron (2011) found that non-executive director is positively

related with monitoring roles. An integrated meta-analysis of prior studies conducted by Lin and Hwang (2010) indicated that board independence is negatively associated with earnings management.

In Malaysia context, Haniffa and Cooke (2002) and Ponnu (2008) found that board independence is insignificantly related to company performance and on company financial disclosure, but the proportion of independency director on corporate board increase from 52.3% in 1990 - 90.4% in 2005. Rahman and Ali (2006) found director independence on board to be insignificantly related with the level of earnings management. Hashim and Devi (2008) found no evidence that board independence constrain earnings management. Since the relationship is insignificant, it can be concluded that independence of director on board is ineffective in monitoring the activities of the executives. However these findings are all based on accrual earnings management in developed and developing countries. Although studies on it influence on real earnings management practice have been scanty in both developed and developing countries. Not even to investigate whether it has impact in limiting the incidence of real earnings management activities.

Regarding real earnings management Kang and Kim (2012) indicated that board independence constrain real earnings management practices. Hashemi and Rabiee (2011) document that higher proportion of independent directors and board help in restraining real earnings management. Specifically, board independence is negatively correlated with abnormal production and abnormal discretionary expenses and positively correlated with abnormal cash flow from operations (Hashemi & Rabiee, 2011; Kang &



Kim, 2012; Visvanathan, 2008). This implies that directors independence negatively affect real earnings management practices, that is companies with higher independent directors reduces abnormal production cost and increase abnormal discretionary expenses.

Reviewed from related studies above suggest that independence of members sitting on board is effective in constraining real based earnings management activities. It is on this note the present study extend further that there is likely to be a negative relationship between board independent with abnormal production cost and abnormal discretionary expenses, but a positive relationship with abnormal cash flow from operation.

**H1a:** There is likely to be a negative relationship between board's independent and abnormal production cost.

**H1b:** There is likely to be a negative relationship between board's independent and abnormal discretionary expenses.

**H1c:** There is likely to be a negative relationship between board's independent and abnormal cash flow from operations.

#### **2.6.4 Board Size**

Board size numerically denotes the number of administrators in a corporate board and it plays an important role in board efficacy. Board should have a realistic number of members. In corroborating this, there has been no ideal stand on whether large or small board is important to the efficiency of the board in producing reliable financial information that would be in the best interest of shareholders and stakeholders. In fact there has been some confusion on the optimal number of size that would ensure the

reliability of the financial reporting. Researchers have argued that higher board size strengthen information management and improve information sources.

For example, Alves (2011) hypothesised a “U” shape between board size and earnings management. The U shape means that board size and earnings management are mutually exclusive with each other. Indicating that when board members are seven (smaller), it is negatively related with earnings management but when they are above seven (larger) there is likely to be a positive relationship with earnings management. Epps and Ismail (2009) reported that board size between six to eight and thirteen to fifteen are unrelated to income-decreasing discretionary accruals. Whereas, board size between 9&12 inclusive to be positive and significant at 0.05. In short large board size is associated with higher earnings management. Board size less than six is negatively related to income- decreasing discretionary accruals and significant at 0.05, which indicate that smaller board size is more efficient in reducing earnings management.

Average Malaysia company have eight directors on the board (Mohamad, et al., 2012; Rahman & Ali, 2006) consistent with that of Portuguese companies (Alves, 2011). Xie et al. (2003) document that an average board size for 110 companies listed on S&P index is twelve and that earnings management decreases at an increasing rate with the expertise of directors on board. But Lin (2010) evidenced that smaller boards provide better oversight function to managers, while larger board has a positive relationship to company value.

Board size is insignificantly related with earnings management, but the regression analysis shows a positive relationship with earnings management (Rahman & Ali, 2006). They suggest that when the board is large, there is tendency that they may not be efficient like a smaller board. Abed et al. (2012) also found that board size is negatively related to earnings management. Corroborating some of the findings, Banderlipe (2009) found that board size is positively related with earnings management.

On real earnings management Kang and Kim (2012) found that larger board size reduces the incidence of real earnings management activities i.e. abnormal operation and investment decisions, but it is significant and positively related with abnormal discretionary expenses. Hashemi and Rabiee (2011) found that large board size constrain real earnings management practices. Such that it is negatively related with abnormal cash flow from operation and abnormal discretionary expenses, but Visvanathan (2008) results indicate that board size is insignificant in mitigating earnings management and is positively correlated with abnormal discretionary expenses and negatively correlated with abnormal production cost and abnormal cash flow from operation but insignificant. Company with higher number of directors have lower abnormal production-operating costs.

Owing to the fact that there is no consensus on the effect of board size on earnings management, which signifies a non-directional hypothesis, Since various researchers have different views, for the fact that Malaysia has a different characteristic in its companies structure compared to the developed and developing countries. Though either a smaller board size or larger board size is said but to efficient. It must be noted that a

larger board can be advantageous through the pool of various expertise, but conflict of interest may arise among the directors which may be noxious to the monitoring process of management activities and reduce efficiency. Although smaller boards are less burden ensuring a diligent and effective oversight function, this may be due to as a result of being focused. Expectation of researchers is that smaller board is effective in monitoring and are less likely to be involved in earnings management practice. Therefore the study posits the following hypothesis:

**H2a:** Board's size is negatively related with abnormal cash flow from operations.

**H2b:** Board's size is negatively related with abnormal production cost.

**H2c:** Board's size is related with abnormal discretionary expenses.

#### **2.6.5 Frequency of Meeting**

Numerous studies have shown that independent director have significant stake in influencing the decision-making process through the board meetings and monitoring functions. The board meetings serve as an avenue where management collectively deliberates on issues that are advantageous and disadvantageous to the firm. In these meetings the boards affirmatively take decisions that are inclined to organization objectives.

In Malaysia, average number of board meetings held are nine in a year (Mohamad, et al., 2012). Generally independent director are expected to meet six to eight times in a year (George, 2013). Kayani et al. (2011) found that companies with high return financially and internationally in form of return on equity has probability of holding more meetings. Xie et al. (2003) documented that an average board meets eight times in a financial year

and board meets when there is matter arising to be discussed; as a result there is improvement in performance of the firm. They extend that as the number of meeting increases, earnings management decreases, an indication that frequency of meetings have impact in mitigating earnings management (Xie, et al., 2003). Similarly when a firm is faced with financial debacles boards meet frequently and issues related to earnings management are given attention during this meetings compared to a board that meet rarely (Vefas 1999). On real earnings management Kang and Kim (2012) found board meetings are negatively related with abnormal operating cash flow and abnormal discretionary expenses, positively correlated with abnormal production cost. Therefore the hypotheses are as follows:

H3a: There is a negative relationship between board's meeting and abnormal cash flow from operation

H3b: There is a negative relationship between board's meetings and abnormal production cost.

H3c: There is a negative relationship between board's meetings and abnormal discretionary expenses.

#### **2.6.6 Busy Director**

Busy directors are often referred to as directors that serve on the board of more than one company. In certain case busy director is important because, these directors have access to first hand information about their competitors. Whenever there is a link or connection between an individual from one organization and also sitting on the board of another organization. In a nutshell, multiple directorships comes into being when a director is having a joint position or interlock on the board of two or more companies (Phan et al

2003). In examining whether this could lead to ineffectiveness of the directors and disrepute the company value. Cashman, Gillan, and Jun (2012) found that multiple directorship is negatively correlated with company performance, due to workload, timing and responsibilities carried out.

Corporate governance is less to be efficient when the independent directors are engaged with extra directorship position in other companies (Sarkar et al 2006). They explained that when directors are preoccupied outside the firm, it's prone to an income increasing earnings management practices. Kamardin and Haron (2011) documented that multiple directorship of directors is negatively related to the monitoring role. Here it shows that issue related to busyness of directors need to be considered because of its negative relationship with the monitoring role.

Epps and Ismail (2009) documented a negative and highly significant relationship between CEO serving in two or fewer boards and income increasing discretionary accruals. More so, this type of earnings management is reduced when the numbers of boards to be served are reduced to two or fewer public companies. There is high probability or likelihood that some CEOs/directors of performing companies may be appointed to seat on corporate boards of other company. (Fich, 2005) using 1,493 first time appointees to Fortune 1000 boards during 1997-99 found that outside directors are appointed to enhance company value.

In Malaysia context busyness of board is highly relative to qualified independent director. Hannifa and Cook (2002) stressed that multiple directorship encourages

directors to be more transparent and improve the application of knowledge transfer from other companies so as to improve efficiency in the other companies they are serving. In a similar vein, Sahlan (2011) contended that multiple directorships of the independent directors tend to constrain earnings management practices. As such, busyness of director is expected to constrain real earnings management activities. Thus, the hypothesis is as follow:

H4: There is a negative relationship between director's busyness and real earnings management activities.

#### **2.6.7 Director Expertise**

Xie et al. (2003) found that the proportion of outside director with financial expertise has no relationship with earnings management. But they suggest that independent outside directors ability to detect earnings management might improve if they have financial expertise background because they is possibility of them having the knowledge of how earnings management is being perpetrated. Lin and Hwang (2010) also found a negative relationship between board independence and earnings management. Agrawal and Chadha (2005) also indicate that there is likelihood of lower earnings restatement in companies where the independent directors are financial literate.

Company's compliance with the code is not a problem. But despite the compliance, yet managers still perpetrate this blame famous act. One of the reason for insignificant relationship of board independence has been related to lack of expertise in the company affairs (Rahman & Ali, 2006). It has been argued by prior researchers that one of the key factors to performance is not the number of independent outside directors per se, but

their qualifications. Fich (2005) found that management knowledge and years of experience is critical. Duchin, Matsusaka, and Ozbas (2010) classified qualification into three “academic” if he or she is a Prof in a college or university, a corporate qualification if he or she is an executive in a corporation, a financial qualification if he or she is employed in financial or investment- related firm. Since the managers are more knowledgeable than board of directors, they can easily convince the board that research and development is enough, which in fact do not exist. Regarding real earnings management, indicated that board expertise is negatively related with real earnings management activities. Thus, it is hypothesised that:

H5: There is a negative relationship between board’s financial expertise and real earnings management activities.

## **2.7 Audit committee**

The audit committee characteristics could also be determinant for its effectiveness in order to serve as financial monitor (Abbott, Parker, & Peters, 2004) . In order to decentralise the responsibility of the board of directors, the establishment of an audit committee comes into place. Having an audit committee prelude to a sound internal control system and control, this committee ensures array of communication between the external auditor and the board. In light of this, Sarbanes Oxley Act 2002 prelude that members of audit committee must be independence and must have the financial expertise. The argument is that it would improve the quality of financial information being released by company (Carcello, Hollingsworth, & Neal, 2006).



The audit committee serve as financial monitor of the financial reporting process, meets regularly with the auditors to review the financial statement and audit process (Abbott, et al., 2004; Beasley, et al., 2010; Kang & Kim, 2012; Xie, et al., 2003). The audit committee also review both quarterly and financial year end statement (Saleh, et al., 2007). They perform important role in ensuring the sustenance and production of high-quality financial report (Johl, et al., 2007). Salleh and Stewart (2012) found that the audit committee with financial and industry expertise play a mediating role in resolving client dispute. The study was conducted using 61 Malaysian auditors as participant through an experimental design.

In country like UK the presence of audit committee is voluntary and either its presence or absence has no impact on earnings management activities, although 84% of companies has such committee (Peasnell, et al., 2005). Marra et al. (2011) also showed that audit committee is statistically and negatively related to earnings management. on the contrary Alves (2011) documented that there was no indication that audit committee influence managers action in engaging in earnings management. Agrawal and Chadha (2005) found that audit committee is uncorrelated with earnings restatement. Immediately after the Malaysian code of corporate governance was introduced in 2001, Saleh et al. (2007) examined the impact of audit committee characteristics on earnings management. On the other hand Chi et al. (2011) document a positive relation between audit quality and real earnings management.

### **2.7.1 Audit committee independence**

The independence of audit committee allowed the audit committee members to be effective in carrying out their oversight functions. Prior studies by Abbott et al. (2004) have identified a negative relationship between audit committee independence and earnings restatement, an indication that, the existence of an audit committee members to be independent is to protect shareholders interest and ensure that financial information provided are fair and reliable. Saleh et al. (2007) documented that audit committee independence mitigates earnings management practices. They extend further that audit committee would be more effective if all the members in the committee are 100% independent from management.

However, Sahlan (2011) found that audit committee independence is positively related with discretionary accruals at 10% level. This indicates that, increase in independence director sitting on the audit committee lead to increase in the incidence of earnings management. Rahman and Ali (2006) revealed that there is no significant relationship between independence of audit committee and the incidence of earnings management. Agrawal and Chadha (2005) suggested that with the inclusion of independent audit committee members with financial expertise is associated with lower level of earnings restatement. In addition, Abbott, Parker, and Presley (2012) suggested that having a female representation as a member of audit committee could serve as a boost to audit committee effectiveness.

Studies on real earnings management have also indicate some associations. Visvanathan (2008) found that audit committee independence is insignificant in constraining real earnings management. Meanwhile, found that a company with internal audit committee is associated with lower level of earnings management. Therefore, the present study posits the following:

**H6:** There is a negative associated between audit committee independent and real earnings management activities.

### **2.7.2 Audit committee expertise**

The existence of an audit committee alone is not an automatic avenue for good monitoring of companies, except the members of audit committee are not only independent but also have the expertise to be in the committee (Sahlan, 2011). Abbott et al. (2004) identified that having one member with financial expertise as a member of audit committee plays important role and depict a negative relationship with earnings restatement. Admonishing the fact that audit committee owns the audit process is still a subject of concern considering the recent corporate accounting problem (e.g., Groupon's) that lead to the suggestion that members of the audit committee should be encouraged to have financial certification to ensure their effectiveness (Grenier, et al., 2012). Although researchers have discussed about the importance of audit committee expertise, for instance Saleh et al. (2007) found that companies who have members with financial expertise on its committee have fewer earnings management compare to other companies without such expertise.

On the other hand, Rahman and Ali (2006) documented that no relationship exist between audit committee competence and earnings management. Mohamad et al. (2012) pinpointed that inclusion of individual with financial expertise to sit as a board member on audit committee still lead to a soar in earnings management practices. Xie et al. (2003) also found that the presence of members with investment and financial background boost the committee members in their ability to detect earnings management. Sequel to the aforementioned above, the present study posits that:

**H7:** There is a negative association between member of audit committee expertise and real earnings management practices.

### **2.7.3 Audit committee size**

Empirical literature have shown that audit committee size has impact on earnings management practices, but the significant effect of audit committee size as a monitoring role in constraining earnings management has been inconsistent. Saleh et al. (2007) found that audit committee size is effective in constrain earnings management. Xie et al. (2003) documented that an average audit committee is composed of three members, albeit an indication of effective financial monitoring role, which is able to influence the internal and external audit process. However, Visvanathan (2008) audit committee size is insignificant in constraining real earnings management. Hence, the hypothesis is as follow:

**H8:** There is a negative association between audit committee size and real earnings management.

#### **2.7.4 Audit committee meeting**

Saleh et al. (2007) suggested that audit committee should meet in a year without the presence of the board executives and that frequency of meeting held has impact on earnings management. Empirically, companies that had more meetings recorded lower level of earnings management. On average audit committee are expected to meet 4-times a year with size around 3-4. Most of the companies sampled in the study operate 9-13times in the year 2002. Abbott et al. (2004) documented that audit committee members that meet at least four times in a year reveal a negative relationship between audit committee meetings and restatement.

On the other hand, Thiruvadi (2012) identified that with a female representation as a member of the audit committee, there is more likely possibility for them to meet often. The audit committee needs to meet frequently for there to be an effective monitoring and quick respond to issues and latest development. More so, there may be positive outcome of having a female representation on audit committee and its impact on meetings, since they have different behaviour. Thus, this would improve the corporate governance practice and would negatively have impact on earnings management. Although findings on its impact in mitigating real earnings management in an empirical study by Visvanathan (2008) showed that audit committee meeting is not significant for two measures (abnormal production cost and abnormal cash flows) out of three measures of real earnings management. An indication that it constrains abnormal discretionary expenses only, which can be conclusive, said that it little bit significant in mitigating real earnings management activities. Therefore, the study hypothesised that:

**H9:** There is a negative association between audit committee and real earnings management activities.

## **2.8 CEO duality**

Leadership is segregated into two different structures. This can be simultaneous leadership and single leadership. Agency theory is of the view that having different individual on top of decision making i.e. the role of management in leading the company and control function i.e. to take responsibility for the board and governance could help in mitigating earnings management because it helps in reducing the power of the CEO on corporate board. McCabe and Nowak (2008) concurred that the preferred model in Australia, is the separation of chairmanship and CEOs role. Contrary to Cadbury report 1992 which is of the view of the combination of chairmanship and CEO role. In Australian context, Liu (2012) documented that higher proportion of CEO duality reduced earnings management practices.

The CEO of a company has the ultimate power to make decision regarding the operation of the activities. The duality role play by the a single individual being both chairman and chief executive officer of the company have received counter argument from several researchers. Anecdotaly, there have been no evidence that separation of CEO and Chairmanship role plays lead to a superior performance and stability of an organisation (George, 2013).

Ponnu (2008) documented that the percentage of CEO duality of Malaysian companies decreased from 15.9% in 1999 to 8.6% in 2005. But despite this compliance, there is no relationship between CEO duality and company performance. This is consistent with study by Lin & Hwang (2010) using a meta-analytical techniques, which found that individual separation of CEO position from chairmanship position is non-significant with the level of earnings management. Studies have found that CEOs are ineffective in constraining earnings management (Abed, et al., 2012; Rahman & Ali, 2006).

Mohamad et al. (2012) documented that separation of chairman and CEO role is effective in restraining earnings management practices. This implies a negative relationship between CEO duality and earnings management to the transformation policy. Hashim and Devi (2008) could not find significant evidence that separation of CEO and chairmanship role mitigate the incidence of earnings management. Xie et al. (2003) documented that CEO duality is unrelated to the proxy used as a measure of earnings management.

On the other hand, separation of CEO position from chairperson position with different individual does not have significant influence in mitigating real earnings management activities (Visvanathan, 2008). Specifically, Visvanathan (2008) found a negative association between CEO duality and abnormal cash flow from operation and discretionary expenses, but the relation is not significant. Meanwhile, findings from Hashemi and Rabiee (2011) shows a positive association with abnormal discretionary expenses. Hence, the study posits that:

**H10:** There is a negative association between CEO duality and real earnings management activities.

## **2.9 Board diversity**

Diversity entails, gender, nationality, race and perception of an individual (Trautman, 2012). One of the benefits of diversifying the board allows for different criticisms on issues based on individual expertise, skills, reputation and network. It allows critical analysis of issues based on different opinions and perspective. As such, women are said to be more benevolence and altruistic than men (Adams & Funk, 2012). Gender diversity issue came to lime light due to financial seldom and happening in the corporate arena, which lead to the suggestion of whether having more women on corporate board would change the behaviour of those manning the position of a company. Brady, Isaacs, Reeves, Burroway, and Reynolds (2011) contend that companies that have had incidence of financial scandals are likely to have female executives.

Researchers have attached agency theory and stakeholder's theory to gender diversity research. Francoeur, Labelle, and Sinclair-Desgagne (2008) argued that Agency theory is of the view that having more female on corporate board does not have any negative financial consequence. Females are projected to bring fresh ideas and perception about difficult issues. In a study by Adams and Funk (2012) using a large data survey of board members in Sweden, women and male directors found to be different in their attitude towards risk and main values. In a nutshell, female directors are prone to be risk averse and less power mongered compared to their male counterpart that are power oriented and risk takers. Wagner (2011) suggest that female director may oppose bad project.



Gender is a determinant factor in selection of individuals to corporate board (Farrell & Hersch, 2001) A new media attention is driven toward workforce diversity. Over the past decade increasing women representation on corporate board has been very low. Empirical study conducted by Farrell and Hersch (2001) using a large panel data of public listed companies of fortune 500 from 1990-1999 found that there is an inverse relationship between number of women on board and adding a woman to a board, but the probability increase when a woman depart than when a man departs.. Increase in female board representation is due to the force of demand for diversity, instead of an increase in qualified candidates to feel the vacant position. In a nutshell there was an increase in female representation despite the decreasing board size. The percentage increase is 35.9%-45.5% that company has 1-3 or more sitting on corporate boards. In fact, the average number of women on board increases from 0.72%-1.32%. In addition men are said to be analytical, persuasive and action oriented. But women are empathic, collaborative and as well persuasive. Lam, McGuinness, and Vieito (2012) document that female representation as the CEO on the board of listed companies in Chinese has been on increase from 2000-2008 by 5.5% compared to that of US.

Zhang (2012) using a sample of 475 of fortune 500 publicly traded companies over the period of 2007-2008, found a positive relationship between board gender diversity and conclude that it is positively related to institutional and technical strength rating which is a measure of corporate social performance. Francoeur et al. (2008) examined women participation on board performance. They found that companies with high proportion of women in governance and management systems create value to withstand stock-market

returns, by having positive abnormal returns of 0.17% monthly -6% return over a 3-year period.

Ahmad-Zaluki (2012) investigate gender composition of board of directors of Malaysia initial public offering companies, using a sample of 228 IPO companies from 1996-2006. They found that percentage of female director increase by 2.5% from pre-IPO year and greater percentage of female representation on board leads to lower long run underperformance. The underperformance is much lowers in companies' having more foreign ethnic female representation. As stock price is used as one of the indicator for indicating the performance of the company, Gul, Srinidhi, and Ng (2011) argue that gender diversity on corporate board could improve the quality of board discussion and independent board decision, deliberations and brainstorming since males and females have different behaviour and thinking momentum. In short, they concluded that gender diversity positively influence stock price in formativeness. Evidence has shown that female director perform greater monitoring and advisory role that ginger their oversight function through board meetings, nominating committees and demanding explanation from board when targeted goals are not met.

## **2.10 CEO AGE**

Managers may have both explicit and implicit contracting capacity, which play important role in determinant of earnings management practices. Demers and Wang (2010) assert that younger manager may boost reported earnings with an intention to stir up their post-retirement labour market value. As such, they hypothesised that younger managers engage in minimal accrual and real earnings management practice than the

older CEOs. Both their theoretical and empirical findings show that younger managers are reluctant to use income-increasing approach and real earnings management than those with older age in meeting earnings target. In a nutshell, younger CEOs exercise low level of real earnings management (such as less abnormal production cost of about 1.7% of total assets, incur high discretionary expenses of about 2% of total assets) and income increasing earnings management compare to older CEOs because the former has a long term value destruction effects. Therefore, this study posits that CEO age is an influential factor in real earnings management activities due to the fact that the CEO is empowered to decide on most of the real operating activities and production of financial reporting. Hence younger CEOs would engage in less real earnings management activities than older CEOs. There is a negative relationship between younger CEOs and real activities management.

## **2.10 Summary**

Board structure has been an interesting issue in corporate governance studies. Effectiveness of this board is likely to constrain earnings management. The agency theory is of the view that one of the essences of the board is to monitor and oversee the activities of the managers towards the company objectives. An agenda of the agency theory includes board independence, CEO duality and others. Numerous studies have found several relationships of this mechanism with earnings management. Owing to this relationship, the study would go beyond the axis of accrual based earnings management by viewing it from the aspect of real earnings management. These variables are used in ensuring that long-term goals are not compromised by the short term goals. The persistence of series of financial scandals as discussed earlier have indicated that

corporate governance mechanisms cannot be simply measured objectively and there is a need for an empirical examination on its impact on earnings management.

## **CHAPTER THREE**

### **RESEARCH METHODS**

#### **3.1 Introduction**

This chapter discusses the appropriate method used in testing the hypothesis as it has been stated earlier in the previous chapter. Section 3.2 explains the sample size and justifications for choosing the sample size and time period. Section 3.3 describes the data collection method and source of data. Section 3.4 discusses data analytical techniques. Section 3.5 provides the definitions and measurements of proposed variables are outlined, the model to be used in finding the association between the hypothesised variable and related exogenous variables. Section 3.6 presents the research framework of this study and section 3.7 summarise the content of the chapter to show the summarized contents of all the sections in this chapter.

#### **3.2 Sample size**

The unit of analysis is company and the sample population of the study are companies listed on the Main market of Bursa Malaysia. In order to be able to achieve the objectives of the study, the sample size would be based on selected 100 companies that have been rated in the annual report of Minority Shareholders Watchdog Group in 2011. The report was drawn from the annual Malaysian Corporate Governance (MCCG) index, which include compliance with best practices, quality of disclosure, financial stability and corporate social responsibility efforts.

The main focus of the study is to investigate the effect of board of directors characteristics and audit committee characteristics with regard to real earnings management, in accordance with the corporate governance best practices as introduced in 2007 with an effective date in 2009 and with the latest corporate governance code that public listed companies are expected to comply with. The sample period of the financial year is 2011. The study is also restricted to non-financial companies only, consistent with (Cohen, et al., 2008; Kang & Kim, 2012; Visvanathan, 2008) on study related to real earnings management activities.

Financial companies are excluded because they use different accruals method (Park & Shin, 2004) and have a unique disclosure requirements that makes it difficult for them to engage in earnings management, since they are highly regulated and are governed by Banking and other financial institution Act (Hashim & Devi, 2008; He, et al., 2009; Jalil & Rahman, 2010; Mohamad, et al., 2012; Pae & Quinn, 2009).

For example, the result of ANOVA test conducted by Hassan (2011) while examining the reporting of corporate governance of best practices based on regulatory prescription indicate that financial and non-financial institution have different ways reporting certain corporate governance variables. This has been attributed to the fact that non-financial companies apply companies Act of 1984, while financial companies apply the UAE central bank requirements. After the exclusion of financial companies the final sample results to 78 observations. Table 3.1 indicates the industry distribution of the selected sample over the sampling period.

**Table 3.1 INDUSTRY CLASSIFICATIONS**

<b>INDUSTRY</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
TRAD/SERV	28	36%
IND-PROD	15	19%
PLANTATION	10	13%
CONSUMER	10	13%
PROPERTIES	9	12%
CONSTRUCTN	4	5%
IPC	2	3%
<b>TOTAL</b>	<b>78</b>	<b>100%</b>

### **3.3 Source of data**

The financial data were collected from DataStream using Thompson World Scope. Companies with incomplete data from this database were supplemented from the annual reports of that particular company. This is consistent with Hashim and Devi (2008). Corporate governance data such as board of director characteristics and that of audit committees are hand collected from the company's annual report (Hashim & Devi, 2008; Saleh, et al., 2007). The annual reports are downloaded from a link on Bursa Malaysia page through its website. From the annual report, pages containing directors profile were examined so as to identify the necessary information needed such as independence nature of the director, educational background, cross directorship etc.

### **3.4 Research Design**

#### **3.4 Definition and measurement of variables**

In this study, two main corporate governance variables are examined. The variable of interest are board of directors characteristics and audit committee characteristics, which have been referred to as the most common cure for woes of corporate debacles (Faleye, et al., 2011). Following extant literature from previous studies, board of directors'

characteristics and audit committee characteristics are pronounced as independent variables (Hashemi & Rabiee, 2011; Kang & Kim, 2012; Visvanathan, 2008). Here in this study, the basic characteristics of the board and audit committee are considered. For example, the size, structure, age, frequency of meeting and expertise of those on this committees.

#### **3.4.1 Board independent**

This simply indicates the percentage of directors sitting on board that are independent minded. Prior empirical studies have highlighted the significant importance of these set of directors in their monitoring function in constraining earnings management (Hashemi & Rabiee, 2011; Kang & Kim, 2012; Visvanathan, 2008).

#### **3.4.2 Board size**

The board size is the total number of directors sitting on corporate board. Extant studies have identified that either larger board or small board is effective in constraining earnings management (Abbott, et al., 2004; Marra, et al., 2011; Visvanathan, 2008). Generally, board size is also related to board effectiveness and company performance.

#### **3.4.3 Board of director expertise**

The financial expertise of the members of board of director's enables the directors to understand the full fledge of the content of financial statement. It is also an indication of competency of board members. Prior studies have suggested that financial expertise of the board is measured as those directors that have accounting and finance background or



member of any professional accounting body (Kang & Kim, 2012; Marra, et al., 2011; Rahman & Ali, 2006; Xie, et al., 2003).

#### **3.4.4 Cross directorship**

With the busyness hypothesis, cross directorship is when a member of the board is also board member in other companies. Prior studies have argued that board busyness might result to cross fertilisation of idea or over commitment where directors may not be able to discharge there functions effectively (Mohamad, et al., 2012).

#### **3.4.5 Board meeting**

This is the frequency of meetings held by the board in the financial year. Board meeting is an indication of various activities engaged by members in discussing companies' related issues. The frequency of this meeting signifies that, there are many related issues that need to be discussed, of which earnings management activities could be one of those issues. It also indicate how board members are able to resolve potential problem and strategic planning of the company (Kang & Kim, 2012; Xie, et al., 2003). In the annual report of companies, a page is dedicated to for attendance to meeting and the numbers of meeting held by the boards and various committees.

#### **3.4.6 CEO duality**

This occurs when the chief executive officer role and chairperson role encompassed. That is, a situation where the same individual is the chairperson and CEO. It has both merits and demerits. Prior studies have identified that CEO duality plays important role

in company performance and earnings management (Rahman & Ali, 2006; Sahlan, 2011).

#### **3.4.7 Audit committee size**

The audit committee size is the total number of directors that are sitting on audit committee of a company's corporate board at the end of the financial year (Kang & Kim, 2012; Saleh, et al., 2007).

#### **3.4.8 Audit committee independence**

This is proportion of audit committee member that are independent. Higher proportion of independent director sitting on audit committee is expected to ensure greater diligence and be objective in decision making (Kang & Kim, 2012; Rahman & Ali, 2006; Saleh, et al., 2007).

#### **3.4.9 Audit committee meeting**

This is the frequency of meeting held by directors sitting on the corporate board of audit committee. The frequency of these meetings signifies how active the committee is as issues related to financial reporting are discussed (Kang & Kim, 2012; Mohamad, et al., 2012).

#### **3.4.10 Audit committee expertise**

This is the number of directors sitting on audit committee that are financial literate. Since the main focus of the audit committee members is to ensure that the reporting

process are free from restatement. Financial expertise such as accounting and finance qualification or being a member of one of the professional accounting bodies help in adding value to information content of the financial statement (Saleh, et al., 2007).

### **3.5 Real earnings management**

The real earnings management measurement was developed by Roychowdhury (2006) and mirror out the economic outcome of real activity based manipulation. Studies related to real-based earnings management method uses abnormal cash flow from operation as one the measurement variable for real activities carried out by the management. Others are discretionary expenses and production cost (Cohen, et al., 2008; Cohen & Zarowin, 2010; Graham, et al., 2005; Kang & Kim, 2012; Pae & Quinn, 2009). Also construct validity have been done by prior studies such as Cohen et al. (2008), Visvanathan (2008).

#### **5.5.1 Abnormal cash flow from operation**

The Cash flow from operations consist of various operating activities such as interest paid, cash receipts from goods and services sold, interest and dividend received, sale of trading securities, income and other tax paid and payment of selling, general and administrative expenses (Matsuura, 2008).

It occurs as a result of aggressive sales manipulation. This occur due to desirous need of the company to fasten it sales by applying lenient conditions on credit terms, providing unnecessary price discount so as to temporarily increase sales, Thereby, serving as a booster to the current period earnings and would definitely increase sales volume for a

short period but subsequently levelled when the price is reverted back to the former price. Using these two conditions would result to lower cash flow despite the increase in sales volume. For example a study on whether bond issuers manage earnings prior to entering of bond market shows that sales manipulation is more prominent among companies (Pae & Quinn, 2009).

### **3.5.2 Abnormal production cost**

In this case, companies increase production unnecessarily in order to increase earnings and report lower cost of goods sold. Here companies achieve this through the spread of fixed production overhead cost per units over a large number of goods produce. Hence reduces the fixed cost per unit if the number of unit has not increased. The reduction in the fixed cost per unit decreases the cost of goods sold (COGS) if the reduction is not offset by the increase in marginal cost per unit would enable the company to report higher operating earnings. On the other hand, the company would still part with some holding cost leading to increase in annual production cost relative to sales, and lower cash flow from operation given sales level.

### **3.5.3 Abnormal discretionary expenses**

Reduction in discretionary expenses such as advertising, research and development, selling general and administrative expenses boost current period earnings. In so doing, if the company paid for the discretionary expenses in cash, this could increase the current period cash flow at the detriments of future cash flows. In a nutshell companies that managed earnings are prone to either or all of the three components of real earnings

management such as low discretionary expenses, high production cost and or low cash flow from operations.

In identifying and deriving the stated value for normal activities of the three division of real earnings management a regression analysis was done on each of the models. This model was developed by Roychowdhury (2006) and implemented by prior researchers. For example, normal cash flow is subjected to a linear function of sales and changes in sales.

*A= Total Asset, S = Sales, CFO = Cash flow from operations, PROD = Production cost in the period t, COGS = Cost of goods sold in period t, INVENT= Inventory, DEXP= Discretionary expenses.*

Where  $A_t$  = Asset at the end of the period,  $S_t$  = Sales at the end of the period

**Abnormal cash flow from operation** = Actual cash flow from operation – Normal level of cash flow from operation using the estimated coefficient in equation 1.

Normal cash flow is subject to a linear function of sales and changes in sales

$$\frac{CFO_t}{ASSETS_{t-1}} = a_0 + a_1 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{S_t}{A_{t-1}} \right) + \beta_2 \left( \frac{\Delta S_t}{A_{t-1}} \right) + \varepsilon_t \dots \dots \dots (1)$$

Production cost is defined as the addition of cost of goods available for sale and change in inventory. Production cost is a linear function of sales, assuming production cost

occurred at the same time with sales. Denoted as  $PROD_t = COGS_t + \Delta INVENT_t$

$$COGS_t / ASSETS_{t-1} = a_0 + a_1 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{S_t}{A_{t-1}} \right) + \varepsilon_t \dots\dots\dots(2)$$

### **Change in inventory**

$$\Delta INVENT_t / ASSETS_{t-1} = a_0 + a_1 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{\Delta S_t}{A_{t-1}} \right) + \beta_2 \left( \frac{\Delta S_{t-1}}{A_{t-1}} \right) + \varepsilon_t \dots\dots\dots(3)$$

### **Abnormal production cost**

$$PROD_t / ASSETS_{t-1} = a_0 + a_1 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{S_t}{A_{t-1}} \right) + \beta_2 \left( \frac{\Delta S_t}{A_{t-1}} \right) + \beta_3 \left( \frac{\Delta S_{t-1}}{A_{t-1}} \right) + \varepsilon_t \dots\dots\dots(4)$$

### **Normal level of discretionary expenses**

Discretionary expenses are a combination of research and development, advertising and selling and administrative expenses.

$$DEXP_t / ASSETS_{t-1} = a_0 + a_1 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{S_{t-1}}{A_{t-1}} \right) + \varepsilon_t \dots\dots\dots(5)$$

The first model examine the association between the board structure that is a sub of the corporate governance mechanism to real activities based earnings management after controlling for three endogenous variables such as leverage return on asset and company

size. These variables are consistent with some used by (Kang & Kim, 2012; Visvanathan, 2008).

$$\begin{aligned} ACFO = a_0 + \beta_1 BODIND + \beta_2 BODSZ + \beta_3 CEODUA + \beta_4 CRS DIR + \beta_5 BODEXPT \\ + \beta_6 BODMET + \beta_7 LEV + \beta_8 ROA + \beta_9 SCIZE + \varepsilon_t \end{aligned}$$

$$\begin{aligned} ADEXP = a_0 + \beta_1 BODIND + \beta_2 BODSZ + \beta_3 CEODUA + \beta_4 CRS DIR + \beta_5 BODEXPT \\ + \beta_6 BODMET + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t \end{aligned}$$

$$\begin{aligned} APROD = a_0 + \beta_1 BODIND + \beta_2 BODSZ + \beta_3 CEODUA + \beta_4 CRS DIR + \beta_5 BODEXPT \\ + \beta_6 BODMET + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t \end{aligned}$$

The second stage of the model examines the relationships between audit committee characteristics and each of the division of real earnings management separately. In order to test the robustness, the study considers the outcome when a female is sitting on the board of audit committee and other endogenous variables.

$$\begin{aligned} ABCFO = a_0 + \beta_1 AUDSIZ + \beta_2 AUDIND + \beta_3 AUDMET + \beta_4 CEODUA + \beta_5 AUDEXPT \\ + \beta_6 WOM + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t \end{aligned}$$

$$\begin{aligned} ABDEXP = a_0 + \beta_1 AUDSIZ + \beta_2 AUDIND + \beta_3 AUDMET + \beta_4 CEODUA \\ + \beta_5 AUDEXPT + \beta_6 WOM + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t \end{aligned}$$

$$\begin{aligned} ABPROD = a_0 + \beta_1 AUDSIZ + \beta_2 AUDIND + \beta_3 AUDMET + \beta_4 CEODUA \\ + \beta_5 AUDEXPT + \beta_6 WOM + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t \end{aligned}$$

Other variables that could influence earnings management as encapsulated by Roychowdhury (2006), are industry that a company belongs, growth opportunities,

company's leverage and stock of inventories and receivables are factors that could affect the influence of real earnings management.

#### **3.5.4 Firm Size**

The size of a company is determinant factor in whether a company should engage in earnings management. As investors expect much from larger companies than smaller companies in terms of reported earnings, big companies are expected to provide higher accounting earnings. In achieving investor's expectations larger companies manage earnings in order not to disappoint the investors. So companies avoid reporting negative earnings and earnings decrease. Smaller companies avoid reporting loss and larger company avoid reporting earnings decrease. Mohamad et al. (2012); Rahman and Ali (2006) and Xie et al. (2003) reported that firm size are significantly related to discretionary accruals. This implies that smaller companies are subject to less scrutiny than bigger companies (Xie, et al., 2003).

Since large companies are subjected to the eyes of the public and shareholders, they are associated with higher monitoring roles (He, et al., 2009; Kamardin & Haron, 2011). This makes it difficult for managers of these companies to carry out any act that could distort the financial information (Marra, et al., 2011). Hyo Jin and Soon Suk (2008) on the contrary found that company size is positively related to earnings management consistent with the study conducted using Portuguese companies (Alves, 2011).

As suggested that specific characteristics of a particular company and country are likely to influence managers' choice of manipulating earnings. Astami and Tower (2006)



documented that in Asian pacific region, companies that manipulate earning with earnings increasing approach are characterised by lower level of financial leverage and higher investment opportunities.

### **3.5.5 Leverage**

A company that is facing hardships in terms of finance or indebted would be eager to find a formidable source of meeting up their obligations with a reduced financing cost. As such, Company with one financial ordain or the other will be more interested in up shooting earnings to avoid reporting loss which could cause financial dilemma (Alves, 2011; He, et al., 2009; Marra, et al., 2011).

On the other hand a company that is highly indebted would be subjected to regulatory scrutiny and as such probability of engaging in earnings manipulation is less likely to occur because the lenders are much interested in the accounting numbers provided by the company, which must be free from any misdeed behaviour. Given these facts, the projection is that as scrutiny and monitoring activities of the lender increases, the expectation is that managers would find it difficult to engage in earnings management. For these reasons a company with a higher leverage ratio would be negatively related with the level of earnings management (Healy & Palepu, 2001; Hyo Jin & Soon Suk, 2008).

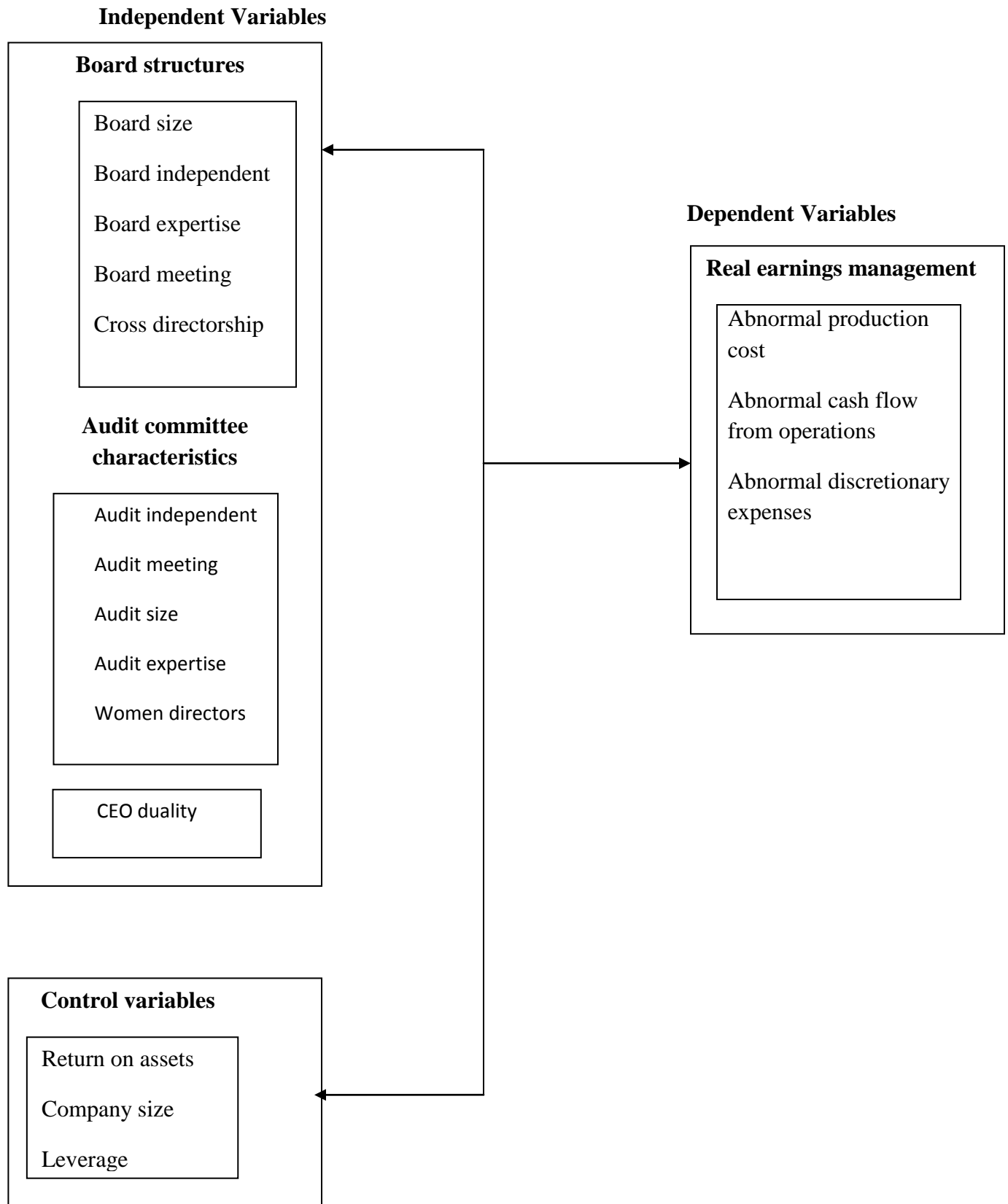


### 3.6 Summary of hypothesized variables

S/NO	ACRONYMS	VARIABLE DEFINITION	OPERATIONALIZATION	SOURCE
Dependent Variables: RM				
1	ABPROD	Abnormal production cost	Normal production cost minus actual production cost	(Kang & Kim, 2012; Roychowdhury, 2006; Visvanathan, 2008)
	ABCFO	Abnormal cash flow from operations	Normal cash flow from operations minus actual cash flows from operations.	
	ABDEXP	Abnormal discretionary expenses	Normal discretionary expenses minus actual discretionary expenses	
Independent Variables:				
	BODSIZE	Board size	The total number of directors on corporate board.	(Kang & Kim, 2012; Visvanathan, 2008)
	BODIND	Independent directors on corporate board	The proportion of independent non-executive directors on corporate board divided by total number of board members.	(Kang & Kim, 2012; Visvanathan, 2008)
	CEODUA	Chairmanship independent	An indicator variable of “1” if the chairman is independent and "0" if otherwise	(Rahman & Ali, 2006; Visvanathan, 2008).
	BODEXPT	Board expertise	The number of directors that have financial expertise divided by the total number of directors on board.	(Kang & Kim, 2012)
	BODMET	Board meetings	The total number of meeting held annually by the board of directors divided by the total number of directors.	(Kang & Kim, 2012; Mohamad, et al., 2012)
	CRSDIR	Cross directorship	The number of director with cross directorship divided by total number of directors on corporate board.	(Mohamad, et al., 2012)
	AUDIND	Audit committee members independence	The proportion of independent director sitting on the audit committee to total committee member	(Kang & Kim, 2012; Saleh, et al., 2007; Visvanathan, 2008)

	AUDMET	Audit committee meetings	The number of audit committee meetings divided by total number of audit committee member.	(Mohamad, et al., 2012; Saleh, et al., 2007)
	AUDSIZE	Audit committee size	The total number of members on audit committee.	(Saleh, et al., 2007)
	AUDEXPT	Audit committee expertise	The proportion of audit committee members that has financial expertise.	(Marra, et al., 2011; Saleh, et al., 2007)
	WMD	Women director	An indicator variable of “1” if a woman is among the audit committee member.	(Brady, et al., 2011; Francoeur, et al., 2008)
<b>Control Variables:</b>				
	ROA	Return on asset	Earnings before interest and tax divided by total asset.	(Kang & Kim, 2012; Rahman & Ali, 2006)
	CSIZE	Company size	The natural logarithm of total assets (RM million)	(Kang & Kim, 2012; Liu, 2012; Othman & Zeghal, 2006)
	LEV	Financial Leverage	Total debt ( long and short-term debt) divided by total asset	(Kang & Kim, 2012; Rahman & Ali, 2006)

### 3.6 Research Framework of corporate governance mechanisms and earnings management



## **CHAPTER FOUR**

### **DISCUSSION AND FINDINGS**

#### **4.1 Introduction**

This chapter discusses the results and interpretation of series of empirical findings examined that identified the various associations between the corporate governance variables, specifically board characteristics and audit committee characteristics on real activity based earnings management as stated in the previous chapter. Although there are three proxies for real activity based earnings management, each of these proxies is examined individually.

This chapter is organised as follows: section 4.2 presents the descriptive statistics and section 4.3 presents the correlation matrix, which examine the correlation between the dependent variables such as abnormal cash flow from operation, abnormal discretionary expenses and abnormal production cost and the independent variables such as board structures and audit committee characteristics. Section 4.4 present the result of multivariate analysis and section 4.5 summarised the chapter.

#### **4.2 Earnings Management (Real Earnings Management)**

As reported earlier that this study is considering real earnings management using three proxies. These three proxies are calculated using equation 1-5 in the previous chapter. Estimating for normal level of each of the proxies is derived at using the coefficient from the regression of each of the variables in each equation. Consistent with prior studies (Cohen & Zarowin, 2010; Hashemi & Rabiee, 2011; Kang & Kim, 2012;

Roychowdhury, 2006; Visvanathan, 2008). Table 4.1 presents the regression statistics of the model parameters used in deriving at the normal level of activities before estimating the abnormal level of the three proxies of real-based earnings management activities. As it can be seen from Table 4.1, the coefficient of production cost and cash flow from operation on sales are all positive, which is consistent with Kang and Kim (2012) and Roychowdhury (2006). In fact the p-value of both the production cost and discretionary expenses is statistically significant at 1%, which indicates a strong influence on production cost. This implies that the higher the change in sales the higher the production cost and operating cash flow from operation. In attestation to this result, Roychowdhury (2006) indicated that managers encourage activities that could lead to abnormally higher production costs and reduction in discretionary expenses in order to report higher earnings.

In addition, the explanatory power of the model in estimating the normal level of operating activities is quite low for cash flow from operation and discretionary expenses. From Table 4.1 the adjusted R square for cash flow is 14 % and discretionary expenses are 12%. Although they are higher than figure reported by Kang and Kim (2012) that is 4% and 2% respectively, but lower than what was reported by Roychowdhury (2006) that is 45% and 38% respectively. On the other hand, the adjusted R square of production cost is at 82%, which is similar to that of Roychowdhury (2006) and Kang and Kim (2012) at 89% and 90% respectively.





**Table 4.1 The model parameters on the three proxies of real earnings management**

VARIABLES	ACFO			ADEXP			APROD		
	COFF	t-statistics	P-Value	COFF	t-Statistics	P-Value	COFF	t-Statistics	P-Value
INT	0.059***	3.030	0.003	0.553	0.390	0.6975	-0.068	-1.292	0.200
IA	4933.337	0.655	0.515	192094***	<b>3.445</b>	<b>0.001</b>	-25302.83	-1.230	0.223
SA	0.067***	<b>3.863</b>	<b>0.000</b>				0.771***	<b>15.653</b>	<b>0.000</b>
CSA	-0.116*	-1.899	0.062				0.284	1.553	0.125
SP				-1.332	-1.027	0.308			
CSP							0.071	0.359	0.721
Adjusted R <sup>2</sup>	<b>14.34%</b>			<b>11.69%</b>			<b>82.35%</b>		

**Notes:** \*\*\*: significant at 1% level \*: significant at 10% level

Where  $\frac{CFO_t}{ASSETS_{t-1}} = ACFO$ ,  $a_0 = INT \left( \frac{1}{A_{t-1}} \right) = IA \left( \frac{S_t}{A_{t-1}} \right) = SA \left( \frac{\Delta S_t}{A_{t-1}} \right) = CSA \left( \frac{S_{t-1}}{A_{t-1}} \right) = SP \frac{DEXP_t}{ASSETS_{t-1}} = ADEXP$ ,  $\left( \frac{\Delta S_{t-1}}{A_{t-1}} \right) = CSP$

$\frac{PROD_t}{ASSETS_{t-1}} = APROD$

### **4.3 Descriptive Statistics**

#### **4.3.1 Board characteristics variables of 78 companies**

The descriptive statistics of first set of models are presented in table 4.2, which is based on sample of 78 companies. Table 4.2 reports that the mean value of abnormal production cost and abnormal discretionary expenses indicate a negative value of -0.0003 and -0.0006 respectively, while abnormal cash flow from operation has a positive mean value of 0.0003. This is inferably different from prior studies. For example Kang and Kim (2012) show a negative figure for both the mean value of abnormal production cost and abnormal cash flow from operations of -0.018 and -0.002, but a positive mean value for abnormal discretionary expenses at 0.000.

The board size (BODSIZE) variable, that is the number of directors on board is about 9 and a standard deviation of 2.05, with a minimum and maximum value of 5 and 14 respectively. This is consistent with Rahman and Ali (2006) who reported average value of 9, standard deviation of 2.22, with a minimum and maximum value of 5 and 16 respectively. In a related study, Kang and Kim (2012) reported that average board size of Korean companies are 6 with a minimum and maximum value of 3 and 14 respectively. This implies that numbers of directors on corporate boards from countries are similar.

From table 4.2, the percentage of board of directors that are independent on average is 48%, with a minimum and maximum value of 22% and 88%, respectively. A slight different from prior studies such as Mohamad et al. (2012) who reported a mean value

of 41% with a maximum value of 63% and Sahlan (2011) who reported a mean value of 42% and maximum value of 78%. Likewise Hashim and Devi (2008) and Rahman and Ali (2006) reported a mean value of 42% and 39%, respectively with a maximum value of 73% and 71%, respectively. These statistics show a high compliance with recommendation of the Malaysian code of corporate governance (MCCG) that a large number of directors sitting on board must be independent directors. On the other hand studies in countries other than Malaysia such as Kang and Kim (2012) reported that 32.3% of the total number of directors are independent and that of Hashemi and Rabiee (2011) reported a mean value of 47% on companies listed on Tehran stock exchange. Notwithstanding, literatures on earnings management have indicate that higher proportion of independent directors mitigate earnings management from developed countries (Klein, 2002; Peasnell, et al., 2005), which could be a reason for having one-third of board to compose of independent directors.

In terms of separating the role of chief executive officer (CEO) and chairperson of a company, a dummy variable of 1 is used in indicating whether an individual is having two portfolios of being the chairman and CEO, and 0 if otherwise. From table 4.2, the 78 companies in the sample indicate a mean value of 13%, with a minimum value of 0.00 and a maximum value of 1. This consistent with Sahlan (2011) who reported a mean value of 12.32% - 7.97% for top and bottom rated companies of study related using accrual earnings management. Most of the prior studies maximum values are “1” (Sahlan, 2011) and on real earnings management aspect (Hashemi & Rabiee, 2011). In fact, Sahlan (2011) stressed on the existence of CEO duality because of it power to influence and fulfilled its earnings management practices. The result is consistent with

the stated requirements in the Malaysia Corporate Governance code and bursa Malaysia listing requirements. This simply implies that the companies in the sample highly complied with the MCCG.

In a relative term, the term cross directorship, which is often refer to as when a director is holding more than one directorship in a company (CRSDIR). From table 4.2, about 68% of directors of companies sample have other directorship in other companies, with a minimum and maximum value of 0% and maximum value of 100% respectively. From the result it can be conclude that most of the companies sample has directors sitting on board of other companies. This is consistent with previous studies such as Sahlan (2011) who reported a mean value of 60.23% and 61.81% of top 50 rated and bottom rated companies based on corporate governance rating. Haniffa and Cooke (2002) have signified the importance of cross directorship, which perhaps leads to additional knowledge acquisition from diverse industries, skills and experience. In some instances cross directorship has negative impact on companies, for example Sahlan (2011) contend that cross directorship can lead to busyness of directors that can result to directors putting less attention to address problems when a particular company is in dare need of their advice.

On the aspect of board financial expertise (BODEXPT), from table 4.2, the mean value presents in the table is 39% with a minimum and maximum value of 7% and 86%. Similar result by Park and Shin (2004) reported average of 43% for Canadian companies. Contrary to Kang and Kim (2012) who reported that about 9.4% of the external directors are financial experts.

In terms of board meetings (BODMET), is simply the number of meetings held by the board at the end of the financial year. The mean value from the table indicates a value of 5 times, with a minimum and maximum value of 3 and 12 times, respectively. These values are low as compared to Mohamad et al. (2012) who reported that on average boards meet nine times using a sample period of 2006 and maximum number of meetings held is eighteen in total. However the minimum value of three meetings held as shown on the table indicate that there is likely to be a company that only hold three meetings in a financial year, which may be considered as abdication from the code. In a related study, Kang and Kim (2012) reported that average Korean companies meet 16 times in a year.

In addition, three extraneous variables where examined, leverage (LEV), return on assets (ROA) and company size (CSIZE). The company size is measure as a log of total assets of the company. It has been argued in literature that smaller companies are likely to engage in earnings management because much of the regulatory attention is entirely focused on larger company (Rahman & Ali, 2006; Xie, et al., 2003), if the performance of the company is low, there is likely possibility that managers engage in earnings management (Sahlan, 2011). The mean value of the company size is 6.46, with a minimum and maximum value of 5.09 and 7.87 respectively. Similar to study conducted by Rahman and Ali (2006) who reported a mean value of 6.25, with a minimum and maximum value of 5.20 and 7.51 respectively. Although slightly different from the study

of Sahlan (2011) who reported a mean value of 6.45, with a minimum and maximum value of 5.15 and 8.01.

Table 4.2 also presents the return on assets value (ROA) with a mean value of -0.096 and with a minimum and maximum value of -0.19 and 0.48 respectively. This is similar to study conducted by Rahman and Ali (2006) who reported a mean value of 0.089 with a minimum and maximum value of -0.10 and 0.63 respectively. On studies related to real earnings management, Kang and Kim (2012) reported on average of 0.056 return on assets of listed companies on Korean stock exchange, with a minimum and maximum value of -0.221 and 0.352 respectively. Similarly Hashemi and Rabiee (2011) reported on average of 0.2547 of return on assets of companies listed on Tehran stock exchange.

In terms of leverage, this is measured as the total value of debt divided by total value of assets. The leverage mean value is 0.21, with a minimum and maximum value of 0.00 and 0.61. This is similar to study conducted by Rahman and Ali (2006) who reported a mean value of 0.21, with a minimum and maximum value of 0.0006 and 0.67 respectively. This is slightly different from study conducted in Korean by Kang and Kim (2012) who reported a mean value of 0.476, with a minimum and maximum value of 0.101 and 1.544 respectively.

**Table 4.2 Descriptive Statistics of Board characteristics of 78 companies**

	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
ABPROD	2.41	-1.42	0.99	-0.0003	0.272	-0.969	11.244
ABCFO	0.60	-0.26	0.34	0.0003	0.102	0.116	1.628
ABDEXP	79.08	-19.80	59.28	-0.0006	7.590	6.197	50.079
BODSIZE	9.00	5.00	14.00	8.641	2.045	0.605	0.101
BODMET	9.31	2.78	12.09	5.378	2.040	1.264	1.322
BODIND	0.66	0.22	0.88	0.476	0.130	0.925	0.899
BODEXPT	0.79	0.07	0.86	0.395	0.169	0.472	-0.053
CRSDIR	1.00	0.00	1.00	0.686	0.240	-0.783	0.087
CEODUA	1.00	0.00	1.00	0.128	0.336	2.268	3.226
ROA	66.74	-19.00	47.74	9.605	9.201	0.762	4.113
CSIZE	2.78	5.09	7.87	6.464	0.623	0.040	-0.453
LEV	0.61	0.00	0.61	0.212	0.165	0.354	-0.609

#### 4.3.2 Descriptive statistics of Audit characteristics of 78 companies

Table 4.3 reports the descriptive of the audit committee's characteristics of 78 companies. The audit committees meeting (AUDMET) is the total number of meetings held during the financial year. Table 4.3 presents a mean value of 5 times, with a minimum and maximum value of 1times and 13 times respectively. The results on audit committee variable indicate that on average, audit committees of sample 78 companies hold four to five meetings in a financial year, which is consistent with Saleh et al. (2007) and Rahman and Ali (2006) who reported that on average, audit committee meets four to five times in a financial year.

The audit committee independence (AUDIND) represents the proportion of directors sitting on audit committee that are independent. From table 4.3, most of the audit committee of sampled companies have higher percentage of independent directors at

89% and with a minimum number of 50%. This is consistent with Saleh et al. (2007) who reported that 73% of the member sitting on the board are independent, while Rahman and Ali (2006) reported that average independent member on the board of audit committee are 68% and maximum value of 75%. This implies that majority of the companies in the sample are highly complied with the Malaysia Code of Corporate Governance (MCCG) and bursa Malaysia listing requirements that indicate that majority of audit committee member should be independent.

Regarding the audit committee expertise, 49% of directors sitting on the board of committees have either financial accounting background or are member of any professional accounting bodies. This is similar to Saleh et al. (2007) who reported that around three to four members and a quarter of them have financial accounting background. This pinpoint that average member of the audit committee are able to read and analyse financial statement. Notwithstanding, the mean value of audit committee size is 4, with a minimum value of 2 and maximum value of 6 in number. This is line with findings reported by Rahman and Ali (2006). In line with the government policy on gender balance on board of companies at 30%, 19% of the audit committee members are female. This is identified using a dummy variable of 1 if an audit committee of company has a female as one of its members and 0 if otherwise.



**Table 4.3 Descriptive Statistics of audit committee characteristics for a sample of 78 Malaysian companies.**

	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
ABPROD	2.41	-1.42	0.99	-0.0003	0.272	-0.969	11.244
ABCFO	0.60	-0.26	0.34	0.0003	0.102	0.116	1.628
ABDEXP	79.08	-19.80	59.28	-0.001	7.590	6.197	50.079
AUDSIZE	4.00	2.00	6.00	3.539	0.688	0.884	1.226
AUDMET	12.50	0.75	13.25	4.648	1.824	2.045	7.162
AUDIND	0.83	0.50	1.33	0.890	0.154	-0.361	-0.499
WMD	1.00	0.00	1.00	0.066	0.159	3.372	14.982
AUDEXPT		0.00	1.00	0.493	0.225	0.478	-0.304
CEODUA		0.00	1.00	0.128	0.336	2.268	3.226
ROA	66.74	-19.00	47.74	9.605	9.201	0.762	4.113
CSIZE	2.78	5.09	7.87	6.464	0.623	0.040	-0.453
LEV	0.61	0.00	0.61	0.2112	0.165	0.354	-0.609

#### 4.4 Pearson's Correlation Matrix

Before the correlation analysis is performed, heteroskedasticity test is conducted using ARCH. Table 4.4 present the results from these tests, from table 4.4 the Chi-Square of ARCH is far above 5%. Since these two results are above 5%, it indicates that there is no problem of heteroskedasticity in arriving at the final dependent variable.

With the postulation of various corporate governance variables and real earnings management, estimated liner regression and ordinary least regression are considered. The Pearson's Correlation Matrix results are reported based on the two set of models. The Pearson Correlation Matrix on Table 4.5 shows the correlation between each of the dependent variables (abnormal production cost, abnormal discretionary expenses and abnormal cash flow from operations) and a sub of the independent variables (board

characteristics). This test examines the various associations between the dependent variable and independent variables. It also tests the degree and extent at which the independent variables correlate with the dependent variables.

**Table 4.4 Serial correlation and Heteroskedasticity test**

<b>Variables</b>	<b>ACFO</b>	<b>ADEXP</b>	<b>APROD</b>
	<b>Prob. Chi-Square</b>	<b>Prob. Chi-Square</b>	<b>Prob. Chi-Square</b>
<b>Breusch-Godfrey</b>	0.5762	0.9577	0.7925

The correlation between the dependent variables shows that abnormal production cost and abnormal cash flow from operation are negatively correlated at 0.52 consistent with Roychowdhury (2006) who reported a value of 0.35. The correlation between abnormal discretionary expenses and abnormal cash flow from operation are positively correlated at 0.24 contrary to Roychowdhury (2006) who reported a negative value of 0.17. The correlation between abnormal discretionary expenses to abnormal production cost is not significant but indicate a negative correlation at 0.001, slightly different from results of Roychowdhury (2006) who reported a value of 0.63. Although the two findings show a negative correlation, which could probably be due to the fact that managers engage in activities that lead to abnormal production cost and likewise result to cutting down discretionary expenses in order to present higher earnings (Roychowdhury, 2006). The abnormal cash flow from operation is negatively correlated with return on assets.

The results from table 4.5 show that the correlation between the independent variables and each of the dependent variables are different. Table 4.5 presents that board size; that is the number of director sitting on corporate board is negatively correlated with the three dependent variables (abnormal cash flow from operation, abnormal discretionary expenses and abnormal production cost) consistent with Hashemi and Rabiee (2011) Kang and Kim (2012).

In terms of board independence, there is a positive correlation between board independence and two real earnings management activities proxies; abnormal production cost and abnormal discretionary expenses. This is contrary to results reported by Hashemi and Rabiee (2011) and Kang and Kim (2012) that indicate a negative relationship between board independence and abnormal production cost and abnormal discretionary expenses. The implication of this result indicates that the proportion of independent directors is likely to be insignificant in mitigating real earnings management because as the proportion of board increases managers' ability to manipulate accounting numbers through real earnings management increases. However, the abnormal cash flow from operation is negatively correlated with board independence, whereas board independence is negatively correlated with the return on assets.

In terms of a single individual acting as both chairperson and chairman, the matrix indicate that CEO duality is negatively correlated with abnormal production cost and abnormal discretionary expenses, but positively correlated with abnormal cash flow from operation. However, Hashemi and Rabiee (2011) report a negative correlation

between CEO duality and abnormal cash flow from operation. The correlation matrix from both board expertise and board meetings are positively correlated with abnormal production cost but negatively correlated with abnormal cash flow from operation and abnormal discretionary expenses. On the other hand board busyness is positively correlated all the three dependent variables. The company size is positively correlated with board size and both the company size and level of leverage are positively correlated, but company size and leverage are negatively correlated with company's return on assets.

**Table 4.5 Board structure and real earnings management**

	ABPROD	ABCFO	ABDEXP	BODSIZE	BODIND	CEODUA	BODEXPT	BODMET	CRSDIR	CSIZE	ROA	LEV
ABPROD	1											
ABCFO	-0.519(**)	1										
ABDEXP	-0.001	0.242(*)	1									
BODSIZE	-0.146	-0.029	-0.164	1								
BODIND	0.083	-0.178	0.024	-0.252(*)	1							
CEODUA	-0.046	0.143	-0.076	-0.081	0.046	1						
BODEXPT	0.064	-0.129	-0.085	-0.190	-0.121	-0.134	1					
BODMET	0.194	-0.077	-0.035	0.226(*)	0.123	0.138	-0.090	1				
CRSDIR	0.003	0.009	0.009	0.250(*)	0.071	-0.164	0.023	0.141	1			
CSIZE	0.065	-0.066	-0.031	0.355(**)	-0.027	-0.007	0.049	0.408(**)	0.443(**)	1		
ROA	-0.488(**)	0.660(**)	0.172	-0.108	-0.252(*)	0.023	0.032	-0.336(**)	-0.251(*)	-0.323(**)	1	
LEV	0.113	-0.215	-0.070	0.125	-0.027	0.038	0.241(*)	0.329(**)	0.219	0.462(**)	-0.345(**)	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

The correlation are between the moderate and weak level, this indicate that there is no multi-co linearity problem among the variable being examined.

Table 4.6 presents the result of second set of correlation matrix between the dependent variables and audit committee characteristics. From table 4.6, the audit committee expertise, audit committee independence and having women on audit committee are positively correlated with abnormal production cost and abnormal discretionary expenses but negatively correlate with abnormal cash flow from operations. However, this is slightly contrary to result reported by that shows a negative correlation between audit committee independence and abnormal cash flow from operation and abnormal production cost.

In terms of audit committee meetings, it is negatively correlated with both abnormal production cost and abnormal discretionary expenses, while positively correlated with abnormal cash flow from operation. Whereas Visvanathan (2008) reported a positive correlation between numbers of meetings held and abnormal production cost, abnormal discretionary expenses and abnormal cash flow from operation.

The audit committee size is negatively correlated with audit committee independence. Having a female as a member of the audit committee is negatively correlated to return on asset. Audit committee meeting is positively correlated to the company size. This implies that the number of meeting increases depending on the size of the company. The return on assets is negatively correlated to abnormal production cost and positively correlated to abnormal discretionary expenses. The return on asset is also negatively correlated to company size and leverage ratio of the company.

**Table 4.6 Audit committee and real earnings management**

	ABPROD	ABCFO	ABDEXP	AUDEXPT	AUDIND	WMD	CEODUA	AUDMET	AUDSIZE	ROA	CSIZE	LEV
ABPROD	1											
ABCFO	-0.519(**)	1										
ABDEXP	-0.001	0.242(*)	1									
AUDEXPT	0.160	-0.122	0.044	1								
AUDIND	0.010	-0.152	0.038	-0.040	1							
WMD	0.153	-0.184	0.006	0.135	-0.001	1						
CEODUA	-0.046	0.143	-0.076	-0.054	-0.046	0.105	1					
AUDMET	-0.077	0.126	-0.144	-0.130	-0.014	0.005	0.104	1				
AUDSIZE	0.040	-0.065	-0.023	-0.207	-0.319(**)	0.145	0.039	-0.024	1			
ROA	-0.488(**)	0.660(**)	0.172	-0.210	-0.083	- .246(*)	0.023	-0.053	-0.037	1		
CSIZE	0.065	-0.066	-0.031	0.073	-0.171	0.174	-0.007	0.350(**)	0.211	-0.323(**)	1	
LEV	0.113	-0.215	-0.070	0.029	0.076	-0.005	0.038	0.116	-0.055	-0.345(**)	0.462(**)	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The correlation are between the moderate and weak level, this indicate that there is no multi-co linearity problem among the variable being examined

#### **4.5 Multivariate analysis**

This study test for real earnings management in Malaysia context using the three proxies developed by Roychowdhury (2006) and tested by previous researchers such as Cohen and Zarowin (2010), Kang and Kim (2012) and Visvanathan (2008). In this section the result of each model is reported and presented in a table format. Each of the proxies for the dependent variable is considered individually with the independent variables and control variables.

In explaining the explanatory power of the proxies for real earnings management activities, a multiple regression analysis technique is used, which is one of the commonly use technique in multivariate analysis. In achieving the expected outcome an ordinary least squares regression (OLS) is used since the model contains dummy variable for one of the dependent variable and some control variables. This has been widely used by previous research both on accrual based earnings management (Rahman & Ali, 2006) and real based earnings management (Hashemi & Rabiee, 2011; Kang & Kim, 2012; Visvanathan, 2008).

The adjusted R squares for each of the model from Table 4.7 to Table 4.9 are statistically significant and are free from serial correlation problem and heteroskedasticity. A simple simplification of this based on each model is identified in table 4.10. One possible reason for achieving this result is the log specification made to the number of board size. Table 4.7 presents the result of the first model which shows the relationship between abnormal cash flow from operation and board characteristics variables.



Earnings management that involves the activities of aggressive sales promotions and relax in credit terms result in a lower level of cash flow from operation. The results of most of the explanatory variables are statistically insignificant except board meetings and cross directorship. The adjusted R square for model 1 in Table 4.7 is 49% which is higher than that reported by Hashemi and Rabiee (2011) at 35%, Visvanathan (2008) at 40% and Kang and Kim (2012) at 34.9%. This implies that the explanatory power of the variables explain 49% of the dependent variable i.e real earnings management compare to other prior studies.

The F-value is 9.14 and the P-value is 0.00. From the aspect of abnormal cash flow from operations, neither the board size nor the CEO duality is significant. This implies that board size, that is the number of directors on corporate board and CEO duality, that is the separation of chairperson and managing director role are not a significant factor in constraining real earnings management activities on the aspect of abnormal operational activities and investment decisions. This result is consistent with US studies, Visvanathan (2008), but contrary to studies from Iran by Hashemi and Rabiee (2011) on CEO duality and Korean by Kang and Kim (2012) on CEO duality and board size.

Conclusively, board size is negatively related to real earnings management but it is insignificant, meanwhile separation of role of chairperson and director has a positive relationship, but insignificant. This is consistent with prior evidence on whether CEO duality constrain earning management activities from accrual concept (Rahman & Ali,

2006), but in contrast to Klein (2002) who reported separation of CEO roles from chairman is a significant factor in limiting discretionary accrual activities.

The results also indicate that the proportion of independent director on corporate board and members of the board financial expertise do not have a significant value in constraining real earnings management activities, which is abnormal cash flow from operations and investment decisions. Although, both are negatively correlated with abnormal cash flow from operation and investment decisions, but not significant in limiting managers from engaging in real earnings management activities. This is consistent with prior evidence on real earnings management activities (Visvanathan, 2008) but contrary to Hashemi and Rabiee (2011) who found a statistically negative relationship at 5% level.

Evidence from the angle of discretionary accrual earnings management board independence does not have influence on the level of discretionary accruals (Hashemi & Rabiee, 2011; Hashim & Devi, 2008; Rahman & Ali, 2006). The result is also contrary to arguments of prior studies that independent directors sitting on corporate boards of Malaysian companies lack the financial expertise in understanding financial reporting issues and business environments (Hashim & Devi, 2008; Mohamad, et al., 2012; Rahman & Ali, 2006), they found a positive relationship between board financial expertise and discretionary accrual earnings management.

Regarding the positive significant relationship between board meetings and abnormal operating cash flow from operation at 10% level, there is substantial evidence that as the number of meeting increases, aggressive sales promotion also increases. The frequency of these meetings indicates that there are many issues to be discussed, which the issue of aggressive sales promotion could be one of those issues, thus, hypothesis 3 is rejected. This is consistent with prior studies on real earnings management such as Kang and Kim (2012). However, this is contrary to studies on discretionary accrual with the expectation that an active board should devote more time to issues related to earnings management activities (Mohamad, et al., 2012; Xie, et al., 2003). The multiple directorship result indicates a statistically significant positive relationship with abnormal cash flow from operation at 5% level. This is consistent with evidence from prior studies using accrual based earnings management activities (Sahlan, 2011) but contrary to Mohamad et al. (2012) who reported a negative relationship with discretionary accrual based earnings management practice but not significant.

Regarding the control variables, the return on asset and company size show a positive relationship but only the return on asset is statistically significant at 1%. This indicates that company size is not a significant factor in deciding whether company practice real earnings management activities, but the direction of the relationship is consistent with other studies on real earnings management Hashemi and Rabiee (2011), Kang and Kim (2012) and Visvanathan (2008). The insignificant positive relationship is in line with Sahlan (2011). The leverage shows a negative relationship with abnormal cash flow from operation but not significant. This is consistent with prior studies on real earnings management. This suggests that companies with high debt are less likely to engage in

real earnings management activities. As argued by Mohamad et al. (2012) and Park and Shin (2004) highly geared company are less likely to engage in earnings manipulation. The return on assets also has a positive relationship with abnormal cash flow from operations, which is consistent with evidence from prior studies e.g., Visvanathan (2008) and other study that found significant relationship such as Hashemi and Rabiee (2011) and Kang and Kim (2012).

**Table 4.7**

ACFO = a <sub>0</sub> + β <sub>1</sub> BODIND+ β <sub>2</sub> BODSZ + β <sub>3</sub> CEODUA + β <sub>4</sub> CRSDIR + β <sub>5</sub> BODEXPT + β <sub>6</sub> BODMET + β <sub>7</sub> LEV + β <sub>8</sub> ROA + β <sub>9</sub> CSIZE + ε <sub>t</sub>				
VARIABLES	EXP SIGN	COEFFICIENT	t-Statistics	Prob
a <sub>0</sub>	?	-0.163	-1.219	0.227
BODIND	-	-0.052	-0.713	0.478
BODSZ	-	-0.040	-0.953	0.344
CEODUA	-	0.033	1.286	0.203
CRSDIR	-	0.084	2.090	<b>0.040</b>
BODEXPT	-	-0.088	-1.594	0.116
BODMET	-	0.048	1.681	<b>0.097</b>
LEV	-	-0.039	-0.616	0.540
ROA	+	0.008	7.913	<b>0.000</b>
CSIZE	+	0.015	0.827	0.411
R-squared	0.548			
Adjusted R-squared			49%	
Durbin-Watson stat			1.900	
F-statistic		9.144		
Prob(F-statistic)		0.000		

As it has been discussed earlier, one of the proxies of real earnings management is abnormal discretionary expenses, which means a situation whereby managers cut down discretionary expenses. Table 4.8 indicates that board size is negatively related to abnormal discretionary expenses at 10% level of significance. The results suggest that the higher the total number of board members, the lower the cutting of discretionary expenses increases. Moreover larger board may have high numbers of qualified

members with skills and knowledge in limiting abnormal discretionary expenses. The result aligned with evidence from prior researches such as Hashemi and Rabiee (2011) and Kang and Kim (2012) and studies on accrual earnings management that larger board might be effective in constraining earnings management activities (e.g., Xie, et al., 2003).

The estimated coefficient of board expertise, board independence and CEO duality are negatively correlated with abnormal discretionary expenses but not significant. The result of board independence is consistent with prior studies on real earnings management, but they are significant (Hashemi & Rabiee, 2011; Kang & Kim, 2012; Visvanathan, 2008). Regarding CEO duality, the result is consistent with Visvanathan (2008) but contrary to Hashemi and Rabiee (2011) that found a positive relationship but not significant.

**Table 4.8**

$ADEXP = a_0 + \beta_1 BODIND + \beta_2 BODSZ + \beta_3 CEODUA + \beta_4 CRS DIR + \beta_5 BODEXPT + \beta_6 BODMET + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t$				
VARIABLES	EXP SIGN	COEFFICIENT	t-Statistics	Prob
$a_0$	?	8.207	0.585	0.560
BODIND	-	-0.095	-0.013	0.990
BODSZ	+/-	-7.514	-1.715	<b>0.091</b>
CEODUA	-	-2.649	-0.971	0.335
CRS DIR	-	1.942	0.459	0.648
BODEXPT	+	-6.975	1.208	0.231
BODMET	-	0.994	0.331	0.742
LEV	+	0.447	0.068	0.946
ROA	+	0.176	1.586	0.118
CSIZE	+	0.960	0.517	0.607
R-squared	0.092			
Adjusted R-squared			-28%	
Durbin-Watson stat			2.051	
F-statistic		0.770		
Prob(F-statistic)		0.64		

Table 4.9 presents the relationship between board structure and abnormal production cost. The board size indicates a statistically negative association with abnormal production cost at 10% level of significance. This implies that managing earnings abnormal production cost, that is when management overproduce more than the normal production level decreases as board size increases. The implication is that board size is a significant factor and effective in constraining real earnings management activities. One possible reason could be that as the number of director increases, it increases with those with experience and skilled directors. This is consistent with previous researches that found a negative relationship between board size and abnormal production cost (e.g. Hashemi & Rabiee, 2011; Kang & Kim, 2012; Visvanathan, 2008). The adjusted R square is 22%, which is higher than that reported by Hashemi and Rabiee (2011) and Kang and Kim (2012).

**Table 4.9**

$\text{APROD} = a_0 + \beta_1 \text{BODIND} + \beta_2 \text{BODSZ} + \beta_3 \text{CEODUA} + \beta_4 \text{CRSDIR} + \beta_5 \text{BODEXPT} + \beta_6 \text{BODMET} + \beta_7 \text{LEV} + \beta_8 \text{ROA} + \beta_9 \text{CSIZE} + \varepsilon_t$				
VARIABLES	EXP SIGN	COEFFICIENT	t-Statistics	Prob
$a_0$	?	0.775	1.774	<b>0.081</b>
BODIND	-	-0.266	-1.118	0.268
BODSZ	+/-	-0.259	-1.898	<b>0.062</b>
CEODUA	-	-0.059	-0.691	0.492
CRSDIR	-	-0.084	-0.639	0.525
BODEXPT	+	0.079	0.439	0.662
BODMET	-	0.117	-0.700	0.215
LEV	+	-0.143	1.251	0.487
ROA	+/-	-0.016	-4.652	<b>0.000</b>
CSIZE	+	-0.010	-0.179	0.858
R-squared	<b>0.313</b>			
Adjusted R-squared			<b>22%</b>	
Durbin-Watson stat			2.106	
F-statistic		3.447		
Prob(F-statistic)		0.002		

**Table 4.10**

<b>TESTS</b>	<b>ABCFO (1<sup>ST</sup> MODEL)</b>	<b>ABDISEXP (2<sup>ND</sup> MODEL)</b>	<b>ABPRO ( 3<sup>RD</sup> MODEL)</b>
	Prob. Chi-Square(2)	Prob. Chi-Square(2)	Prob. Chi-Square(2)
<b>Heteroskedasticity Test:</b>			
<b>ARCH</b>	0.949	0.960	0.817

Table 4.11 to 1.13 present the three models related to the association between audit committee characteristics and real earnings management activities. That is abnormal production cost, abnormal discretionary expenses, and abnormal cash flow from operation. The three models indicate negative relationships between audit committee size, proportion of independence director on the committee and number of meetings held. However all these characteristics are not significant factor in constraining earnings management. The result is consistent with Visvanathan (2008). This implies that they are significant factor in mitigating real earnings management activities. The audit committee member financial expertise is positively related to the entire three models but they are not significant. This is contrast with Saleh (2007) who reported that accounting knowledge of the audit committee member is insignificant in mitigating discretionary accruals earnings management activities. However the audit committee independence sign on abnormal discretionary expenses is not as expected. A simple explanation of this is that as the number of audit independence members of director increases, earnings management through cutting down of expenses increases. This is against the expected signal. In a related study on discretionary accrual earnings management Rahman and Ali (2006) could not found relationship between audit committee independence and

discretionary accruals, whereas Sahlan (2011) reported a positive and significant relationship between audit committee independence and accrual earnings management. As suggested by Sahlan (2011) that a possible reason for the result is that having audit committee in Malaysian companies is still in its infancy stage.

Table 4.11

$ABCFO = a_0 + \beta_1 AUDSIZ + \beta_2 AUDIND + \beta_3 AUDMET + \beta_4 CEODUA + \beta_5 AUDEXPT + \beta_6 WOM + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t$					
VARIABLES	EXP SIGN	COEFFICIENT	t-Statistics	Prob	
$a_0$	?	-0.147	-0.976	0.333	
AUDSIZ	-	-0.054	-0.976	0.333	
AUDIND	-	-0.057	-0.932	0.355	
AUDMET	-	0.006	1.060	0.293	
CEODUA	+	0.038	1.426	0.159	
AUDEXPT	+	0.005	0.124	0.902	
WOM	-	-0.014	-0.600	0.552	
LEV	-	-0.050	-0.770	0.444	
ROA	+	0.007	6.808	0.000	
CSIZE	+	0.027	1.415	0.162	
R-squared	0.509				
Adjusted R-squared	0.443		22%		
Durbin-Watson stat			2.011		
F-statistic		7.721			
Prob(F-statistic)		0.000			



Table 4.12

$ABDEXP = a_0 + \beta_1 AUDSIZ + \beta_2 AUDIND + \beta_3 AUDMET + \beta_4 CEODUA + \beta_5 AUDEXPT + \beta_6 WOM + \beta_7 LEV + \beta_8 ROA + \beta_9 CSIZE + \varepsilon_t$				
VARIABLES	EXP SIGN	COEFFICIENT	t-Statistics	Prob
$a_0$	?	-10.440	-0.680	0.499
AUDSIZ	-	-0.691	-0.124	0.902
AUDIND	-	3.435	0.546	0.587
AUDMET	-	-0.642	-1.177	0.243
CEODUA	-	-1.376	-0.507	0.614
AUDEXPT	+	1.840	0.419	0.676
WOM	+	0.792	0.327	0.745
LEV	-	-1.521	-0.229	0.820
ROA	+	0.179	1.607	0.113
CSIZE	+	1.384	0.717	0.476
R-squared	0.070			
Adjusted R-squared	-6%			
Durbin-Watson stat		1.925		
F-statistic			0.552	
Prob(F-statistic)			0.831	

Table 4.13

TESTS	ABCFO (1 <sup>ST</sup> MODEL) Prob. ChiSquare(2)	ABDISEXP (2 <sup>ND</sup> MODEL) Prob. Chi-Square(2)	ABPRO (3 <sup>RD</sup> MODEL) Prob. Chi-Square(2)
<b>Heteroskedasticity Test:</b>			
ARCH	0.685	0.908	0.941

## 4.6 Summary

The indication of the results presented pinpoint that, the impact of corporate governance variables on earnings management through the accrual concept is slightly different from when earnings management occurs through the real activities manipulation. In fact, very few of the corporate governance variables are significant, when it is being examine with real earnings management. one possible reasons for insignificant of these variables is

that real earnings management is recently gaining momentum in accounting and finance literature on like the accrual aspect of earnings management that have been enormously discussed in both corporate governance literature and accounting and finance literature.

## **CHAPTER FIVE**

### **SUMMARY AND CONCLUSION**

#### **5.1 Introduction**

This chapter lays emphasis on the summary and conclusion of the empirical investigations based on the results discussed earlier in chapter four. The results of the two corporate governance mechanisms are discussed with and their relationship in constraining earnings management. Section 5.2 entails the overview of study, followed by section 5.3 that contains summary of the findings and section 5.4 presents the limitations of the study and proposes some suggestion for future research.

#### **5.2 Overview of the study**

Issues related to earnings management practices has become an interesting topic among accounting and finance researchers. Corporate governance mechanisms have been identified as controlling measures in mitigating earnings management practices. Whereas series of corporate failures have subjected the importance role that corporate governance played in doubt, a situation whereby investors can no longer rely on the information provided by managers of companies because they are much interested in producing high earnings figures. Among these measures, the effects of board of director characteristics and audit committee characteristics have been identified to be the most effective mechanisms in mitigating earnings management.

Prior studies have examined series of impact of board structures, audit committee characteristics on earnings management practices in developed and developing context. Unfortunately, most of these studies are related to accrual aspect of earnings management, but not specifically on real earnings management. On this note, the present study investigates the impact of real earnings management on Malaysia companies rated by corporate governance agency.

In this study, top 100 companies rated as high in compliance with corporate governance of best practices is used as the sample for this study. The financial year 2011 is considered since this is the year these companies where rated. Out of the 100 companies, financial companies where eliminated from the sample living a total of 78 non financial companies.

### **5.3 Summary of findings**

The study addressed two objectives; first is to investigate the association between board structures and real earnings management, while the second objectives examine the association between audit committee characteristics and real earnings management. These two corporate governance mechanisms have been identified to have significant impact in mitigating earnings management by prior researchers. Although most of the studies are tended towards the aspect of discretionary accruals type of earnings management, these suggest that there has been paucity of these studies on real operating activities of the companies.

In addition most of the findings of previous studies have been contradictory and inconsistent. Whereas the effect of these mechanisms on real operating activities are weak, in the sense that most of the corporate governance variables that were found to be significant on discretionary accrual, little were found to be significant when managers uses real operating activities of the company in managing earnings.

In fact, despite the revamp in the 2002 corporate governance code, it is expected that these mechanisms would have strong influence in controlling the activities of managers because stringent measures have been included such as independency of the board of directors, separation of chairperson and chief executive officer role.

Having identified that management manipulate earnings through three divisions using the real earnings management activities, the study examined the effect of corporate governance variables in mitigating earnings management using sample of companies that are rated top 100 on compliance with the corporate governance code. The board characteristics and audit committee variables where considered individually on each set of real earnings management activities such as sales manipulation, overproduction, and cutting expenses.

In the course of investigating their relationships, the results indicate that board size, cross directorship and board meeting are significant variables in influencing managers from engaging in real earnings management activities. The significant negative impact of these variables shows that earnings management through operational or investment decisions are constrain through number of board meetings, directors cross directorship

and number of directors sitting on corporate board. Whereas the audit committee variable where found to be insignificant in constraining real earnings management activities. Some possible reason for the insignificance of some these variables is that media, regulatory and researchers attention have more solely focused on accrual based earnings management, not knowing that managers have another strategy in managing earnings.

It can be concluded that a lot need to be done on issues related earnings management and those mechanism that can curb the activities. One of the negative impacts of these activities is its long term effect on company's prospect. As such this could be detrimental to shareholders as information provided by companies would be put in doubt.

#### **5.4 Limitations and Suggestion for Future Research**

In the course of this study several limitations have been identified. One of the possible limitations of this study is measurement errors in deriving at the real earnings management proxies, which could be attributed to the insignificant of the result. Other limitation is the selection of sampled companies that is based on corporate governance ratings, which could not be generalise for findings of all Malaysian listed companies. Thus, these limitations should be considered in interpreting the result. The assumption is that these companies are assumed to be strong in investors' protection, which might be inaccurate, but the sample is coherent with Sahlan (2011) study.

Perhaps, some other corporate governance variables (e.g., nominating committee and compensation committee) may have impact on earnings management behaviour because it is the nominating committee that put together list of candidates that are expected to be on board. In light of this future research may consider the effectiveness of pre and post Malaysia corporate governance code 2007 and 2012 on real earnings management.

In addition, ownership structure helps to denote where exactly agency problem arises between managers and outside shareholders, stakeholders, and among the shareholders (Claessens & Yurtoglu, 2012) and concentrated ownership structure of a company reduces information asymmetric that could arise from agency conflicts. Therefore future study should examine whether ownership structure could influence real earnings management.

Finally, external corporate governance mechanisms such as role of analyst and gate keepers could help in mitigating earnings management because the equity analysts provide an understanding and a clear picture on the true status of the company. The fact that manager hide some information for their own private gains (Claessens & Fan, 2002), future study should consider the role of equity analyst in constraining real earnings management activities.

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