Corporate Boards, Ownership Structures and Corporate Disclosures: Evidence from a Developing Country

Abstract

Purpose: This paper aims to investigate the effect of corporate board attributes, ownership structure and firm-level characteristics on both corporate mandatory and voluntary disclosure behaviour in annual reports of Libyan firms.

Design/methodology/approach: Multivariate regression techniques are used to estimate the effect of corporate board and ownership structures on mandatory and voluntary disclosures of a sample of 193 annual reports of listed and non-listed Libyan firms between 2006 and 2010.

Findings: Our results are as follows. First, we find that board size, board composition, the frequency of board meetings and the presence of an audit committee have an impact on the level of corporate disclosure. Second, this study finds that foreign ownership and director ownership have a non-linear relationship with the level of corporate disclosure. Finally, the researchers find that firm age, liquidity, listing status, industry type and auditor type are positively associated with the level of corporate disclosure.

Originality/value: This is one of the first empirical studies that seek to offer evidence on the effect of corporate board and ownership structures on both corporate voluntary and mandatory disclosure behaviour relating to both listed and non-listed firms. The study is also distinctive in its reliance on insights drawn from a multiple theoretical framework in interpreting its findings.

Keywords: Corporate governance; Board and ownership structures; Corporate disclosure behaviour; Multi-theoretical perspective.

Paper type: Research Paper

1. Introduction

The quality and quantity of information disclosed by companies in annual reports in a particular country depends heavily on its level of economic development, the development of the accounting profession, the legislation in force and the existence of a sophisticated financial market (Jaggi and Pek Yee, 2000, Roberts *et al*., 2005). In this vein, following recent changes and reforms of both the Libyan economy and legislation of financial reporting, government legislation and laws have played a major role in shaping the current financial reporting practices in Libya (Kribat *et al*., 2013). In this case, Libyan context specific issues offer an interesting setting for many reasons. First, the economy of Libya used to be unique in many aspects due to the peculiar characteristics of its political regime and the rise in contribution over the last 30 years of the petroleum sector to its economy. A large proportion of this source of income has been used to establish industrial companies in non-oil sectors over the last two decades (Almehdi, 1997). Second, the Libyan legal system developed from a combination of Islamic legal principles and French Civil law. Third, the use of Libyan Commercial Law (LCL) in 1954 was a pioneer effort in the corporate governance field[1].

Fourth, despite the growth in the economy, the accounting profession in Libya is still relatively under developed. Fifth, the establishment of the LCL in 1954 was the cornerstone of corporate governance in Libya providing guidelines for establishing, registering, managing, governing and dissolving all forms of firms. Moreover, it also establishes the sanctions that may be imposed on companies for any failure to satisfy any requirements of the law. Finally, corporate ownership is largely concentrated in the form of government, family (directors) and foreign institutional investors. Together, these Libyan context specific issues offer an interesting setting to examine the drivers of corporate disclosures. The researchers, therefore, seek to examine the extent to which corporate board mechanisms, ownership structures, and firm-level characteristics, may impact on the level of corporate disclosures in this distinct corporate context.

Not surprisingly, there has been increasing interest in the issue of corporate governance, accountability, disclosure and transparency in recent years (Aljifri et al., 2014, Wang and Hussainey, 2013). However, a careful assessment of this literature reveals a number of discernible weaknesses. Firstly, despite increasing suggestions that corporations may engage in disclosures for a multiple of theoretical reasons and therefore the ability of any single theoretical framework to fully explain the

[1] The LCL consists of a number of Articles that demonstrate the main corporate governance principles. For example, it highlighted the main responsibilities, working mechanism and structure of the board of directors and the monitoring committee (Shernanna, 2013).

motivations underlying corporate disclosures is limited, existing studies are either largely descriptive in nature (Cooke, 1989a, b, Inchausti, 1997, Ho and Shun, 2001) or underpinned by single theoretical framework (Chen and Roberts, 2010). This limits current understanding of the various motivations underlying corporate disclosures. Secondly, although corporate disclosures typically consist of mandatory and voluntary ones, existing studies have focused almost exclusively on understanding the determinants of, and motivations for, corporate voluntary disclosures (Abdul Karim, 2005, 2012, Al-Janadi et al., 2016, Choi, 1973, Gray et al., 1995). Thirdly, although the majority of corporations are non-listed, existing studies examining the motivations for, and determinants of, corporate disclosures have focused mainly on listed corporations (Barako et al., 2006). By contrast, there is an acute dearth of studies analysing corporate disclosures in non-listed corporations (Cooke, 1989a, b, Ho and Shun, 2001, Inchausti, 1997, Meek et al., 1995), and thereby impairing current understanding of corporate disclosure behaviour with respect to non-listed firms is inevitable.

Fourthly, despite increasing theoretical and empirical suggestions that corporate decisions, including those relating to disclosure are often taken by corporate boards and owners (Eng and Mak, 2003, Ntim et al., 2012a, b, 2013), existing studies have focused primarily on examining how firm-level characteristics, such as firm size and industry, drive corporate disclosures. In contrast, studies investigating the extent to which corporate governance and ownership structures can influence the extent of corporate disclosures are rare (Collett and Hrasky, 2005). Finally, despite increasing importance of developing countries around the world, existing studies examining corporate disclosure behaviour are primarily concentrated in developed countries with largely similar institutional and contextual characteristics (Ntim and Soobaroyen, 2013a, b). In contrast, developing countries, such as Libya have different economic, institutional, legal and political environments and thus, the effect of corporate governance, ownership and firm-level variables on corporate disclosure can be expected to be different from those that have been found for firms operating in developed countries. Therefore, an examination of the various factors that may influence corporate disclosure behaviour in developing countries, where empirical evidence is limited can help in providing full understanding of corporate disclosure behaviour around the world (Aljifri, 2008, Aljifri et al., 2014, Cooke, 1989a, Inchausti, 1997, Wang and Hussainey, 2013).

Consequently, this paper extends, as well as making a number of new contributions to the extant literature. Firstly and unlike most prior studies that have examined how firm-level characteristics, such as firm size and industry, affect corporate disclosure behaviour, the current study examines how corporate boards, executives and owners in addition to firm-level features drive the level of corporate disclosure. Secondly, distinct from prior studies, the researchers examine the antecedents of both mandatory and voluntary disclosures. Finally, distinct from most prior studies, our analyses cover both listed and non-listed firms, and thereby allowing us to provide new empirical insights relating to the disclosure behaviour of both listed and non-listed firms.

The remainder of the paper is organised as follows. Section 2 explores the theoretical framework. Section 3 presents a review of relevant literature and hypotheses development. The research method is outlined in Section 4. Section 5 presents the empirical results. Finally, Section 6 presents the conclusions, policy implications of the results, and directions for future research.

2. Empirical literature and hypotheses development

2.1 *Corporate governance characteristics*

This paper examines how corporate governance mechanisms influence corporate disclosure practices in Libya, five related corporate governance variables are being investigated, namely board size, CEO role duality, board composition, the frequency of board meetings and existence of an audit committee.

Board size: According to agency theory, board size is a key determinant in monitoring its activities and decision making. It has been argued by Laksmana (2008) that a large board leads to a higher opportunity to have diversity of experts in areas, such as financial reporting. More importantly, Samaha et al. (2012) suggest that larger boards are less likely to be dominated by senior executives. As a result, firms with larger board size are more likely to disclose more information than those with smaller board size. By the same token, stakeholder theory assumes that firms with larger boards can get greater access to their external environment, which as result secures resources such as finance and business contracts and reduces uncertainties. On the other hand, others claim that larger boards are associated with poor communication and monitoring leading to a negative impact on firms' disclosure behaviour (Jensen, 1993). In addition, resource dependence theory postulates that larger boards are more likely to consist of greater diversity of expertise and stakeholder representation, which can contribute to improved corporate reputation.

Empirically and although most prior research supports the positive association between board size and corporate disclosure behaviour (Barako et al., 2006, Gao and kling, 2012, Laksmana, 2008, Wang and Hussainey, 2013, Samaha et al., 2015). However, some researchers found no relationship between board size and disclosure level (Ebrahim and Fattah, 2015). On the other hand, some studies argue that board size may have a negative impact on the board effectiveness, leading members to be less motivated to take part in decision making and resulting in low levels of disclosure (Yermack, 1996, Byard et al., 2006). Although, the LCL does not specify the exact number of directors that should form a corporate board, the researchers expect a positive association between board size and corporate disclosure. Based on the above discussion, the researchers propose the following hypothesis:

H_1: There is a significant positive association between board size and the level of corporate disclosure in annual reports of Libyan companies.

CEO Role Duality: CEO role duality is where the Chief Executive Officer (CEO) of a firm also serves as the chairman of the board. From the agency perspective, duality in position provides the CEO with a power that might negatively impact on the board's control. It is argued that effectiveness in board monitoring can be by having a large number of independent directors, which can lead to greater transparency and disclosure (Gul and Leung, 2004). From resource-dependence theory perspective, separating the board chairman and CEO positions can improve a firm's legitimacy in its environment (legitimacy theory) as well as stakeholders' participation (stakeholder theory) by encouraging equality and fairness in executive decision making (Elzahar and Hussainey, 2012).

Prior research has provided mixed results. The first stream finds that there is no significant association between these two variables (Ho and Shun, 2001, Arcay and Muiño, 2005). The other stream finds a negative relationship between the two variables (e.g., Eng and Mak, 2003, Gul and Leung, 2004, Ntim and Soobaroyen, 2013a). Based on the above theoretical underpinning and empirical findings, the researchers submit the following hypothesis:

H_2: There is a significant negative association between role duality and the level of disclosure in annual reports of Libyan companies.

Board composition: Fama and Jensen (1983) argue that boards composed of a higher proportion of independent NEDs are more influential in monitoring and controlling managerial decisions. According to agency and stakeholder theories, the board of directors is perceived not only as a key mechanism of internal control for monitoring managers and to mitigate agency problems between managers and shareholders, but also as a mechanism to advance the interests of other stakeholders, such as employees and communities (Chen and Roberts, 2010, Ntim et al., 2013). In this regard, the increased independence associated with NEDs assumes that their presence may enhance corporate response to stakeholders' informational needs. Similarly, legitimacy gap is thought to be alleviated through appointing independent NEDs to ensure stakeholders' interests are achieved (Freeman and Reed, 1983).

Empirically, some studies found evidence of positive association between NEDs and voluntary disclosure (e.g.,Ntim et al., 2012b, Samaha et al., 2015). Conversely, other researchers found either no association (Ho and Shun, 2001, Aljifri et al., 2014, Ebrahim and Fattah, 2015) or negative association (e.g., Gul and Leung, 2004, Ghazali and Weetman, 2006). Therefore, based on the above theoretical and empirical evidence, the researchers set the following hypothesis:

H_3: There is a significant positive association between the proportion of non-executive directors and the level of disclosure in annual reports of Libyan companies.

Frequency of meetings: Ntim and Osei (2011) argue that frequency of board meetings measures the intensity of a board's activities and the quality or effectiveness of its monitoring. From a positive theoretical perspective, a higher frequency of board meetings can help to improve the quality of managerial monitoring which in turn has a positive impact on corporate performance (Ntim and Osei, 2011). One the other hand, others argue that board meeting cannot be guaranteed to be beneficial to shareholders' interests (Vafeas, 1999). Empirically, the positive argument of this relationship was supported by the findings of Laksmana, (2008). However, Alhazaimeh et al. (2014), find that there is no significant relationship between frequency of meeting of the board and voluntary disclosure. The related empirical evidence is in line with the above theoretical evidence, and thus the researchers test the following hypothesis:

H_4: There is a significant positive association between number of board meetings and the level of disclosure in annual reports of Libyan companies.

Existence of audit committee: According to agency theory, the existence of an audit committee can help firms to reduce agency conflicts. It is considered to be an important element for the board of the directors to internally control decision making and enhance the quality of information flow between owners and managers (Fama, 1980, Arcay and Muiño, 2005). Empirically, Ho and Shun (2001), Barako et al. (2006), and Samaha et al. (2015) find that the presence of an audit committee has a positive impact on corporate disclosure behaviour. On the other hand, others do not find such association (Alhazaimeh et al., 2014, Aljifri et al., 2014). Based on the above theoretical and empirical evidence, the fifth hypothesis is formulated below as:

H5: There is a significant positive association between the existence of audit committee and the level of disclosure in annual reports of Libyan companies.

2.2 *Ownership structure variables*

Foreign ownership: From a theoretical perspective, agency theory postulates that ownership becomes dispersed as result of an increase in the number shareholders, leading to an increase in the demands for more information disclosure (Fama and Jensen, 1983). Empirically, Alhazaimeh et al. (2014) and Haniffa and Cooke (2002) find that there is a significant positive association between foreign ownership and the extent of corporate voluntary disclosure. However, Aljifri et al. (2014) find no association between foreign ownership and corporate financial disclosure. In the Libyan context, foreign shareholders are expected to face higher levels of information asymmetry due to the language barrier and differences in accounting practices. Therefore, firms with higher foreign ownership are expected to advance their disclosure practices and information quality such as presenting the annual reports in the English language. Thus, we propose the following hypothesis:

H6: There is a significant positive association between foreign ownership and the level of disclosure in the annual reports of Libyan companies.

Government ownership: high level of government ownership with strong political connection can offer a protection against greater scrutiny and discipline by weak regulatory frameworks which in result leads to low disclosure levels in such firms (Ntim et al., 2013). Theoretically, firms with higher state ownership may easily obtain funding from government, so these firms attract investors with less incentive to disclose more information. Conversely, from another perspective, these firms are under more public scrutiny, leading to pressure to disclose more information. Prior literature, to some extent, is mixed. Alhazaimeh et al. (2014), Ntim et al. (2012b) and Khan et al. (2013) report a positive association between government ownership and voluntary disclosure. However, Ghazali and Weetman (2006) find insignificant association, while Ebrahim and Fattah (2015) report a negative association between government ownership and voluntary disclosure. Based on the above discussion, the researchers articulate the following hypothesis:

H_7: There is a significant positive association between government ownership and the level of disclosure in the annual reports of Libyan companies.

Institutional ownership: Institutional investors play an influential role in the structure of corporate governance. From an agency theory perspective, institutional ownership is considered as a key part of effective control over the company, whereby managers disclose more information to meet the informational needs of institutional shareholders as influential stakeholders (stakeholder theory). In addition, legitimacy theory postulates that firms with high institutional ownership are keen to disclose more information to gain their support to justify their continued stewardship. Empirically Ebrahim and Fattah (2015) provide evidence that suggests a positive association between institutional investors' ownership and the extent of voluntary disclosure. However, Alhazaimeh et al. (2014) and Ntim and Soobaroyen (2013a) find a negative association between institutional ownership and the level of disclosure. With regard to the Libyan context, the government's plan to privatise its enterprises has led to an increase in the institutional ownership in Libyan privatised firms. Therefore, the researchers expect firms with high institutional ownership to disclose more information. Accordingly, the researchers test the following hypothesis:

H_8: There is a significant positive association between institutional ownership and the level of disclosure in the annual reports of Libyan companies.

Director ownership: Agency theory suggests that there is a contradictory association between voluntary disclosures and director ownership. The extent of managerial ownership serves a way to align the management's interests with those of other shareholders leading to an increase in disclosure level (Jensen and Meckling, 1976). It argues that firms with higher proportion of director ownership are associated with less information asymmetry between the principal and the agent. Empirically, Eng and Mak (2003) and Wang and Hussainey (2013) found a negative association between director ownership and corporate voluntary disclosure. Based on the above, the researchers set hypothesis as follows:

H_9: There is a significant negative association between director ownership and the level of disclosure in the annual reports of Libyan companies.

3. Research methodology

4.1 *Data collection and sampling*

This paper examines the association between corporate governance characteristics, ownership structure and the extent of disclosure in Libyan companies' annual reports. A disclosure index is developed to measure disclosure level. In order to provide a comprehensive picture of corporate reporting in the Libyan context, annual reports of three sectors namely; banks, manufacturing and services are collected. The rationale behind this is that these are the dominant sectors "after the oil and gas sector" in the Libyan economy in terms of their contribution to the total gross domestic product. The oil and gas sector is excluded as most of the companies operating in this sector are either foreign companies or partners of foreign companies with more advanced accounting and reporting practices.

TABLE 1 HERE

Annual reports for five years (2006-2010) are collected from the LSM, company websites, Audit Bureau, and Tax Authority. Out of 28 listed companies in the LSM, the annual reports of 22 companies are obtained, while the annual reports of 23 the big non-listed companies are obtained based on the classification of the Audit Bureau. Our sample is drawn from both listed (98 reports) and non-listed (95 reports) firms. The period (2006-2010) is selected due to the following reasons. Firstly, 2006 is chosen because it witnessed the emergence of the LSM. Secondly, due to the Libyan uprising which started in 2011, annual reports from 2011 onwards are not available. A total of 211 annual reports are collected with 193 (65 financial and 128 non-financial) usable annual reports.

4.2 *Variable measurement and model specification*

4.2.1 *Dependent variable: construction of the disclosure index*

Due to the fact that, there is a lack of a theoretical framework regarding the choice and selection of items to be included in a disclosure index, and the absence of a uniform set of accounting standards in Libya, extant government regulations and laws have been used to construct the disclosure index. As this part of the study does not focus on a specific user group, an un-weighted index is applied. The following rules are used to build a comprehensive index: the items required by statutory regulations (e.g., ITL); a review of relevant disclosure literature to identify items specific to this study; and items included in the annual reports published by Libyan companies (e.g., Elmagrhi et al., 2016, Ntim et al., 2012a, b, 2013, Wang and Hussainey, 2013).

This resulted in an index, consisting of 141 information items divided into mandatory and voluntary items. The mandatory list (MD) consists of 33 items, whilst the voluntary list (VD) is made up of 108 items that are expected to be disclosed in annual reports of Libyan firms. A binary coding scheme is used in which the presence of an item is scored 1, otherwise 0 and thus, with this unweighted scoring, the higher a firm's score, the better its disclosure will seem to be and vice-versa.

4.2.2 *Reliability and validity of the disclosure index*

The final index was subject to review by three accounting specialists, one of them in the area of disclosure and transparency and two accountants in the LSM. These reviews resulted in adding four voluntary items and eliminating other seven items. In addition each report was reviewed twice, firstly, for familiarisation of the firm's business and activities and relevance of the index to the firm. The reliability of this index was piloted for a sample of 40 annual reports. Secondly, the annual reports were scored again to ensure consistency with the original scoring. The relevance of mandatory items was determined by Libyan legislations, whilst voluntary items were considered appropriate unless irrelevant to activities.

4.2.3 *Regression model*

A linear-multiple OLS regression was employed to examine the association between the independent variables of corporate governance attributes and ownership structure and the dependent variable of corporate disclosure. The estimated regression models are presented as follows:

$$DL = \beta_0 + \beta_1 Boards + \beta_2 DualP + \beta_3 BoCo + \beta_4 FreMee + \beta_5 AuCo + \beta_6 ForOwn + \beta_7 InstOwn + \beta_8 GovOwn + \beta_9 DirOwn + \beta_{10} FS + \beta_{11} FA + \beta_{12} Gaering + \beta_{13} Prof + \beta_{14} Liq + \beta_{15} Lis + \beta_{16} IndTyp + \beta_{17} AudTyp + \beta_{18} Year + e \quad \text{... (1)}$$

where,

DL denotes MD (the mandatory disclosure); *VD* (the voluntary disclosure) and *ODL* (the overall disclosure level); β_0 is the constant term; *Boards* is the board size; *DualP* is the role duality; *BoCo* is the board composition; *FreMee* is the frequency of meetings; *AuCo* is the auditor committee; *ForOwn* is foreign ownership; *InstOwn* is institutional ownership; *GovOwn* is government ownership; *DirOwn* is director ownership; *FS* is firm size; *FA* is firm age; Prof is profitability; *Liq* is liquidity; *Lis* is listing status; *IndTyp* is industry type; *AudTyp* is auditor type, *YD* is the year; and e is the error term. A summary of the definition and measurement of the variables are shown in Table 2.

TABLE 2 HERE

4. Empirical results

5.1 *Descriptive statistics*

Table 3 illustrates the descriptive statistics of the variables. The table indicates that the level of compliance of the Libyan firms with the mandatory requirements is 77%. This level is still lower than the finding of previous studies (Omar and Simon, 2011, Gao and Kling, 2012). With regard to the *VD,* Table 3 indicates that the extent of *VD* in the annual reports of the Libyan firms is 65% with a minimum score 59 items. The average level of *VD* (65%) is high when compared with previous studies (Hossain and Hammami, 2009, Omar and Simon, 2011, Madi et al., 2014). The overall disclosure level is nearly 68% with a minimum score of 81 items and maximum of 114 items out of the total of 141 items of the disclosure index. There has been a steady increase in corporate disclosures *MD*, *VD* and *ODL* over time, consistent with previous studies (Omar and Simon, 2011). Regarding the independent variables, the average board size is 8 members. Approximately 36% of companies' CEOs serve as board chairmen and the mean percentage of NEDs on the board is approximately 15%.

TABLE 3 HERE

5.2 *Correlation analysis*

Table 4 shows the correlation analysis between all variables of the study. Since there is no high correlation among the variables, our analysis shows that there is no serious multicollinearity problem present among the independent variables.

TABLE 4 HERE

Table 4 shows that board size, board composition, frequency of meetings, audit committee, foreign ownership, firm size, gearing, profitability, listing status, industry type and auditor type are significantly and positively correlated with the overall disclosure level *ODL*. On the other hand, role duality and government ownership are negatively correlated with the *ODL*. These findings support H_2 consistent with Samaha et al. (2012), and H_7 consistent with Ebrahim and Fattah (2015) .

Table 4 also shows that, explanatory variables are significantly and positively correlated with the extent of *VD* except role duality and government ownership where they are negatively correlated with the extent of *VD* in Libyan firms' annual reports.

5.3 *Multivariate regression results and discussion*

The results of the regression analysis of the determinants of corporate disclosure are shown in Table 5. The results presented in Table 5 show that approximately 54%, 85% and 82% of the variation in the disclosure index (*MD, VD* and *ODL*, respectively) between the sample companies can be explained by the nine independent variables with the inclusion of eight control variables. These results similar to Haniffa and Cooke (2002) at 46%, and Samaha et al. (2012) at 62%.

Generally, the results indicate that corporate governance variables are associated with the *ODL*. Firstly, and for the board size, the analysis finds that the coefficient estimate on *BoardS* is negative and statistically significant with the *ODL* at the 5% level. This finding provides evidence that small boards of directors are more effective and supports the findings of Yermack (1996), and is also consistent with the findings reported by Byard et al. (2006). Theoretically, this is consistent with the predictions of agency theory, which suggests that larger boards are associated with poor communication, co-ordination and free-riding problems, often leading to poor monitoring of corporate executives, and thereby impacting negatively on corporate disclosures. It is, however, not compatible with the predictions of resource dependence and stakeholder theories, which suggest that larger boards are likely to engage in higher levels of disclosure because of greater stakeholder pressure that is often associated with larger boards.

TABLE 5 HERE

Secondly, the study does not find any significant association between CEO role duality and the *ODL*. This result is in line with the studies that found no significant association between the extent of disclosure and role duality, such as Arcay and Muiño (2005), Barako et al. (2006), and Ghazali and Weetman (2006). For the board composition, the study finds that the coefficient estimate on *BoCo* is negative and statistically significant with the overall disclosure level at the 5% level. This finding rejects hypothesis H_3. This finding is in line with the findings of Eng and Mak (2003) and Barako et al. (2006) who reported the same negative association, and inconsistent with the findings of Wang and Hussainey (2013) and Samaha et al. (2015). This negative association contradicts with the theoretical underpinnings driven from agency, stakeholder and legitimacy theory. This contradiction may be related to the cultural influence in such countries, where appointing independent non-executive directors relies heavily on the social environment instead of competency. For frequency of board meetings (*FreMee*), the analysis finds that the coefficient estimate of *FreMee* is positive and statistically significant at the 1% level with the *ODL*. As anticipated, this finding lends support to hypothesis H_4. Theoretically, this is in line with the positive prediction which suggests that a higher frequency of board meetings contributes towards improving the quality of managerial monitoring leading to a positive influence on corporate disclosure.

Thirdly, our findings suggest that there is a significant positive association between *AuCo* and the *ODL* at the 1% level (0.001). Therefore, the researchers accept hypothesis H_5. Our findings regarding the role of audit committee in explaining the *ODL* is consistent with Ho and Shun (2001), Barako et al. (2006), and Samaha et al. (2015). Theoretically, this finding supports the prediction of agency theory, which assumes that the existence of an audit committee helps firms to reduce agency costs particularly if it is dominated by non-executive directors. With regard to the ownership structure variables, Table 5 does not show any evidence regarding the association between ownership structure variables (*ForOwn, GovOwn, InstOwn* and *DirOwn*) and the *ODL* neither *MD* nor *VD*. Therefore, our results do not support hypotheses H_6, H_7, H_8 and H_9. Our results are in line with Ghazali and Weetman (2006) who found there is no association between ownership structure and the extent of voluntary disclosure in Malaysia.

Our findings in relation to the control variables conclude that, *FS*, *Gear* and *Prof* are not associated with and the *ODL*, while *FA*, *Liq*, *List* and *IndTyp* are statistically associated with the *ODL*. Finally, the analysis finds that the coefficient estimates on auditor type (*AudTyp*) is positive but not statistically significant with the *ODL* at the 10% level (0.082).

Our findings in relation to the control variables suggest that, the coefficient estimate on firm size (*FS*) is found to be positively significant at the 1% (0.007) level only with the level of *VD*. This finding is supported by the evidence of Hassan et al. (2006) suggesting that *FS* has a negative influence on *MD* but a positive impact on *VD*. On the other hand, this contradicts with the findings of Meek et al. (1995) and Ntim et al. (2012a). For firm age (*FA*), the coefficient estimate is found to be positively associated with the *VD* and the *ODL* at the 5% (0.088) and 10% (0.094) level respectively. This finding is consistent with the findings of Hossain and Hammami (2009). For gearing the coefficient estimate is only positively associated with the *MD* at the 5% (0.030) level. Similarly, the coefficient estimate on profitability (*Prof*) is found to be positively significant only with the *MD* at the 5% (0.020) level. Table 5 also shows that, liquidity (*Liq*), listing status (*List*) and industry type (*IndTyp*) are positively and significantly associated with both *MD* (0.000, 0.015 and 0.000, respectively) and *VD* disclosure (0.002, 0.014 and 0.000 respectively).

Table 6 indicates that, for listed companies, consistent with our primary findings in Table 5. With regard to non-listed companies, board composition (*BoCo*) and frequency of meetings (*FreMee*) are statistically significant with the *ODL* at the 1% and 5% level, negatively and positively, respectively. For ownership variables, noticeably, the results presented in Table 6 are generally similar to those presented by *OLS* in Table 5, where no evidence of association is found.

5.4 *Additional analyses*

The researchers conducted a number of additional analyses to check the robustness of the results. A large volume of recent studies seeking to address apparent concerns of endogeneity within the accounting and finance literature is highlighting this issue for further investigation (Gippel et al., 2015). Firstly, instrumental variable is created using an alternative weighted index to test for endogeneity. Each sub-group is assigned an equal weight to the total. For example, *MD* consists of two groups in which 50 per cent is awarded to each group. Our results are presented in Table 6 in Columns 7, 8 and 9. The results are consistent with those reported in Table 5 (apart from observable minor sensitivities in the magnitude of the coefficients). This suggests that our evidence is largely robust to sub-groups estimations.

TABLE 6 HERE

Secondly, two-stage least squares (*2SLS*) is employed to check for any potential endogeneity. To ensure that the *2SLS* is appropriate, the analysis first regresses the unstandardized predicted values against the unstandardized residuals to check any potential correlation (e.g., Elmagrhi et al., 2016, Larcker and Rusticus). The results of *2SLS* are presented in Table 6 in Columns 10, 11 and 12. The results in Table 6 confirm the primary results reported in Table 5 with no evidence of association except for government ownership (*GovOwn*) with a statistically significant association at the 1% level with the *ODL* (apart from observable minor sensitivities in the magnitude of the coefficients).

Thirdly, we separated our sample into financial and non-financial companies as suggested by prior research (Elmagrhi et al., 2016, Ntim et al., 2013). Table 7 indicates that, for non-financial companies, the results are consistent with our primary findings in Table 5. With regard to financial companies, board size (*BoardS*), and role duality (*DualP*) are positively and statistically significant with the *ODL* at the 5% level. For ownership variables, apparently, the results presented in Table 7 are generally similar to those presented by *OLS* in Table 5, where no evidence of association is found. Interestingly,

Table 7 indicates that foreign ownership *(ForOwn)* and institutional ownership *(InstOwn)* are positively and statistically significant with the *ODL* at the 1% and 5% level, respectively.

Finally, Previous studies argued that there is a non-linear relationship between board characteristics and ownership variables and corporate disclosure practices (Sun et al., 2015, Elmagrhi et al., 2016). To detect the presence of non-linear relationships between corporate governance variables and the extent of corporate disclosure, this study re-estimate the *ODL* by including the squared values of $BoardS^2$, $ForOwn^2$, $GovOwn^2$, $InstOwn^2$ and $DirOwn^2$. The last Column in Table 6 presents the results of the non-linear model *NLM*. The coefficients on $BoardS^2$, $GovOwn^2$, and $InstOwn^2$ are statistically insignificant. However, the coefficients on $ForOwn^2$ and $DirOwn^2$ are significant indicating an evidence of non-linearity between these two variables and the dependent variable *ODL*. The findings of the remaining variables are still the same as our findings in Table 5 (apart from observable minor sensitivities in the magnitude of the coefficients). As a result, these findings support the probability of the presence of non-linearity link only between $ForOwn^2$ and $DirOwn^2$ and the *ODL*.

5. Conclusion

This paper investigates the association between corporate governance characteristics, ownership structure and corporate disclosure behaviour, with a focus on listed and non-listed firms, including financial and non-financial ones in Libya, as well as both mandatory and voluntary disclosures. Generally, the results suggest that the corporate governance variables are significant in explaining the extent of corporate disclosure. To start with, board size and board composition are found to be negatively related to the overall disclosure level, while frequency of meetings and audit committee have a positive and statistically significant association with the overall disclosure level. With regard to ownership structure variables, no relation found between these variables and the overall level of disclosure. Despite the changes taking place during the investigated period (2006-2010) when the Libyan economy started to witness a huge transfer of the ownership of government enterprises to private investors "Privatization", none of the ownership variables were found to support the agency relationship in the Libyan context.

This paper extends, as well as make a number of new contributions to the extant literature. Firstly, and unlike most prior studies that have examined how firm-level characteristics, such as firm size and industry, affect corporate disclosure behaviour, the current study examines how corporate boards, and ownership structure drive the level of corporate disclosure. Thus, this contributes to a small, but gradually increasing number of studies that have evaluated the effect of corporate governance and ownership structures on the level of corporate disclosure. Secondly, distinct from prior studies that have focused mainly on examining the determinants of only voluntary disclosure, the researchers examine the antecedents of both mandatory and voluntary disclosures. Finally, distinct from most prior studies, our analyses cover both listed and non-listed firms, and thereby allowing us to provide new empirical insights relating to the disclosure behaviour of both listed and non-listed firms in one of developing countries.

Furthermore, this paper's results have a number of implications. First, the results show that the disclosure level varies substantially among the Libyan listed and unlisted firms. This provides Libyan authorities with a vigorous motivation to strengthen legal enforcement more by enhancing CG and disclosure by establishing a compliance committee. This implies that Libyan authorities should consider imposing further mandatory requirements on Libyan firms to further protect investors and to avoid negative effects that may arise from non-disclosure compliance. The results reveal that ownership concentration hinder the process of disclosing more transparent information in general. This implies that Libyan policymakers may need to seek to implement further requirements on Libyan firms to further protect minority shareholders.

The researches' results support the directors' role in improving the process of disclosing more information rather than mandating of disclosure. However, the findings reveal a need for further enhancements in the Libyan context. The results rationalize the controversy over the influence improved CG has on disclosure practices, in general, and particularly within the Libyan context, which may lead Libyan policymakers to implement more CG reforms. Investors may also rely on such CG characteristics (e.g., board size and board independence) to shape expectations about the voluntary and/or mandatory information that is revealed. Our results shed new insights on the importance of corporate governance mechanisms in improving disclosure and accountability. Finally, evidence provided in this paper offers potential theoretical and empirical insights for future studies. In terms of theoretical implication, the results indicate that future studies may arguably improve their theoretical insights by relying on the other closely related theories, including neo-institutional, and stewardship theories, when exploring variables, which can influence CG and disclosure practices compliance.

There is an opportunity for future research to investigate disclosure practices using other channels of corporate disclosure such as corporate websites; to investigate if they have the same explanatory variables as annual reports. Future research, in Libya, could extend the sample size as the sample size for this study was limited by data availability and constraints of manual data collection. Useful insights may be offered also by future studies by conducting in-depth interviews with corporate managers, directors and owners regarding these issues. A comparative study with other countries in the region, with alternative or more advanced accounting and governance practices would provide an opportunity for further research. These suggestions offer a useful insight into disclosure practices by Libyan firms and provide a starting point for future research that might be necessary to deal with on-going changes that are likely to reverberate for many years to come.

References

Abdul Karim, M. E. (2005). Corporate Disclosure: A Comparative Study of Two Banks in Libya and Malaysia. *Working Paper presented at Financial Reporting & Business Communication Research Unit Sixth Annual Conference*.

Abdul Karim, M. E. (2012). *The Importance of Intellectual Capital Disclosure for Financial Decisions: An Exploration of Some Key Elements.* University of Aberdeen.

Alhazaimeh, A., Palaniappan, R. and Almsafir, M. (2014) 'The Impact of Corporate Governance and Ownership Structure on Voluntary Disclosure in Annual Reports among Listed Jordanian Companies'. *Procedia - Social and Behavioral Sciences, 129*(0), pp 341-348.

Aljifri, K. (2008) 'Annual Report Disclosure in a Developing Country: The Case of the UAE'. *Advances in Accounting, 24*(1), pp 93-100.

Aljifri, K., Alzarouni, A., Chew, N. and Tahir, M. I. (2014) 'The Association between Firm Characteristics and Corporate Financial Disclosures: Evidence from UAE Companies'. *International Journal of Business & Finance Research, 8(*2), pp 101-123.

Al-Janadi, Y., Abdul Rahman, R., & Alazzani, A. (2016). Does Government Ownership Affect Corporate Governance and Corporate Disclosure? Evidence from Saudi Arabia. *Managerial Auditing Journal, 31*(8/9), 871-890.

Al-Janadi, Y., Rahman, R. A., & Omar, N. H. (2013). Corporate Governance Mechanisms and Voluntary Disclosure in Saudi Arabia. *Research Journal of Finance and Accounting, 4*(4), 25-35.

Arcay, M. B. and Muiño, M. F. (2005) 'Corporate Characteristics, Governance Rules and the Extent of Voluntary Disclosure in Spain'. *Advances in Accounting, 21*(0), pp 299-331.

Barako, D. G., Hancock, P. and Izan, H. Y. (2006) 'Factors Influencing Voluntary Corporate Disclosure by Kenyan Companies'. *Corporate Governance: An International Review, 14*(2), pp 107-125.

Barako, D.G., & Brown, A.M. (2008). Corporate Social Reporting and Board Representation: Evidence From The Kenyan Banking Sector. *Journal of Management and Governance, 12*, 309-324.

Byard, D., Li, Y. and Weintrop, J. (2006) 'Corporate Governance and the Quality of Financial Analysts' Information'. *Journal of Accounting and Public Policy, 25*(5), pp 609-625.

Chen, J. and Roberts, R. (2010) 'Toward a More Coherent Understanding of the Organization–Society Relationship: A Theoretical Consideration for Social and Environmental Accounting Research'. *Journal of Business Ethics, 97*(4), pp 651-665.

Choi, F. D. S. (1973) 'Financial Disclosure and Entry to the European Capital Market'. *Journal of Accounting Research, 11*(2), pp 159-175.

Claessens, S., & Yurtoglu, B. B. (2013). Corporate Governance In Emerging Markets: A Survey. *Emerging markets review, 15*, 1-33.

Collett, P. and Hrasky, S. (2005) 'Voluntary Disclosure of Corporate Governance Practices by Listed Australian Companies'. *Corporate Governance: An International Review, 13*(2), pp 188-196.

Cooke, T. E. (1989a) 'Disclosure in the Corporate Annual Reports of Swedish Companies'. *Accounting and Business Research, 19*(74), pp 113.

Cooke, T. E. (1998) 'Regression Analysis in Accounting Disclosure Studies'. *Accounting & Business Research,, 28*(3), pp 209-224.

Ebrahim, A. and Fattah, T. A. (2015) 'Corporate Governance and Initial Compliance with IFRS in Emerging Markets: The Case of Income Tax Accounting in Egypt'. *Journal of International Accounting, Auditing and Taxation, 24*(0), pp 46-60.

Elmagrhi, M. H., Ntim, C. and Wang, Y. (2016) 'Antecedents of Voluntary Corporate Governance Disclosure: A Post-2007/08 Financial Crisis Evidence from the Influential UK Combined Code'. Corporate Governance: *The International Journal of Business in Society, 16*(3), pp null.

Elzahar, H. and Hussainey, K. (2012) 'Determinants of Narrative Risk Disclosures in UK Interim Reports'. *Journal of Risk Finance, 13*(2), pp 133-147.

Eng, L. L. and Mak, Y. T. (2003) 'Corporate Governance and Voluntary Disclosure'. *Journal of Accounting and Public Policy, 22*(4), pp 325-345.

Fama and Jensen, M. C. (1983) 'Separation of Ownership and Control'. *Journal of law and economics, 26*(2), pp 301-325.

Freeman, R. E. and Reed, D. L. (1983). Stockholders and Stakeholders: A New Perspective on Corporate Governance.

Gao, L. and Kling, G. (2012) 'The Impact of Corporate Governance and External Audit on Compliance to Mandatory Disclosure Requirements in China'. *Journal of International Accounting, Auditing and Taxation, 21*(1), pp 17-31.

Ghazali, N. A. M. and Weetman, P. (2006) 'Perpetuating Traditional Influences: Voluntary Disclosure in Malaysia Following the Economic Crisis'. *Journal of International Accounting Auditing & Taxation, 15*(2), pp 226-248.

Gippel, J., Smith, T. and Zhu, Y. (2015) 'Endogeneity in Accounting and Finance Research: Natural Experiments as a State-of-the-Art Solution'. *Abacus, 51*(2), pp 143-168.

Gray, S., Meek, G. and Roberts, C. (1995) 'International Capital Market Pressures and Voluntary Annual Report Disclosures by U.S. and U.K. Multinationals'. *Journal of International Financial Management & Accounting, 6*(1), pp 43-68.

Gul, F. A. and Leung, S. (2004) 'Board Leadership, Outside Directors' Expertise and Voluntary Corporate Disclosures'. *Journal of Accounting & Public Policy, 23*(5), pp 351-379.

Haniffa, R. M. and Cooke, T. E. (2002) 'Culture, Corporate Governance and Disclosure in Malaysian Corporations'. *Abacus, 38*(3), pp 317-349.

Hassan, G., Giorgioni, G. and Romilly, P. (2006) 'The Extent of Financial Disclosure and its Determinants in an Emerging Capital market: The Case of Egypt'. *International Journal of Accounting, Auditing and Performance Evaluation, 3*(1), pp 41-67.

Ho, S. S. M. and Shun, W. K. (2001) 'A Study of the Relationship between Corporate Governance Structures and the Extent of Voluntary Disclosure'. *Journal of International Accounting, Auditing and Taxation, 10*(2), pp 139-156.

Hossain, M. and Hammami, H. (2009) 'Voluntary Disclosure in the Annual Reports of an Emerging Country: The Case of Qatar'. *Advances in Accounting, 25*(2), pp 255-265.

Inchausti, B. G. (1997) 'The Influence of Company Characteristics and Accounting Regulation on Information Disclosed by Spanish Firms'. *European Accounting Review, 6*(1), pp 45-68.

Jensen, M. C. (1993) 'The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems'. *The Journal of Finance, 48*(3), pp 831-880.

Jensen, M. C. and Meckling, W. H. (1976) 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure'. *Journal of Financial Economics, 3*(4), pp 305-360.

Kribat, M., Burton, B. and Crawford, L. (2013) 'Evidence on the Nature, Extent and Determinants of Disclosures in Libyan Banks' Annual Reports'. *Journal of Accounting in Emerging Economies, 3*(2), pp 88-114.

Laksmana, I. (2008) 'Corporate Board Governance and Voluntary Disclosure of Executive Compensation Practices'. *Contemporary Accounting Research, 25*(4), pp 1147-1182.

Larcker, D. F., & Rusticus, T. O. (2010). On the Use of Instrumental Variables in Accounting Research. *Journal of Accounting and Economics, 49*(3), 186-205.

Leung, S. and Horwitz, B. (2004) 'Director Ownership and Voluntary Segment Disclosure: Hong Kong Evidence'. *Journal of International Financial Management & Accounting, 15*(3), pp 235-260.

Madi, H. K., Ishak, Z. and Manaf, N. A. A. (2014) 'The Impact of Audit Committee Characteristics on Corporate Voluntary Disclosure'. *Procedia - Social and Behavioral Sciences, 164*(0), pp 486-492.

Meek, G. K., Roberts, C. B. and Gray, S. J. (1995) 'Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. and Continental European Multinational Corporations'. *Journal of International Business Studies, 26*(3), pp 555-572.

Ntim, C. G. and Osei, K. A. (2011) 'The Impact of Corporate Board Meetings on Corporate Performance in South Africa'.

Ntim, C. G. and Soobaroyen, T. (2013a) 'Black Economic Empowerment Disclosures by South African Listed Corporations: The Influence of Ownership and Board Characteristics'. *Journal of Business Ethics, 116*(1), pp 121-138.

Ntim, C. G. and Soobaroyen, T. (2013b) 'Corporate Governance and Performance in Socially Responsible Corporations: New Empirical Insights from a Neo-Institutional Framework'. *Corporate Governance: An International Review, 21*(5), pp 468-494.

Ntim, C. G., Lindop, S. and Thomas, D. A. (2013) 'Corporate Governance and Risk Reporting In South Africa: A Study of Corporate Risk Disclosures in the Pre- and Post-2007/2008 Global Financial Crisis Periods'. *International Review of Financial Analysis, 30*, pp 363-383.

Ntim, C. G., Opong, K. K. and Danbolt, J. (2012b) 'The Relative Value Relevance of Shareholder versus Stakeholder Corporate Governance Disclosure Policy Reforms in South Africa'. *Corporate Governance: An International Review, 20*(1), pp 84-105.

Ntim, Opong, K., Danbolt, J. and Thomas, D. (2012a) 'Voluntary Corporate Governance Disclosures by Post-Apartheid South African Corporations'. *Journal of Applied Accounting Research*.

Omar, B. and Simon, J. (2011) 'Corporate Aggregate Disclosure Practices in Jordan'. *Advances in Accounting, 27*(1), pp 166-186.

Samaha, K., Dahawy, K., Hussainey, K. and Stapleton, P. (2012) 'The Extent of Corporate Governance Disclosure and its Determinants in a Developing Market: The Case of Egypt'. *Advances in Accounting, 28(*1), pp 168-178.

Samaha, K., Khlif, H. and Hussainey, K. (2015) 'The Impact of Board and Audit Committee Characteristics on Voluntary Disclosure: A Meta-Analysis'. *Journal of International Accounting, Auditing and Taxation, 24*(0), pp 13-28.

Shernanna, H. (2013). *Critical Perspectives on the Efficient Implementation of Privatisation Policies in Libya: Assessing Financial, Economic, Legal, Administrative and Social Requirements.* Durham University.

Sun, J., Ding, L., Guo, J. M. and Li, Y. (2015) 'Ownership, Capital Structure And Financing Decision: Evidence from the UK'. The British Accounting Review.

Vafeas, N. (1999) 'Board Meeting Frequency and Firm Performance'. *Journal of Financial Economics, 53(*1), pp 113-142.

Wang, M. and Hussainey, K. (2013) 'Voluntary Forward-Looking Statements Driven by Corporate Governance and their Value Relevance'. *Journal of Accounting and Public Policy, 32*(3), pp 26-49.

Yermack, D. (1996) 'Higher Market Valuation of Companies with a Small Board of Directors'. *Journal of Financial Economics, 40*(2), pp 185-211.