Examining the Relationship between Corporate Governance and Banks' Performance, and Risk in Saudi Arabia

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Abstract

Corporate Governance has become one of the most important concerns in the business world. Although the corporate governance topic has been studied recently, the impact of corporate governance on banks' performance and risk is not clear yet, especially in developing countries. Using a panel data regression model on a sample of 11 banks listed in Saudi Stock Exchange for the fiscal year 2008 to 2013, this study examines the relationship between corporate governance and banks' performance and risk in Saudi Arabia. This study employed seven independent variables, which cover four conventional measures of corporate governance, and three measures of ownership structure. The main findings from the study are: board's size, ownership concentration and institutional ownership have a significant impact on bank's performance and risk, but committees of the board of directors have a significant impact only on bank's performance. The outcome of this study offers empirical evidence on the impact of corporate governance on banks' performance and risk. This evidence provides beneficial information for supervising authorities, stakeholders and academics.

Keywords: Corporate governance, banking performance, banking risk, Saudi Arabia.

1. Introduction

In recent years, the subject of corporate governance is attracting attention in both of developed and developing economies. It has become one of the important issues around the world of business. As a result of global financial crisis in 2008, many financial institutions collapsed around the world. The associating conditions of such a crisis led to reduce confidence in the financial system. This is due to the inability of regulatory and monitory bodies to predict and prevent failure of the financial institutions. On another hand, rating agencies are more concerned with better corporate governance. Since bad corporate governance could be the reason behind deterioration in financial position within the institution eventually leads to the loss of its major stakeholders and creditors (Awotundun, Kehinde, and Somoye, 2011). Hence, there is a further need of corporate governance to build and restore confidence among the stakeholders, providing responsibilities to the board of directors, improving the operational efficiency, increasing the financial market stability and contributing to economic growth (Masrur Reaz, 2006; Rezaei and Jalilmehr, 2012).

Banking sector is important for the economy. In most countries, loans from banks are the main source of capital and liquidity in the economy, especially in times of crisis. In addition, firms and households primarily rely on banks for payment services (Turlea, Mocanu, and Radu, 2010). Furthermore, previous studies found strong relationship between the structure of banking system and
the size and operation of financial markets (King and Levine, 1993). However, financial deregulation, globalization and technology advance increase banks exposure to new challenges and different type of risks that results in a greater need for transparency and accountability. An absence of adequate control and monitoring mechanism weakens the potential good effect of banks in the financial system. Therefore, the success of the financial development and economic growth is affected by the quality of corporate governance of the banking system. Hence, International organization such as World Bank, Organization for Economic Corporation and Development (OECD) and Basel Committee on banking supervision (BCBS) defined internationally acceptable standards in this regards. However, Masrur Reaz (2006) argued that despite the implementation of prudential reforms in developing countries, the number of banking crises during last decade increased. These conditions remain the question as to how prudential systems can be strengthened to make them more effective.

Although the topic of corporate governance has attracted the attention of researchers recently, few studies have been conducted in the banking sector. In addition, empirical studies about the relationship between the corporate governance and firm performance found mixed and inconclusive results (Mahmood and Abbas, 2011). Hence, there is a need of doing more work in this area. Trabelsi (2010) suggested that some corporate governance features could be good for a certain industry due to its specific industry characteristics, but may not be good for other industries. Corporate governance in banking differs from the governance of other corporate sectors of the economy. The case of banking governance is unique because of several reasons. First: corporate governance is generally viewed from the point view of shareholders' interest, while corporate governance in banking adopts the board view of corporate governance, which includes both shareholders and depositors (Balasubramaniam and Prakash, 2005). Banks are highly leveraged firms, this is mainly due to the deposits taken from customers (Andres and Vallelado, 2008). The shareholders actually own small share of the bank's assets and funds, while almost the bank's assets are financed by the depositors' fund. This means that in the case of loss or failures, depositors will bear the largest portion of the losses. Consequently, depositors will require a form of guarantee before they deposit in a bank (Shleifer and Vishny, 1997). Second: the equity ownership in banks is concentrated, it is difficult for small equity holders to use influence over the management of banks (Turlea et al., 2010). In addition, information asymmetries are larger in banks comparing with other sectors and conflicts of interests in banks are present at several levels. Therefore, banks require intervention to control the behavior of its management (Arun and Turner, 2004). Third: some economies suggested that the competition in the market of goods or services could provide bank management with disciplinary mechanism (Stiglitz, 1999). However, the banking industry may have less competitive pressure than other business sectors. This is due to banks' information intensive nature (Arun and Turner, 2004). Hence, the special nature of banking requires a specialized corporate governance framework than other firms.

Banking sector in Saudi Arabia is one of the most active economic sectors. It has been able to grow quantitatively and qualitatively, and able to provide for the national economy as part of its funding requirements in various areas of investment, export and consumption. Saudi Arabian Monetary Agency (SAMA), the central bank, regulates the Saudi banking system. It was established by King Saud in 1957. Saudi banking system consists of 24 banks, of which 12 are local commercial banks; 12 are foreign commercial banks. At the end of 2010, total assets and total deposits of Saudi banks amounted by RiS 1,415.3 billion and RiS 984.8 billion respectively (SAMA, 2010). Local banks in Saudi Arabia are listed in the capital market and thus comply by the rules of the Capital Market Authority (CMA) for trading the stock exchange. In 2006, CMA has issued a corporate governance code in order to enhance the effectiveness of the financial market. Compliance with the provisions of this code is mandatory. In addition, during last decades, SAMA has issued many instructions related to corporate governance such as powers and responsibilities of the board of directors of commercial banks in Saudi Arabia, requirements for appointment in senior positions in banks operating in Saudi Arabia, internal control guideline and the code of professional ethics of staff. In 2012, SAMA has issued principles of corporate governance for banks operating in Saudi Arabia. It has issued these
principles to carry out the development for the banking system in the light of growing international concern and to help banks in enhancing their corporate governance framework.

However, in developing economies the introduction of sound corporate governance into banking has been affected negatively by poor legal protection, weak information requirement and dominant owners (Arun and Turner, 2002). Much attention will need to be paid to the implementation of robust corporate governance practices in banking to protect shareholders and depositors. The corporate governance concept is relatively new in Saudi Arabia. There is a lack of studies that have investigated the impact of corporate governance on the performance and risk of banks in Saudi context (Al-Hussain and Johnson, 2009). On another hand, because of the modernity of this issue in developing economies such as Saudi Arabia, the impact of corporate governance practices on banks' performance between supervising authorities and stakeholders is not clear yet. This study aims to examine the relationship between corporate governance and the performance and risk of banks through an empirical study of 11 banks in Saudi Arabia during the period 2008-2013. The findings from the study would contribute to banks' management, regulators, and investors who wish to promote robust governance practices. The results from this study would also help banks' managers that seek corporate governance reform to focus on mechanisms that enhance performance of banks. Furthermore, this study would help supervising and monitoring authorities to ensure that adequate corporate governance procedures are in place at various banks to achieve goals of adopting corporate governance as a tool to fulfill transparency and accountability requirements for the banking system. Finally, researchers can build on this work to expand knowledge and build a corporate governance model.

2. Previous Research

Corporate governance is primarily concerned with finding a solution to the principal-agent problem that arises from the separation of ownership and control. The agency theory is defined as the relationship under which one or more person (the principal) and another person (the agent) to perform some services on their behalf and delegate some decision-making authority to the agent. The agent is expected to act in the best interest of the principal, but on the contrary, the agent may not take decisions on the principal interests (Fama, 1980; Ross, 1973). Within the framework of corporation, agency relationship exists between the shareholders (principal) and the agent (management). The principal is seeking ways to ensure the management handling of their investment in such a way to guarantee maximum return for them as investors and the stakeholders (Gunn and Gullickson, 2004). The presence of asymmetric information and the separation of the activities of ownership and management could cause conflict of interests between shareholders and managers. Hence, to reduce agency problem and control conflicts of interests, internal and external governance mechanisms have been suggested (Agrawal and Knoeber, 1996).

Corporate governance has been defined in different ways. Raju (2003) suggested that corporate governance establishes a structural framework, which makes a healthy and competitive company with self clearing and competitiveness by some strategies, transparency, motivation and social orientation. According to the Organization for Economic Cooperation and Development, "corporate governance is one key element in improving economic efficiency and growth as well as enhancing investor confidence. It involves a set of relationships between a company's management, its board, its shareholders and other stakeholders" (OECD, 2004, p.11). Arun and Turner, (2004) and Balasubramaniam and Prakash, (2005) discussed the importance of corporate governance, specifically in banks. According to the Basel Committee on Banking Supervision, "corporate governance for banking organizations is arguably of greater importance than for other companies, given the crucial financial intermediation role of banks in an economy" (BCBS, 2006, p.4). Corporate governance has different mechanisms; these mechanisms can be internal or external. Some of the internal mechanisms are board of directors, managerial ownership, and ownership structure. These efficient governance mechanisms are likely to reduce costs relative to conflicts and thus maximize shareholders' wealth.
(Denis and McConnell, 2003; Trabelsi, 2010). Thus, better corporate governance will lead to high performance and low risk.

Balasubramaniam and Prakash (2005) argued that board of directors is the sole authority for managing the companies; it plays an important role in shaping the effectiveness of corporate governance. It is established as a solution to the agency problems. In addition, the board of directors is considered to be the strongest internal monitor of the top management because the board of directors has the power to hire and compensate the top management. The nature of the board composition is assumed to have an impact on performance, it may be used to address the principal-agent problem (Ehikioya, 2009).

Previous studies about the impact of participation outside directors on performance have shown mixed results. Mashayekhi and Bazaz (2008) found a positive relationship between non-executive members on the board and financial performance of the companies listed in the Tehran Stock Exchange. Ehikioya (2009) mentioned that the participation of outside members in the board of directors is designed to enhance the ability of the firm to protect itself against the threat from the environment and align the firm's resources for greater advantages. Heslin and Donaldson (1999) also suggested that non-executive board members are considered more independent than executive board members. Therefore, non-executive board members provide good monitoring of management activities that lowers risk and improves performance. Moreover, Ghazali (2010) suggested that independent directors will be more aware of their responsibilities and would perform those responsibilities more effectively. Conversely, Wen, Rwegasira, and Bilderbeek (2002) documented a negative relationship between the number of outside directors on the board and performance of Chinese listed firms. Cheng and Courtenay (2006) suggested that executive members on a board have much information and deep knowledge about the corporation to help improve disclosure and performance. However, Ehikioya (2009) who examined the link between corporate governance structure and performance of 107 listed firms in Nigeria, did not find a relationship between board composition and firm performance.

Previous related studies indicated that the number of the members of the board director could affect the performance. Yoshikawa and Phan (2003) mentioned that larger boards aim to be less cohesive and more difficult to act jointly because there might be a large number of possible relations and conflicts between the board members. In addition, Yermack (1996) argued that large boards are slow in decision making. The monitoring expenses and poor communication in a larger board have seen as a reason to the support of small board size. He found a negative relationship between board size and firm value for a sample of U.S. Industrial Corporations. He also reported that companies with small board exhibit better financial ratios and realized excess stock returns. However, there is another point of view which suggested that firms with larger board size have the ability to encourage managers to lower costs of debt and increase performance (Anderson, Mansi, and Reeb, 2004). This view is supported by Ehikioya (2009) who found a positive relationship between board size and performance measured by price earnings ratio and return on equity. In the Malaysian context, Nu Nu Htay, Meera, Akhyar Adnan, and Rashid (2011) examined the impact of corporate governance on the risk of twelve listed banks holding companies in Malaysia. They found a negative relationship between board size and risk. Ghazali (2010) who evaluated the impact of corporate governance on the performance of 87 non financial listed companies did not document a relationship between board size and performance measured by Tobin's Q.

On another hand, CEO duality affects the overall performance and risk of the firm. Previous related studies argued that the principal-agent problem is more obvious in a firm when the same person holds the positions of CEO and chairperson. Larcker, Richardson, and Tuna (2007) suggested that the combined leadership structure promote CEO protection by reducing board monitoring effectiveness. When the CEO and the chairman of the board is the same person, there would be no other individual to monitor his or her actions and CEO will be very powerful and may maximize his or her own interests at the expense of the shareholders.
Nu Nu Htay et al. (2011) suggested that when the separate leadership structure exists, the board might be able to monitor the management independently, as a result it is expected that firms with separate leadership structure might have lower risk than firms with merged leadership structure. Furthermore, Ghazali (2010) indicated that the role of the independent chairman is important to ensure decisions of the board reflect the views of the majority and not that of a dominant personality. Ehikioya (2009) found empirical evidence to support the fact that CEO duality affects firm performance negatively. Fosberg (2004) also found that firms without CEO duality are likely to minimize the risk of bankruptcy and increase the chances of raising additional capital because of stakeholders' confidence in them. In contrast, Leng and Mansor (2005) who examined the impact of corporate governance practices on the performance of 120 Malaysian listed companies during 1996-1999 found positive relationship between CEO duality and the company’s earnings which suggest that dominate of CEO could increase performance of the firm.

Board committees are considered as one of the internal corporate governance mechanisms, these committees are established to enable the board to perform its responsibilities in an effective way and obtain advices and opinions from the specialist in the committees. According to Laux and Laux (2009), an audit committee is one of the most important committees within the board of directors. It is responsible for ensuring compliance with regulations and supervising the bank’s operations, and it ensures that a control system is in place, and the financial data disclosed are accurate. The member in the committee should have sufficient experience in accounting, auditing and risk management to handle its responsibilities (Bates and Leclerc, 2009). This function is necessary to ensure that effective corporate governance and responsibilities to stockholders are satisfied. In addition to audit committee, nomination and compensating committee is one of the committees of board of directors. It is responsible for identifying and recommending of nominees for selectioning directors, determining an incentives system and approving of compensations. Zheng and Cullinan (2010) suggested that the member of compensating committee should be independent and free from the influence of firm managers in order to have the ability to offer objective advice. However, compensation is used by directors acting on behalf of stockholders to attract, retain, and motivate the highest quality and most experienced managers for a corporation (Li, Moshirian, Nguyen, and Tan, 2007).

Agency theory stresses the importance of ownership structure in enhancing corporate governance. Dalton, Daily, Certo, and Roengpitya (2003) argued that concentrated ownership is one of the corporate governance mechanisms that can operate to solve the agency problem, and that ownership structure may be effectively alternative for another corporate governance mechanism. Joh (2003) examined the relationship between ownership structure and performance of 5829 Korean firms during 1993-1997. He found positive relationship between ownership concentration and firm profitability. A same result was found by Lins (2003) who studied the relationship between ownership concentration and firm value across a sample of 1433 firms from 18 emerging markets. This positive relationship is especially obvious in countries where investor protection is low, where ownership concentration is found to mitigate conflicts between owners and managers (Tam and Tan, 2007). However, the results of Meta-analysis for Dalton et al. (2003) did not document a relationship between ownership concentration and firm performance.

In addition to ownership concentration, ownership identity may have an important impact on firm performance. Trabelsi (2010) mentioned that the impact of ownership various according to the identity of major owner of the firm (block holders). Block holders who control at least 5% of the voting capital can be viewed by different perspectives, managerial ownership, institutional ownership and foreign ownership. According to Jensen and Meckling (1976) managerial ownership can be an effective governance mechanism because it can align the interest of managers and shareholders. This is achieved by increasing the ownership of the agent in the firm, and by providing him with stocks of the firm. Ghazali (2010) suggested that a manager who owns a large portion of the company's shares has more motivations to maximize job performance to ensure better company performance.
Empirical results regarding the relationship between managerial ownership and firm performance are mixed. Zeitun and Tian (2007) examined the impact of ownership structure on firm performance and the default risk of a sample of 59 publicly listed firms in Jordan from 1989 to 2002. They found a positive impact of managerial ownership and firm's performance measured by return on assets. In contrast, Nu Nu Htay et al. (2011) found a negative relationship between director ownership and liquidity risk. Same relationship was found between director shareholding and firm performance by Leng and Mansor (2005). In a different study, although Ghazali (2010) assumed a positive relationship between director ownership and firm performance, he did not document a significant relationship. This point of view is supported by Jahmani and Ansari (2006) who did not find any effect of ownership by the management on firm's performance.

Institutional ownership represents the large blocks of shares owned by institutional investors. The institutional investors generally play an important monitoring role of corporate management, this is due to that institutional investors usually own large number of shares; they seem to have a representative responsibility towards the major owners. Moreover, they have the ability to monitor executives because they are professionals. In addition, their activism has a potential positive impact on firm performance (Benkraiem, 2008; Chen, Li, and Lin, 2007). Kumar (2004) examined the effect of ownership structure on the firm performance for panel of 2478 Indian corporate firms from 1994 to 2000. He found that institutional ownership affect positively firm's performance, and the relationship is not linear. Guo, Langston, and Hadley (2012) found that institutional ownership is the most important governance variable in explaining the bank's performance and risk. As they assumed, Nu Nu Htay et al. (2011) reported a negative relationship between institutional ownership and risk. They suggested that monitoring power of the institutional owners reduces the firm risk. Conversely, Romano (2000) found that institutional investors in United States expend little effort in shareholders' activism and even when they do, there is a little link between shareholders' activism and firm performance.

Foreign ownership is another common type of firm ownership. Ghazali (2010) illustrated that foreign ownership could be a signal for the confidence of foreign investors in the domestic companies, which lead to a higher valuation of those companies. On another hand, Haniffa and Cooke (2002) mentioned that companies with a higher proportion of foreign shareholders disclosed significantly more information in their annual reports, which could attract more investors. Douma, George, and Kabir (2006) examined the relationship between ownership structure and the performance of listed of Bombay Stock Exchange in India. They documented a positive relationship between foreign ownership and firm performance. They suggested that firms with large foreign ownership have a higher degree of commitment and long term involvement, and have superior access to technical and financial resources. Pivovarsky (2003) also reported a positive relationship between foreign ownership and performance of 367 Ukrainian enterprises, the concentration ownership by foreign companies and banks is associated with better performance than ownership concentrated by the domestic owners. However, the findings of Kumar (2004) suggested that foreign ownership does not influence the performance of the firm significantly.

3. Hypotheses
In order to examining the relationship between corporate governance and bank's performance and risk, the following hypotheses were developed:

H1: There is a significant relationship between the proportion of independent directors and bank's performance and risk.
H2: There is a significant relationship between the size of the board of directors and bank's performance and risk.
H3: There is a significant relationship between CEO-Chairman duality and bank's performance and risk.
H4: There is a significant relationship between committees of the board of directors and bank's performance and risk.

H5: There is a significant relationship between ownership concentration and bank's performance and risk.

H6: There is a significant relationship between institutional ownership and bank's performance and risk.

H7: There is a significant relationship between foreign ownership and bank's performance and risk.

4. Research Method

4.1. Measurements of Variables

Two dependent variables are employed in this study namely, performance and risk of the Saudi banks. Bank's performance is measured by a return on assets ratio. It is widely measurement that indicates how profitable a bank is relative to its total assets. Non-performing loans ratio was used to measure risk. However, previous empirical studies used non-performing loans ratio as a measurement of credit risk, which is the main cause of banks' failure, and the most visible risk facing banks.

There are seven independent variables, which comprise four conventional measures of corporate governance, and three measures of ownership structure. First conventional measure of corporate governance is board composition; it is measured by the proportion of independent members in the board. Second corporate governance measure is board size; it is measured by the number of directors in the board. Third corporate governance measure is CEO-Chairman duality. It is a dummy variable that has a value of one if CEO and chairman positions are held by a different person, otherwise it is zero. Fourth corporate governance measure is committees of the board; it is measured by the number of committees in board of directors. Three ownership structure variables are used in this study. Ownership concentration is measured by the proportion of shares held by the largest shareholders who own at least 5% of shares. Institutional ownership is measured by proportion of shares held by the local institutions. Foreign ownership is measured by the proportion of shares held by foreign owners.

This study also includes two control variables. The first variable is related to banking specific characteristic, which is bank size. The second variable is related to economic environment, which is aggregate economic activity. Bank's size is measured by the logarithm of total assets, and aggregate economic activity is measured by the gross domestic product growth rate. Table 1 summarizes measurements of variables.

Table 1: Measurements of the Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Name</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>PER</td>
<td>Return on assets ratio (net income/total assets)</td>
</tr>
<tr>
<td>Risk</td>
<td>RIS</td>
<td>Non-performing loans ratio (NPL/total loans)</td>
</tr>
<tr>
<td>Board Composition</td>
<td>BCM</td>
<td>Number of independent members in the board</td>
</tr>
<tr>
<td>Board Size</td>
<td>BSZ</td>
<td>Number of directors in the board</td>
</tr>
<tr>
<td>CEO-Chairman Duality</td>
<td>DUL</td>
<td>1 if CEO and chairman positions are held by a different person; 0 otherwise</td>
</tr>
<tr>
<td>Committees of the Board</td>
<td>CBD</td>
<td>Number of committees in the board of directors</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>OCN</td>
<td>The percentage of shares held by the largest shareholders</td>
</tr>
<tr>
<td>Institutional Ownership</td>
<td>INO</td>
<td>The percentage of shares held by local institutional owners</td>
</tr>
<tr>
<td>Foreign Ownership</td>
<td>FGO</td>
<td>The percentage of shares held by foreign owners</td>
</tr>
<tr>
<td>Bank's Size</td>
<td>SZE</td>
<td>Logarithm of total assets</td>
</tr>
<tr>
<td>Aggregate Economic Activity</td>
<td>GDP</td>
<td>Gross domestic product growth rate</td>
</tr>
</tbody>
</table>

4.2. Empirical Model

To examine the relationship between corporate governance and bank's performance and risk, a multiple regression analysis is carried out. Two regression models have been derived as follows:
\[
\text{PER}_{it} = \alpha_0 + \beta_1 \text{BCM}_{it} + \beta_2 \text{BSZ}_{it} + \beta_3 \text{DUL}_{it} + \beta_4 \text{CBD}_{it} + \beta_5 \text{OCN}_{it} + \beta_6 \text{INO}_{it} + \beta_7 \text{FGO}_{it} + \beta_8 \text{SZE}_{it} + \beta_9 \text{GDP}_{it} + \varepsilon_{it} \quad (\text{Model 1})
\]

\[
\text{RIS}_{it} = \alpha_0 + \beta_1 \text{BCM}_{it} + \beta_2 \text{BSZ}_{it} + \beta_3 \text{DUL}_{it} + \beta_4 \text{CBD}_{it} + \beta_5 \text{OCN}_{it} + \beta_6 \text{INO}_{it} + \beta_7 \text{FGO}_{it} + \beta_8 \text{SZE}_{it} + \beta_9 \text{GDP}_{it} + \varepsilon_{it} \quad (\text{Model 2})
\]

The dependent variables are bank's performance (\(\text{PER}_{it}\)), and bank's risk (\(\text{RIS}_{it}\)) of the bank \(i\) at the time \(t\). \(\alpha_0\) is the intercept, \(\beta_1 \ldots \beta_9\) are the beta coefficients of the regression model, and \(\varepsilon_{it}\) is a random error.

### 4.3. Sample and Source of Data

The sample consists of eleven national banks that were listed and traded in Saudi Stock Exchange for the time period from 2008 until 2013. Most of the data were obtained from the Saudi Stock Exchange website, which provides the annual reports of all listed banks. In addition, web site of Saudi Stock Exchange provides data about ownership structure of listed banks. Data about aggregate economic activity were obtained from the annual reports of Saudi Arabian Monetary Agency during 2008-2013. The statistical method used in this study is a panel data analysis. Ordinary Least Square (OLS) method was used because the sample data are normally distributed, and the data have not heteroskedasticity or autocorrelation problem (Hair, Black, Babin, and Anderson, 2010).

### 5. Empirical Results

#### 5.1. Descriptive Statistics

Table 2 presents the descriptive statistics of the variables used in the study. The first observation reveals the redundancy of the variable CEO-Chairman duality with mean of 1. This indicates that the CEO and chairman positions are held by different people in all banks in the sample. However, the presence of this variable in the model created multicollinearity problem, and consequently it has to be eliminated. The mean value of board size (10) shows the existence of reasonable board size. According to the principles of corporate governance for banks in Saudi Arabia, the appropriate number of board members is between nine and eleven. The mean value of board composition is 6. This suggests that the ratio of independent directors is more than half of the average of the total number of the directors in the board. The statistics of committees of the board that shows the number of committees between 2 and 5 suggest that each bank in the sample has not less than two board committees. However, all banks in the sample have nomination and compensating committee and audit committee. For ownership variables, the mean value of ownership concentration is 24.72%, which indicates that on average 24.72% of shares are held by the largest shareholders. The institutional ownership and foreign ownership on average are 31.16% and 14.93% respectively. This indicates that significant portion of shares is owned by institutional investors. The minimum value of foreign ownership (zero) shows that there are banks do not have foreign owners. The mean value of the dependent variables which are performance, and risk are 1.67% and 2.65% respectively. As for the control variables, the mean value of banks' size is 7.93 and average growth rate of gross domestic product is 4.66% during the period of study.

### Table 2: Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (%)</td>
<td>-1.43</td>
<td>3.99</td>
<td>1.67</td>
<td>1.04</td>
</tr>
<tr>
<td>Risk (%)</td>
<td>0.01</td>
<td>7.47</td>
<td>2.65</td>
<td>1.93</td>
</tr>
<tr>
<td>Board Composition</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>1.45</td>
</tr>
<tr>
<td>Board Size</td>
<td>9</td>
<td>11</td>
<td>10</td>
<td>0.72</td>
</tr>
<tr>
<td>CEO-Chairman Duality</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 2: Summary of Descriptive Statistics - (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>2</th>
<th>5</th>
<th>3</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committees of the Board</td>
<td>25</td>
<td>30</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Ownership Concentration (%)</td>
<td>6.5</td>
<td>40</td>
<td>24.72</td>
<td>0.11</td>
</tr>
<tr>
<td>Institutional Ownership (%)</td>
<td>5.33</td>
<td>69.5</td>
<td>31.16</td>
<td>0.18</td>
</tr>
<tr>
<td>Foreign Ownership (%)</td>
<td>0</td>
<td>40</td>
<td>14.93</td>
<td>0.17</td>
</tr>
<tr>
<td>Bank's Size</td>
<td>7.24</td>
<td>8.43</td>
<td>7.93</td>
<td>0.33</td>
</tr>
<tr>
<td>Aggregate Economic Activity (%)</td>
<td>0.10</td>
<td>7.10</td>
<td>4.66</td>
<td>2.82</td>
</tr>
</tbody>
</table>

5.2. Hypotheses Testing

Table 3 presents the regression results. The results of models are significant at 1 percent level. It can be seen from Table 3 that the regression models, which incorporate eight variables results in adjusted $R^2$ of 34.5 percent and 33.4 percent for performance model and risk model respectively. This means that the eight variables were able to explain 34.5 percent of variation of performance and 33.4 percent of variation of risk among Saudi listed banks investigated in the study.

The results show that board composition is not significantly related to bank's performance and risk. Thus, hypothesis 1 is not supported. As hypothesised, board size is significantly related to bank's performance and risk. The results indicate that size of the board is positively related to bank's performance, and negatively related to bank's risk. This suggests that the large board of directors with superior monitoring ability achieve higher performance and lower risk. Thus, hypothesis 2 is supported. Against expectations, the results show that the committees of the board are significantly related only to bank's performance. Thus, hypothesis 4 is not supported. The positive relationship between committees of the board and bank's performance suggests that the committees of the board could enhance independent opinion on issues where there are possible conflict of interests, and assist in providing advices in various areas which in turn affect bank's performance positively.

Two ownership variables, namely ownership concentration and institutional ownership are significantly related to bank's performance and risk. However, ownership concentration is positively related to bank's performance and risk. This suggests that a highly concentrated ownership structure lead to increase performance and risk of the bank by mitigating the agency problem. The potential explanation of this result is that ownership concentration causes more force on management to participate in risky investment activities that maximize shareholders' wealth and achieve other stakeholders' interest. The results also show that institutional ownership is positively related with bank's performance and negatively related with bank's risk. This indicates that higher proportion of institutional investors could contribute to increase the performance and reduce the risk of the bank. This is due to that institutional investors extend significant efforts in shareholder activism, and they do a vital role in monitoring management. Thus, hypotheses 5 and 6 are supported, and hypothesis 7 is not supported.

The two control variables included within the analysis were also significantly related to bank's performance and risk at the 1 percent and 5 percent levels. Bank's size and aggregate economic activity are positively related to bank's performance and negatively related to bank's risk.

Table 3: Summary of Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Performance</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>t-value</td>
<td>VIF</td>
</tr>
<tr>
<td>BCM</td>
<td>0.055</td>
<td>0.600</td>
</tr>
<tr>
<td>BSZ</td>
<td>0.166</td>
<td>2.553**</td>
</tr>
<tr>
<td>CBD</td>
<td>0.129</td>
<td>1.374*</td>
</tr>
<tr>
<td>OCN</td>
<td>0.116</td>
<td>1.282**</td>
</tr>
<tr>
<td>INO</td>
<td>0.260</td>
<td>2.792**</td>
</tr>
<tr>
<td>FGO</td>
<td>0.030</td>
<td>0.558</td>
</tr>
<tr>
<td>SZE</td>
<td>0.586</td>
<td>3.618***</td>
</tr>
</tbody>
</table>
Table 3: Summary of Regression Results - (continued)

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>Adjusted R²</th>
<th>F-Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0.101</td>
<td>0.279</td>
<td>0.078</td>
<td>2.07</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.596</td>
<td>0.078</td>
<td>0.334</td>
<td>1.60</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>5.115***</td>
<td>0.781</td>
<td>18.328***</td>
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<tr>
<td>F-Statistics</td>
<td>1.568</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>-2.649**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***, **, * denote 1 %, 5% and 10% levels of significant respectively.

6. Summary and Concluding Remarks

In both of developed and developing countries, corporate governance has become one of the most important concerns in the business world as a framework to achieve transparency and accountability requirements for all firms, including banks. Banks have special nature comparing with other firms, hence they need appropriate corporate governance framework considering this privacy. Recently, the central bank in Saudi Arabia (SAMA) has issued principles of corporate governance for operating banks. In addition, during last years, it issued several instructions related to corporate governance. Empirically, the impact of applying corporate governance on banks' performance and risk is not clear yet. Using a panel data, this study has examined the relationship between corporate governance and banks' performance and risk in Saudi Arabia for the period 2008 through 2013.

The results of the study revealed that the size of the board of directors has a positive impact on bank's performance and negative impact on bank's risk. Banks can nominate and select appropriate number of members in the board according to its size and activities, which help the board to handle its duties efficiently. However, according to the principles of corporate governance for banks in Saudi Arabia, the appropriate number of board members is between nine and eleven. The results also showed that the committees of the board have a positive impact on bank's performance. Banks should form specialized committees in different areas that link to the board of directors directly. These committees exercise its responsibilities and provide its recommendations and advices to the board of directors. The results further revealed a positive relationship between ownership concentration and bank's performance and risk. Banks should concentrate equity ownership in the hand of major shareholders. However, although a highly concentrated ownership gives management the motivations to maximize investor wealth and stakeholders' interest, bank's management should consider the impact of its investment decisions on the volume of risk, which could adversely affect the bank if it exceeds certain limits. Furthermore, the results show a positive relationship between institutional ownership and bank's performance and negative relationship with bank's risk. Thus, banks should benefit from the monitoring power and activism of institutional investors, and improving corporate governance practices.

Although this study contributes to the body of knowledge of this area and achieved its objectives, limitations and future research are outlined. First: observations are covering five years in one developing country. A possible extension will be to conduct a study for a longer period, including comparative data from different countries. Second: the statistical method used in the study was determined by the availability of data and the period of study. One possible direction for future studies is to use different type of causality statistical method to investigate the issue more deeply. Finally, a possible extension will be to include more corporate governance and ownership variables.

References


