# Does board ethnic diversity affect IFRS disclosures?


## Abstract

**Purpose** – This paper examines the impact of board ethnic diversity on the level of compliance with IFRS disclosures.

**Design/methodology/approach** – Using a unique hand-collected dataset from South Africa, we develop a comprehensive disclosure index against 570 mandatory requirements of IFRS. Regression analyses are used to investigate whether board ethnic diversity affects IFRS disclosures.

**Findings** – We document a significant positive association between ethnic minority directors and IFRS disclosure levels. Furthermore, we reveal that non-busy ethnic minority directors have a greater impact on IFRS disclosure levels than their busy counterparts. Additional analyses show that ethnic minority directors have less impact on IFRS disclosure levels when their number exceeds two. Companies with more ethnic directors on audit committees are more likely to comply with IFRS disclosure requirements and ethnic diversity increases accounting disclosures irrespective of the level of ownership concentration.

**Originality/value** – Our findings shed new light on the impact of board ethnic diversity on firms' compliance with IFRS disclosure requirements. The results are robust to alternative econometric techniques, proxies and potential endogeneity concerns.



**Keywords** Board diversity; Ethnicity; IFRS compliance; South Africa

## 1. Introduction

The inclusion of people with different attributes, traits and backgrounds on corporate boards (i.e. board diversity) has gained much attention in recent years. As a result, firms have responded by increasing the number of women and ethnic minorities on boards (Adams and Ferreira 2009; Guest 2019; Gyapong et al. 2016; Tee and Rassiah 2020). Prior research on board diversity has generally focused on board gender diversity (Adams and Ferreira 2009; Brahma et al. 2021; Ye et al. 2019; Yarram and Adapa 2021; Zalata et al. 2022). For example, Brahma et al. (2021) found that gender diversity has a positive and significant impact on firm performance using a sample of UK firms. Ye et al. (2019) reveal that female representation on boards could promote dividend payouts. Similarly, Yarram and Adapa (2021) find that gender diversity has a positive impact on firms' CSR activities. Elms and Kent (2023) discovered that gender diversity is positively linked to the adoption of nomination committees in medium and smaller-sized firms. Zalata et al. (2022) show that the presence of female directors is associated with fewer earnings management. There is growing evidence that board ethnic diversity impacts firm-level outcomes including earnings quality (Tee and Rassiah 2020), firm performance (Ellis and Keys 2015; Gyapong et al. 2016), accounting misstatements (Guest et al. 2019) and corporate social responsibility (Hoang et al. 2018; Khan et al. 2019). The results from these studies generally suggest that diverse boards reduce agency problems and information asymmetry by improving information disclosure. Thus, it's likely that board ethnic diversity may enhance firms' compliance with International Financial Reporting Standards (IFRS) disclosure mandates, which is a crucial step in providing reliable accounting information to stakeholders.

In this study, we examine whether board ethnic diversity is associated with the compliance level of IFRS disclosures. More specifically, we measure IFRS disclosures by the firm's compliance with the mandatory requirements of IFRS. IFRS has been hailed as a quality global

accounting standard that promotes accounting disclosures (Hodgdon et al. 2008). Previous research indicates that enhanced disclosure can reduce information asymmetry, lower the cost of capital, and boost market liquidity (Welker 1995; Bushee and Leuz, 2005; Mazzi et al. 2017). By providing more detailed and comprehensive information, companies allow stakeholders to have a better understanding of their operations, financial health, and risks (Welker 1995; Bushee and Leuz 2005). This transparency ensures that all parties have access to the same information, thus reducing information asymmetry. Similarly, companies that disclose more information often benefit from a reduced cost of capital. When investors have more information, they can better assess risks, leading to a lower required rate of return (Mazzi et al. 2017). On the other hand, companies that disclose less information are often perceived as riskier by investors (Saha and Bose 2021). As a result, they might face higher borrowing costs or a higher required rate of return from the investors due to the increased perceived risk. Moreover, IFRS is a single set of standards that prescribes detailed requirements for accounting disclosures. Therefore, it has been widely used as a way of assessing accounting disclosures. However, the mandatory adoption of IFRS may not automatically result in higher-quality financial reporting (Bova and Pereira 2012) and there is evidence that firms did not fully comply with IFRS disclosure requirements (Glaum et al. 2013; Verriest et al. 2013). For example, Glaum et al. (2013) reported that despite the mandatory IFRS adoption in Europe, "substantial non-compliance" still exists. Similarly, Verriest et al. (2013) found heterogeneity in IFRS compliance and disclosure in Europe. A crucial question, therefore, arises as to whether board ethnic diversity could affect the compliance level of IFRS disclosures and further enforcement mechanisms may be required to reduce the variation in IFRS compliance despite the mandatory adoption.

We focus on South Africa (SA) as it provides an interesting setting for addressing issues relating to IFRS disclosures and board ethnicity. First, existing evidence suggests that financial

reporting quality and compliance with IFRS in SA have seen a downward trend in recent years. For instance, a World Bank report on the observance of standards and codes highlighted a high level of non-compliance with IFRS in SA (World Bank 2013). Similarly, Sellami and Fendri (2017) reported a high variation in IFRS compliance among South African firms. There is also evidence of a recent decline in the overall financial reporting quality in SA (World Economic Forum, 2018). These shreds of evidence show that existing national enforcement mechanisms in SA may not be sufficient in achieving full compliance with IFRS requirements.

Second, SA has a history of apartheid – a system of legal racial segregation that affected the fabric of life (Gyapong et al. 2016). With apartheid, humanity was defined based on ethnicity, and every aspect of life was based on racial classification (Hammond et al. 2009). Consequently, in the post-apartheid era, the government has continuously introduced several affirmative action rules for the inclusion of ethnic minorities in top management and corporate boards. Moreover, in terms of mandatory IFRS adoption, SA is one of the first countries in the world to officially adopt IFRS (Wise 2021). The importance of ethnicity issues as well as the early adoption of IFRS in SA allows us to capture constructs and relationships that may be too weak to notice in other traditional settings.

We measure the compliance level of IFRS disclosures against 570 mandatory requirements of IFRS for 192 listed firms in South Africa (SA). After controlling for firm characteristics, the results show that ethnic minority directors have a positive impact on IFRS disclosure levels. In addition, we find that although ethnicity has a significant positive association with IFRS disclosures, the relationship is stronger for non-busy ethnic minority directors than their busy counterparts. Further analyses show that the increase in IFRS disclosures is the greatest when there are two ethnic minority directors but this relationship becomes insignificant when boards have more than two ethnic directors. Companies with more ethnic directors on audit

committees are more likely to comply with IFRS disclosure requirements and ethnic diversity increases IFRS disclosures irrespective of the level of ownership concentration.

This study offers several important contributions to the literature. First, we provide important empirical evidence on the relationship between board ethnic diversity and the compliance level of IFRS disclosures. Despite the recent surge in ethnic diversity-related studies in the literature, there is a lack of literature on how ethnic diversity affects firm-level outcomes (Guest 2019) and none on IFRS disclosures. Therefore, this study fills in this gap and also responds to recent calls by Hillman (2015) for studies to explore board ethnic diversity other than gender. The results show that the presence of ethnic directors promotes IFRS disclosures. However, their impact on IFRS disclosures declines when they exceed two. The findings indicate that having more than two ethnic minority directors on the board might result in conflict and hinder effective board oversight. From a policy perspective, while the presence of ethnic minority directors can enhance IFRS disclosures, it's equally important to ensure that the board functions harmoniously.

Second, to the best of our knowledge, this is the first study to consider director busyness in examining board of director attributes and IFRS disclosures. We, therefore, contribute to the literature by documenting that non-busy ethnic minority directors exert greater influence on accounting disclosures than their busy counterparts. This finding implies that researchers should consider the number of multiple directorships when examining the effect of the board of directors' attributes on firm-level outcomes. Third, we contribute to the existing literature by providing new evidence of compliance with IFRS requirements from an emerging market by developing a comprehensive disclosure index against 570 mandatory requirements of IFRS. Finally, we extend the existing literature by testing the critical mass theory (Kanter 1977) on board ethnicity diversity. Prior studies have reported that numbers matter in terms of the effect of board diversity. However, we have found that the impact of ethnic directors on accounting

disclosures is not significant beyond two ethnic directors. Given that accounting disclosures are based on compliance with specific standards, having too many directors from different backgrounds could lead to diverse interpretations, especially with principle-based standards like IFRS.

The remainder of this study is structured as follows. Section 2 reviews the literature and develops our hypotheses. We discuss data and methodology, including the sample selection and research model in Section 3. Section 4 presents the empirical results and robustness tests and Section 5 provides a conclusion.

## 2. Literature Review and Hypotheses Development

### *2.1 Theory and Context*

From an agency theory perspective, shareholders (principals) who are the owners of modern corporations employ managers (agents) to run the company on their behalf (Jensen and Meckling 1976). In the absence of agency problems, the interests of the contracting parties are aligned as they perform their contractual obligations. Agency problems arise when the interests of the contracting parties are misaligned (Fama and Jensen 1983). Nevertheless, depending on the country-level institutional structures, agency problems may manifest in the form of principal-agent conflicts (PA) or principal-principal conflicts (PP) (La Porta et al. 2000; Su et al. 2008).

On the one hand, PA is predominant in Anglo-Saxon countries with widely dispersed shareholders and strong legal protection for investors (La Porta et al. 2000). In a PA situation, the interests of shareholders are aligned in terms of maximising return on their investments (Hirschman 1970). Consequently, the agency problem is the result of the separation of ownership from control, where the shareholders become outsiders and rely on the information

(such as financial reports) provided by the agent to monitor the agent's activities. The quality of the information provided by the agent to the principal partially depends on the agent's reporting incentives. In the presence of PA, managers may be incentivised to maximise their utility at the expense of shareholders (Fama and Jensen 1983). Therefore, to hide their rent-seeking activities, they may not fully comply with or restrict information disclosures. For example, Verriest et al. (2013) reported that managers in European firms fail to comply with both mandatory and voluntary IFRS disclosure requirements.

On the other hand, PP is more prevalent in countries with higher levels of ownership concentration, weaker investor protection, and an inactive market for corporate control (Su et al. 2008). In these countries, blockholders or majority shareholders either attenuate or exacerbate agency problems. When the interests of shareholders are homogeneous, block holders monitor managers for the benefit of minority shareholders (Ang et al. 2000). However, PP arises when shareholders are heterogeneous in terms of their interests. The interest misalignment incentivises blockholders to maximise their utility at the expense of minority shareholders (Li and Qian 2013). The majority shareholders expropriate firm resources by exerting more pressure on the board to facilitate a wealth transfer from the firm (Ward and Filatotchev 2010). For example, Leuz et al. (2003) found that in PP situations, majority shareholders are likely to pressure boards to reduce disclosures due to the need to conceal the severe effects of their rent extraction. The majority shareholders can do this because countries with poor investor protection also discourage minority shareholders from seeking redress through the courts. Thus, just as PA results in agency costs to dispersed shareholders due to managerial entrenchment and perquisite consumption, PP results in agency costs to minority shareholders due to the expropriation behaviour of majority shareholders.

The South African (SA) institutional setting is unique in several ways (Ntim et al. 2012; Setia-Atmaja et al. 2011). On the one hand, it has a high level of ownership concentration. On

the other hand, it has strong systems of legal minority shareholder protection (Setia-Atmaja et al. 2011). Indeed, SA is one of few countries with a score of "5 out 5" on the minority shareholder rights index (Porta et al. 1998). Li and Qian (2013) state that stronger minority shareholder protection reduces PP even in jurisdictions with higher ownership concentration. Young et al. (2008) explain that to the extent that the legal framework offers enough protection to minority shareholders, they may exploit the court system to curtail majority shareholder expropriation. For example, armed with stronger legal protection, minority shareholders may be incentivised to pressure the board to resist the influences of majority shareholders. In line with these, Nenova (2003) reported that there are no private benefits of control in South Africa, indicating that PA is the main type of agency problem in SA. To reduce PA, shareholders put in place a board of directors to monitor the activities of managers (Fama and Jensen 1983). Nevertheless, the board's monitoring effectiveness in reducing PA is greatly influenced by directors' characteristics (e.g. board diversity) (Arun et al. 2015; Fan et al. 2019). Board diversity encourages broader and different perspectives during decision-making (Estelyi and Nisar 2016). It prevents homogenous thinking and collusion among directors or senior management from abusing power for their self-interest gains at the expense of shareholders.

*2.2 Board ethnic diversity and IFRS disclosures*

Although several theories and empirical studies suggest that ethnic diversity affects board monitoring effectiveness and diligence (Guest 2019), there is no unanimity regarding the direction of their influence. There are countervailing theoretical and empirical positions regarding how the inclusion of people of different ethnicities may influence board-level effectiveness. For example, social identity theory (Ashforth and Mael 1989; Turner 1981) asserts that people obtain their social identity based on their membership in categories and distinct groups (e.g. gender and ethnicity). At the board level, the categorisation of directors

based on ethnicity may hinder corporative behaviour and result in conflicts (Mathisen et al. 2013), ultimately impairing board monitoring, diligence and reducing accounting information disclosures. In contrast, other theories suggest that including people of different ethnicities might improve board monitoring. For instance, agency theory suggests that ethnically diverse boards bring a range of experiences, backgrounds, and perspectives (Jensen and Meckling 1976; Guest 2019). This diversity can lead to more rigorous oversight and monitoring of management's actions, including the preparation and presentation of financial statements (Carter et al. 2010; Guest 2019). Diverse boards might be more skeptical, ask tougher questions, and demand clearer explanations, ensuring that IFRS disclosures are transparent and all relevant information is disclosed, thereby reducing information asymmetry (Hillman 2015; Khan et al. 2019). Similarly, according to natural cognitive behavioural theory, differences among people (including racial differences) affect decision-making in terms of how a group gathers and use information (Baranchuk and Dybvig 2009; Byoun et al. 2016; Lückerath-Rovers 2013). Carter et al. (2010) posit that boards with ethnic diversity are more likely to have a broader range of perspectives, which can lead to more rigorous scrutiny of management decisions and better risk management. This diversity of thought may challenge groupthink and promote more thorough discussions regarding the compliance of IFRS disclosures and consequently enhance information disclosures.

Ethnicity is a sensitive issue in SA due to the history of apartheid. Apartheid legalised racial discrimination against the country's non-white population (Hammond et al. 2009) and evidence suggests that several decades after the collapse of apartheid, racial discrimination still exists in SA (Gyapong et al. 2016; Ntim 2015). This discrimination may manifest in ethnic minorities having to work harder to be appointed a director or to justify their directorship position relative to white directors. Consequently, they may develop different sensitivities and behavioural traits (Guest 2019). Indeed, Guest (2019) argued that ethnic minority directors may exhibit higher

sensitivity to unfairness. Thus, their experience of injustice and discrimination may render them averse to practices such as non-disclosure and non-compliance with rules that though may favour managers but may be unfair to shareholders. There is also evidence that ethnic minority directors are more independent of management because they are mostly recruited from outside the management (Zweigenhaft and Domhoff 2006) and are also less likely to have social ties and allegiance with white executives (Broome et al. 2011). The high level of independence, vis-à-vis their discrimination-induced aversion to unfairness, may make them better monitors of management. Thus, we argue that compliance with IFRS disclosures is one of the many possible outcomes of increased monitoring.

Additionally, ethnic minority directors improve the chances of different knowledge domains (Post et al. 2011) on boards, as they often hold advanced degrees and have varied international experiences (Burgess and Tharenou 2002; Hillman et al. 2002). Kim and Lundberg (2016) find that individuals with higher education levels tend to have better cognitive abilities to process and evaluate information. Thus, with such advanced knowledge, ethnic minority directors may become more effective in monitoring roles and may view non-disclosure as abhorrent due to their better understanding of the associated negative consequences. In terms of IFRS disclosures, we anticipate that ethnic minority directors will perceive non-disclosures as unfair and injurious to shareholders. Thus, they will effectively monitor managers to increase IFRS disclosures. We, therefore, hypothesise that:

***$H_1$**: Ceteris paribus, board ethnic diversity is positively associated with the compliance level of IFRS disclosures.*

*2.3 Director busyness and IFRS disclosures*

Agency theory primarily deals with the relationship between principals (such as shareholders) and agents (such as managers) and suggests that there can be a misalignment of interests between these two groups, leading to potential conflicts (Jensen and Meckling 1976; Guest, 2019). One of the primary roles of directors is to oversee management and ensure that they act in the best interests of shareholders, especially in areas like financial reporting and disclosures (Ahmed et al. 2017; Hoang et al. 2018). Fama and Jensen (1983) posit that labour market reveres busy directors as their busyness is an indicator of competence and reputation. Serving on multiple boards simultaneously enriches a director's understanding, thereby enhancing their knowledge, experience, and skills. However, Core et al. (1999) and Shivdasani and Yermack (1999) contend that multiple directorships may reduce the monitoring efficiency of directors. This view is shared by Ferris et al. (2003) who argue that directors with multiple directorships might have less time to serve on committees and closely monitor the firm's reporting activities. This is supported by the findings of Fich and Shivdasani (2006) that directors' busyness negatively affects the effectiveness of corporate boards in discharging their duties because busy directors may be distracted from monitoring activities. There is also evidence that busy directors are likely to miss more board and committee meetings (Jiraporn et al. 2009). Indeed, Faleye et al. (2011) suggest that while the extensive knowledge and experience of busy directors benefit their advisory roles, it hampers their monitoring functions. This is because board monitoring demands significant time, and busy directors, constrained by their schedules, may struggle to monitor effectively. However, in addition to their monitoring responsibility as board members, ethnic minority directors have other drivers that influence their monitoring propensities. For example, Guest (2019) suggests that the discriminatory experiences of ethnic minority directors make them abhorrent to unfairness and more likely to work harder to justify their directorship positions. Nevertheless, because busyness impairs director monitoring (Fich

and Shivdasani 2006), we do not expect busy ethnic minority directors to be effective monitors. Thus, we posit that busy ethnic minority directors have less influence on the compliance level of IFRS disclosures compared with non-busy ethnic minority directors as they are likely overcommitted. Consequently, we hypothesise that:

***$H_2$**: The impact of busy ethnic minority directors on the compliance level of IFRS disclosures is less pronounced compared to their non-busy counterparts.*

## 3. Research Design

### *3.1 Data and Sample*

Our sample initially consists of all 357 listed firms on the Johannesburg Stock Exchange (JSE)[i] from 2014 to 2018. In line with prior studies (Kılıç and Kuzey 2016; Ntim 2015; Ntim et al. 2012), we excluded financial institutions (68 firms) because they comply with additional mandatory disclosures. Further, to avoid attrition bias associated with unbalanced data (Gujarati and Porter 2008; Wooldridge 2010), we excluded companies with missing annual reports (33 firms) for any of the sample periods. Finally, to mitigate the potential issue of using a highly skewed sample, we employ propensity score matching (PSM) to select an equal number of firms with ethnic directors and those without ethnic directors. This process reduced the sample size to 192 companies over five years. Our sample period is unique because it covers both Kings III and IV Reports, which promote diversity on corporate boards. The Kings IV Report is bolder than ever in terms of board diversity in South Africa. The report emphasises the need for the board to be comprised of appropriate diversity and independence for it to discharge its governance role and responsibilities objectively and effectively. Due to inadequate data on our variables of interest in databases, we manually collected our data from

firms' annual reports. We downloaded annual reports from the Perfect Information (http://www.perfectinfo.com) and the African Markets (https://www.african-markets.com).

*3.2 Regression model and variable measurement*

We test our hypotheses using the following generalised model:

$$IFRS\ Disclosures_{\ it} = a + \beta_1 Ethnic\ directors_{it} + \beta_2\ Controls_{it} + \varepsilon_{it} \ldots . (1)$$

Where IFRS disclosures are measured by the level of compliance with IFRS, ethnic directors is the percentage of ethnic minority directors sitting on the board, Controls refers to corporate governance variables, such as board size, board independence, CEO duality, female directors, busyness directors, audit committee and firm characteristics variables including firm size, leverage, profitability, audit firm, sales growth. All the variables are fully defined in Table 1.

<Insert Table 1 about here>

*Dependent Variable*

*IFRS Disclosures.* Two approaches have evolved in literature: the unweighted score (Cooke index) and weighted score (partial score). Tsalavoutas (2011) argued that scores from the unweighted score method might cause a misleading conclusion because of its sensitivity to different items in each standard. Following previous literature (Abdullah et al. 2015; Glaum et al. 2013; Mazzi et al. 2017; Tsalavoutas 2011), we adopted the weighted disclosure score to give relevance to the number of requirements per standard. That is the actual items disclosed per standards are matched with the applicable items per standard. Then, the average of the disclosure scores of all the standards is calculated to represent the disclosure level of the company. Thus, the weighted disclosure score involves a two-stage analysis:

Step 1: $\frac{Total\ Items\ disclosed\ per\ standard}{Total\ applicable\ items\ per\ standard}$

Step 2: $\frac{Total\ compliance\ score\ of\ all\ standards}{Number\ of\ aplicable\ \ standards}$

Mathematically, the disclosure score is calculated using the following formula:

$$Disclosure = \frac{D}{M} = \frac{\sum_{i=1}^{n} di, a}{\sum_{i=1}^{m} di, a}$$

Where *Disclosure* is the total score for each company, $0 \leq WCSa_{\ a} \leq 1$. D is the total number of items disclosed by company a. *di,* is the item disclosed. *M* is the maximum number of applicable required disclosures for the company (this approach is consistent with Glaum et al. 2013; Mazzi et al. 2017; Tsalavoutas 2011). In addition to recognising the number of requirements per standard, the weighted average approach also has the advantage of providing information for the standard-by-standard analysis.

*Calculation of disclosure score*: We relied on a checklist of the Big4 accounting firms as a guide[ii]. However, our final checklist was based on the requirements (measurement, recognition presentation/disclosures) of each standard as issued by IASB. This study accounted for the various amendments of IFRS by incorporating relevant disclosure requirements according to years of revision. To cater to the different reporting periods of companies, the appropriate checklist was used depending on the year that most of the period falls in[iii]. As established in prior studies, some disclosures[iv] were removed because it was not possible to assess them from the financial statements (Mazzi et al. 2017; Sellami and Fendri 2017). An initial assessment of the different annual reports showed that some companies presented IFRS disclosures in sections of the annual report other than the financial statements and footnotes section; hence, we took extra care to read relevant parts of the annual reports[v] to avoid penalising companies

for non-disclosures. This approach yielded a comprehensive lookout for all disclosures (Glaum et al. 2013).

We established the validity of the research instrument as follows[vi]: First, the authors developed a checklist based on the text of each standard as issued by IASB. This checklist was compared with that of the Big4. After the comparison, a revised checklist that aligned with the Big4 was drafted and sent to an independent accounting practitioner. The final checklist is presented in Appendix A. We also present a sample score sheet in Appendix B. A firm is scored *1* if it complies with the applicable required item and *0* if the firm fails to comply with the applicable required item. *NA* means that the item is required but not applicable to the company[vii]. As argued by Cooke (1992), the weighted compliance score (WCS) method has the advantage of not penalising companies for not disclosing non-applicable requirements.

We follow prior studies such as Al-Shammari et al. (2008), Sellami and Fendri (2017), and Tsalavoutas (2011) and check the reliability of the coding by having a random selection of 20 companies coded by one independent academic and one independent accounting practitioner. The compliance scores for these two coders are compared with our scores. The results, including T-tests as presented in Appendix C, do not show any significant difference between our scores and the other two independent coders (Researcher and Practitioner). We also use Krippendorff's alpha (Krippendorff 2004) to check the agreement among the different coders. The results presented in Appendix C show no major difference among the coders with a coefficient of agreement between 0.878-0.899 at a 1% significant level. Hence the reliability of the compliance score is acceptable (Al-Shammari et al. 2008; Beattie et al. 2004; Beattie and Thomson 2007; Marston and Shrives 1991; Ntim 2016).

*Independent Variable: Ethnic minority directors*.

Following Gyapong et al. (2016) and Ntim (2015), we define ethnic minority directors as non-white directors, including Black African, Indian, Chinese, and Asian. This definition is consistent with official South African government sources such as the Broad-based black economic empowerment Act (2003). Information for the determination of the ethnicity of directors was collected from the annual report and company websites. The literature on board diversity has been limited to the use of either an indicator variable for the presence of specific board attributes (female directors or ethnic minority directors). However, consistent with Guest (2019) and Ahmed et al. (2017), we measure ethnic minority directors as the percentage of board size.

*Control variables*

Consistent with prior literature on IFRS disclosures, we used corporate governance and firm characteristics variables as control variables. *Audit Committee* is the board committee directly involved with financial reporting. Consequently, Sellami and Fehnri (2017) reported that audit committee characteristics impact the IFRS compliance level of a firm. Therefore, we control for audit committee competence, measured as the proportion of chartered accountants multiplied by the proportion of independent members in the audit committee (Tawiah and Boolaky 2019). We use the proportion of accountants on the board to control the effect of different accounting expertise on the board (Cohen et al. 2013). Board size has been found to positively impact a firm's level of disclosure and reporting quality (Matolcsy et al. 2012; Sellami and Fendri 2017; Xie et al. 2003). Board size is measured by the total number of directors on the board. Prior studies report a significant positive association between female directors and disclosures (Ahmed et al. 2017), therefore we include the proportion of female directors (*Female directors*) as a control variable.

Similarly, there is evidence that non-executive directors *(Non-executive directors)* improve financial reporting quality and compliance, and the relationship is stronger when the board chairman is a non-executive director (CEO duality) (Abdullah et al. 2015; Chapple and Truong 2015). Consistent with prior studies, *Non-executive directors* are measured as a percentage of non-executive directors on the board. We measure *CEO duality* with a dummy variable of 1 if the CEO is also the chairperson of the board. The level of disclosures among firms can also differ due to audit quality (Mısırlıoğlu et al. 2013). We controlled for the audit quality measured with a dummy variable *(Big4)* equal to 1 if the firm had a Big4 auditor or 0 otherwise. Prior studies suggest that the size of the auditor is positively related to audit quality (DeAngelo 1981; Deis and Giroux 1992), and therefore companies audited by the Big4 are expected to have high compliance. Firm size (*Total Assets)* is measured as the natural logarithm of total assets which is expected to drive compliance (Ahmed et al. 2017). We used *Leverage* to control the balance of power between debt and equity holders (Ahmed et al. 2017; Gyapong et al. 2016; Ntim 2015). Finally, we controlled for the performance of the firms with sales growth *(Sales growth)* and return on assets *(Return on assets).*

## 4. Empirical results and discussions

### *4.1 Descriptive statistics*

Table 2 shows that the mean of IFRS disclosures among the sample firms is 73.05, with standard deviations of 11.43. This implies that companies comply with about 73.05% of IFRS requirements in their financial statements despite their claim for full IFRS adoption. The median compliance score is 77.37, suggesting that companies are not fully complying with the IFRS disclosure requirements. The standard deviation also indicates high variations among the firms. The means (median) of ethnic minority directors show that only 22.04% (18.13%) are non-white directors. These results indicate that approximately 70% of directors are white.

Similarly, the median ethnic directors highlight the dominance of white directors in South Africa. Overall, our findings are consistent with recent literature on South Africa (Gyapong et al. 2016; Ntim 2015).[viii] The average and median board size in South Africa is 7 and 8 members respectively, with 42.19% of non-executive directors, which is less than that of countries such as Australia[ix], the UK[x], and the USA, but higher than most African countries, including Mauritius, Kenya, and Nigeria (Tawiah and Boolaky 2019).

<Insert Table 2 about here>

Table 3 shows the sample distribution by the board with non-white and without non-white directors. Firms with at least one non-white director have a higher disclosure level (76.43%) than all-white boards (70.35%). In addition, the p-value of the T-test between firms with non-white and firms without non-white is significant.

<Insert Table 3 about here>

We used the Pearson correlation matrix to test potential multicollinearity among the independent variables. The results presented in Table 4 do not suggest any high correlation among the variables of interest. Therefore, multicollinearity may not be an issue in our model. We also tested for other linear regression assumptions, such as autocorrelation, normality, homoscedasticity, and linearity. For brevity, these results are not reported. However, these tests do not indicate a possible violation of any of the linear assumptions.

<Insert Table 4 about here >

*4.2 Regression analyses*

*4.2.1 Ethnic minority directors and IFRS disclosures*

Prior studies suggest that companies differ from each other in terms of their organisational culture, complexity, and managerial talents (Guest 2009; Ntim et al. 2012). While panel data have the advantage of mitigating this individual heterogeneity (Baltagi 1998), Park (2011) argued that the company-specific differences are best controlled for if the appropriate panel data technique is performed. Thus, we performed different diagnostic tests, including the Breusch and Pagan (1980)[xi] LM test and the Hausman (1978) test[xii]. Based on these tests, we adopt the firm fixed effects regression technique.

First, we test whether ethnic minority directors increase the compliance level of IFRS disclosures. The results are presented in Table 5. In column 1 of Table 5, the results show that ethnic directors are positively and significantly associated with IFRS disclosure levels and thus H1 is supported. In economic terms, all other things being equal, the presence of one additional ethnic minority director on the board increases accounting disclosures by about 9.11 percent [(0.0043*21.19). See note xiv for details]. Guest (2019) argued that the discriminatory experiences of ethnic minority directors influence them to exhibit higher sensitivities towards unfairness. Therefore, in the SA setting with a history of legal racial segregation, the results could imply that ethnic minority directors increase IFRS disclosures because they view non-disclosure as unfair to the users of financial statements. Other studies also suggest that ethnic minority directors are mostly recruited from outside the organisation, making them more independent of management (Broome et al. 2011; Tee and Rassiah 2020; Zweigenhaft and Domhoff 2006). Therefore, an alternative explanation to the results could be that the high level of independence of ethnic minority directors makes them better monitors of managers by ensuring IFRS disclosures. In addition to being independent, ethnic minority directors have higher academic and accounting professional qualifications than their white counterparts (See Appendix D). Hence, our empirical finding is consistent with the theoretical argument that ethnic minority directors possess unique qualities that may improve monitoring.

The results of the control variables are consistent with our expectations and prior studies. For example, female directors are positively and significantly associated with IFRS disclosures (Ahmed et al. 2017). Also, the competence of the audit committee and accountants on boards is positively related to an increase in compliance with IFRS (Sellami and Fehnri 2017; Tawiah and Boolaky 2019). Similarly, as predicted, the company size *(Total Assets)* and the Big4 *(Big4*) are positively and significantly associated with IFRS disclosures (Tawiah and Boolaky 2019).

<Insert Table 5 about here>

*4.2.2 Director busyness and IFRS disclosures*

Our empirical analysis so far has been based on the assumption that all ethnic directors are homogeneous. For example, they serve on the same number of boards and hence spend the same time in the company activities. However, prior studies have shown that the impact of board members differs if they hold multiple board positions (Ahmed et al. 2017; Jiraporn et al. 2009). Thus, if directors' time is a fixed resource, then their ability to monitor may be affected by their other board commitments. We, therefore, examine whether busyness affects the monitoring effectiveness of ethnic minority directors. Following prior studies (Ahmed et al. 2017; Jiraporn et al. 2009), we classify an ethnic minority director as busy if they hold more than two outside directorships. We then calculate the variable *Busy (Non-Busy)* as the number of ethnic minority directors on the board with three or more (2 or less) outside directorships expressed as a percentage of the board size. We replace the *Ethnic director* in equation (1) with *Busy* and *Non-Busy* and run two separate regressions.

The results are presented in columns 2 and 3 of Table 5. Column 2 shows that boards with *Busy* ethnic directors do not have a significant association with IFRS disclosures. However, in column 3, boards with ethnic directors with two or fewer board memberships have a significant

positive association with IFRS disclosures. The results support H2 which suggested busy directors shirk their monitoring responsibilities. Given that directors with multiple board memberships generally provide more advice than monitoring (Fich and Shivdasani 2006), this result is not surprising. Overall, the results indicate that ethnic minority directors increase IFRS disclosures when they are not overcommitted.

*4.2.3 Sensitivity analysis*

In this section, we test whether our findings of a positive association between ethnic directors and IFRS disclosures holds under different assumption (i.e. critical mass theory by Kanter 1977). Following Ahmed et al. (2017), Gyapong et al. (2016) and Liu et al. (2014), we create three dummy variables for ethnic directors. ED1 = 1, if there is one ethnic minority director on the board, '0' otherwise. ED2 = 1, if there were two ethnic minority directors or '0' otherwise, and ED3 = 1 if there were at least three ethnic minority directors or '0' otherwise. We run separate regression for each of the three categories to avoid a dummy trap.

The results presented in columns 1 to 3 of Table 6 show that the firms with one and two ethnic minority directors have a significant association with IFRS disclosures. Nevertheless, as the firm increases the number of ethnic directors from two onwards, the influence declines. The results indicate that ethnic minority directors have the greatest impact when there are two directors on the board in the SA. From the social identity theory perspective, the categorisation of directors based on ethnicity can reduce cooperative behaviour and generate conflicts that may hinder board effectiveness and monitoring (Mathisen et al. 2013; Turner 1981). Therefore, given the level of racial discrimination in SA, the results could mean that as ethnic minority directors get a voice, they could cause conflicts in the boardroom, impairing board monitoring and diligence.

<Insert Table 6 about here>

*4.3 Additional analyses*

*4.3.1 Ethnic directors in audit committee*

Corporate governance literature shows that board committees are the anchor of board effectiveness (Monem 2013), hence board members' contribution to firm activities is best examined through their committee membership. This assertion is true, especially when the monitoring role of directors is required because committee members do have more time at the committee level to examine relevant issues within their expertise. Since the audit committee is responsible for ensuring quality reporting and compliance in the firm, we test the impact of ethnic directors within the audit committee on IFRS disclosures.

First, we rerun our analysis (Equation 1) with the audit committee as a point of reference, not the whole board. Thus, *Ethnic directors* were measured in reference to the audit committee membership. The results are presented in column 1 of Table 7. Although the direction of the association between both ethnic directors and IFRS disclosures is generally similar to the previous results in Table 5, the coefficients are much larger than the whole board. Also, the relationship is much stronger because the significant levels are at 1% compared with 10% and 5% in the results on the whole board (see Table 5).

Second, we present the results of the critical mass theory within the audit committee in columns 2 to 4 of Table 7. We follow the same approach as used in the overall board to establish the critical mass in the audit committee. The results indicate that the relationship between the presence of ethnic minority directors in audit committees and IFRS disclosures is not significant beyond two ethnic directors. This is probably because there were few audit committees with more than two ethnic directors in our sample. Third, regarding the director busyness within the audit committee, the results reported in columns 5 and 6 of Table 7 are similar to the main board. Our results show that only non-busy ethnic directors in the audit committee significantly impact IFRS disclosures. In sum, the results of the audit committee

mimic the main results in Table 5, confirming that board ethnic directors are positively associated with IFRS disclosures.

<Insert Table 7 about here>

*4.3.2 Ethnic Chief Financial Officers (CFO)*

We admit that the level of accounting disclosures may also depend on the preparers of the financial statements, and ultimately, the sole responsibility of preparing the financial statements mostly sits with the Chief Financial Officer (CFO). Hence we examined whether ethnic Chief Financial Officers have any influence on accounting disclosures. The results are presented in column 7 of Table 7. The results show that there are no differences between an ethnic CFO and a non-ethnic CFO on IFRS disclosures. This is probably because less than 20% of the firm-year observations had an ethnic director as CFO.

*4.3.3 The Nature of Agency Conflicts*

Agency theory suggests that agency problems can manifest in two ways namely, principal-agent agency conflicts (PA) and principal-principal agency conflicts (PP) (Ward and Filatotchev 2010; Fama and Jensen 1983; Jensen and Meckling 1976; Li and Qian 2013). However, the nature of the agency conflicts in a firm is a function of the level of ownership concentration (La Porta et al. 2006; Li and Qian 2013; Setia-Atmaja 2009; Setia-Atmaja et al. 2011; Nenova 2003; Gyapong et al. 2021). When ownership concentration is high, controlling shareholders may facilitate their rent extraction objective by influencing managerial and board appointments (Nenova 2003; Gyapong et al. 2021). This makes board members and managers affiliated or related to majority shareholders, making rent extraction easier. Even when boards are independent, majority shareholders may exert significant pressure on managers and boards

leading to a wealth transfer from the company to majority shareholders (Monem 2013). Consequently, PP is evident when ownership concentration is high (Shleifer and Vishny 1986; Gyapong et al. 2021; Konijn et al. 2011). However, with lower ownership concentration and shareholders are dispersed, the main agency problem is between dispersed shareholders and managers (PA) (La Porta et al. 2000). Although SA is classified as an Anglo-Saxon country with dispersed ownership (La Porta et al. 2000), some firms have highly concentrated ownership structures (Ntim et al. 2012; Gyapong et al. 2016) increasing the likelihood that both PA and PP maybe evident.

In this section, we test whether our findings are sensitive to the nature of agency problems. To do this, we employ a sub-sampling technique to classify the firms based on ownership concentration. Following prior studies (Goergen and Renneboog 2001; Leech and Leahy 1991; Renneboog 2000), we calculate ownership concentration in two ways, 1) using the Herfindahl index of the shareholdings of the top 5 shareholders, and 2) the Herfindahl index of the holding of the top shareholder. The Herfindahl index is calculated as the sum of squares sum of shareholders' voting rights (Mavruk et al. 2020). Firms with a Herfindahl index higher than the sample average are classified as having high ownership concentration (PP), otherwise, they are classified as having low ownership concentration (PA). The results are presented in Table 8. Specifically, the results for high ownership concentration are presented in columns 1-2 and that of low ownership concentration are shown in columns 3-4. The coefficient of *Ethnicity* is consistently positive and significant in all the columns. The results indicate that in SA, board diversity increases IFRS disclosures irrespective of the nature of agency conflicts (level of ownership concentration).

<Insert Table 8 about here>

*4.4 Robustness checks*

*4.4.1 Alternative measure of accounting disclosures*

We investigate the robustness of our findings to an alternative measure of the dependent variable using the unweighted measure of compliance score. The results reported in column 1 of Table 9 show that ethnic directors are positive and significantly associated with IFRS disclosures.

*4.4.2 Endogeneity: Two-stage least square (2SLS) and GMM*

We perform two tests to deal with the potential endogeneity issues. First, we conduct a two-stage least square (2SLS) to address the potential issue of omitted variable bias (Wooldridge 2010). To identify an instrumental variable that is correlated with the endogenous (ethnic minority directors) variable but uncorrelated with the dependent variable (disclosure index), we follow the Gyapong et al. (2016) approach by first estimating the factors that influence the appointment of ethnic directors. The hiring of ethnic directors is a firm-level decision that may be affected by the intention or preference of the owner(s) of the firm. Therefore, we use different ownership structures including foreigners, government, and executive ownership to predict the appointment of ethnic directors.

As presented in column 2 of Table 9, the results show that except for institutional owners, all other investors influence a firm's decision to appoint ethnic directors. After obtaining the predicted variable for ethnic diversity in the first stage, we utilise the predicted *Ethnic director* as an instrumental variable for ethnic diversity and re-estimate their relationship with accounting disclosures. As shown in column 3 of Table 9, the coefficient of the predicted variable of ethnic directors is 0.0021 at a 5% significance level, confirming that the presence of ethnic directors is associated with high IFRS disclosures. Second, to control for simultaneity

and reverse causality between ethnic directors and accounting disclosures (Ahmed et al. 2017; Wintoki et al. 2012). We have adopted the system Generalized Method of Movement (GMM) approach and the results are presented in column 4 of Table 9. The results are consistent with the main findings of the significant and positive impact of ethnic minority directors on IFRS disclosures. In summary, the results of two endogeneity tests indicate that our findings are not sensitive to potentially different types of endogeneity problems.

<Insert Table 9 about here>

*4.4.3 Difference in Difference matching (causal relationship)*

To further demonstrate the robustness of the findings and establish a probable causal relationship between ethnic minority directors and IFRS disclosures, we follow prior studies (Sila et al. 2016; Chen et al. 2017; Atif et al. 2021) and implement a difference-in-difference (DID) and a difference-in-difference matching estimator.

First, we perform a Difference in Difference (DID) analysis using the implementation of the King IV report as an external shock. The King IV report advocated for more ethnic diversity in the boardroom by recommending increases in the number of ethnic minority directors. The King IV report was effective in 2017. With these requirements, we expect an increase in the appointments of ethnic minority directors, and subsequently a significant impact on the compliance level of IFRS disclosures. To ensure reliable and unbiased results, we limit the sample period to 2 years pre and post-King IV report implementation. Therefore, we code 2015 and 2016 as 0 for the pre-event years; and 2017 and 2018 as 1 for post-event periods. We are interested in the IFRS disclosures of firms with ethnic minorities, so we designated such firms as the treatment group. We specify the DID model as follows:

$$IFRS\ Disclosures = \beta_0 + \beta_1 Treatment_{it} + \beta_2 (Treatment * Post)_{it} + \beta_3 Post_{it} + \beta nControls_{it} + \varepsilon_{it} \quad (2)$$

The variable *Treatment* is a dummy variable equal to "1" if the firm is in the treatment group, and "0" if the firm is in the control group. *Post* is a dummy variable equal to "1" for 2017 and 2018 and "0" for 2015 and 2016. We include the same control variables used in all our regressions. The results are presented in column 1 of Table 10. The positive and significant coefficient of the interaction (*Post*Treatment)* reconfirms the positive impact of ethnic minority directors on IFRS disclosures.

Second, consistent with prior studies (Sila et al. 2016; Chen et al. 2017; Atif et al. 2021), we implement a difference-in-difference (DID) matching estimator to examine the impact of ethnic minority directors on IFRS disclosures. This identification strategy is a combination of a DID and a matching estimator which is based on the assumption of parallel trends that two similar firms are likely to implement the same change as such impact that the treatment may have on the outcome should be reflected in the difference between the two firms (Sila et al. 2016). Following prior studies, we implement the DID matching estimator by restricting our sample to firm-year observations one pre and post-appointment of ethnic minority directors. Treatment firms are selected based on the condition that (i) they replace one white (non-ethnic) director with an ethnic minority director (same for different replacements); and (ii) both the recruited and departing directors are of the same type in terms of executive and non-executive directors. Control firms on the other hand are firms that replaced white (non-ethnic) directors with the same type of director (same for same replacement). After this selection, we implement the DID matching estimator as follows:

*IFRS Disclosures*

$$=\beta_0+\beta_1 R\_Appointment_{it}+\beta_2(R\_Appointment*Post)_{it}+\beta_3 Post_{it} + \beta_n Controlsit+\varepsilon_{it} \quad (3)$$

The variable *R_Appointment* is a dummy variable equal to "1" if the firm is in the treatment group, and "0" if the firm is in the control group. *Post* is a dummy variable equal to "1" for the

period after the treatment and "0" for the period before the treatment. We include the same control variables used in all our regressions. The results are reported in column 2 of Table 10. The coefficient of the interaction is positive and statistically significant at the 1% level, suggesting that IFRS disclosures increase after the appointment of ethnic minority directors.

<Insert Table 10 about here>

## 5. Conclusion

This study investigates whether the inclusion of ethnic minority directors on corporate boards increases the compliance level of IFRS disclosures. We test this hypothesis on the assumption that ethnic minority directors bring a diverse perspective and attributes to boardrooms, which ensures a sound monitoring system. In support of the business case for the inclusion of ethnic minority directors, we find a positive and statistically significant association between ethnic minority directors and IFRS disclosures. Additionally, we examine various factors that may strengthen or weaken the ethnic minority director-IFRS disclosures relationship. We specifically focused on critical mass, director busyness, ownership structure and obtained several interesting results. First, we find that ethnic minority directors have the greatest influence when there are two on the board. Interestingly, their influence on IFRS disclosures declines when they are more than two. The findings seem to suggest that the inclusion of more than two ethnic minority directors may result in conflict and impair board monitoring. Second, whilst non-busy ethnic minority directors have a positive relationship with accounting disclosures, the relationship is insignificant for busy-ethnic minority directors. These results hold regardless of the ownership concentration of the firm.

Our findings make several contributions to both literature and policies. Our focus on IFRS disclosures departs from prior South African studies such as Ntim (2015) and Gyapong et al. (2016) that concentrated on firm performance. This is significant because financial reporting

is the direct responsibility of the board rather than firm financial outcomes. Our study is also different from prior studies that examine the effects of firm and board-level characteristics and IFRS disclosure studies in two ways. First, unlike prior studies that focus on specific standards (Sellami and Fehnri 2017; Verriest et al. 2013), we develop a comprehensive disclosure index against 570 mandatory requirements of IFRS (e.g. the IFRS compliance index). Second, we explore the impact of ethnic minority directors on IFRS disclosures that have not been examined in the literature. Finally, we provide empirical evidence that supports the recommendations of various aspects of legislation and codes in South Africa (1998 EE Act, the 2003 BEE Act, Kings Report I, II, III, IV). With these findings, other African countries may take steps toward governance reforms that support both gender and ethnic diversity.

Despite the comprehensive findings and implications, our study is not without limitations. Due to the scarcity of data, we could not examine the multidimensional nature of the various non-white directors' ethnicity. The availability of more comprehensive information could help construct an overall board diversity index such as the BLAU index.

**Appendix A. Checklist for calculating IFRS disclosure index**

| Standard | Tsalavoutas 2011 | Delliote | EY | KPMG | PWC | This Study |
|---|---|---|---|---|---|---|
| IAS 1 | 72 | 80 | 81 | 76 | 78 | 81 |
| IAS 2 | 8 | 9 | 8 | 7 | 7 | 7 |
| IAS 7 | 10 | 22 | 17 | 26 | 16 | 19 |
| IAS 8 | 6 | 24 | 20 | 22 | 16 | 19 |
| IAS 10 | 6 | 6 | 3 | 14 | 4 | 6 |
| IAS 11 | 9 | 9 | 6 | 7 | 4 | 9 |
| IAS 12 | 11 | 25 | 22 | 24 | 20 | 17 |
| IAS 16 | 15 | 24 | 23 | 20 | 21 | 22 |
| IAS 17 | 19 | 17 | 19 | 18 | 8 | 12 |
| IAS 18 | 3 | 4 | 5 | 2 | 3 | 4 |
| IAS 19 | 23 | 28 | 29 | 30 | 24 | 25 |
| IAS 20 | 3 | 5 | 5 | 7 | 3 | 5 |
| IAS 21 | 9 | 11 | 11 | 11 | 8 | 9 |
| IAS 23 | 3 | 2 | 3 | 2 | 2 | 2 |
| IAS 24 | 18 | 26 | 25 | 28 | 24 | 20 |
| IAS 29 | NA | 5 | 4 | 6 | 5 | 5 |
| IAS 33 | 7 | 9 | 9 | 10 | 15 | 9 |
| IAS 36 | 39 | 29 | 28 | 26 | 34 | 30 |
| IAS 37 | 15 | 17 | 16 | 19 | 15 | 15 |
| IAS 38 | 14 | 30 | 29 | 25 | 24 | 25 |
| IAS 40 | 21 | 26 | 25 | 22 | 20 | 21 |
| IAS 41 | 23 | 27 | 29 | 26 | 23 | 25 |
| IFRS 2 | 12 | 17 | 20 | 19 | 16 | 17 |
| IFRS 3 | 20 | 24 | 26 | 28 | 23 | 24 |
| IFRS 4 | NA | 12 | 13 | 14 | 11 | 12 |
| IFRS 5 | 10 | 12 | 15 | 12 | 12 | 10 |
| IFRS 6 | 3 | 5 | 5 | 4 | 3 | 5 |
| IFRS 7 | NA | 25 | 22 | 24 | 28 | 30 |
| IFRS 8 | NA | 21 | 17 | 19 | 18 | 16 |
| IFRS 12 | NA | 37 | 38 | 42 | 38 | 39 |
| IFRS 13 | NA | 28 | 28 | 32 | 30 | 30 |
| | **379** | **616** | **601** | **622** | **553** | **570** |

Notes: Appendix A presents a comparison on the number of observable mandatory items per each IFRS/IAS standard. The identifiable items are compared with prior studies and the Big4 firms. NA – not applicable.

## Appendix B. Sample scoring sheet for IFRS disclosure score

| Standard | Title | Disclosed (D) | Maximum disclosures (M) | Disclosure per standard Step 1 |
|---|---|---|---|---|
| IAS 1 | Presentation of Financial Statements | 72 | 81 | 0.888889 |
| IAS2 | Inventories | 7 | 7 | 1 |
| IAS 7 | Statement of cash flows | 12 | 19 | 0.631579 |
| IAS 8 | Accounting policies, Changes in Accounting Estimates and Errors | 13 | 19 | 0.684211 |
| IAS 10 | Events after the reporting period | 4 | 6 | 0.666667 |
| IAS 11 | Constructions Contracts | NA | NA | NA |
| IAS 12 | Income taxes | 14 | 17 | 0.823529 |
| IAS 16 | Property, Plant and Equipment | 20 | 22 | 0.909091 |
| IAS 17 | Leases | 8 | 12 | 0.666667 |
| IAS 18 | Revenue | 4 | 4 | 1 |
| IAS 19 | Employee Benefits | 16 | 25 | 0.64 |
| IAS 20 | Accounting for Government Grants and Disclosure of Government Assistance | NA | NA | NA |
| IAS 21 | The effects of changes in Foreign Exchanges Rates | 8 | 9 | 0.888889 |
| IAS 23 | Borrowing Costs | NA | NA | NA |
| IAS 24 | Related Party Disclosures | 16 | 20 | 0.8 |
| IAS 29 | Financial reporting in Hyperinflationary economies | NA | NA | NA |
| IAS 33 | Earnings per share | 7 | 9 | 0.777778 |
| IAS 36 | Impairment of Assets | 26 | 30 | 0.866667 |
| IAS 37 | Provision, contingent liabilities and Contingent Assets | 11 | 15 | 0.733333 |
| IAS 38 | Intangible Assets | 20 | 25 | 0.8 |
| IAS 40 | Investments Property | 17 | 21 | 0.809524 |
| IAS 41 | Agriculture | NA | NA | NA |
| IFRS 2 | Share-based payment | 13 | 17 | NA |
| IFRS 3 | Business Combination | 19 | 24 | 0.75 |
| IFRS 4 | Insurance contracts | NA | NA | NA |
| IFRS 5 | Non-current assets held for sales and discounted operations | 8 | 10 | NA |
| IFRS 6 | Exploration for and Evaluation of mineral resources | NA | NA | NA |
| IFRS 7 | Financial instruments –Disclosures | 21 | 30 | 0.7 |
| IFRS 8 | Operating Segments | NA | NA | NA |
| IFRS 12 | Disclosure of Interests in Other Entities | 33 | 39 | 0.846154 |
| IFRS 13 | Fair value measurement | 28 | 30 | 0.933333 |
| | **Applicable standards and score** | **23** | | **18.42268** |

Note: Appendix B presents the scoring sheet for one sample (Alviva Holdings Limited) for 2016 accounting year. Disclosed items and maximum disclosures are measured in absolute numbers, while compliance score is measured between 0 to 1. NA – *NA* means that the item is required but not applicable to the company for that period.

Step 1. Calculating compliance score per standard. The scores are displayed in the last column of Appendix B and is calculated as follows.

$$\frac{Total\ Items\ disclosed\ per\ standard}{Total\ applicable\ items\ per\ standard}$$

For example, for IAS 1 Presentation of Financial Statements

$$\frac{72}{81} = 0.8888$$

Step 2. Calculating the overall compliance score of a firm.

$$\frac{Total\ compliance\ score\ of\ all\ standards}{Number\ of\ applicable\ standards}$$

$$\frac{18.42268}{23} = 0.80097 \text{ or } 80.09\%$$

**Appendix C. Results of reliability of coding**

| | Compliance scores | | | Difference in compliance scores and T-Test | | |
|---|---|---|---|---|---|---|
| | **Author** | **Researcher** | **Practitioner** | **Author vs Researcher** | **Author vs Practitioner** | **Researcher vs Practitioner** |
| Firm 1 | 0.737 | 0.7362 | 0.6678 | 0% | 7% | 7% |
| Firm 2 | 0.7226 | 0.759 | 0.7741 | -4% | -5% | -2% |
| Firm 3 | 0.6873 | 0.6535 | 0.6436 | 3% | 4% | 1% |
| Firm 4 | 0.7276 | 0.7103 | 0.7276 | 2% | 0% | -2% |
| Firm 5 | 0.7622 | 0.761 | 0.761 | 0% | 0% | 0% |
| Firm 6 | 0.7295 | 0.7199 | 0.7271 | 1% | 0% | -1% |
| Firm 7 | 0.8001 | 0.8001 | 0.7999 | 0% | 0% | 0% |
| Firm 8 | 0.7173 | 0.7394 | 0.7881 | -2% | -7% | -5% |
| Firm 9 | 0.8135 | 0.8135 | 0.8131 | 0% | 0% | 0% |
| Firm 10 | 0.7531 | 0.772 | 0.7699 | -2% | -2% | 0% |
| Firm 11 | 0.7841 | 0.7839 | 0.83839 | 0% | -5% | -5% |
| Firm 12 | 0.6673 | 0.7177 | 0.681 | -5% | -1% | 4% |
| Firm 13 | 0.7105 | 0.7115 | 0.7881 | 0% | -8% | -8% |
| Firm 14 | 0.7337 | 0.8353 | 0.7752 | -10% | -4% | 6% |
| Firm 15 | 0.7261 | 0.7887 | 0.8218 | -6% | -10% | -3% |
| Firm 16 | 0.6591 | 0.6713 | 0.6106 | -1% | 5% | 6% |
| Firm 17 | 0.8146 | 0.8098 | 0.8767 | 0% | -6% | -7% |
| Firm 18 | 0.7976 | 0.7196 | 0.7645 | 8% | 3% | -4% |
| Firm 19 | 0.7345 | 0.7417 | 0.7491 | -1% | -1% | -1% |
| Firm 20 | 0.6913 | 0.6871 | 0.6183 | 0% | 7% | 7% |
| **Mean** | **0.73845** | **0.746575** | **0.749795** | **-1%** | **-1%** | **0%** |
| **Median** | **0.7316** | **0.74055** | **0.7672** | **-1%** | **-4%** | **-3%** |
| **Std Dev.** | **0.045689** | **0.049342** | **0.072903** | **0%** | **-3%** | **-2%** |
| **T-TEST** | | | | **0.33** | **0.31** | **0.75** |
| **Krippendorff's alpha of agreement** | | | | **0.899*** ** | **0.887*** ** | **0.878*** ** |

Notes: Appendix C present the results of the reliability test on the coding. The compliance scores of are reported on a 0 to 1 scale. The Krippendorff's alpha of agreement among all the three coders is 0.894*** *** Significance at the 1% level, **significance at the 5%; * significance at 10%

**Appendix D. Characteristics of directors**

| | Full sample | Non-White directors | White directors | T-test NW vrs WD |
|---|---|---|---|---|
| Age (in years) | 55.59 | 52.2 | 58.17 | 0.005*** |
| Academic qualification (0,1,2,3) | 1.451 | 1.54 | 1.382 | 0.034** |
| Accounting background (0,1) | 0.597 | 0.628 | 0.574 | 0.008*** |
| Independence of Director (0,1) | 0.75 | 0.70 | 0.58 | 0.0041** |

***Note:*** This Table present the average values of directors' background. Age is measured in years. Academic qualification is the highest academic qualification of the director measured on a scale of 0-3; 0 – qualifications below first degree; 1- First degree; 2 – Second degree (Masters) 3 – Third degree (PhD). Accounting background is binary variable; 0 = director does not have any academic or professional qualification in accounting; 1 – director has academic or professional qualification in accounting. Independence of Director; 0 = if the director is executive and 0 = if the director is non-executive.

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**Table 1. Variable definitions**

| Variable | Measurement |
|---|---|
| IFRS disclosure index | Constructed index based on information in financial statements. |
| Ethnic director | The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. |
| 1 Ethnic director | ED1 = 1, if there was one non-white director on the board, '0' otherwise. |
| 2 Ethnic directors | ED2 = 1, if there were two non-white directors or '0' otherwise. |
| 3 Ethnic directors | ED3 = 1 if there were at least three non-white directors or '0' otherwise. |
| Busy | Busy is the total number of ethnic directors with more than two directorships expressed as a percentage of total board size. |
| Non-busy | Non-busy is the total number of ethnic directors with less than two directorships expressed as a percentage of total board size. |
| Audit Committee | We measure audit committee by the its competence level. We construct the competence as proportionate of chartered accountants multiply by the proportionate independent members in the audit committee. |
| Accountants on Board | Measured as a number of the chartered accountant as a percentage of total board size. |
| Female director | The percentage of female directors on board. |
| Board size | The number of directors on the board. |
| Non-executive directors | The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. |
| CEO duality | Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. |
| Leverage | The percentage of total debt to total assets. |
| Return on assets | Net profit before tax/total assets. |
| Sales growth | Year on year percentage change in net sales. |
| Total Assets | Natural log of total assets. |
| Big4 | Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise. |

*Notes:* All the variables were manually collected from the firm's annual reports.

**Table 2. Descriptive statistics**

| Variable | Mean | Median | Std. Dev. | 1st Quartile | 3rd Quartile |
|---|---|---|---|---|---|
| IFRS disclosure index | 73.05 | 77.37 | 11.43 | 66.75 | 84.82 |
| Ethnic directors | 22.04 | 18.13 | 21.19 | 15.27 | 25.71 |
| Ethnic 1 | 0.13 | 1 | 0.44 | 0 | 1 |
| Ethnic 2 | 0.10 | 1.5 | 0.30 | 0 | 2 |
| Ethnic 3 | 0.28 | 2.5 | 0.37 | 0 | 3 |
| Busy ethnic | 0.37 | 1 | 0.59 | 0 | 1 |
| Non-busy ethnic | 0.48 | 1 | 0.49 | 0 | 1 |
| Audit committee | 75.33 | 70.15 | 14.17 | 64.71 | 82.29 |
| Accountants on board | 27.09 | 25.13 | 15.93 | 12.17 | 36.66 |
| Female directors | 18.22 | 16.41 | 31.53 | 13.32 | 20.05 |
| Board size | 7.5 | 8 | 5.16 | 4 | 11 |
| Non-Executive directors | 42.19 | 33.38 | 21.43 | 27.00 | 66.80 |
| CEO duality | 0.37 | 1 | 0.79 | 0 | 1 |
| Leverage | 18.21 | 17.93 | 13.98 | 18.47 | 22.09 |
| Return on assets | 12.23 | 9.43 | 14.96 | 4.75 | 18.17 |
| Sales growth | 28.06 | 21.23 | 35.03 | 16.26 | 47.42 |
| Total Assets | 18.74 | 18.51 | 12.25 | 12.65 | 19.16 |
| Big4 | 0.65 | 1 | 0.58 | 0 | 1 |

*Notes:* This Table presents the descriptive statistics of all sample firm-year observations. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Ethnic 1—1 if there was one non-white director on the board, '0' otherwise. Ethnic 2—1 if there were two non-white directors or '0' otherwise. Ethnic 3—1 if there were at least three non-white directors or '0' otherwise. Busy ethnic— the total number of ethnic directors with more than two directorships expressed as a percentage of total board size. Non-busy ethnic— Non-busy is the total number of ethnic directors with less than two directorships expressed as a percentage of total board size. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 3. Sample distribution by types of diversity**

| | With non-white (A) | | | Without non-white (B) | | | T-test A vs B |
|---|---|---|---|---|---|---|---|
| **Variable** | **Mean** | **Median** | **STD** | **Mean** | **Median** | **STD** | **P-value** |
| IFRS disclosure index | 76.43 | 79.10 | 7.43 | 70.35 | 74.23 | 8.75 | 0.03** |
| Audit committee | 75.63 | 66.81 | 13.60 | 78.33 | 74.21 | 17.06 | 0.313 |
| Accountant on board | 25.29 | 26.86 | 14.02 | 31.43 | 33.43 | 10.15 | 0.238 |
| Female directors | 19.09 | 17.13 | 15.20 | 15.35 | 18.36 | 10.90 | 0.041** |
| Board size | 9 | 8 | 4.5 | 7.5 | 7 | 3.85 | 0.152 |
| Non-Executive directors | 49.45 | 46.27 | 17.10 | 38.59 | 40.38 | 23.63 | 0.028** |
| CEO duality | 0.35 | 0 | 0.65 | 0.65 | 0 | 0.75 | 0.861 |
| Leverage | 22.73 | 33.12 | 45.05 | 19.75 | 23.19 | 16.86 | 0.157 |
| Return on assets | 13.08 | 17.49 | 11.77 | 13.01 | 9.13 | 31.87 | 0.112 |
| Sales growth | 29.60 | 34.18 | 39.13 | 26.59 | 23.85 | 37.63 | 0.103 |
| Total Assets | 16.35 | 15.49 | 11.77 | 19.59 | 16.33 | 10.95 | 0.310 |
| Big4 | 0.59 | 1 | 0.35 | 0.61 | 1 | 0.49 | 0.271 |
| Observations | | 480 (50%) | | | 480 (50%) | | |

*Notes:* This table presents the mean and standard deviation of the variables under different types of boards. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 4. Pearson's Correlation Matrix**

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Ethnic directors | 1 | | | | | | | | | | | |
| 2. Female directors | 0.39 | 1 | | | | | | | | | | |
| 3. Audit committee | 0.03 | 0.02 | 1 | | | | | | | | | |
| 4. Accountants on board | 0.02 | 0.01 | 0.61 | 1 | | | | | | | | |
| 5. Board size | 0.32 | 0.22 | 0.04 | 0.02 | 1 | | | | | | | |
| 6. Non-Executive directors | 0.12 | 0.11 | 0.51 | 0.18 | 0.33 | 1 | | | | | | |
| 7. CEO duality | 0.01 | 0.01 | -0.12 | 0.01 | 0.02 | 0.02 | 1 | | | | | |
| 8. Leverage | 0.01 | 0.08 | 0.01 | 0.00 | 0.35 | -0.06 | 0.02 | 1 | | | | |
| 9. Return on assets | 0. 09 | 0.21 | 0.01 | 0.02 | 0.24 | 0.46 | 0.36 | 0.51 | 1 | | | |
| 10. Sales growth | 0.13 | 0.25 | 0.02 | 0.01 | 0.05 | 0.22 | 0.23 | 0.05 | 0.49 | 1 | | |
| 11. Total Assets | 0.27 | 0.22 | 0.04 | 0.02 | 0.28 | 0.16 | 0.19 | 0.17 | 0.31 | 0.36 | 1 | |
| 12. Big4 | 0.08 | 0.04 | 0.09 | 0.03 | 0.13 | 0.10 | 0.03 | 0.01 | 0.07 | 0.01 | 0.11 | 1 |

*Notes:* This table presents the Pearson's correlations coefficients for all the independent variables. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 5. Main results – The relationship between ethnic diversity, director busyness and IFRS disclosures**

| *Variable* | *Ethnic* (1) | *Busy* (2) | *Non-busy* (3) |
|---|---|---|---|
| Ethnic director | 0.0043** | | |
| | (2.53) | | |
| Busy | | 0.982 | |
| | | (1.53) | |
| Non-busy | | | 0.018** |
| | | | (2.13) |
| Audit committee | 0.1998*** | 0.221*** | 0.2431*** |
| | (3.16) | (3.22) | (3.51) |
| Accountants on Board | 0.0083** | 0.0078** | 0.0071** |
| | (2.43) | (2.29) | (2.19) |
| Female directors | | 0.0673** | 0.0626** |
| | | (2.37) | (2.37) |
| Board size | 0.0745* | 0.0030 | 0.0038 |
| | (1.83) | (0.39) | (0.53) |
| Non-executive directors | 0.0138** | 0.0009 | 0.0008 |
| | (2.27) | (1.55) | (1.63) |
| CEO duality | 0.0035* | 0.0033 | 0.0031 |
| | (1.78) | (1.36) | (1.36) |
| Leverage | 0.1031 | 0.0023* | 0.0023* |
| | (1.39) | (1.73) | (1.73) |
| Return on assets | 0.0064** | 0.0010 | 0.0010 |
| | (2.07) | (1.47) | (1.47) |
| Sales growth | 0.0015 | 0.3854* | 0.2914* |
| | (1.61) | (1.82) | (1.85) |
| Total Assets | 0.2976*** | 0.1240** | 0.1140** |
| | (3.11) | (2.47) | (2.42) |
| Big4 | 0.1632** | 0.143** | 0.135** |
| | (2.29) | (2.32) | (2.13) |
| Constant | 2.626*** | 1.491** | 1.391** |
| | (5.95) | (9.36) | (10.62) |
| Industry dummy | Yes | Yes | Yes |
| Year dummy | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.253 | 0.189 | 0.178 |
| Observations | 960 | 960 | 960 |

Notes: *t-Statistics* are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Busy ethnic— the total number of ethnic directors with more than two directorships expressed as a percentage of total board size. Non-busy ethnic— Non-busy is the total number of ethnic directors with less than two directorships expressed as a percentage of total board size. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 6. Sensitivity analysis**

| *Variable* | *Critical mass* | | |
|---|---|---|---|
| | *1- Ethnic* | *2-Ethnic* | *3-Ethnic* |
| | *(1)* | *(2)* | *(3)* |
| Ethnic director | | | |
| 1 Ethnic director | 0.0013** | | |
| | (2.08) | | |
| 2 Ethnic directors | | 0.0029** | |
| | | (2.06) | |
| 3 Ethnic directors | | | 0.0014 |
| | | | (1.46) |
| Audit committee | 0.2011*** | 0.201*** | 0.1999*** |
| | (3.02) | (3.12) | (3.13) |
| Accountants on Board | 0.0072** | 0.0067** | 0.0084** |
| | (1.99) | (2.13) | (2.41) |
| Board size | 0.0781** | 0.0784* | 0.07523* |
| | (2.07) | (1.65) | (1.83) |
| Non-executive directors | 0.0136* | 0.0129* | 0.0017* |
| | (1.86) | (1.87) | (1.76) |
| CEO duality | 0.0023* | 0.0034* | 0.0020 |
| | (1.78) | (1.76) | (1.08) |
| Leverage | 0.0986 | 0.0610* | 0.0261* |
| | (1.23) | (1.65) | (1.83) |
| Return on assets | 0.0061* | 0.0055* | 0.0037** |
| | (1.81) | (1.76) | (2.17) |
| Sales growth | 0.0019 | 0.0013 | 0.0011 |
| | (1.47) | (1.62) | (1.59) |
| Total Assets | 0.2916*** | 0.331*** | 1.1672** |
| | (2.91) | (2.64) | (2.11) |
| Big4 | 0.1618** | 0.1628** | 0.0732* |
| | (2.52) | (2.25) | (1.71) |
| Constant | 2.467*** | 1.750*** | 1.243*** |
| | (4.65) | (4.95) | (5.38) |
| Industry dummy | Yes | Yes | Yes |
| Year dummy | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.134 | 0.154 | 0.103 |
| Observations | 960 | 960 | 960 |

Notes: *t-Statistics* are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Ethnic 1—1 if there was one non-white director on the board, '0' otherwise. Ethnic 2—1 if there were two non-white directors or '0' otherwise. Ethnic 3—1 if there were at least three non-white directors or '0' otherwise. Busy ethnic— the total number of ethnic directors with more than two directorships expressed as a percentage of total board size. Non-busy ethnic— Non-busy is the total number of ethnic directors with less than two directorships expressed as a percentage of total board size. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 7. Audit committee and CFO ethnicity**

| Variable | *Ethnic* | *1-Ethnic* | *2-Ehnic* | *3-Ethnic* | *Busy* | *Non-busy* | *CFO* |
|---|---|---|---|---|---|---|---|
| | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** |
| Ethnic director | 0.0043*** | | | | | | |
| | (4.17) | | | | | | |
| 1 Ethnic director | | 0.016* | | | | | |
| | | (1.78) | | | | | |
| 2 Ethnic directors | | | 0.019** | | | | |
| | | | (2.00) | | | | |
| 3 Ethnic directors | | | | 0.009 | | | |
| | | | | (1.28) | | | |
| Busy | | | | | 0.0297 | | |
| | | | | | (1.21) | | |
| Non-busy | | | | | | 0.0125** | |
| | | | | | | (2.43) | |
| Ethnic CFO | | | | | | | 0.0119 |
| | | | | | | | (1.39) |
| Constant | 3.2421*** | 2.7513** | 2.9311** | 2.6940** | 2.134** | 2.104** | 1.657*** |
| | (3.82) | (2.15) | (2.31) | (2.23) | (2.21) | (2.47) | (3.29) |
| Industry dummy | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year dummy | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.309 | 0.229 | 0.231 | 0.216 | 0.264 | 0.262 | 0.146 |
| Observations | 960 | 960 | 960 | 960 | 480 | 480 | 960 |

Notes: *t-Statistics* are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on the audit committee. Ethnic 1—1 if there was one non-white director on the audit committee, '0' otherwise. Ethnic 2—1 if there were two non-white directors or '0' otherwise. Ethnic 3—1 if there were at least three non-white directors or '0' otherwise. Busy ethnic— the total number of ethnic directors with more than two directorships expressed as a percentage of total committee size. Non-busy ethnic— Non-busy is the total number of ethnic directors with less than two directorships expressed as a percentage of total committee size.

**Table 8. High VS Low ownership concentration**

| | High concentrated ownership | | Low concentrated ownership | |
|---|---|---|---|---|
| **Variables** | **Single shareholder** | **Top 5 shareholders** | **Single shareholder** | **Top 5 shareholders** |
| | **(1)** | **(2)** | **(3)** | **(4)** |
| Ethnic | 0.0026** | 0.0032** | 0.0028** | 0.0015*** |
| | (2.34) | (2.51) | (2.01) | (2.19) |
| Constant | 2.131*** | 2.028*** | 2.234*** | 2.106*** |
| | (3.15) | (3.16) | (3.95) | (4.03) |
| Controls | Yes | Yes | Yes | Yes |
| Industry dummy | Yes | Yes | Yes | Yes |
| Year dummy | Yes | Yes | Yes | Yes |
| Adjusted. $R^2$ | 0.234 | 0.228 | 0.362 | 0.381 |
| Observations | 308 | 460 | 650 | 472 |

Notes: *t-Statistics* are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 9. Robustness checks**

| Variables | Alternative measurement | Endogeneity | | |
|---|---|---|---|---|
| | | Two-stage least squares (2SLS) | | GMM |
| | *unweighted* | 1st stage | 2nd stage | *Ethnic* |
| | *(1)* | *(2)* | *(3)* | *(4)* |
| *Ethnic directors* | 0.0297** | | | |
| | (2.06) | | | |
| *BLKOW* | | 0.021*** | | |
| | | (3.61) | | |
| *EOW* | | 0.027*** | | |
| | | (4.32) | | |
| *GOV* | | 1.031*** | | |
| | | (6.13) | | |
| *FORO* | | -0.018** | | |
| | | (2.50) | | |
| *IOW* | | 0.009 | | |
| | | (0.68) | | |
| *Pre(Ethnic)/Ethnic directors* | | | 0.0021** | 0.0013** |
| | | | (3.18) | (3.26) |
| Constant | 2.667*** | 2.192*** | 1.832*** | 1.727*** |
| | (4.61) | (3.16) | (11.18) | (11.26) |
| Controls | Yes | Yes | Yes | Yes |
| Industry dummy | Yes | Yes | Yes | Yes |
| Year dummy | Yes | Yes | Yes | Yes |
| Adjusted. $R^2$ | 0.596 | 0.613 | 0.371 | 0.375 |
| Observations | 960 | 960 | 960 | 960 |

Notes: *t-Statistics* are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Ethnic directors— The percentage of ethnic (non-white, i.e., Black African, Indian, Chinese and Mixed-Race background) directors on a board. Audit committee— we measure audit committee by the its competence level. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

**Table 10. Robustness checks – Difference in Difference**

| Variables | DID | DID Matching |
|---|---|---|
| | *(1)* | *(2)* |
| Post*Treatment | 0.0058** | |
| | (2.25) | |
| Treatment | 0.0037** | |
| | (2.42) | |
| Post | 0.0017 | |
| | (1.32) | |
| R_Appointment*Post | | 0.0101*** |
| | | (3.86) |
| R_Appointment | | 0.0072** |
| | | (2.64) |
| Post | | 0.0156 |
| | | (1.46) |
| Controls | Yes | Yes |
| Industry dummy | Yes | Yes |
| Year dummy | Yes | Yes |
| Adjusted. $R^2$ | 0.334 | 0.386 |
| Observations | 768 | 104 |

Notes: t-Statistics are shown in parentheses. *** Significance at the 1% level, **significance at the 5%; * significance at 10%. Variables are defined as follow: IFRS disclosure index—Constructed index based on information in financial statements. Treatment is a dummy variable equal to "1" if the firm is in the treatment group, and "0" if the firm is in the control group. Post is a dummy variable equal to "1" for 2017 and 2018 and "0" for 2015 and 2016. R_Appointment is a dummy variable equal to "1" if the firm is in the treatment group, and "0" if the firm is in the control group. Post is a dummy variable equal to "1" for the period after the treatment and "0" for the period before the treatment. Accountants on Board— Measured as a number of the chartered accountant as a percentage of total board size. Female directors— The percentage of female directors on board. Board size— The number of directors on the board. Non-executive directors— The percentage of non-executive directors on the board. CEO – binary measure equal to 1 duality. CEO duality—Binary variable equal to 0 if the CEO doubles as chairperson and 1 if the CEO and chairperson are two different persons. Leverage— The percentage of total debt to total assets. Return on assets– Net profit before tax/total assets. Sales growth– Year on year percentage change in net sales. Total Assets– Natural log of total assets. Big4–Binary variable equal to 1 if a firm is audited by a Big4 firm, '0' otherwise.

Notes:

[i] As at June 2018, there were about 357 listed companies.

[ii] Consistent with Al-Shammari et al. (2008) who validated their checklist using Ernst and Young; KPMG checklist.

[iii] For example, a firm whose accounting period ends on 31st March will be assessed with 2014, 2015, 2016, 2017 and 2018 accounting years, but a firm with an accounting year ending in September will be assessed on 2013, 2014, 2015, 2016, and 2017 applicable disclosures. Less than 10 companies fall in this category, hence they are less likely to bias the results

[iv] Examples IAS 34-Interim financial reporting; IAS 20 (36) (31), etc.

[v] Some companies in South Africa disclose related parties such as key management compensation in Directors report.

[vi] We followed prior studies (Abdullah et al. 2015; Cooke, 1992; Mazzi et al. 2017; Sellami & Fendri, 2017).

[vii] For example, IAS 16:77(b) requires companies to disclose the effective date of revaluation, however this is not applicable to companies which use cost model valuation of PPE.

[viii] Both Gyapong et al. 2016 and Ntim 2015 reported that South African corporate boards remain more than 70% dominated by whites.

[ix] Ahmed et al. (2017) reported that 77% directors of companies in Australia are non-executives.

[x] In the UK, Liao et al. (2015) reported 54.4%. In the USA, Upadhyay and Zeng (2014) reported 66%.

[xi] Breusch and Pagan LM test indicate that pooled OLS is not suitable because there is variance across the sample companies

[xii] The Husman test rejects the null hypothesis that individual effects are uncorrelated with the independent variable.