

# CORPORATE STRATEGY, CORPORATE GOVERNANCE AND PERFORMANCE OF FINANCIAL INSTITUTIONS IN MALAYSIA

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## Abstract

We examine the impact of corporate strategy and corporate governance on the performance of finance companies in Malaysia using data from 406 firm-year observations. The results indicate that diversification influence accounting returns negatively while separate risk management committee (RMC) influence market valuation of finance companies positively both in the period after the Asian financial crisis which also is the period after the Malaysian Code on Corporate Governance (MCCG) was issued. Finally, the results indicate significant difference between the period before and after the Asian financial crisis and MCCG in terms of diversification and corporate governance in the finance companies. The results support agency theory which suggests that diversification may create further agency problem between the management and the shareholders.

**Keywords:** Corporate Governance, Diversification Firm Performance, Risk Management Committee, Strategy

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## 1 Introduction

The global financial crisis affected several financial institutions and economies all over the world (such as US, France, Greece and Germany) and the nature of the effect varies among countries (Atik, 2009). The importance of good corporate governance practices in finance companies has been shown by this recent financial crisis. The crisis started in 2007 and resulted into bankruptcies of many finance companies in the West. Authorities intervened with various rescue packages to save the troubled companies. This led to the injection of the public funds into such institutions to prevent total collapse of the system. In addition, authorities constituted different committees to look into the reasons behind such problems and to come out with recommendations that have become laws and regulations to guide the governance of financial institutions (Becht, Bolton & Roell, 2012). There are different views about the causes of the recent financial crisis. While many people attributed the crisis to the development of complex products offered by finance companies and the change in focus of banks to other activities which are not part of the traditional banking activities, others believe that the root of the crisis was the US subprime crisis (Moosa, 2008). One of the problems with invention of new products compared to the traditional products and services is the change in the business model of the companies from the

previous way of initiating an asset and keeping it to maturity to the current method of originating and transferring it before maturity. In other words, the risk of banks has increased in recent times due to the way the banks deal with their assets which they sell to investors before their maturity (Gorton, 2009; Westman, 2009).

This added to their level of risk since the investors will not monitor the borrowers adequately as would a finance firm. Furthermore, the change in the business model was not accompanied by the needed changes in the structure and incentive scheme of the banks from those used in the traditional banking to a new structure that will accommodate the invented products. Although the development of financial products and services contributed to the crisis, there are however, substantial benefits from financial innovation and development. The new financial products have enabled the financial institutions to spread risk, reduce transaction cost and problem of information asymmetry thereby making them more efficient (Merton, 1995) and profitable than the specialized finance companies (Berger & Mester, 2003). Kane (2008) outlined the cause of financial crisis as the deposit insurance and the government guarantees that encouraged taking of more risk by the banks since they know the government will not allow them to fail due to their significance to the economy. Although the incentive scheme motivated the loan

officers to give out so much sub-prime mortgage loans, the actual cause of the large volume of the loans was the policy of US government that was aimed at providing housing for all (Gorton, 2009). The regulatory authorities were criticized for their focus on the organizations instead of operations which encouraged the banks to play around with the regulation and come out with other ways of making profit through the innovation of products that are not under supervision (Kane, 2008). In other words inadequate attention was given to the financial innovations especially in the US in order to provide a better competitive advantage to the companies to compete favorably in the international arena.

Competition, the need for more stable and diversified revenue sources have made banks to move from the traditional and more stable form of business to highly volatile non-traditional services from which they earn non-interest income. The products and services developed because of the change in focus are highly volatile and difficult to value thereby adding to the complexity of finance companies (Gorton, 2009). This increased the uncertainty about the position of the finance companies that deals with the new products in terms of their credit worthiness and made them to be skeptical about transacting with each other thereby creating a meltdown in the interbank market. Furthermore, the new products and services made it difficult for the regulators to adequately monitor those companies (Jones, 2000). The Asian financial crisis was one of the big financial crisis that affected developing and rapidly growing countries of Asia (Radelet & Sachs, 2000). Among the causes of the crisis were corruption, mismanaged banking sector, and lack of transparency among others. The crisis was worsened by the withdrawal of investment by foreign investors from the countries affected by the crisis (example Thailand, Indonesia and Malaysia etc). The rush by foreign lenders and investors to withdraw their investment in those countries caused panic which further worsened the crisis (Thillainathan, 1999).

Malaysia like other countries of the world was affected by the impact of the recent global financial crisis. The impact of the crisis was mainly in finance and trade which led to the reduction in the level of export, GDP, level of economic growth and also led to an increase in unemployment (Khoon & Mah-Hui, 2010). In addition, the impact to the finance sector was in the form of a reduction in direct foreign investments, loan application and the increase in non-performing loans. Finance sector is very important to the government because of the amount of investment of government in the sector (Kim & Rasiah, 2010). In addition, finance sector serve as an instrument for the implementation of the government economic policies and programmes such as national economic programme (National economic policy, 1971(NEP)/National development policy 1991 (NDP) by channeling resources and loans through the banks to the particular economic sector. Furthermore, apart

from manufacturing, trade and service sector, finance sector is the largest contributor to the gross domestic product in Malaysia during the period 2007 to 2011 (Economic Planning Unit, 2011).

Globalization, technological advancement, changing needs of customers and competitive pressures have a continuous effect on businesses and this makes businesses to continuously develop and invent new products and services to serve the changing needs of the target market in order to remain competitive (Westman, 2009). The finance sector was not left out of these effects in the dynamism of business environment hence it influenced the development of new products and services by the finance companies (Walter & Saunders, 2011). In Malaysia, the financial institutions are diversified with operations in more than one segment of the finance industry (Claessens, Djankov, Fan & Lang, 1998). Specifically for finance companies, these inventions have led to the introduction of new financial products and services which have put pressure on regulators everywhere in the world to set measures that can assist them to assess the changes and develop rules that are appropriate to deal with the rapid growth and changes in financial products and services such as financial instruments that are made available to customers (Jones, 2000; Gopinath, 2008). Some of the rules developed to deal with the changes include corporate governance mechanisms such as risk management committee, separate governance mechanisms for each unit or division operating in separate segment of the industry and the requirements on risk disclosures.

The increase in size, complexity, financial innovation and competition in the financial system requires corporate governance and risk management to be continuously enhanced to ensure sustainable growth and stability of the finance sector in Malaysia. In order to achieve this, the Central Bank has continued its financial sector reform which includes improving the standards of corporate governance, risk management and control in order to protect the financial sector which is increasingly becoming regionally and internationally connected (Bank Negara Malaysia, 2011). As a result of the increase in competition and developments in the finance sector, financial institutions have diversified their activities during the period of observation from the traditional activities into non-traditional fee based services which are highly risky and volatile. This could be noticed by the number of subsidiaries established by the financial institutions in different segments of the industry and by the proportion of income generated from the non-traditional activities. Table 1.1 below summarises the extent of diversification of finance firms according to segments of the industry. The figures in Table 1.1 were obtained by dividing non-traditional income with total operating income to indicate the extent to which income of financial institutions is derived from non-traditional activities.

**Table 1.** Diversification of finance firms according to segments of the industry

	1992	1993	1994	1995	1996	2007	2008	2009	2010	2011
CB	0.054	0.000	0.333	0.000	0.333	0.333	0.333	0.333	0.333	0.333
IB	0.027	0.081	0.500	0.333	0.333	0.500	0.500	0.666	0.833	0.500
ISB	0.054	0.027	1.000	1.000	1.000	1.000	1.000	1.000	0.000	0.000
UB	0.135	0.000	0.250	0.250	0.250	0.375	0.250	0.125	0.250	0.000
INS	0.027	0.108	0.222	0.222	0.000	0.000	0.444	0.555	0.555	0.111
TAK	0.027	0.027	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
Others	0.05	0.000	0.667	0.750	0.250	0.500	0.500	0.500	0.500	0.250

Note: CB=commercial banks, IB=investment banks, ISB=Islamic bank, UB, universal banks, INS=insurance firms, TAK=Takaful business.

These figures have shown the increase in income generated by the firms from non-traditional activities which are highly risky and volatile and therefore suggest the need to have corporate governance mechanisms that will protect the interests of stakeholders, ensure good performance and protect firms from high risks and volatile earnings. The changes in the figures indicate that some firms changed from being traditional firms to become diversified firms while others (e.g. Islamic banks) have moved from being diversified to become traditional finance firms meaning they generate more of their income from traditional sources. Although, BNM has achieved progress in the corporate governance regulatory guideline relevant to the dynamic and complex financial sector, the efforts need to be ongoing and the rules and guidelines need to be updated to improve corporate governance in the sector (Kim & Rasiah, 2010). The regulators, board and the management needs to make continuous efforts and work together to ensure that the sector remains safe at all times.

The Asian financial crisis of 1997/1998 and prior corporate scandals affected investors' confidence in capital market and necessitated the move to enhance the corporate governance practice by companies in Malaysia. This move was started with the setting up of a finance committee on corporate governance to deal with the issue of establishing codes and principles to guide the companies (Ghazali, 2010). One of the outcomes of the finance committee was the introduction of the Malaysian Code on Corporate Governance in March 2000. The finance committee also established the Malaysian institute of corporate governance which operates as a nonprofit public company limited by guarantee. This move was aimed at restoring confidence of investors in capital market (Ghazali, 2010). Compliance with the code developed from this initiative was initially voluntary but later made mandatory by the revised listing requirements of Bursa Malaysia in 2001. The main aim of the first version of the Code was to establish governance structures and processes for the effective running of companies. Such structures and processes include board composition, recruitment and remuneration of directors and the establishment of board subcommittees (Securities Commission Malaysia,

n.d.). Since coming into existence, the Code has been revised twice in 2007 and 2012 to enhance its significance and make it in line with the changing needs of the market. The revision to the Code in October 2007 was done to improve the quality of the board of public listed companies (PLCs) by emphasizing on the enhancement of the role of board of directors, stipulating the role of nomination committee (NC), qualification required for people to be appointed as directors and strengthening the audit committee (Securities Commission Malaysia, n.d.).

Prior studies have examined the impact of corporate strategy on performance companies; however, most of those studies were in developed countries and in sectors other than finance sector. As a result of the exclusion of finance companies in most studies, the reoccurrence of problem in financial sector (banking crisis in Malaysia in 1980s, the Asian crisis 1997/1998) and the recent global financial crisis, this study aims to contribute to literature on corporate strategy and performance of finance companies. The main objective of the study is to determine the impact of diversification strategy on performance of finance companies in Malaysia in both the period before Asian financial crisis (period before MCCG) and period after the crisis (which is also the period after the MCCG was issued). In addition, the paper provides evidence on the impact of separate risk management committee (RMC) on performance of finance firms. The rest of paper is organized as follows; section 2 provides a review of literature, section 3 provides theoretical background and hypotheses development. Section 4 describes the methodology while section 5 reports the results of the study. Section 6 reports results from additional analysis to address endogeneity problem while section 7 concludes the paper.

## 2 Literature review

Finance companies can be classified according to their strategy into traditional and diversified firms. The traditional banks offer traditional deposit and loans services while diversified firms offer non-traditional financial products and services such as wealth management and other finance related products from which the bank earns fees and commissions (Westman, 2009). Strong competition among finance

companies and the need to reduce the volatility of the revenue of finance companies has resulted in the diversification of finance companies into other segments of the finance industry. This leads to an increase in revenue of the companies due to additional sources and stability of the revenue of the companies since the income from non-traditional sources (fee based services) is not subject to the business conditions which affect the traditional sources of revenues (Stiroh, 2004). Stiroh (2004) examined the impact of diversification among US banks and the results indicate reduction in volatility of net interest income and that diversification is associated with high risk and low profit implying that financial institutions derive low benefit from diversification. Stiroh (2006) examined the determinants of risk in US bank holding companies based on the period of observation from 1997 to 2004 and reported that non-interest activities in the banks are highly volatile, creates difference in the risk level among the financial institutions and leads to complexity in the operations of the firms. Rose (1989) examined the impact of diversification on risk in banks and found that diversification of banking activities into other activities particularly insurance helps reduce risk in banks.

Using a sample of 370 finance firms and 1000 mergers in the period from 1971 to 1987, Boyd, Graham and Hewitt (1993) examined the effect of merger between banking and non-banking holding firms, the result depicts that the merger of banking firms with insurance firms may reduce risk while merger of banking holding firms with securities firms and real estate firms may increase risk. In addition, Stiroh and Rumble (2006) examined whether diversification has led to improved performance of US financial holding companies based on the period from 1997 to 2002. They found that firms drive benefits from diversification but the benefit is removed by the extra risk to which the firms are exposed due to the volatility of the non-traditional activities which may not be more profitable than the traditional activities. DeYoung and Roland (2001) examined the impact of product mix on earnings volatility of 472 US banks based on the period 1988 to 1995 and reported that based on the result of OLS regression, although the change of focus from the traditional business of the finance company was aimed at increasing and ensuring stability of the revenue, high reliance on non-interest income will reduce the benefit derivable from the change in focus as a result of higher risk for the companies and increase in volatility of the revenue.

In addition, Acharya, Saunders and Hasan (2002) examined the impact of diversification and focus on the performance and risk of 105 banks in Italy based on data for the period from 1993 to 1999 and concluded that diversifying assets of a finance firm will neither enhance performance nor reduce risk because a firm may diversify into areas it has less competitive advantage and that the impact of diversification depends on whether it is industrial,

sectoral or geographic diversification. Furthermore, Stiroh and Rumble (2006) argued that the cost associated with increased risk of diversified activities will outweigh the benefits of such diversification. Park and Jang (2013) examined the impact of both related and within industry diversification on performance on a panel data of 288 firms in the US restaurant industry over the period 1980 to 2008. The results based on GMM found that within industry diversification is significant and negatively related with profitability in the short run but positive and significant in the long run. They also found that diversification may enhance firm performance only at high levels of diversification because of the negative effect of diversification when it is at low level. In addition, at low level of related diversification, the related business risk is higher than the expected risk reduction that could result from diversifying the businesses.

Other prior studies have shown that diversifying activities of finance companies into non-traditional activities is beneficial because of the increase in revenue (Rose, 1989), reduction in risk due to diversified portfolio (Saunders & Walter, 1994) and reduced possibility of bankruptcy (Boyd & Graham, 1988; Boyd, Graham & Hewitt, 1993). Chen and Yu (2012) examined the relationship between managerial ownership, diversification and firm performance from a sample of 98 firms listed on Taiwanese stock exchange from 1996 to 2001. The regression results revealed a positive relationship between diversification and short term firm performance but no impact on performance in mid-term and added that firms using unrelated diversification strategy perform better than those pursuing related diversification strategies. From agency theory perspective, diversification may create further agency problem between the management and the shareholders when managers diversify in order to get personal benefit at the expense of the shareholders (Ataullah, Davidson, Le & Wood, 2012). Conversely, based on a study of the impact of diversification on the value of a sample of firms, Graham, Lemmon and Wolf (2002) reported that diversification does not create agency problem and it does not destroy value. This argument has been proven by Ataullah et al. (2012) who reported that the level of purchase of firms shares by insiders increase with the extent of corporate diversification which shows that insiders do not pursue diversification with the aim of value destruction.

The recent global financial crisis has shown the closeness between companies in the financial sector of an economy and shows how problems in one part of the sector could have impact on the entire economy (Gopinath, 2008). This closeness in the companies could create problem since poor governance in one part of the sector could lead to its collapse and in turn affect the entire financial system and the economy at large. This is evidenced from the recent financial crisis which started from one segment of the financial sector and spreads to other segments and affected the

economy of some countries in the world. Strong competition among finance companies and the need to reduce the volatility in their revenue has resulted into the diversification of finance companies into other segments of the finance industry (Stiroh, 2004). This change in focus led to the stability of the revenue of the companies since the income from non-traditional sources (such as fee based services) was not subject to the business conditions which affect the traditional sources of revenues. In addition, the revenue of the companies increased due to the additional sources of revenue for the companies. Strategy of a company differs based on the operations of the company. Moreover, strategy of a bank determines the extent of agency problem, risk, profitability and the ability of stakeholders to monitor its activities.

### 3 Theoretical background and hypothesis development

#### 3.1 Agency theory

Agency relationship results from the separation of ownership and control which was brought by the growth and spread in ownership which led to the emergence of large organizations and therefore the delegation of responsibility and authority (Bhandari, 2010). Agency problem resulting from the self-interest of the managers is more complex in the finance companies especially the diversified companies due to the complexity of their operations, number of people that have interest in the activities of the finance companies and the conflict in the objectives of the different groups of stakeholders. The shareholders as principals appoint managers to act as agents to manage the business on their behalf. The depositors and investors want to guarantee the safety of their investment while the regulators want a stable and vibrant financial system.

Fulfilling the objectives of the stakeholders could create further problems in the companies. The separation of ownership and control could lead to the agents making decisions that are not in the interest of the shareholders such as unrelated diversification. Agency relationship according to Jensen and Meckling (1976; Jensen & Smith, 1985; p.2) *'is a contract under which one person (the principal (s)) engage another person (the agent) to perform some services on behalf of the principal which involves delegating some decision making authority to the agent'*. There may be problems in this relationship as a result of the difference in the decision taken by the agent and those that will promote the interest of the principal. The theory emphasizes that the agent will act in a way that will promote his interest instead of the interest of the principal unless proper mechanisms are put in place to prevent that (Jensen & Meckling, 1976).

#### 3.2 Hypotheses development

##### 3.2.1 Traditional finance companies

The performance of non-traditional financial institution could be affected by the nature of their products and services such as investment banking services and trading in capital market which are fee based and very volatile (DeYoung & Roland, 2001). The strategy a firm follows could significantly affect their performance; this is depicted by the result of prior empirical studies that shows that non-traditional banking services are associated with more risk that could hinder its performance (Stiroh, 2006). The nature of the relationship between financial institution and their customers make their performance to be stable due to the long term relationship upon which the traditional banking business is built upon which increases the switching and information cost while the non-traditional financial institutions' performance is volatile due to high competition and low information cost (Westman, 2009).

Using a sample of financial institution from European countries, Westman (2009) found that diversified financial institutions are more profitable than focused financial institutions. In Stiroh and Rumble (2006), Laeven and Levine (2008) the unadjusted profit of focused financial institutions was found to be significantly higher than diversified financial institution while Stiroh, (2004) and Stiroh and Rumble (2006) found that risk adjusted profitability is higher in focused financial institutions compared to other financial institutions. Mercieca, Schaeck and Wolfe (2007) also found similar result in a sample of small European financial institution. Therefore the following relationship was examined;

Hypothesis 1. *There is a positive relationship between traditional strategy and firm performance.*

##### 3.2.2 Diversified finance companies

Although the change in focus from the traditional business of the finance company was aimed at increasing the revenue and ensuring stability of the revenue, high reliance on non-interest income will reduce the benefit derivable from the diversification as a result of higher risk for companies and increase in volatility of their revenue (DeYoung & Roland, 2001). At the same line, Acharya, Saunders and Hasan (2002) added that diversifying activities of a financial institution will neither enhance performance nor reduce risk. This could be attributed to the fact that the company may diversify into areas where it has less comparative advantage. Furthermore, Stiroh and Rumble (2006) found that the cost associated with increased risk of diversified activities will outweigh the benefits of such diversification.

In addition, they argued that diversification alone will not enhance performance but other factors such as managerial skills, scale, location or industry factors

may influence performance. On the contrary, Santomero and Chung (1992) found that diversifying activities of a financial institution into non-traditional activities will reduce risk. Other prior studies have shown that diversifying activities of finance companies is beneficial (Rose, 1989), could reduce risk of a finance company (Saunders & Walter, 1994) and reduce the possibility of bankruptcy (Boyd & Graham, 1988; Boyd, Graham & Hewitt, 1993).

Through diversification, companies obtain information about their clients which could help them to identify other needs of the clients and offer them such goods and services which bring more economic advantage to the company (Laeven & Levine, 2008). Sufian and Habibullah (2010) reported that highly diversified firms are more profitable and this could be explained by the presence of highly qualified employees in such diversified companies. Although, from the perspective of agency theory, diversification may create further agency problem between the management and the shareholders, Graham, Lemmon and Wolf (2002) are of the opinion that diversification does not create agency problem and it does not destroy value. Maksimovic and Philips (2002) studied manufacturing companies and found that low productivity is not as a result of diversification but that less productive companies tend to diversify more. Thus, we hypothesize as follows;

*H2 There is a positive relationship between diversification and firm performance*

### **3.2.3 Separate risk management committee**

Risk management committee (RMC) is one of the committees of the board which all licensed finance companies are required to form according to the corporate governance guidelines issued by Bank Negara for licensed financial institutions. The risk management committee plays an important role in ensuring that the conflict of interest between the shareholders (with a diversified portfolio who may not be concerned much about risk) and the managers who are risk averse is managed through monitoring by the board (Tao & Hutchinson, 2012). This will ensure that managers do not avoid profitable but risky projects that may enhance shareholder value and ensures that risks associated with diversification or non-focused strategy are managed effectively. The board through its RMC performs the monitoring of the risks taking activities of management and risks of finance companies by monitoring the activities of the executive and by reviewing the overall risk exposure of the firm (Tao & Hutchinson, 2013) and provide advisory role concerning risk management strategies which deals with both present and future risk of the company (Walker, 2009). RMC performs a very important function in monitoring risks and internal control in finance companies (Ng, Chong & Ismail, 2013).

Risk management has been the function of the audit committee but with the recent financial innovations in new financial products and the change

of focus of traditional financial institutions, there is an increase need to manage risk of investing in such financial invention and the need to constantly monitor the market for such products (Merton, 1995). This inventions need to be managed by a separate and an independent risk management committee composed of members with technical knowledge on the operations and products of the finance companies. With the objective of stakeholder value maximization in mind, the risk management committee monitors the risk taken by management (Tao & Hutchinson, 2013) and provide advisory role concerning risk management strategies dealing with both present and future risk of the company (Walker, 2009).

Due to the special nature of the assets of finance companies, it is difficult for outsiders without the required expertise such as independent directors and individual investors to ascertain the actual risk associated with assets of the companies and this is why finance companies have separate RMC composed of directors with the required skills to monitor risks facing companies and ensure safeguards that have been put to mitigate risks are adequate (Erkens, Hung & Matos, 2012). Therefore, the following relationship was hypothesized;

*H3 There is a positive relationship between separate risk management committee and firm performance.*

## **4 Research methodology**

### **4.1 Sample**

The population of the study comprises firms listed under finance sector of the main market of Bursa Malaysia. The number of firms listed on the main market of Bursa Malaysia as at the time of data collection (2012) was 822, out of which 37 are finance firms. Since the number of finance companies listed on the main market is only 37, all companies are used as sample for this study. The sample for the period before the Asian financial crisis and prior to MCCG varies over the period of observation. The number of finance companies in 1992, 1993, 1994, 1995 and 1996 was 36, 40, 44, 47 and 54 respectively. The sample comprises companies in commercial banking, investment banking, Islamic banking, insurance, takaful and other finance related services. The sample comprises firms listed on the main board of Kuala Lumpur stock exchange as it was called before the name was changed to Bursa Malaysia.

### **4.2 Data sources**

The data for the study was obtained from the annual reports of individual companies and from Bloomberg database. The data for corporate strategy and corporate governance variables was extracted from the annual reports obtained from the website of bursa Malaysia and company websites. The information for the performance proxies and control variables was obtained from Bloomberg data base. In addition, data

for the pre-crisis period (pre MCCG period) was manually extracted from the annual reports. The hypotheses were tested using the following least squares model,

$$\text{FIRM PERFORMANCE}_{it} = \alpha + \beta_1 \text{DIVERSIFICATION}_{it} + \beta_2 \text{RISK COMMITTEE}_{it} + \beta_3 \text{FIRM SIZE}_{it} + \beta_4 \text{LEVERAGE}_{it} + \text{YEAR DUMMY} + \epsilon_{it}$$

The variables in the research model were measured as follows:

Firm performance=	return on assets & Tobin's q.
Diversification=	diversified firm with ratio of non-interest income to total operating income >2.
Risk Committee=	dummy variable of one if there is separate rmc zero otherwise
Firm size=	log of total assets
Leverage=	ratio of total debt to equities
Year dummy=	year dummies

Prior studies on firm performance used different measures of performance such as ROE, ROA, efficiency (Kim & Rasiah, 2010), EPS, stock price and dividend payable to measure performance of companies (Ponnu, 2008) with no consensus on the best method of measuring performance (Ntim, 2009). Although 'Market measures of performance are more objective than accounting based measures; they are also affected by some factors beyond control of the management' (Gani & Jermias, 2006; p.303). Accounting based measures are preferable in the context of corporate governance study because they reflect the ability of the management in adding value to the firm (Hutchinson & Gul, 2004).

Higher ROA ratio is an indication that the firm's corporate governance mechanisms are highly effective while high Tobin's Q ratio shows that the markets have a positive perception about the performance of the firm (Haniffa & Hudaib, 2006; Ntim, 2009). This study used both accounting (ROA) and market measures of performance (Tobin's Q) similar to prior studies on corporate governance and performance of finance companies such as Zulkafli and Abdul Samad (2007), Kim and Rasiah (2010), Sufian and Habibullah (2010), Al-Saidi and Al-Shammari (2013) and Ong and Gan (2013).

#### 4.3 Control variables

In order to reduce the possibility of wrong conclusion that could result from omitting variables that can predict performance and also to reduce omitted variable bias and endogeneity problem, two control variables (firm size and leverage) were added to the regression models (Ntim, 2009). Size was used as a control variable in this study similar to other studies on firm performance (e.g. Tao & Hutchinson, 2013; Pathan, 2009; Praptiningsih, 2009) since size of a company could influence its performance through availability of more resources at its disposal and through enhanced monitoring due to the high agency problem in such type of organizations. The size of a finance company will enhance its ability to diversify its sources of revenue and to prevent a significant change in its revenue in case of poor performance of a particular business segment it is into (Sufian, 2010).

In line with Watt and Zimmerman's (1978) political cost hypothesis, the size of a company will motivate directors to institute good governance practice to avoid greater attention and scrutiny from the investors, public and government agencies. Companies may enhance their corporate governance in order to make it easy to raise capital externally thereby growing bigger (Black, Jang & Kim, 2003). Leverage was also used as a control variable since prior studies have reported that leverage could serve as an alternative governance mechanism due to extra monitoring of the management by the creditors (Jensen & Meckling, 1976). Grove, Patelli, Victoravich and Xu (2011), Larcker, Richardson and Tuna (2007) all reported significant negative relationship between leverage and firm performance while Haniffa and Hudaib (2006) reported similar result based on ROA but opposite based on Tobin's Q. The positive direction could be explained by extra monitoring by creditors. Leverage is defined as the ratio of total debt to equity.

## 5 Empirical results

### 5.1 Descriptive statistics

The results of descriptive statistics for the post-crisis period presented in Table 2 and pre-crisis (pre MCCG) presented in Table 3 indicates that approximately 1.3% of the companies are diversified finance companies in the period pre-crisis (pre MCCG) period while in the period post crisis (post MCCG) the results presented in Table 3 indicate that 34.5% of the companies have diversified their activities. This shows that many companies have moved from the traditional (focused) strategy into diversified strategy in the period after the crisis. This could be as a result of the lessons learnt by the management of the companies from the impact of traditional strategy and in order to prevent their companies from facing problems if one sector or segment of the industry or economy faces problem. Lastly, the results indicate that only 43% of the companies have separate risk management committee in the post MCCG period while RMC was none existent in the period prior to MCCG.

**Table 2.** Results of descriptive statistics for period post crisis/MCCG

	Diversification	Risk committee	Firm Size	Leverage	Return on assets	Tobin's Q
Mean	0.345	0.430	0.043	0.042	0.025	0.007
Median	0.000	0.000	0.038	0.036	0.015	0.010
Maximum	1.000	1.000	0.088	0.088	0.079	0.013
Minimum	0.000	0.000	0.025	0.025	0.002	0.009
Std. Dev.	0.476	0.496	0.012	0.012	0.019	0.000
Skewness	0.647	0.281	0.737	0.790	1.253	1.647
Kurtosis	1.419	1.079	2.675	2.776	3.265	5.500
Obs.	185	185	185	185	185	185

**Table 3.** Results of descriptive statistics for period before crisis /MCCG

	Diversification	Firm Size	Leverage	Return on assets	Tobin's Q
Mean	0.013	0.052	0.044	0.072	0.006
Median	0.00	0.057	0.013	0.046	0.006
Maximum	1.00	0.088	0.309	0.316	0.034
Minimum	0.00	0.040	-0.121	-0.455	0.000
Std. Dev.	0.477	0.022	0.064	0.087	0.004
Skewness	0.650	-1.441	1.431	-0.437	1.456
Kurtosis	1.422	4.285	4.889	9.431	6.846
Obs.	221	221	221	221	221

In addition, a paired-sample t-test was conducted to determine whether there is significant difference in diversification of finance firms between the period before and after crisis and MCCG (2000). The results indicate a statistically significant increase in diversification of activities of finance firms from

period before the crisis and MCCG ( $M=0.016$ ,  $SD=0.126$ ) to the period after the crisis and MCCG ( $M=0.351$ ,  $SD=0.478$ ,  $t(184)=-1.477$ ,  $p=<.001$ ). The eta squared statistics (0.012) indicates small effect size.

**Table 4.** Results of paired sample t-test

Variables	Pre MCCG	Post MCCG	t value
DIV	0.016(0.126)	0.351(0.478)	-1.477***

Note: DIV-diversification, Mean values presented first and standard deviation in parenthesis. \*\*\* indicates significant at 1%.

### 5.2 Results of regression analysis based on ROA for the period after crisis/MCCG

The results of Hausman's test indicate that REM is the most appropriate method. The adjusted  $R^2$  of 0.107 obtained for the post crisis (MCCG) period as reported in Table 5 implies that the variables explain about 10.7% of the variation in ROA in post crisis (MCCG) period. The result shows a large  $f$ -statistics (3.766) and a significant  $p$ -value ( $p<0.01$ ) which is lower than the alpha value of 0.05. The first hypothesis under the model predicts a significant relationship between diversification strategy and ROA. The result shows a significant negative relationship ( $\beta=-1.870$ ,  $p=0.1$ ) between diversification strategy and ROA. The negative direction is contrary to the evidence reported by Westman (2009), Sitroh, (2004) and Sitroh and

Rumble (2006) who argued that diversification by companies engaging in different businesses can help to spread risk which will enhance revenue of the companies.

Conversely, the negative sign supports Acharya et al. (2002), DeYoung and Roland (2001) and Laeven and Levine (2008) who argued that volatility in diversified products and services will negatively affect firm performance. The result also supports agency theory which suggests that diversification could lead to increase in agency problem thereby negatively affecting performance. Leverage is significantly negatively ( $\beta=-3.594$ ,  $p=0.01$ ) related with ROA while the remaining variables are statistically insignificant.



**Table 5.** Multivariate regression results based on ROA

	OLS	Pre crisis (MCCG)	Post crisis (MCCG)
Constant	0.045(4.940)***	0.000(5.923)***	0.045(4.714)***
Diversification	-0.015(-3.153)***	0.000(0.243)	-0.007(-1.870)*
Risk committee	-5.43E(-0.011)	NA	-0.000 (-0.134)
Firm size	0.266(1.476)	-1.54E(-0.947)	0.121 (0.646)
Leverage	-0.230(-6.129)***	-0.002(-2.437)***	-0.171 (-3.594)***
1993/2008	-0.015(-2.175)**	-7.76E(-0.465)	-0.015 (-3.119)***
1994/2009	-0.012(-1.734)*	8.33E(0.494)	-0.012 (-2.449)***
1995/2010	-0.011(-1.580)	1.73E(0.105)	-0.011 (-2.322)**
1996/2011	-0.016(-2.363)**	-2.57E(-0.155)	-0.014(-2.823)***
R-squared	0.235	0.049	0.146
Adjusted R <sup>2</sup>	0.200	0.012	0.107
F-statistic	6.782***	1.335(0.235)	3.766***
Durbin-Watson stat	0.911	1.878	1.705
Hausman's test	NA	6.683(0.462)	5.245(0.630)

Note: Coefficient outside and t-statistics in bracket. \*, \*\*, \*\*\* indicates significant at 10%, 5% and 1% respectively. OLS=ordinary least square, REM=random effect method. 1992 and 2007 are used as base year for the pre post MCCG respectively

### 5.3 Multivariate regression for the period before crisis/MCCG based ROA

The results presented in Table 5 for the pre-crisis (MCCG) period is based on REM as indicated by the results of the Hausman's test. The adjusted R<sup>2</sup> 0.012 implies that the variables collectively explain 1% of the variation in ROA. The f-statistics (1.335) is large and the p-value (p<0.05) is highly significant. In terms of the independent variables only leverage is significant and negatively related with ROA ( $\beta=-2.437$ , p 0.01). In comparison with post crisis (MCCG) period, the adjusted R<sup>2</sup> for the pre-crisis (MCCG) period (1%) is lower than adjusted R<sup>2</sup> (10%) for the post crisis (MCCG) period. In terms of the variables examined diversification strategy is significant but negatively related with ROA in the period after the crisis (MCCG) while leverage is significant and negatively related with ROA in both periods. The difference in the result could be as a result of the risk committee variable which is present in the model for the post crisis (MCCG) period but not part of the model for the pre-crisis (MCCG) period due to absence of the committee in the period prior to the crisis (MCCG).

### 5.4 Results of regression analysis for period post crisis/MCCG based on Tobin's Q

The adjusted R<sup>2</sup> of 0.112 obtained for the post crisis (MCCG) period as shown in Table 6 implies that the variables explain about 11% of the variation in Tobin's Q. The results further reveals that the f-statistics (3.601) is large and the corresponding p-value is highly significant (p<0.01). The study predicts a significant relationship between

diversification among finance companies and market performance. The results obtained indicate that diversification is not significantly related with firm performance. The study predicts a significant relationship between presence of RMC and firm performance.

The results obtained indicate a significant positive ( $\beta=1.771$ , p 0.10) relationship between separate RMC and Tobin's Q. The result is empirically contrary to evidence reported by prior studies such as Ntim (2009) who reported that only presence of NC is significantly related with firm performance. However, the result is in line with agency theory and supports evidence from Tao and Hutchinson (2013) who explained that the presence of RMC will enable the committee to serve as a balance between managers and shareholders in terms of risk taking behaviour. Finally, leverage is significant and negatively related with Tobin's Q ( $\beta=-2.326$ , p 0.05) while firm size is not significant.

### 5.5 Multivariate regression for period before crisis/ MCCG based on Tobin's Q for pre MCCG period

The adjusted R<sup>2</sup> obtained 0.019 presented in Table 6 for the strategy model based on REM shows that the variables collectively explain 1.9% of the variation in Tobin's Q. The f-statistics 0.484 is large and the corresponding p-value is significant (p<0.01) or lower than the alpha value of 0.05. In terms of the independent variables only firm size is significantly related with Tobin's Q ( $\beta=-1.686$ , p 0.10). The results further indicate that the adjusted R<sup>2</sup> 11% obtained for the post crisis (MCCG) is higher than the adjusted R<sup>2</sup> 1.9% for the period before the crisis (MCCG).

**Table 6.** Multivariate regression for the model based on Tobin's Q

	OLS	Pre-crisis (MCCG)	Post crisis (MCCG)
Constant	0.006(5.192)***	0.006(10.154)***	0.006 (4.939)***
Diversification	-0.000(-0.486)	0.005(1.538)	-0.000 (-0.625)
Risk committee	0.001 (2.038)**	NA	0.001 (1.771)*
Firm size	0.030 (1.265)	-1.08E(-1.686)*	0.030 (1.132)
Leverage	-0.009 (-1.942)*	7.47E(0.000)	-0.015 (-2.326)**
1993/2008	0.002 (2.878)***	-0.000 (-0.301)	0.002 (3.613)***
1994/2009	0.001 (1.145)	-9.77E(-0.146)	0.001 (1.439)
1995/2010	0.001 (1.200)	-2.40E(-0.036)	0.001(1.325)
1996/2011	-0.000 (-0.148)	-0.000 (-0.473)	-0.000 (-0.403)
R-squared	0.117	0.018	0.155
Adjusted R-squared	0.072	0.019	0.112
F-statistic	2.599**	0.484(0.845)***	3.601***
Durbin-Watson stat	0.995	1.735	1.590
Hausman's test	NA	7.508(0.377)	4.059 (0.851)

Note: Coefficient in front and t-statistics in parenthesis. \*, \*\*, \*\*\* indicates significant at 10%, 5% and 1% respectively. OLS=ordinary least square, 1992 and 2007 are used as base year for the pre post MCCG respectively.

However, in terms of the independent variables, only firm size is significantly related with Tobin's Q in the pre-crisis (MCCG) period while separate risk committee and leverage are significantly related with Tobin's Q in the post crisis (MCCG) period. Overall, comparison of the results of the pre and post crisis (MCCG) indicates significant improvement in diversification and corporate governance mechanisms in finance firms. Specifically, more finance firms have moved from being focused on the traditional banking services to become finance companies that offer a wide range of non-traditional finance products and services.

## 6 Additional analysis

Problem of endogeneity could arise in corporate governance studies especially with finance companies. Endogeneity could arise due to simultaneity, omitted variable bias and measurement error (Ntim, 2009). In addition to the use of panel data and control variables, the model in the study was re-estimated using the generalized method of moments (GMM) to address potential problem of endogeneity. GMM is appropriate where the time section is small and the sample is large (Arellano & Bond, 1991). In this case the data comprise of 100 companies with five year observation period therefore it is appropriate to use GMM. GMM addresses the problem of unobserved time and firm specific effects associated with the units of observation and which could be correlated with the other explanatory variables (Andres & Vallelado, 2008). Addressing this problem of unobserved firm effect will ensure that the estimates are unbiased and consistent.

The traditional instrumental variables approach used in addressing endogeneity makes estimations inefficient as a result of presence of heteroskedasticity problem (Arellano & Bond, 1991). In addition, traditional methods of addressing endogeneity do not

take into account individual firm fixed effect which could be correlated with the independent variables while GMM takes firm fixed effect into account thereby solving the problem of omitted variable bias (Siddiqui & Ahmed, 2013). Autocorrelation problem may be encountered in the conventional instrumental variable approach when lagged dependent variable is used as an instrumental variable. Under GMM estimation the past values of dependent variable are used as instrument for dependent variable to overcome the autocorrelation problem. Thus, GMM model has the ability to account for unobserved heterogeneity (Chhaochharia, Kumar & Niessen-Ruenzi, 2012); address simultaneity, autocorrelation, heteroskedasticity and measurement error which could make the results of the model spurious (Griffiths, Hill & Lim, 2012).

The system GMM approach allows researchers to control for endogeneity problem and get consistent estimates (Blundell & Bond, 1998). Similar to prior corporate governance studies (e.g. Reyna, Vazquez & Valdes, 2012) we re-estimate the model based on GMM to address potential endogeneity problem. In order to ensure that the instruments we used are strong and therefore the estimates are consistent we used the sargan test a test of over-identification restriction to test if the instruments are valid. In other words, sargan test is applied to determine whether the instruments used are valid (Blundell & Bond, 1998). The results of the estimation based on GMM model is presented side by side with the results based on least squares model in order to enable comparison. The results of the estimation based on least squares for ROA and Tobin's Q is presented in column two and three while the results based on GMM is presented in column four and five respectively.

With respect to the coefficients on the predictor variables, some changes could be observed based on the GMM estimation. In terms of the coefficient of the individual variables from the model, the results based

on GMM presented in Table 7 below indicate that the results are the same with the results presented earlier based on REM in terms of statistical significance and direction of the relationships. However, the level of significance has improved from 10% to 1% for diversification based on ROA and from 10% to 5% for separate risk management committee based on Tobin's Q. Overall; the results presented for GMM indicate that the results of the study are not affected by

problem of endogeneity. The result from the GMM estimation is robust in terms of direction and significance level. The variables have the same direction and significance as they were in the least squares regression with few exceptions as explained above. Wald test confirms the direction of the relationship is from corporate governance mechanism to firm performance and not the other way (Griffiths et al., 2012).

**Table 7.** Results based on generalize method of moments

Variables	Least square models		Generalized method of moments	
	ROA	Tobin's Q	ROA	Tobin's Q
Constant	0.045(4.714)***	0.006 (4.939)***	0.045(4.940)***	0.006(5.192)***
Diversification	-0.007(-1.870)*	-0.000 (-0.625)	-0.015(-3.153)***	-0.000(-0.486)
Risk committee	-0.000 (-0.134)	0.001 (1.771)*	-5.43E(-0.011)	0.001(2.038)**
Firm size	0.121 (0.646)	0.030 (1.132)	0.266(1.476)	0.030(1.265)
Leverage	-0.171 (-3.594)***	-0.015 (-2.326)**	-0.230(-6.129)***	-0.009(-1.942)**
2008	-0.015 (-3.119)***	0.002 (3.613)***	-0.015(-2.175)**	0.002(2.878)***
2009	-0.012 (-2.449)***	0.001 (1.439)	-0.012(-1.734)**	0.001(1.145)
2010	-0.011 (-2.322)**	0.001(1.325)	-0.011(-1.580)	0.001(1.200)
2011	-0.014(-2.823)***	-0.000 (-0.403)	-0.016(-2.363)***	-0.000(-0.148)
R squared	0.146	0.155	-	-
Adjusted R <sup>2</sup>	0.107	0.112	-	-
F-statistics	3.766***	3.601***	-	-
DW statistics	1.705	1.590	-	-
J-statistics	5.245(0.630)	4.059 (0.851)	176.00***	3.454(0.063)
Wald test	-	-	10.831(0.370)	7.517(0.675)

Note: ROA=return on assets. Coefficient presented first and t-statistics in parenthesis. \*, \*\*, \*\*\* indicates significant at 10%, 5% and 1% respectively.

## 7 Conclusions

The paper examined the impact of corporate strategy and separate risk management committee on the performance of finance companies in Malaysia. The study involved all companies listed on main market of Bursa Malaysia. The results depict that diversified strategy does not enhance accounting returns of finance companies while presence of separate risk management committee enhances market valuation of finance companies. Therefore, the requirement for companies to have separate RMC seems to be appropriate since the presence of the committee as a separate RMC enhances market valuation of a company. Therefore, finance companies should separate RMC instead of combining the functions to the AC. In terms of the comparison between the period before and after the Asian financial crisis (pre MCCG period), the results indicates that finance firms have separate risk management committee and more firms have diversified their activities. The findings contribute to literature and our understanding of the benefits of diversification and separate risk management committee by showing an association between diversification, presence of risk management committee and improve performance.

Management and board of companies may use the findings to make appropriate choices about diversification and governance mechanisms they need

to establish in order to improve performance particularly with regards to the establishment of subcommittees of the board of directors. Investors may find the evidence useful in understanding finance firms in terms of their strategies and governance and make appropriate investment decisions. Other regulators may recommend firms to separate the risk monitoring activities with the other responsibilities of the audit committee in order to improve risk monitoring and enhance the efficiency of the committee in protecting stakeholders' interests. The findings could be useful to regulators in other jurisdiction to improve the effectiveness of board subcommittees in their monitoring and enhance investors' confidence in the firms. The study is limited to listed finance companies in Malaysia. Future studies could include companies in other sectors of the economy. Future studies could also examine the impact of strategy on the different segments of the finance industry.

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