Comprehensive Corporate Governance Mechanism and Disclosure Quality: Evidence from the United Kingdom

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Abstract: Our study empirically examines the relationship between corporate governance and disclosure quality from the context of the United Kingdom. While studies on corporate governance and disclosure quality are extensive, we argue that only limited studies have utilized analyst forecast accuracy as a proxy for disclosure quality. We concentrate on the analyst forecast accuracy since we value the credibility of financial analysts in forecasting the firm’s earnings. Analysts are the expert users of the firm’s information and they rely on their analysis to predict firm’s earnings as well as to make a recommendation. We derived our sample from the analyst perception on the firms with high quality of disclosure that is the Investor Relations (IR) Magazine Award. Specifically we used 127 match-paired sample (i.e., winners and non-winners) of IR Magazine Award during the years 2005-2008. We measure corporate governance using board characteristics, audit committee characteristics, chairman and audit committee multiple directorships, chairman tenure and institutional ownership. Our findings report that multiple directorship by audit committee consistently increases disclosure quality. This suggest that the multiple directorships held by audit committee in other firms potentially improve their knowledge and experience in improving the quality of disclosure. Moreover, the result also shows a negative association between audit committee financial expertise and board independent on the extent of quality of disclosure. These findings imply that the appointment of audit committee with financial expertise as well as an independent directors are merely a ticking the box activities, thus it appears in the letter form, but not in spirit. Our results are robust across various estimation, alternative measurement as well as endogeneity test that we have conducted.

Keywords: Corporate Governance, Disclosure Quality, Analyst Forecast Accuracy
1. Introduction

Our study empirically examines the relationship between a comprehensive set of internal corporate governance mechanisms and disclosure quality in the United Kingdom. We are interested in this area of study, due to the fact that the research that employed analyst forecast accuracy as a proxy for disclosure quality is extremely limited. Furthermore, we will also examine the impact of high quality audit committee (measured using the recommendation by The Smith Report (2003) and The Blue Ribbon Recommendation (1999)) on disclosure quality in our study. We rely on agency theory in our study, in the sense that sound internal governance process are able to reduce information asymmetry problem in the firm. In this instance, informative and meaningful disclosure released by the firms will improve financial analyst forecast, thus providing analyst with accurate recommendation to the investors.

We defined disclosure quality in line with Singhvi and Desai (1971, p. 131) as “completeness, accuracy and reliability”. We believe that a complete set of firm’s disclosure will be able to help the analyst to predict earnings accurately, thus suggesting that the information released by the firms are reliable and credible. In this instance, the roles of financial analyst in the capital market is important to enhance firm’s disclosure quality environment (e.g., Healy and Palepu, 2001). Prior studies reported that high number of analyst following in the firms are able request for more information from the firms itself, thus suggesting the monitoring roles of the financial analyst are expected to improve the firms disclosure quality at a higher level. Therefore, positive relationship between disclosure quality and analyst following is reported in the research work by Lang and Lundholm (1993), when they measure disclosure quality using AIMR Ratings. Several studies also exhibit that the existence of high analyst following reduces the information asymmetry problems in a firm (Easley et al., 1998). Using United Kingdom (UK) as a backdrop, Marston found that the presence of high analyst followings improved the investor relation activities among UK firms. The existence of large analyst following also put more scrutiny on the firms, thus firms will have a greater tendency to provide high quality of information (Yu, 2008).

In regards to corporate governance mechanisms, we focus on both internal and external side of governance which have been recognised as the central elements in the firms’ overall governance process. In this regards, we define corporate governance in line with Donnelly and Mulcahy (2008, p. 416), where “[c]orporate governance is a set of control mechanisms that is specially designed to monitor and ratify managerial decisions, and to ensure the efficient operation of a corporation on behalf of its stakeholders.” This definition of corporate governance is in corroboration with the agency theory that we are going to use in our study.

By using 127 match-paired of the winners and non-winners of IR Magazine Award during the year 2005-2008, our results exhibit that there is a significant positive association between multiple directorship of audit committee and the quality of disclosure. We also revealed that the presence of independent directors in the board as well as the audit committee with financial expertise reduce the quality of disclosure in the firms. Our result suggest that the employment of independent directors and audit committee with expertise in accounting and finance is merely a ceremonial process in fulfilling the recommendation of the UK Corporate Governance Code.

Our paper is organized as follows. In the first part, we present our introduction that covers the objectives and definition used in this paper. In the second part, we present the theoretical literature and empirical literature in corporate governance and disclosure quality. Next, we explain about our research methodology in the third part of the paper. We present our results in the fourth parts and we conclude our study in the last part of this paper.

2. Theoretical and Empirical Literature

Agency Theory, Corporate Governance and Disclosure Quality

Agency theory mainly focuses on the relationship between agent (managers) and principal (shareholders). According to Jensen and Meckling (1976, p. 308), agency relationship as ‘a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent’. This suggest that agent is having a fiduciary duties to make the best economic decision on behalf of the shareholders by putting the interest of the shareholders beyond their personal interest in order to maximize the wealth of the shareholders.

Nevertheless, the agency relationship suffers from agency problems, namely conflict of interest and information asymmetry. Although the agent is supposed to make decisions that will maximize principal welfare, conflict of interest influences managers to choose decisions that benefit themselves. With regard to information
asymmetry, agents possess more knowledge and understanding on the businesses operations as compared to the principals. Therefore, information asymmetry is about ‘the relation between (better informed) managers and (less well informed) investors’ (Fields et al., 2001, p. 257). In this instance, agents need to disseminate the information they have to the shareholder, as to make the principals well informed about the companies’ affairs. Nevertheless, since information delivered to the principals is under the manager’s control and power, the information disclosed is also subject to manipulation by the agents. As a remedy to the agency problems, agency costs occur. Agency cost is the cost borne by the principals to monitor, observe and control manager’s behaviour.

In order to solve the agency problems, prior literatures suggested that corporate governance is one of the remedies to the shortcoming in reducing managerial self-interest and information asymmetry problems (e.g. Bonazzi and Islam, 2006; Healy and Palepu, 2001; Baek et al., 2009). If the conflict of interest among the managers is not properly monitored, managers will have a higher propensity to become involved in “non-value maximizing behaviour” (Shleifer and Vishny, 1988, p. 8) which will subsequently increase agency costs and reduce the firms value (Barako et al., 2006). Moreover, the serious level of conflict of interest among the agents will destroy huge, established and reputable firms in a very short period. According to Kanagaretnam et al. (2007), strong board function in the firms governance structure are able to reduce managers conflict of interest, hence increase their propensity to provide higher quality of disclosure to the market. When the disclosure is high, it eventually benefits firms in many ways such as it reduces the information asymmetry (e.g. Petersen and Plenborg, 2006) reduces the cost of capital (e.g. Botosan, 1997) and increases the share price (Healy et al., 1999)

Furthermore, numerous studies have also proved that corporate governance is an effective mechanism that can reduce manager’s propensity to manipulate earnings (e.g., Xie et al., 2001; Carcello et al., 2006; Abbott et al., 2002). In a related vein, Leuz et al. (2003) confirmed an exogenous relationship between corporate governance and earnings quality. Therefore, high earnings quality is a manifestation of a high disclosure quality and sound corporate governance practice in a company is expected to be positively associated with high disclosure quality.

According to Piot (2004) agency theory views an audit committee as a proficient monitoring agent in the company and a dexterous instrument in enhancing the quality of firm’s disclosure. The Combine Code 2003 in the UK stipulates that all audit committee members must be independent with at least one member having a “recent and relevant financial experience”. Therefore, it is expected that the audit committee presence will help to reduce the agency problem by conveying credible information to the users.

In a firm, the function of the board of directors is crucial as the “heart” of the business, therefore, it is important to ensure that it has capability to perform their fiduciary duties (Solomon, 2007, p. 77). One of the main governance attributes in the board is the role of independent directors, which been viewed as a supervising mediator in decreasing agency problems in a firm, from the lens of the agency theory (Fama, 1980, p. 293). According to (Bathala and Rao, 1995, p. 60), independent directors must act like a “professional referees” where their decision is free from bias an influence from other parties. Thus, the existence of sound composition of independent directors are important to ensure that the decision making process in the board are free from conflict of interest, as The Combine Code 2003 suggest a 50% composition of independent directors in the board. This in turn will lead to the enhancement of the quality of disclosure in the firms since there is an alignment of interest between agent and principal (Kanagaretnam et al., 2007).

**Corporate governance and Disclosure quality**

Numerous studies have attempted to explain the link between corporate governance and disclosure quality in various countries. The majority of the prior literatures employ a disclosure index as a proxy for disclosure quality (e.g., Eng and Mak, 2003; Ghazali and Weetman, 2006; Haniffa and Cooke, 2002; Chen and Jaggi, 2000). Some studies in the United States such as Felo et al. (2003) and Wright (1996) utilized the AIMR ratings in measuring disclosure quality, while a small number of study are using management earnings forecasts to represent disclosure quality (e.g. Karamanou and Vafeas, 2005). In regards to the corporate governance variables, prior research normally used several governance characteristics namely audit committee characteristics, board of director’s characteristics, management activeness, ownership structure and multiple directorship.

From the UK perspective, research on disclosure quality and corporate governance is limited. Only few have been done in this area, and mostly of them focused on different aspect of disclosure such as intellectual capital disclosure, share option disclosure and regulatory disclosure. Li et al. (2008) examines the relationship between corporate governance variables and disclosure on intellectual capital in 2004 to 2005 by using 100 listed firms in the UK. They developed the disclosure index in order to measure the high quality of intellectual capital
disclosure in the firms. Based on the total number of words and percentage of total words related to intellectual capital information, their regression analysis reported a positive association between several governance variables such as audit committee size, independent directors and the number of audit committee meeting on intellectual capital disclosure. Moreover, their result also documented a negative relationship between concentrated ownership and intellectual capital disclosure. Other variable under their studies such as CEO duality found to be insignificant. Several control variables, namely the company age, profitability and the firm size are also included in the model. Although Li et al. (2008) based on multiple measures of intellectual capital disclosure; their study could be improved by increasing the sample size, the year of observations and the number of corporate governance variables.

Another UK study by Song and Windram (2000) examine the relationship between corporate governance and disclosure quality of 54 firms in the UK during the year 1990-2000. They are using the Financial Reporting Review Panel (FRRP) enforcement as a benchmark of disclosure quality. In this regards, FRRP will release the statement to firms that break the regulation such as The Companies Act and the accounting standards. They are using a match-paired sample of firms that have received an enforcement by FRRP and firms that did not break the enforcement by FRRP. Their analysis reported that there is a positive relationship between audit committee independent, the size of the board, audit committee financial expertise, audit committee meeting and independent directors on disclosure quality in their study. It seems that the measurement of disclosure used in their study was focusing on mandatory disclosure item per se, since the FRRP are responsible to signal the firms which fail to comply with The Companies Act and the generally accepted accounting standards in the UK. Therefore, Song and Windram (2000) do not focus on disclosure quality in general because the measurement they used reflects on the quality of mandatory disclosure as required by the regulation.

Forker (1992) UK study focused on the impact between corporate governance and employee share option scheme (ESOS) disclosure using 100 smallest and largest firms during the year 1987 to 1988. He concentrated on the importance of the role of audit committees and non-executive directors in enhancing the quality of ESOS disclosure. His finding reported an inverse relationship between CEO and Chairman duality and the disclosure of employee share option scheme. However, it is worth to note that Forker (1992) was used a data which is 21 years back. Thus a more recent research with a fresh data is important as to shed the light in understanding such relation. In addition, he focused on a small number of corporate governance characteristics in his study, namely managerial ownership, CEO duality and audit committee disclosure. Therefore, other important variables like audit committee financial literacy, audit committee independent and board independent should also be embedded in a study as to increase the idealness and robustness of the model designed.

While studies in the US environment tend to use AIMR Ratings as a proxy for disclosure quality, another study such as Baek et al. (2009) rely on Standard and Poor’s (S&P) Transparency index as a proxy for disclosure quality. Baek et al. (2009) investigate the impact of corporate governance on disclosure quality using 374 firms in the US during the year of 2000. They measure disclosure quality based on the S&P Transparency and Disclosure survey that has been used a list of 98 disclosure items in the firm’s annual report. Their study reports that the presence of institutional investors’ ownership and the independent directors are positively related to S&P Transparency and Disclosure score. Nevertheless, they also reported that high managerial ownership is associated with lower disclosure quality. Although Baek et al. (2009) run the regression based on the subcategory of the S&P Transparency and Disclosure score, such as (a) ownership structure and investor relation (b) financial transparency and information disclosure, and (c) board and management structure, and processes, it is derived based on the single proxy for disclosure quality in their study. Moreover, the inclusion of mandatory disclosure items in the 98 disclosure attributes used by the S&P Transparency and Disclosure survey also need further attention, when the discretionary disclosure is considered.

Another US study by Felo et al. (2003) examine the impact of corporate governance on disclosure quality (measured by AIMR Rating). Their findings document a positive association between audit committee size and audit committee financial expertise on disclosure quality. This suggest that the larger the size of an audit committee, the higher the disclosure quality of the firms. Moreover, the enhancement of the audit committee members with financial expertise would be able to enhance the quality of disclosure to a higher degree.

Wright (1996) US study reported that the audit committee member’s shareholding and the proportion of audit committee independence are significant in enhancing the quality of disclosure. He utilized AIMR ratings and Securities and Exchange Commissions Accounting and Auditing Enforcement Releases as to measure the good reporting practices among US firms. Using two different samples of AIMR ratings firms and a match paired sample consisting of firms with Securities Exchange (SEC) Accounting and Auditing Enforcement Releases, the
finding revealed that audit committee independence is important in explaining whether the quality of disclosure is consistent across both samples.

Karamanou and Vafeas (2005) examine the impact of corporate governance on disclosure quality using management earning forecast as a proxy for disclosure quality. Using 275 firms during the year 1995-2000, their findings exhibit that an active audit committee and board are more have a greater propensity to provide frequent earnings forecast updates when compared to firm with non-active board and audit committee. However, this finding might be biased due to endogeneity issue given that previous literature (e.g., Kasznik1999) found that the managers in US firms manipulate earnings through earnings management activities in order to meet or beat management forecast. Furthermore, according to Stein (1998), management earnings forecast is not a credible measure for disclosure quality since it is often exposed to noise and bias.

In this instance, it seems that the employment of management earnings forecasts in measuring disclosure quality will reduce the explanatory power of the research findings. Healy and Palepu (2001) argued that the findings based on management earnings forecasts are not able to generalise other forms of disclosure. Considering the limitation of management earnings forecasts as to represent disclosure quality, the substitution to that measure (e.g., analyst forecast accuracy) should be used because it can be viewed as a more accurate and credible measure.

From the developing countries perspective, Haniffa and Cooke (2002) examine the association between corporate governance and the extent of disclosure quality in Malaysia. Their sample is 167 listed firms in Malaysia during the year 1995. Their regression analysis reports that the percentage of bumiputera (son of the soil) in the board, the percentage of family members on board and the chairman non-executive status are significant in influencing the extent of disclosure quality in the firms in Malaysia.

Another Malaysian study, by Ghazali and Weetman (2006) examine the relationship between corporate governance mechanism and disclosure quality. They are using 87 listed firms in Malaysia during the year 2001. Their finding exhibit that the share ownership by the directors is important in determining disclosure quality, while other variables in their studies such as industry competitiveness, new regulation on corporate governance and share ownership by the government seems to be insignificant in their study. It is important to note that the number of samples used by Ghazali and Weetman (2006) in their study is lower as compared to Haniffa and Cooke (2002). Moreover, both these two studies were based on cross sectional data in their analysis. As to overcome this limitation, the present research will use longitudinal data to investigate the influence of corporate governance towards disclosure quality.

Previous literature that we have discussed so far are mainly using disclosure index, AIMR Ratings or management earnings forecast. We argue that the utilisation of disclosure index might not be able to capture the overall magnitude of disclosure quality and corporate governance. This is because, the employment of disclosure index does not reflect the credibility of the information. Unlike the analyst forecast accuracy, which is a manifestation of disclosure information by the firms, and it measures the usability of the information released to the expert users of the information such as financial analyst. Therefore, we opine that the utilisation of analyst forecast accuracy is more comprehensive, relevant and should be employed as to increase the robustness of the findings. In order to provide an alternative to the current measurement, our study will utilize analyst forecast accuracy as a proxy for disclosure quality.

A study based in Hong Kong, Chen and Jaggi (2000) found that there is a positive association between the existence of independent directors and the extent of quality of disclosure during the year of 1993 to 1994. However, the number of independent variables used in their study is considerably small. The corporate governance variables that have been included are independent board and family control. As to increase the reliability of a study, we argue that a more comprehensive number of corporate governance variables should be included in order to examine its impact on the firm’s quality of disclosure.

Eng and Mak (2003) focus on the association between corporate governance and disclosure quality from the context of Singapore during the year 1995. Their finding reports that the low ownership by the directors and the proportion of independent directors in the board are able to reduce the quality of disclosure in the firms, thus suggesting a negative relationship. Moreover, their finding also exhibit that government ownership in a firms are able to increase the quality of disclosure.

According to the abovementioned studies, suggested findings are contradicted and inconsistent each other. Hong Kong and Singapore have been known as sharing the same background, world view and culture, but the
results from Eng and Mak (2003) and Chen and Jaggi (2000) unveiled different results. It is possible that the conflicting findings were contributed by the endogeneity bias in corporate governance studies (Renders and Gaeremynck, 2006).

A study in France, Lakhal (2003) examining the relationship between corporate governance and earnings voluntary disclosure during 1998 to 2001. By using 117 listed firms in France, they document a significant positive association between ownership by institutional investor, the employment of ESOS as a part of compensation scheme and ownership structure on the firms voluntary disclosure on earnings. Besides that, their result also reported a negative relationship between CEO duality status and the extent of earnings disclosure. This suggest that if the role of the both Chairman and CEO are held by the same individual, Lakhal (2003) found that the extent of disclosure on earnings will be decreased.

In Kenya, a study by Barako et al. (2006) examine the relationship between corporate governance and the extent of quality of disclosure during the year of 1992 to 2001. Their results indicate a significant positive association between certain governance variables such as institutional investor’s ownership, the presence of audit committee and ownership by foreign party. They also reported that shareholder’s concentration and board composition are negatively influence the extent of disclosure by Kenyan firms. An Australian study by Bassett et al. (2007) investigate the impact of corporate governance variables on the quality of ESOS disclosure during the year 2003. By using 500 listed firms, they reported that CEO duality and auditor quality are the main determinants that influence the quality of ESOS disclosure by the firms.

The previous literature in corporate governance and disclosure quality are mainly concentrated on disclosure index, AIMR Ratings and management earnings forecast as a proxy for disclosure quality, while studies that utilizing the analyst forecast accuracy is lacking. We therefore intend to fill the void by using an analyst forecast accuracy as a proxy for disclosure quality in our study. We also notice that majority of prior literature are neglecting the endogeneity test in their analysis, thus we will cater for endogeneity factor by using 2 Stage Least Square (2SLS) regression in our sensitivity analysis.

**Hypothesis development**

We focus on audit committee characteristics, BOD characteristics, chairman characteristics and substantial shareholdings as corporate governance variables since agency theory viewed these tools as an effective mechanism in improving disclosure quality and reducing agency costs.

i. **Board Independent and Audit Committee Independent**

According to the agency theory, the appointment of independent directors in the board are able to enhance the monitoring effect in the firms. Nonetheless, we notice that the findings reported by the prior literature are conflicting and inconsistent. In this instance, previous research has been proved that the link between independent directors is mixed. A study from New Zealand, Adam and Hossain (1998) also revealed a significant negative association on the impact of independent directors on the extent of quality of disclosure. Similarly, based on Singapore’s capital market, Eng and Mak (2003) document a negative link between the proportion of independent directors and the extent of voluntary disclosure.

In this instance, Bathala and Rao (1995) explained that there is a possibility that the independent directors have been worked in other sectors that are not related to the current firms, thus lead to the board inefficiency. This argument is supported by Bhagat and Black (1999) and Agrawal and Knoeber (1996) whom reveal that the profitability of firms with a relatively large number of outside directors is lower as compared to the firms with small number of outside directors. Moreover, the placement of independent directors in the board might be politicized in the sense that the position is designed to fit a specific individuals that can benefit firms in different ways (e.g. by appointing activist related to environment or consumerism, politicians, etc) (Agrawal and Knoeber, 1996).

Nevertheless, several studies such as Chen and Jaggi (2000) and Song and Windram (2000) reported a positive association between independent directors and disclosure quality, thus supporting the agency theory view. From the regulatory perspective, The Combined Code 2003 recommended a placement of 50% of independent directors in the board as well as 100% composition of independent directors in the audit committee.
Independent directors in the board function as the adjudicators in the decision making process (Bathala and Rao), thus have a greater tendency to act on the best interest of the principal (Felo et al., 2003). This implies that the existence of independent directors will reduce the gap of information asymmetry between the company and the users since any personal conflicts of interest are expected to be eliminated by the presence of independent directors (Eng and Mak, 2003). Therefore, in line with the agency theory which recognize the monitoring role of the independent directors, we hypothesized:

**H₁:** *Ceteris paribus, there is a positive relationship between the proportion of board independent and disclosure quality*

**H₂:** *Ceteris paribus, there is a positive relationship between the proportion of audit committee independent and disclosure quality*

**ii. Board Meeting and Audit Committee Meeting**

In order to utilise the expertise, knowledge and experience of audit committee members, they have to meet up frequently. Karamanou and Vafeas (2005) US study unveiled that audit committee that meet frequently have a greater propensity to update their earnings forecast more regularly and accurately. High number of meeting is a manifestation of board commitment to provide high quality of information in the annual report (Kent and Stewart, 2008) and acts as a monitoring mechanism on the financial matters of the firms. On the other hand, Chen et al. (2006) found a positive relationship between board meetings and fraud in China. Chen et al. (2006) argue that the positive link might be influenced by the board’s efforts and attempts to solve the fraud case.

Given that a higher frequency of meetings will be expected to increase audit committee effectiveness in checking and scrutinizing financial reports, thus increasing the quality of disclosure, we predict that;

**H₃:** *Ceteris paribus, there is a positive relationship between board meetings and disclosure quality*

**H₄:** *Ceteris paribus, there is a positive relationship between audit committee meetings and disclosure quality*

**iii. Board Size and Audit Committee Size**

Board size and audit committee size are among the corporate governance mechanisms that potentially influence the quality of disclosure in the firms. Although large number of board size is desirable, than the small size, the UK Code on Corporate Governance (2010, p. 12) recommends that the board not be too large “as to be unwieldy”, thus suggesting coordination in large board is difficult and it might reduce its monitoring efficiency. Moreover, there is no such as “the free rider issue” if the board is relatively small in size (Lehn, 2009).

In contrary, it is important to note that the existence of large board is favourable to in order to create a pool of expertise and experience from board members. Lehn (2009) underlines that large board are more resourceful and would be able to cater the need of the firms from various perspectives such as regulation, products, markets and many more. Similarly, if the size of audit committee is large, it may be comprised of expert individuals in accounting and finance from various field that eventually will be able to cope with financial matters in the firms.

Previous literature recorded mixed relationship between board/ audit committee size and disclosure quality. While Li et al. (2008) reported that there is significant positive influence between to audit committee size and disclosure quality on intellectual capital, another study by Magena and Pike (2005) found insignificant link between the size of audit committee and interim disclosure. In this instance, the direction of the relationship between board size and audit committee size to disclosure quality can be either positive or negative. Thus, our next hypotheses are:

**H₅:** *Ceteris paribus, there is a positive or negative relationship between board size and disclosure quality*

**H₆:** *Ceteris paribus, there is a positive or negative relationship between the audit committee size and disclosure quality*

**iv. Audit Committee Financial Literacy**
In the UK, the appointment of at least one members of audit committee with recent and relevant accounting background has been specifies by The Combined Code (2003). In this instance, Abbott et al. (2002) claim that the accounting expertise in audit committee is necessary to combat the financial irregularities in the firm’s disclosure. In line with this view, previous study like Xie et al. (2001) found that the presence of audit committee with financial expertise are able to reduce earnings management. Felo et al. (2003) also exhibit positive association between audit committee with financial expertise with disclosure quality. Therefore, we hypothesized:

\[ H^7: \text{Ceteris paribus, there is a positive relationship between audit committee financial expertise and disclosure quality} \]

v. Chairman Tenure

While the role of board is viewed as the central to the firm’s governance process, the function of the chairman in the board is vital aspect that ensure board effectiveness and monitoring function can be delivered. One of the chairman characteristics that is chairman tenure has been viewed as one of the factor that might influence the quality of disclosure in the firms. Some studies are in favour of long tenure of chairman since it can build a good relationship with the management (Beasley, 1996; Kakabadse and Kakabadse, 2007) and would be able to develop stronger knowledge about the firms rather than short-tenured chairman (Chen et al., 2006). We therefore hypothesized:

\[ H^8: \text{Ceteris paribus, there is a positive relationship between Chairman tenure and disclosure quality} \]

vi. Chairman Non-Executive

The UK Combined Code 2003 stipulates that the position of chairman and CEO must be held by a different person. Moreover, The Combined Code 2003 states that the job scope and responsibility between these two positions must not be overlapped. Within agency theory, Barako et al. (2006) highlight that the presence of an executive chairman might be harmful to the board monitoring function especially when it is related to the issues such as compensation and discipline of the senior management. Therefore, the separation of Chairman and CEO roles is incumbent to control the monopoly of power and decision making process in the firms (Fama and Jensen, 1983).

Previous literature offers supportive views on agency theory in respect to the duality roles of the chairman. Specifically, Bassett et al. (2007) found that there is a negative link between CEO duality and disclosure quality in Australia. Another study by Forker (2006) also reported negative link between CEO duality and the extent of firm’s disclosure. Therefore, following the agency theory, we hypothesized that:

\[ H^9: \text{Ceteris paribus, there is a positive relationship between a non-executive chairman and disclosure quality} \]

vii. Multiple directorships

In respect to multiple directorships variable, the agency theory is clearly not supporting this activity because directors’ busyness in handling responsibility in multiple firms is unintended since it may affect their monitoring ability (Ahn et al., 2009). The empirical work by Beasley (1996) reported that there is a positive link between multiple directorship and fraud, thus suggesting that multiple directorship is not desirable. Nonetheless, several studies claim that multiple directorship equip the board with multiple knowledge, experience and skilful members (Hanifa and Hudaib, 2006).

\[ H^{10}: \text{Ceteris paribus, there is an inverse association between audit committee’s multiple directorships and disclosure quality} \]

\[ H^{11}: \text{Ceteris paribus, there is an inverse association between a chairman’s multiple directorship and disclosure quality} \]

viii. Substantial Shareholders

There is a mixed relationship between institutional investors and disclosure quality. Boubaker and Labegorre (2008, p. 963) argue that when institutional investors are concentrated, disclosure quality will be lower since institutional investors will use their power and influence to shape and manipulate the timing and disclosure pattern as to protect “their private benefits extraction activities” from the outsider, thus signalling that minority
shareholders will be more favourable to information obtained from the financial analyst, rather than the company itself. By the same token, Solomon (2007, p. 110) claims that there is a diverse level of “information asymmetry” between shareholders given that major shareholders have a higher opportunity and priority than minority shareholders in accessing company information. Furthermore, Eng and Mak (2003, p.326) argue that low institutional ownership “increase the need for monitoring” which will subsequently increase disclosure quality.

Moreover, research indicates that the power and influence of concentrated institutional investors reduce the firm’s earnings level of available information (e.g. Fan and Wong, 2002) reduce disclosure quality (e.g. Barako et al. 2006) and increase earnings management (e.g. Siregar and Utama, 2008).

Within the Agency theory, blockholders are expected to increase the firm’s disclosure quality (Jensen and Meckling, 1976). Large investors are expected to be a good monitoring agent over the company’s disclosure policy. The substantial share ownership they hold makes them a powerful force in influencing a company’s disclosure decision. Moreover, institutional investors have an authority and power to monitor manager’s behaviour consistently (Ramsay and Blair, 1993). Prior research shows that a high concentration of institutional investors reduces earnings management activities by the managers (e.g. Chung et al. 2005; Velury and Jenkins, 2006; Koh, 2003; Rajgopal et al. 1999) and increases earnings informativeness (e.g. Jung and Kwon, 2002).

A positive relationship between institutional ownership and disclosure quality has also been discussed in earlier literatures. In this instance, Lakhal (2003) used 117 French listed firms during 1998-2000 and argued that institutional investor ownership and use of an employee share option scheme positively influences the extent of earning voluntary disclosure. Thus, we predict that;

H12: Ceteris paribus, there is a positive association between institutional investor ownership and the extent of disclosure quality.

Analyst forecast accuracy

We rely on the analyst forecast accuracy as a proxy for disclosure quality due to several reasons. First, the agency theory view analyst as one form of credible external governance mechanism and an expert users of the firm’s disclosure that would be able to reduce information asymmetry and agency costs (Jensen and Meckling, 1976). Second, when the disclosure environment is high, analyst are able to forecast earnings accurately (Byard et al., 2003; Bhat et al., 2006), and third, previous literature recognize the reliability of analyst forecast accuracy as a proxy for disclosure quality (e.g. Roulstone, 2003; Byard et al., 2003) since analyst forecast is viewed as one of the reliable information by the investors (Clement and Tse, 2003).

3. Research Methodology

Sample selection process

The list of winners and nominated firms of IR Magazine Award were obtained from the Investor Perception Study research report that have been produced by the Cross Border Group Ltd. In our study, the winners and 2nd runner for each award in IR Magazine UK Award in the year 2005, 2006, 2007 and 2008 were selected to represent firms with high quality of disclosure. This eventually led to the formation of 170 winners (tested sample) of IR Award for the year 2005 to 2008. Nonetheless, we notice that some firms have no information in regards to the analyst forecast accuracy, thus reducing our sample to 127 tested firms only.

We exclude firms in the financial and highly regulated industries from our sample in line with studies in disclosure quality since these firms are tied to certain rules and regulations on disclosure thus might have significant difference when compared to firms in non-financial sector.

In regards to our control sample firms, in line with Boesso and Kumar (2007), we rely on three main criteria in identifying the suitable firms to be in the list. The control firms must be (i) operating in the same industry (ii) same size in the form of nearest total assets (iii) same year of annual report and (iv) not nominated as a winner during the in the IR Magazine Award 2005-2008. With this strict criteria, we are able to form a match-paired sample of 127 firms which comprise of the IR Winners and Non-Winners for 4 years (2005-2008). In collecting our data, we used lagged data for 1 year, since the winner of IR Award in current year is evaluated based on the performance of disclosure quality in previous year.
Analyst Forecast Accuracy

We used analyst forecast accuracy (AFA) as a single proxy for disclosure quality in our study. We estimate AFA following Lang and Lundholm (1996) and Hope and Kang (2005) where:

\[
\text{Analyst Forecast Accuracy} = (-1) \frac{|\text{EPS}_t - \text{MFEPS}_t|}{\text{PRICE}_t}
\]

Where \(\text{EPS}_t\) is earnings per share, \(\text{MFEPS}_t\) is the median forecast of earnings per share and \(\text{PRICE}_t\) is the share price in period \(t\).

Corporate governance variables

We followed Zaman et al. (2011) in measuring ACQUALITY and ACQUALITYBR. In regards to ACQUALITY, we assigned firms as “1” if their audit committee characteristics are similar with the recommendation given by the Smith Report (2003), and “0” otherwise. While in ACQUALITYBY, firms are assigned as “1” if their Audit committee characteristics fulfills the Blue Ribbon Recommendation (1999), and “0” otherwise. In respect to ACMULT, in line with Razman and Iskandar (2002), we calculate the average of directorship in audit committee. In line with Zaman et al. (2011), we measures ACIND, ACMEET and ACSIZE is measured following the Smith Report (2003) recommendation, where “1” is coded if (i) all of audit committee members are comprise of independent directors (ACIND); (ii) if the number of ACMEET in a year is 3 times or more (ACMEET) and (iii) if the number of audit committee size is 3 or more (ACSIZE). In corroboration with Hoitash et al. (2009, p. 848), ACEXP is recognised if an audit committee member holds any of the following (or similar) qualifications/positions: “certified public accountant, chief financial officer, principal financial officer, chief accounting officer, principal accounting officer, treasurer or vice president of finance”. We measure board independence using the percentages of independent directors on the board in line with the recommendation in the The UK Corporate Governance Code (2010). Following Nelson et al. (2010), BODMEET is measured using the number of meeting held in a year, while BODSIZE is calculated based on the total number of directors in the board. In respect to CHAIRNONEXE, we check the status of the chairman at the date of an appointment as a chairman, where he/she will be assigned as “1” if the status is non-executive, otherwise “0”. This is in line with the requirement by the UK Corporate Governance Code (2010). In regards to the CHAIRXTEN, we followed Chen et al., (2006), where we calculate the tenure of the chairman based on the total number of years that the chairman has served in a company. In regards to CHAIRMULT or ACMULT, we count the number of directorships held by each of them in other companies from the annual reports. Concerning SUBSHARE, we use the percentage of ownership held by significant blockholders (3% and above) while the NOSUBSHARE measures the number of blockholders in the firms.

Control Variables

Previous studies on firm characteristics and disclosure quality found that several variables are important in influencing disclosure quality (e.g. Cooke, 1992; Cooke, 1989; Lang and Lundholm, 1993; Hossain et al. 1995; Raffournier, 1995; Wallace et al., 1999; Inchausti, 1997).

We include SIZE in our regression model since the cost of disclosure is inexpensive in large firms, when compared to small firms, thus suggesting a positive relationship between SIZE and disclosure quality (Buzby, 1975). We measure firm size using natural logarithm of market capitalization (SIZE) in line with Hossain et al.(1994). We control for analyst following since Yu (2008) claim that the monitoring function of analyst increase managerial tendency to provide high quality of disclosure. Profitability of the firms are also influence the quality of disclosure, thus we also include that in our regression model (Debreceny and Rahman, 2005).

High AUDIT QUALITY is able to enhance the extent of disclosure quality given that large audit firms having greater expertise and resources than the small firms in providing audit services (Wallace et al. 1994). We measured GROWTH using Market-to-Book Value (MTBV), since it is expected that firms’ growth increases the extent of firm’s disclosure quality because when the market value is higher than the book value, it indicates that the firms intangible asset is high (Marston, 2008). We include LEV since firms with high leverage have a greater propensity to provide high quality information to alleviate their debt (Wallace and Naser, 1995). We control for EARNVARby dividing the standard deviation of the operating income withsales (Farooque et al. 2010). EARNVAR control for the volatility of the firms operating income (Kent et al., 2010).

Years of Observations and the Data Collection
This study is concentrated on the disclosure quality of the UK firms in the year 2004-2007. The reason behind the selection of these years of observation is due to the major changes of UK regulation settings during 2004-2007. The Operating and Financial Review (OFR) and Business Review (BR) which were classified as voluntary disclosures previously had been mandated in March 2005 according to the Companies Act 1985. Nevertheless, the abolishment of OFR as mandatory disclosure took place in January 2006, about 11 months after it was mandated while BR status still remains unchanged. In November 2006, the new Companies Act 2006 was released and the new version of BR had been extended and took effect on October 2007. It is expected that the changes of disclosure regulation in the UK during the year 2004-2007 will affect the firm’s disclosure policy and will increase the earnings quality of the firms.

We requested the data on The IR Magazine Award from the organizer of the programme that is The Cross Border Group. The data related to the analyst forecast accuracy are obtained from the Datastream and other governance data, as well as financial data were collected from the firm’s annual report.

**Model Development**

**Model development: Corporate Governance and Disclosure Quality**

When we run our regression using the tested variables, our regression equation model is stated as below;

\[
DQ = \text{BODIND} + \text{BODSIZE} + \text{BODMEET} + \text{ACSIZE} + \text{ACMEET} + \text{ACIND} + \text{ACEXP} + \text{ACMULT} + \text{CHAIRTEN} + \text{CHAIRMULT} + \text{CHARNONEXE} + \text{SUBSHR} + \text{NOSUBSHR} + \text{ROA} + \text{LEV} + \text{BIG4} + \text{ANALYST} + \text{EARNVAR} + \text{GROWTH} + \text{SIZE} + 2007 \text{ DUMMIES} + 2006 \text{ DUMMIES} + 2005 \text{ DUMMIES} + \text{OIL} \& \text{GAS} + \text{CONSUMERGOODS} + \text{CONSUMERSERVICES} + \text{HEALTHCARE} + \text{TELECOMMUNICATION} + \text{UTILITIES} + \text{TECHNOLOGY} + \varepsilon
\]

We generate new additional variables that are ACQUALITY and ACQUALITYBR in line with prior studies in this area. The composite measure of ACQUALITY is a benchmark of sound audit committee characteristics according to TheSmithReport(2003), while ACQUALITYBR is a benchmark of sound audit committee characteristics based on Blue Ribbon Recommendation (1999).

When we include ACQUALITY or ACQUALITYBR in our regression model, we removed four audit committee characteristics (i.e., ACSIZE, ACIND, ACEXP, ACMEET), and our regression equation will be;

\[
DQ = \text{ACQUALITYBR} \text{ or ACQUALITY} + \text{BODIND} + \text{BODSIZE} + \text{BODMEET} + \text{ACMULT} + \text{CHAIRTEN} + \text{CHAIRMULT} + \text{CHARNONEXE} + \text{SUBSHR} + \text{NOSUBSHR} + \text{ROA} + \text{LEV} + \text{BIG4} + \text{ANALYST} + \text{EARNVAR} + \text{GROWTH} + \text{SIZE} + 2007 \text{ DUMMIES} + 2006 \text{ DUMMIES} + 2005 \text{ DUMMIES} + \text{OIL} \& \text{GAS} + \text{CONSUMERGOODS} + \text{CONSUMERSERVICES} + \text{HEALTHCARE} + \text{TELECOMMUNICATION} + \text{UTILITIES} + \text{TECHNOLOGY} + \varepsilon
\]

**Variable definitions**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISQ</td>
<td>Analyst forecast accuracy</td>
</tr>
<tr>
<td>ACIND</td>
<td>Audit committee independence [1 = if all audit committee members are independent, 0 = if otherwise]</td>
</tr>
<tr>
<td>ACMEET</td>
<td>Audit committee meetings [1 = if audit committee meetings &gt;=3, 0 = if otherwise]</td>
</tr>
<tr>
<td>ACSIZE</td>
<td>Number of audit committee member [1 = if audit committee members &gt;=3, 0 = if otherwise]</td>
</tr>
<tr>
<td>ACEXP</td>
<td>Audit committee members with expertise [1 = if audit committee members with financial literacy is &gt;=1, 0 = if otherwise]</td>
</tr>
<tr>
<td>ACMULT</td>
<td>Average of additional directorships held by audit committee members</td>
</tr>
<tr>
<td>ACQUALITY</td>
<td>1 [if ACSIZE &gt;=3, ACIND=1, ACEXP=/&gt;1 and ACMEET=/&gt;3], 0 otherwise</td>
</tr>
<tr>
<td>ACQUALITYBR</td>
<td>1 [if ACSIZE=/&gt;3, ACIND=1, ACEXP=/&gt;1 and ACMEET=/&gt;4], 0 otherwise</td>
</tr>
<tr>
<td>CHAIRMULT</td>
<td>Number of additional directorships held by board chair</td>
</tr>
<tr>
<td>CHAIRTN</td>
<td>Number of years the chair has held the chair position</td>
</tr>
<tr>
<td>CHARNONEXE</td>
<td>Status of the board chair [1 = non-executive, 0 = executive]</td>
</tr>
<tr>
<td>BODSIZE</td>
<td>Number of board members</td>
</tr>
<tr>
<td>BODMEET</td>
<td>Number of board meetings held during the year</td>
</tr>
</tbody>
</table>
BODIND = Percentage of independent directors on the board [excluding chairman]
SUBSHR = Total percentage of shares held by substantial (i.e. 3%/+) shareholders
NOSUBSHR = Number of substantial shareholders (i.e. 3%/+) in a firm
EARNVAR = Standard deviation of return on sales
ROA = Return on assets
LEV = Debt to asset ratio
ANALYST = Number of analysts following
SIZE = Natural log of market capitalisation
BIG4 = Auditor a Big4 firm [Big4=1, Non-Big4=0]
GROWTH = Market to book value ratio
YEAR = Year dummies
INDUSTRY = Industry dummies
ε = Error term

4. Findings

We carried out the statistical analyses using STATA Version 12. By comparing the mean and the median of each variable, it can be seen that most of the data are not normally distributed. The outliers were not deleted given that the outliers in this dataset are genuine data which the exclusion of such data may reduce the generalisation within the findings (Hair et al., 2006). In order to cater for the effect of outliers, we winsorized all of the continuous variables at the top and bottom 1%. We also transform the SIZE (i.e., market capitalization) to natural logarithm. The random missing value in the control variables and independent variables were replaced by the mean of the valid data (Hair et al., 2006).

Descriptive Statistics

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>MEAN</th>
<th>STD DEV</th>
<th>MIN</th>
<th>MAX</th>
<th>25% PCTILE</th>
<th>50% PCTILE</th>
<th>75% PCTILE</th>
</tr>
</thead>
<tbody>
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<td>-0.0112</td>
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<td>-0.123</td>
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<td>-0.0123</td>
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<td>0.2794</td>
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<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
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<td>0.2635</td>
<td>0</td>
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<tr>
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<td>1</td>
<td>1</td>
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<td>4</td>
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<td>1.6</td>
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<td>1</td>
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<td>BR</td>
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<td>17</td>
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<td>83.33</td>
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<td>CHAIRNONE</td>
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<td>1</td>
<td>1</td>
<td>1</td>
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<td>CHAIRTEN</td>
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<td>5.76</td>
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<td>7</td>
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<tr>
<td>CHAIRMULT</td>
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<td>1.728</td>
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<td>8</td>
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<td>2</td>
<td>3</td>
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<tr>
<td>SUBSHR</td>
<td>29.743</td>
<td>16.787</td>
<td>3.7</td>
<td>77.17</td>
<td>17.92</td>
<td>28.51</td>
<td>39.3</td>
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<tr>
<td>NOSUBSHR</td>
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<td>1</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>ROA</td>
<td>7.25</td>
<td>6.68</td>
<td>-17.72</td>
<td>3.027</td>
<td>3.61</td>
<td>6.77</td>
<td>10.22</td>
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<td>LEV</td>
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<td>0.14</td>
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<td>15.24</td>
<td>23</td>
<td>33.52</td>
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<tr>
<td>ANALYST</td>
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<td>14</td>
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<td>BIG4</td>
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<td>0</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>GROWTH</td>
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<td>4.247</td>
<td>-17.22</td>
<td>19.93</td>
<td>2.06</td>
<td>3.105</td>
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<tr>
<td>SIZE (LOG)</td>
<td>14.69</td>
<td>1.46</td>
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<td>18.61</td>
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</tr>
<tr>
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<td>28,000</td>
<td>£17,500,000</td>
<td>£17,240,000</td>
<td>£122,000,000</td>
<td>£823,089,000</td>
<td>£1,740,657,000</td>
</tr>
</tbody>
</table>
We tabulate our descriptive statistics for disclosure quality (i.e., AFA) and corporate governance variables (ACMEET, ACIND, ACFINLIT, ACSIZE, ACQUALITY, ACQUALITYBR, BODMEET, BODIND, BODSIZE, CHAIRNONEXE, CHAIRTEN, CHAIRMULT, ACMULT, SUBSHARE, NOSUBSHR) and the control variables (ROA, LEVERAGE, ANALYST, SIZE, BIG4, EARNVAR and GROWTH) in Table 1. The average of AFA is -0.0112 in our sample, and it is closely similar to the mean of AFA in Bhat et al. (2006) in their UK study that is -0.019.

In respect to our audit committee characteristics, our Table 1 revealed that the mean for ACSIZE, ACMEET, ACEXP and ACIND are 3.78, 0.955, 0.925 and 0.9149 respectively. This suggest that majority of the audit committee in the sample firms are comprised of at least 3 person, meet more than 3 times in a year, and having at least 1 of members with financial expertise, and are composed of an independent directors. The ACMULT shows an average of 2.402, which is quite similar to the average of CHAIRMULT that is 2.35.

In regards to the chairman characteristics, the mean for CHAIRNONEXE, CHAIRTEN, CHAIRMULT are 0.861, 5.82 and 2.35 respectively. This finding indicates that some firms are having executive chairman in their board. The number of CHAIRTEN is around 6 years with the minimum of 1 and the maximum of 34 years.

This result is quite similar to Laksmana (2007) whom reported an average of CEO tenure of 6.61 years in the US firms. The average number of chairman directorship in other firms is around 2, with the minimum of directorship of 0 and maximum directorship of 8. Our descriptive statistics also shown that the mean for SUBSHR is 29.74, which is a bit lower when compared to 36.89 institutional ownership reported by Koh (2007).

The mean for board characteristics such as BODIND, BODSIZE and BODMEET are 58.044, 9.727 and 8.642 respectively. In the US, the average of board meeting reported by Laksmana (2007) is 8.738, which is very close to our finding that is 8.642. This indicates that the number of meeting in the UK and the US are qualitatively similar. While the BODIND in the UK is merely 58%. Laksmana (2007) US study reported that the composition of BODIND is 79%, thus suggesting higher number of independent directors in the US firms.

**Pairwise Correlation**

We ran the Pairwise correlation for the both dependent and independent variables used in the regression analysis. This analysis was carried out as to observe the negative or positive relationship among all variables and to check the multicollinearity in the dataset. The correlation above 0.9 between the independent variables indicates that multicollinearity is present and might influence the findings in the multivariate analysis (Hair et al. 2006, p. 277) – if the correlation among the independent variables are reasonably high (e.g. more than 0.9), the results revealed in the multivariate analysis are biased due to the strong interaction among the independent variables, rather than the relationship between independent variables to dependent variables.

Besides using 0.9 cut-off rules, the VIF can also be used to diagnose multicollinearity. The VIF below 10 indicates that the multicollinearity is not detrimental to the findings in multivariate analyses. Examination on the correlation coefficients between all variables showed that none of the correlations exceed 80%, therefore, confirming the absence of multicollinearity data in the dataset.

Further tests also reported that all VIF in the multivariate analyses are below 10. Based on the result in Table 2, it is revealed that AFA is significantly negatively related to BODIND, SUBSHR, EARNVAR and LEV. Moreover, our pairwise correlation also indicates a significant positive link between AFA and ROA, ANALYST, SIZE and GROWTH.

**Table 2. Pairwise Correlation**

|   | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 1.00|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2 | -0.00| 1.00|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3 | -0.00| 1.00|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
Regression analyses

Table 3. Tobit regression

<table>
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<tr>
<th>MODEL 1</th>
<th>MODEL 2</th>
<th>MODEL 3</th>
<th>MODEL 4</th>
<th>MODEL 5</th>
<th>MODEL 6</th>
</tr>
</thead>
</table>

**DV = ANALYST FORECAST ACCURACY**

<table>
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<tr>
<th>Variable</th>
<th>Coef.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>Sig.</th>
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<tr>
<td>ACQUALITY</td>
<td>-0.23</td>
<td>-0.003</td>
<td>-0.36</td>
<td>-1.47</td>
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<td>ACQUALITYBY</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
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<tr>
<td>ACEXP</td>
<td>-0.69***</td>
<td>-0.76**</td>
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<td>(2.25)</td>
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<td>ACMEET</td>
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<tr>
<td>ACMULT/ACQUALITY</td>
<td>0.172**</td>
<td>(2.18)</td>
<td>0.168**</td>
<td>(2.15)</td>
<td>0.167**</td>
<td>(2.15)</td>
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<td>(0.59)</td>
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<td>(1.35)</td>
<td>0.08</td>
<td>(1.39)</td>
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<td>(1.39)</td>
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<td>0.01</td>
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<td>(-1.07)</td>
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<tr>
<td>BODIND</td>
<td>-0.03*</td>
<td>(-1.66)</td>
<td>-0.027**</td>
<td>(-1.75)</td>
<td>-0.03</td>
<td>(-1.62)</td>
<td>-0.03</td>
<td>(-1.65)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BODMEET</td>
<td>0.001</td>
<td>(0.02)</td>
<td>-0.003</td>
<td>(-0.08)</td>
<td>-0.006</td>
<td>(-0.14)</td>
<td>0.002</td>
<td>(0.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBSHR</td>
<td>-0.003</td>
<td>(0.35)</td>
<td>-0.005</td>
<td>(0.84)</td>
<td>0.005</td>
<td>(0.65)</td>
<td>0.004</td>
<td>(0.51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOSUBSHR</td>
<td>-0.013</td>
<td>(0.24)</td>
<td>-0.005</td>
<td>(0.90)</td>
<td>-0.005</td>
<td>(0.31)</td>
<td>0.016</td>
<td>(0.30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.31***</td>
<td>(2.87)</td>
<td>0.42***</td>
<td>(3.04)</td>
<td>0.35***</td>
<td>(2.92)</td>
<td>0.44***</td>
<td>(2.96)</td>
<td>0.46***</td>
<td>(3.18)</td>
<td>0.47***</td>
<td>(3.15)</td>
</tr>
<tr>
<td>EARNVAR</td>
<td>-0.002</td>
<td>(-0.72)</td>
<td>-0.005</td>
<td>(-0.58)</td>
<td>-0.007</td>
<td>(-0.08)</td>
<td>-0.007</td>
<td>(-0.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>-0.002</td>
<td>(-0.72)</td>
<td>-0.005</td>
<td>(-0.58)</td>
<td>-0.007</td>
<td>(-0.08)</td>
<td>-0.007</td>
<td>(-0.05)</td>
<td></td>
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</tr>
</tbody>
</table>

Notes: 1= AFA; 2=ACQUALITY; 3= ACQUALITYBY; 4=ACMEET; 5=ACIND; 6=ACEXP; 7=ACMULT; 8=ACSIZE; 9=BODSIZE; 10=BODMEET; 11=BODIND; 12=CHAIRNONEXE; 13=CHAIRTEN; 14=CHAIRMULT; 15=SUBSHR; 16=NOSUBSHR; 17=EARNVAR; 18=ROA; 19=LEV; 20=ANALYST; 21=SIZE; 22=BIG4; 23=GROWTH; figures in ** highlight variables that are significant at p<0.05; figures in italic indicate that p<0.01; figures in underline indicate that p<0.10.
We run the Tobit regression on AFA and corporate governance mechanism and we tabulate the result in Table 3. We run our regression in six stages. In our Model One, our Tobit regression shows positive relationship between SIZE and AFA at p<0.01, while LEV reports a negative link with AFA at p<0.05, with an $R^2$ of 6.28%. This results suggest that high firm size and leverage increases the AFA. This is in line with our prediction that large firms have huge resources to produce high quality information to the users. Moreover, highly leverage firms tend to provide more disclosure to the shareholders in order to alleviate large debt that they have.

In Model 2, we include the board characteristics and blockholders such as BODIND, BODMEET, BODSIZE, CHAIRNONEXE, CHAIRMULT, CHAIRTEN, SUBSHR and NOSUBSHR. In contrary to our hypothesis, our result exhibit negative relationship between BODIND and AFA (coef = -0.03, p<0.1). This corroborates the findings of Eng and Mak’s (2003) Singaporean study. The $R^2$ slightly increases from 6.28% in Model One (when only corporate characteristics are included in the model) to 7.25% in Model Two (when board characteristics are added to the regression). Nevertheless, we found that other characteristics are insignificant in influencing AFA.

In Model 3, we add auditcommittee characteristics in our regression model such as ACMEET, ACSIZE, ACIND, ACMULT and ACEXP. Our result exhibits a significant negative association between ACEXP and AFA (p<0.01), thus suggesting that ACEXP reduces AFA. This finding contradicts the hypothesis and suggests that firms with lower AFA have a greater propensity to comply with the recommended benchmark for audit committee financial expertise. Another findings reveal that ACMULT has a significant positive relationship with AFA at p<0.05. This supports labour theory, which holds that higher numbers of multiple directorships are favourable because they increase manager’s competency and knowledge and, thereby, improve disclosure quality. The $R^2$ is 7.09%, which is slightly lower than that for Model Two (which controls for board characteristics), thus signalling that boards have a stronger monitoring effect than audit committees in respect to enhancing analyst forecast accuracy.
In Model Four, we combined both audit committee characteristics and board characteristics are combined in one model, together with the control variables. Significant results for BODIND (in Model Two) and ACEXP and ACMULT (in Model Three) are still maintained. The results for Model Four reflect that audit committees have a small incremental effect together with boards of directors in enhancing AFA; although, the $R^2$ in Model Four is only slightly higher than that in Model Two, increasing from 7.25% to 7.97%. It is also important to note that most audit committee characteristics in Model Four have negative coefficients (e.g. ACSIZE, ACEXP and ACMEET), suggesting that there is a substitutive relationship. In Models Five and Six, where individual audit committee characteristics are replaced with composite measures of audit committee effectiveness, ACQUALITY and ACQUALITYBR, results indicate that ACQUALITY and ACQUALITYBR, as well as all board characteristics, are statistically insignificant in their effect on AFA. Consistent insignificant relationships between audit committee strength and AFA, as reflected in Models Five and 6, demonstrate that compliance with the Smith Report (2003) recommendations on audit committee characteristics is effectively substitutive to board of directors characteristics in increasing a firm’s AFA. The only variable that influences AFA, according to Models Five and 6, is ACMULT, with a coefficient of 0.167 at $p<0.05$ and a coefficient of 0.172, at $p<0.05$, respectively.

There could be several reasons for these findings, where we can see some tested variables are insignificant to AFA. Firstly, AFA is probably not a direct measure of disclosure quality, and it may be located in between of a firms’ disclosure and analysts, hence, it is not a very good proxy for a firm’s overall disclosure quality. Secondly, analyst forecasts are subject to several controversial issues: for example (i) analysts tend to follow their peers when they make forecasts (Welch, 2000) and (ii) analysts are not always viewed as an independent external party, given that they try to maintain good relationships with management and try not to disappoint them by providing negative recommendations (Dechow et al., 2000). The credibility of a forecast issued by an analyst might, therefore, be questionable. Therefore, AFA could be the outcome of clandestine collaboration between analysts and management and this could lead to conflicting findings.

Robustness Tests

We have conducted several robustness analysis by using linear regression as our estimation and by using alternative measurement for our control variables and tested variables and we found that our results are qualitatively similar to our findings in Table 3. We also run for endogeneity test using 2 Stage Least Square Regression (result not reported), and we found that our baseline result (in Table 3) are qualitatively unchanged after we include endogeneity into our consideration.

5. Conclusion

Our study investigates the impact of corporate governance mechanisms on disclosure quality, which is measured using analyst forecast accuracy. Using 127 match-paired firms during the year 2005-2008, our findings revealed that there is a significant positive relationship between audit committee with multiple directorships and the quality of disclosure. This suggest that the presence of audit committee with multiple directorships increases the quality of disclosure in the firms (which is measured using analyst forecast accuracy). Moreover, our regression also revealed a significant negative association between audit committee with financial expertise and disclosure quality. This indicates that the existence of audit committee with relevant accounting and financial background reduces the quality of disclosure. Furthermore, our Tobit regression also exhibit that the existence of independent directors in the board are able to decrease the quality of disclosure. In the light of these finding, our result suggest that the appointment of audit committee with financial expertise and the independent directors in the board are merely “ticking the box” activity in order to fulfil the requirement of The Combined Code (2003) in the UK.

References