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Corporate governance and diversity management: Evidence from a disclosure perspective

Abstract

Purpose

Using textual analysis, we measure diversity management disclosure; we also explore the relationship between corporate governance and diversity management disclosure.

Design/methodology/approach

The study is based on a sample of the UK FTSE all-share non-financial organisations over the period from 2013 to 2019. We used a computer-aided textual analysis, and we used a bag of words to score the sample annual reports.

Findings

The results show that the mean of the diversity management disclosure level is very low. Also, there is a positive relationship between the board size, women on board, and board independence and the level of diversity management disclosure. The relationship is higher with more board members, women on board, and more independent directors, aligning with previous literature.

Practical implications

The implications of this research affect stakeholders and organisations which reflects the importance of communicating diversity practices and researchers by facilitating measuring objectively firms' diversity management practices that have not been applied previously in the field of diversity.

Originality/value

With different incidents taking place around the globe, such as the incident of George Floyd, and the increased attention to diversity, organisations are under increasing social and political pressure to reflect on their diversity management practices. Previous literature has examined firms' diversity practises from different perspectives, but this is the first paper to measure diversity management disclosure.

Keywords: Diversity management disclosure, gender diversity, board size, independent directors, textual analysis.

1. Introduction

Names such as George Floyd, Breonna Taylor and Jacob Blake have become familiar to a large number of people around the globe since 2020. The three names are for black citizens in the United States who have experienced police brutality resulting in the first two losing their lives and the third facing the possibility of being paralysed for the rest of his life (BLM, 2020). Alongside their names being recognised internationally due to the wide coverage in national headlines, movements such as Black Lives Matter (BLM) have also gained popularity. For the past few decades, many activists and organisations across the world have been calling for equality and inclusion. The discrimination many are facing is not only a result of having a different skin colour but it is also the result of having a different nationality, religious believe, body formation, etc. The concept of being 'different' triggers oppression and discrimination. Many institutions have tried to avoid this occurring in the workplace by applying diversity management practices. We have recently seen many initiatives from different regulators to enhance diversity management in the workplace. One of the most crucial examples is the diversity and inclusion strategy from 2018 to 2025, initiated by the UK government.

Diversity management (DM) is defined as "voluntary organisational interventions designed to recognise and accommodate workers' demographic and personal differences into formal and informal organisational structures through deliberate measures and policies, to maximise the contribution of staff to organisational goals" (Donnelly, 2015, p.199). DM includes gender diversity, gender pay gap, inequality in career progression opportunities, challenges for people with disabilities or people with caring responsibilities (CIPD, 2019). DM started to attract the attention of organisations during the 1980s (Dobbin, 2009), and the global attention followed with several studies looking into the topic of diversity management as a whole (Colgan et al., 2019) or looking at six specific elements or themes of the diversity process, such as ethnicity, race, culture, gender, age or disabilities (Khan et al., 2019a; Dobusch, 2017).

Despite being a topic of discussion and debate for the last few decades, DM is still not entirely implemented to include disadvantaged groups (Dobusch, 2017). Theodorakopoulos and Budhwar (2015) reviewed studies that examined the six themes of DM and concluded that despite the increased research on diversity in the past few decades, there are still several perspectives regarding each theme that need to be researched, such as the impact of gender diversity on corporate governance, and research regarding age diversity, especially in non-western contexts. Diversity is of interest to both employees and consumers of any organisation. Although diversity is an essential means of success for any organisation, some executives still, unfortunately, believe that DM does not add any value to the organisation (Llopis, 2011). Robinson and Dechant (1997) claimed that these benefits include better quality of staff, fewer problems and lawsuits against organisations for discrimination, lower rates of staff turnover and absenteeism, leading to cost savings, an enhanced understanding of diverse markets and improved levels of creativity. But how do organisations reveal information about their adoption of DM?

For organisations, published annual reports are a significant tool for disclosing different kinds of information to various users, including shareholders, customers, financial analysts, governmental bodies, and others (Athanasakou et al., 2020; Ajina et al., 2016). The information disclosed helps the stakeholders with their decisions in the most effective way (Elshandidy & Neri, 2015; Lehavy et al., 2011). Annual reports and the information disclosed within them, which differ from one firm to another (Henry, 2008), are regarded as the primary source of information for many users (Marston and Shrives, 1991), and different users are interested in different parts of the reports (Fisher et al., 2019). Specific categories of information are obligatory for all firms to disclose in their annual reports. Other categories are voluntary, and the amount and quality of this voluntarily disclosed information differ from one company to another. Voluntary disclosure can reflect the orientation of the management of a firm by looking at the amount and quality of the information they decide to disclose. This could be affected by managerial incentives (Healy and Palepu, 2001). It could be claimed that the higher the level of voluntary disclosure, the higher the level of transparency (AlHares, 2020; Rouf, 2017). In addition to this, there is a positive relationship between the extent of disclosure and the willingness of investors to pay higher premiums (Ko et al., 2019; Mitton, 2002).

When examining voluntary disclosure of organisations, previous research focuses on corporate social responsibility (CSR). Some studies consider diversity as a component of CSR claiming that a strong diversity and inclusion strategy is often a mainstay of a firm's overall CSR (Cucari et al., 2018; Siddiqui., 2015; Fernandez-Feijoo et al., 2014; Ciocirlan & Pettersson, 2012). However, there is an ongoing debate on the key factors that compose CSR (Du, 2018; Khan et al., 2018). There is only one research (Khan et al., 2018) that considered a sole aspect of diversity management disclosure, which is disability employment disclosures. The study concluded that corporate disclosures on disability employment are lacking, urging regulators to work towards more meaningful reporting for better alignment between disability employment expectations and firm practices. Diversity management disclosure (DMD) has remained untouched due to the absence of measurement for the disclosure of such a significant element of corporate social responsibility, and this is what we do in this paper.

This paper derives its importance from the current events taking place around the globe related to DM and how organisations reflect on their efforts of prevailing justice in their institutions, and how they disclose DM informationFurethermore, there is an absence of mandatory regulations for the diversity management disclosure in the UK. Thus, this paper aims to measure the level of DMD by developing a unique measurement as well as examining the effect of corporate governance mechanisms on the DMD.

The contribution of this study is threefold. The first contribution is developing a unique measurement for DMD by being the first study to build an index to do so. The second contribution is a methodological contribution by applying an automated textual analysis technique in the context of DMD. The use of textual analysis for qualitative information has been applied in a few studies, and its importance has been recognised by different researchers (;; Andreou et al., 2020; Clarkson et al., 2020; Ertugrul et al., 2017; Loughran and McDonald, 2011). Our paper is the first in this domain – to the best of our knowledge – to apply automated textual analysis to measure the level of DMD from a qualitative perspective. This helps to emphasise how organisations engage with DM and communicate the diversity practices to the stakeholders through their annual reports. The third contribution is through investigating the association between corporate governance, namely the board size, board independence and women on board and DMD.

2. UK legislation and diversity data

There are cases in public sectors where obligations and laws can affect the decision of applying DM (Colgan et al., 2009; Healy et al., 2011). One of the factors that can affect the disclosure of diversity and inclusion is the lack of information about the employees working in the organisations (CIPD, 2019). It has been claimed that employers in the UK do not hold adequate information related to diversity about their employees. This is evident in the 'race in the workplace' review implemented by the UK government, which referred to limited transparency regarding the employee data (McGregor-Smith, 2017). Only 74 out of the 100 FTSE provided evidence of their attainment of workforce data. In addition to this, CIPD surveyed employers in the UK. The survey showed that there was a lack of coverage and quality of race and ethnicity data (CIPD, 2017). Their research showed that employers have a problem with either the possession of workforce data or with accessing the data they already have. Additionally, only 21% of the employers who participated in the survey reported on BAME (Black, Asian and minority ethnic). Furthermore, a different study was conducted in order to measure the extent to which disability was reported in the sustainability reports of UK firms. 274 reports were analysed, and the researchers concluded that there is a lack of corporate disclosure about employees with disabilities (Khan et al., 2019).

The lack of transparency and coverage of the workforce data can be a result of the UK legislation regarding collecting and keeping data about employees. Rules or legislation can be a factor that influences diversity management. For example, companies with less than 250 employees are exempt from the gender pay gap legislation (CIPD, 2019). Moreover, employers are not obligated to report any diversity measures except for gender (Houghton et al., 2019). Regarding keeping the data, employers in the UK have to take employees' permission to keep any personal data except for data about age and sex. So any information that leads to identifying the person would usually need consent (Deakin and Morris, 2012). Examples of this other data can be "race or ethnic origin, political opinions, religious or other beliefs, membership of a trade union, physical or mental health, sexual life, and offences" (Deakin and Morris, 2012, p.388). Furthermore, as it is apparent, this type of data is what can aid organisations when adopting DM to ensure that diversity, inclusion and equality have been met, and hence be able to disclose this fact as part of the organisation's culture and part of its CSR.

Despite the restrictions mentioned above, the Data Protection Act 2018 states under the section 'equality of opportunity or treatment' that processing data can take place under the conditions that: "the processing— (a) is of a specified category of personal data, and (b) is necessary for the purposes of identifying or keeping under review the existence or absence of equality of opportunity or treatment between groups of people specified in relation to that category with a view to enabling such equality to be promoted or maintained" (Data Protection Act, 2018, p.133). Racial and ethnic diversity at senior levels of organisations is also part of the legislation in which data could be collected and processed if it: "is necessary for the purposes of promoting or maintaining diversity in the racial and ethnic origins of individuals who hold senior positions in the organisation or organisations" (p.134). This means that obtaining and processing the data can be an option for organisations that are willing to have diversity embedded in their organisational goals and strategies (Brown, 2017). They just need to comply with the laws regarding declaring why they are collecting it and make sure it is protected as required. If the organisational environment is welcoming, or if they explain in detail the importance of having such data, existing employees or potential employees would be happy to provide such information knowing that this will be used for inclusion and not discrimination.

3. Literature Review and Hypotheses Development

We draw upon the stakeholder theory in this paper to explain the process of disclosure for DM and its essentiality to the corporation. The stakeholder theory states that the success or failure of any firm depends on the values created by this firm to all those who have a 'stake' in the company. This includes customers, employees, communities, shareholders, banks, etc. (Freeman et al., 2010). The value provided through DM and the disclosure of the organisation in this sense is one of the success criteria according to the stakeholder theory. Stakeholder theory is a theory of organisational management and ethics (Phillips et al., 2003). This reflects the main foundation of the theory, which states that there has to be an emphasis on the interests and wellbeing of all those who can help the firm achieve its goals rather than focusing on increasing the welfare of the shareholders solely. There is then a clear relation between adopting DM and the stakeholder theory.

Given the fact that DM leads to profitability growth, a debate has aroused regarding whether organisations adopt DM for their own commercial interest (what is called the business case) or for the sake of achieving social justice and performing something morally right (Theodorakopoulos and Budhwar, 2015; Michalos, 2013; Tomlinson and Schwabenland, 2010). In both these cases, the organisations have the choice to adopt diversity voluntarily. However, Rhodes (2017) claimed that the business case is the main reason diversity is adopted due to the financial gains resulting from having a diverse workforce (Barney et al., 2011; Jayne and Dipboye, 2004). One of the problems with applying the business case of diversity is that some organisations deal with it as a 'strategic asset' (Tatli et al., 2015) which means that they will abandon its use as soon as they perceive or the numbers indicate that it had not led to the growth of profits and they will replace it with other practices which, they believe, would do so (Knights and Omanović, 2016). This is a result of applying DM in the organisations as a business case, as this would not be the case when applied due to the adoption and application of social justice and equality. Dobbin (2009) argued that organisations tend to focus on the 'best practices' – which are referred to by Ben Amar et al. (2013) as 'Statutory' board diversity – whichare mainly about the 'showcase' rather than considering recommendations of studies that urge organisations to conduct real changes. Dobbin (2009) argued that organisations tend to focus on ‘best practices’ rather than applying the real and effective changes recommended by many studies. Ben Amar et al. (2013) referred to this practice as ‘statutory’ board diversity, which is mainly about ‘showcase’.

To conclude, according to stakeholder theory, DMD serves as an instrument of meaningful communication and engagement between the reporting entity and DM social constituents (Khan et al., 2018). Providing information on DM will help showcase the stakeholders' firms' DM practices (Eccles et al., 2014). The following section discusses the relevant studies that have touched on this issue, and develops and states the hypotheses.

3.1. Board Size and diversity management disclosure

Since the decision of disclosure is made by the board of directors, and the role of this board is to create the policies and strategies for the management, there is a positive relationship between the number of directors on the board and the reduction of information asymmetry (Elmarzouky et al., 2022; Chen and Jaggi, 2000) through the provision of accurate and updated data. Akhtaruddin et al. (2009) concluded that there is a positive relationship between voluntary disclosure and board size.

Board size is a significant element to measure the effectiveness of corporate governance (Elmarzouky et al., 2021a; Allini et al., 2016). Based on the stakeholder theory's assumption, larger boards will associate with more expertise which would likely lead to a high level of disclosure (Zahra et al., 2000). Previous literature suggests this positive association in different disclosure contexts, such as a positive association between the board size and forward-looking disclosure (Wang and Hussainey, 2013) or the board size and risk disclosure (Allini et al., 2016; Elshandidy and Nero, 2015).
Diversity management is a CSR element, so we argue that board size applies pressure on the management to disclose more information related to DM. Board size reflects governance power. Thus, we suggest that the increase in the board size is associated with more DM being disclosed in the annual reports.

H1: Ceteris paribus, there is a positive relationship between the board size and DMD in annual reports.

3.2. Board Independence and diversity management disclosure

According to the stakeholder theory, management should disclose information for the stakeholders' interest, not for the management's own interest. An organisation with more non-executive directors will have stronger governance that will lead the management to disclose more information in the interest of the stakeholders. Kosnik (1990) claimed that outside directors could lead to more profitability growth than inside directors who will maximise the stakeholders' wealth. The greater the number of independent non-executives on board, the higher the potential for voluntary disclosure (Hammami et al., 2020; Akhtaruddin et al., 2009). And the quality of this disclosure is also affected by the number of those independent non-executives (Forker, 2002; Chen and Jaggi, 2000).

The independent board of directors has been claimed to be an important part of corporate governance (CG), and the level of independence of the non-executive directors positively increases the effectiveness of the board (Elmarzouky et al., 2021b; Shan, 2019; Allini et al., 2016; Elshandidy et al., 2015). The number of independent non-executive directors increases the transparency in the annual reports (Srinidhi et al., 2011). This will eventually result in maximising the quality of the reporting process and the ability of the board while minimising potential information asymmetry (Allini et al., 2016). Furthermore, non-executive directors can be a source of pressure on the management to increase the amount of information disclosed (Lopes and Rodrigues, 2007; Albitar, 2015). Thus, we argue that firms with high percentages of non-executive directors will associate with a high level of DMD.

H2: Ceteris paribus, there is a positive relationship between board Independence and DMD in the annual reports.

3.3. Women on board and diversity management disclosure

The call for women on boards in CG from different stakeholders, academics, professional bodies and activist groups has been taking place for the last few decades (Yu, and Wang, 2018; Donnelly, 2015; Theodorakopoulos and Budhwar, 2015). The pressure exerted on the governments to address this issue has led some countries to enforce laws to protect women and ensure equality takes place in the workplace. As a result, increased attention has been paid globally to the issue of women on board, supported by the effort of different organisations, such as Catalyst and the EPWN, who report on the levels of adoption of women on boards and top management of organisations in different countries (Labelle et al., 2015).

Previous literature provides empirical evidence for a positive association between the percentage of gender on board and the effectiveness of CG and organisational performance (Husted and Sousa-Filho, 2018; Ben Amar et al., 2013; Valenti, 2008; Rose, 2007). Boards with high percentages of women will not only improve the disclosure practice but also increase the level of stakeholders' trust and confidence in the management as they show higher levels of moral maturity than men (Husted and Sousa-Filho, 2018; Srinidhi et al., 2011). The increased percentage of women should not be a result of 'glass cliff' as was the case in many companies (Mulcahy and Linehan, 2014). Some literature suggests that the relationship between women on the board and CG relationship is positive (Albitar et al., 2020; Rouf, 2017;). Hoang et al. (2016) also concluded that there is a significantly positive effect of diversity-in-boards (which includes demographic attributes of board members) on corporate social disclosure. Thus, we argue that the higher the percentage of women on board, the higher the level of DMD.

H3: Ceteris paribus, there is a positive relationship between the percentage of women on board and diversity management disclosure in the annual reports.

4. Methodology

4.1. Sample selection and data collection

We applied our study to the United Kingdom as it has issued the latest diversity and inclusion strategy 2018 to 2025 and is also considered an advanced governance market (Tatli et al., 2011) owning a unique governance environment. Furthermore, the UK Corporate Governance Code in FRC (2016) states that gender and race are essential diversity factors that can enhance the performance of the board and improve debates benefiting the firm (Guest, 2019). Moreover, the UK is the only country that does not have an imposed gender quota in place and is also ranked in the top ten countries that have 3 or more female directors. The remaining nine of the top ten countries all have gender quotas, and eight of them are in Europe (Catatlyst, 2020). Moreover, the UK has established local firms and headquarters of highly recognised international firms. The legislation and its orientation towards diversity management will result in an increase in stakeholder expectations towards more information in the annual reports about DM.

The sample for this research comprises the UK FTSE-All share non-financial firms for the financial years 2013-2019. The initial sample consists of 302 firms with 1812 firm-year observations. We dropped the firms that had missing variables. We also excluded the financial firms. The choice of the financial firms was excluded as there are different regulations imposed on these firms in regard to disclosure requirements. The reason for choosing the annual reports from the UK only is because research has shown that the values of DM can be different for organisations operating in different regions and even different from their headquarters for the same organisations (CIPD, 2019; Lauring, 2013, Sippola and Smale, 2007).

We used the Eikon database to gather the financial information of the firms. We also used the narrative sections of the annual reports. The information provided in these sections has been claimed to be an effective means of communication between both the management of the firms and the stakeholders (Hussainey et al., 2022; Andreou et al., 2020; Fisher et al., 2019; Barkemeyer et al., 2014).

In order to extract the narrative sections in the annual reports, we used an automated content analysis method - Corporate Financial Information Environment (CFIE) software which was created by Lancaster University. CFIE is a research programme exploring accounting and financial market text using natural language processing and corpus linguistics methods (El-Haj et al., 2019). We utilised it to score the DMD. The main focus was on the narrative disclosure of diversity management.

4.2. Index Development

We developed a unique measurement based on a conducted wordlist related to diversity management in order to measure the level of DMD in the annual reports. The conducted wordlist is based on a few main sources related to the UK legislation for employment and any issue to do with DM. These are as follows: the UK diversity and inclusion strategy 2018 to 2025, the Equality Act 2010, Race Relations Act 2000, Humans Rights Act 1998, a Guide for the UK Employment Law (based on Equal Pay Act 1970, Health & Safety at Work, etc. Act 1974, Sex Discrimination Act 1975, Race Relations Act 1976, Trade Union and Labour Relations (Consolidation) Act 1992, Disability Discrimination Act 1995, Employment Tribunals Act 1996, Employment Rights Act 1996, Public Interest Disclosure Act 1998, Data Protection Act 1998, National Minimum Wage Act 1998, Human Rights Act 1998, Employment Relations Act 1999, Employment Act 2002, Employment Relations Act 2004, and Disability Discrimination Act 2005), the Civil Service Diversity and Inclusion Strategy

2017, and the Civil Service's Refreshed Action Plan: Removing the Barriers to Success 2015 which focused on the BAME, disabled people or those with health conditions, and the LGBT.

We examined the level of DMD by reading a sample of 30 UK randomly selected corporate annual reports. The most critical stage was finalising the list of words that are relevant to DMD. Disclosure wordlists usually measure the level of corporate disclosure by counting the frequency of the word(s). We used LancsBox software (software developed by Lancaster University) to find the most frequent phrases on the annual reports for FTSE All-share non-financial firms.

4.2.1. Index validity and reliability

For the validity and reliability of our constructed index, we conducted these steps - to find the most frequent phrases on the annual reports - on an individual basis first by the three authors of this paper. Furthermore, we additionally followed this by cross-checking our word choice and agreeing on the shared word choice. We consulted an independent professional to suggest word choices for DM, and we found that the wordlist suggested was already included in our constructed index. The reliability of the CFIE measurement was attained through double-checking the score for a random sample of 50 annual reports manually, and the outcome remained consistent. This was followed by validating the CFIE measurement by using Nvivo 12 pro to score a random sample of another 50 annual reports using the same wordlist, and also, the outcome remained consistent.

4.3. Research Model

This paper used a multivariate regression model to test the hypotheses using the FTSE All-share non-financial listed firms from 2013 to 2019, using our unique DMD index as the dependent variable and the CG characteristics as the independent variables to identify the determinants of the DMD. We controlled for the industry fixed effect in order to avoid any bias caused by the industry effect. We created the dummies based on the SIC one-digit industry classification by using the available industry classifications. The model is formulated as follows:

$$DMD = \beta0_{i,t} + \beta1\ BS_{i,t} + \beta2\ IND_{i,t} + \beta3\ Women\%_{i,t} + \beta5\ Firm\ size_{i,t} + \beta6\ Current\ Ratio_{i,t} + \beta7\ Gearing_{i,t} + \beta8\ CEO\ gender_{i,t} + \beta9\ Time\ to\ retirement_{i,t} + \beta10\ Time\ onboard_{i,t} + \beta11\ CEO\ Nationality_{i,t} + Year\ Fixed + Industry\ Fixed\ Effects + \varepsilon_{i,t}$$

Where for company *i* in year *t*.

Board Size (BS): The number of directors on the firm's board is used to measure board size (Albitar et al., 2020; Orazalin, 2019; Husted and Sousa-Filho, 2018; Javaid Lone et al., 2016 ; Allegrini and Greco, 2011).

Independent non-executive directors (IND): The percentage of independent non-executive directors (Albitar, 2015; Samaha et al., 2015; Lim et al., 2007).

Women on board (Women %): The percentage of women on board of directors has been used to measure women on board (Husted and Sousa-Filho, 2018; Giannarakis et al., 2014; Adams and Ferreira, 2009and).

Control variables: firm size measured by total assets, gearing, current ratio, CEO gender, CEO time to retirement, CEO time on board and CEO nationality (UK vs Global) (Aouadi and Marsat, 2018; Bernardi and Stark, 2018;; Kao et al., 2018).

5. Empirical results

5.1. Descriptive Statistics

Table 1 shows the descriptive statistics for the variables included in the research model. As can be seen, the mean of the DMD is 10 with a minimum of 1 and a maximum of 86. This reflects that some firms do provide limited DM information. This means that most firms do not have sufficient levels of DMD. Also, none of the samples has disclosed all the related DM information in the annual reports; this might be a result of the non-existence of mandatory regulation for DM reporting in the UK. We can see that the percentages of non-executive directors on the board of directors ranged from 18% to 86% with a mean of 57%. It can also be noted that the board size ranged from 3 to 16 members. Furthermore, the mean of the percentages of women on board is 20%, with a minimum of 0% and a maximum of 60%. This illustrates that some firms do not have any females on board on the board of directors. The table also shows the descriptive for the remaining control variables, namely CEO gender, time to retirement, time on board and whether the company is national or global.

Insert table 1 here

Table 2 shows the correlation between the dependent and the independent variables. The correlation matrix shows the correlation between DMD and the governance mechanism variables: board size, the percentage of independent directors on the board, and the percentages of women on board. The table also shows As well as the correlations among the other control variables: the total assets, the liquidity, gearing and firm age. This is to make sure that there is no multicollinearity among our model variables. By looking at the result, we cannot see any evidence that our model has multicollinearity. Moreover, we conducted a VIF test which also confirms that there is no multicollinearity issue. [1]

Insert table 2 here

5.2. Multivariate Analysis

Table 3 shows the regression results for the constructed model, and as it can be seen from the result that the CG mechanism including board size, board independent, and women on board positively affects the level of DMD. We have used Ols, fixed effect to tackle the standard error, and the results remain consistent. We decided to use the fixed effect regression based on the

[1] We don't report VIF test in this section for simplicity

suggestion of the Hausman test result. We have also employed 2SLS and two-step GMM estimators as robustness checks to make sure that the primary results of estimating a fixed-effects model are not severely influenced by the possible occurrence of endogeneity problems (Guest, 2019; Blundell & Bond, 1998). The coefficient of DMD is positive and significant at 1% in all models. This indicates that the relationship between the DMD and the governance mechanism remains positively significant at a level of an interval of 99%. That can be interpreted and concluded that the stronger the governance power within the firm, the more DMD. We can see that the number of directors on the board of directors is significantly associated with the DMD. The board size is the main factor for the governance mechanism and CG. The presence of more members means more experts within the board which leads to pressure on the management for DMD.

By looking at the percentages of the non-executive directors within the board, the results suggest a significant positive relationship with the DMD. The more independent directors mean that they will oversight the management strategy towards the DMD. Also, for gender diversity, the more women on board, the more efforts the management will consider DMD. Overall,All-over, it is evident that the CG mechanism creates and increases the level of DMD.

Insert table 3 here

5.3. Robustness check

Table 4 shows the regression results when using governance pillars as an alternative to measurement of the governance characteristics variables. CG pillar- which measures companies' system and process and ensures that board members act to the best interest of long-term shareholders - reflects the company's capacity through its use of best management practice. As can be seen from Table 4, we run for firms using the governance pillars. This is to assure our previous regression results. We also tackle the possible occurrence of endogeneity problems using 2SLS and two-step GMM estimators (Blundell & Bond, 1998). The results show that the firms with higher governance pillar will disclose more DM information, and likewise the firms with a low percentage of governance pillars tend to disclose less DM related information. The table also shows that the effect of governance pillars on the DMD is always statically positively significant. This outcome is inconsistent with our previous findings. In the absence of mandatory regulations for DMD, firms with stronger corporate governance will have a higher level of DMD.

Insert table 4 here

6. Additional analysis

Table 5 illustrates the regression results with a mean of 20% for women on board. It shows the number of firms with 20% or more and those with less than the mean of 20%. The table shows the regression using the OLS and the fixed effect regression, as suggested by the Hausman test. We use this to explore how the CG mechanism would affect the DMD when considering different percentages of women on board above and under the mean. The coefficient for the women on board more than or equal to the mean is 0.958, and for the women on board, less than the mean is 0.938. While using the fixed effect for both women on board more than or equal and less than the mean, the coefficients are 0.867 and 0.763 respectively. The results suggest that the firms with higher percentages of women on board associate with more DMD compared to firms with lower percentages of women on board. The results suggest that the effect of women on board on the DMD is positively significant. This outcome is consistent with the literature (Allini et al., 2016; Elshandidy and Nero, 2015); the gender on board is a main factor for the governance mechanism, and the CG contributes to the effectiveness of the DMD. More women on board means more pressure on the management to increase the level of DMD.

Insert table 5 here

As an additional analysis, in order to explore how the percentages of independent directors may affect the DMD, we divided our sample into two subsamples as can be seen from table 6. We run the regression for firms with more than or equal to the mean percentage of non-executive directors in the board of directors (≥57%) and the firms with less than the mean (<57%). We investigated the association between CG and DM, considering different percentages of non-executive directors on the board of directors. The table shows the regression using the OLS and the fixed effect regression, as suggested by the Hausman test. The coefficient for the percentage of non-executive directors in the board more than or equal to the mean is 0.757, and for the percentage of non-executive directors in the board less than the mean is 0.859. While using the fixed effect for both percentage of non-executive directors in the board more than or equal and less than the mean, the coefficients are 0.297 and 0.694, respectively. The same results were suggested by Tobit regression. The results suggest that firms with a higher percentage of independent members on the board associate with higher coefficient with DMD and vice versa, the firms with a lower percentage of independent directors in the board associate with a lower level of DMD. The results also suggest that the association between the independent directors in the board and the DMD is always statically positively significant. This comes in consistence with the argument that firms having more independent directors will have more power and control to and oversight the management, thus higher level of DMD. This comes in line with the literature (Allini et al., 2016). The more independent directors will reduce the information asymmetric and increase the disclosure in general. The board contains more independent directors will be more motivated and more effective towards DMD.

Insert table 6 here

In table 7, we subsample our data based on the board size. The results suggest that firms with a bigger board associates with higher coefficient with DMD and vice versa, and the firms with a smaller board associates with a lower level of DMD. This supports our argument that firms with bigger board tend to be keen to disclose more DM information. Bigger board means wider Expenses and more pressure on management to be more transparent in terms of DM information.

Insert table 7 here

7. Conclusion

Given the increasing light shedded on diversity and the importance of inclusion, especially after the events that took place in the recent years, such as incidents of George Floyd and others, organisations would start to recognise that disclosing information about their DM adoption is as crucial as other issues that affect how different stakeholders see the organisation. This paper aims to develop a unique measurement to measure the level of DMD using automated textual analysis based on a sample of the UK FTSE all-share Non-financial organisations over the period from the fiscal year 2013 to 2019. Furthermore, we aim to investigate the association between CG and the level of DMD.

We find that the level of DMD is very low. Also, there is a positive relationship between the board size, women on board and board independence and the level of DMD. Thus, organisations with more governance power disclose more information on DM. We further investigated using a subsample for the women on board over and under the mean score. Our results suggest that the association between the women on board and the DMD is higher when the organisation has a number of women higher than the mean.

Similarly, we investigated the association between the board independence and the DMD when considering different percentages of board independence. Our results also suggest that organisations with high percentages of independent directors associate with a higher level of DMD. To confirm our index reliability, we run a robustness check analysis using the governance pillar instead of the governance mechanism variables individually, and the results remain consistent. Our results come in consistence with the stakeholder theory and with our suggested hypotheses.

This paper contributes to the literature by introducing a unique measurement for DMD. The index will be essential for any future narrative disclosure research in this domain. This paper also makes a methodological contribution by applying automated textual analysis in the diversity management context to examine the level of organisations diversity engagement. We further make an empirical contribution by bridging the essential link between DMD and board size, women on board and board independence. To date, research exploring this relationship has been virtually non-existent.

Our results are extremely beneficial for the regulators, governments, management, shareholders and academics. For instance, standard-setter will have a better understanding of the management diversity disclosure behaviour. Policymakers can mandate DMD and establish reporting regulations in this regard. The government will also benefit as it can provide a detailed guideline for the diversity disclosure practice. Corporate managers would need to strengthen their governance mechanisms to enhance DM and DMD in the annual reports. The shareholders will have a clearer idea of how organisations are engaged with DM. Managers will enhance their diversity practice, and this will positively benefit the society by being more inclusive and taking in considerations ethnicity, race, culture, gender, age and disabilities.

8. Limitations and future research

Despite the important contributions of this research to the existing body of knowledge, there are limitations to this study. These include the fact that the research was conducted on the non-financial firms only. Including all the firms may show a different result. The context also was limited to the UK and it would be interesting to apply this study on different countries to see if there any similarities or differences between different economies. Furthermore, this research does not take in consideration the difference between the institutional versus the individual investors.

Future research can conduct an index using financial and non-financial firms. In addition to this, an index using the number of sentences can be further created instead of using the number of words.

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