

Determinants of IFRS Compliance in Africa: Analysis of Stakeholder Attributes

Abstract

Purpose: This paper examines the drivers of companies' compliance with IFRS using the stakeholder salience theory.

Research Methods: We have used panel data from 205 companies to examine the IFRS compliance level across 13 African countries. Our study has also established the relationship between stakeholders' attributes and firms' compliance with IFRS.

Findings: On IFRS compliance, we found that the average compliance score among the companies over the period was 73.09% with a minimum score of 62.86% and maximum of 85.61%. We found a significant positive association between audit committee competence (ACC) and compliance and found the same for chartered accountants on board (AOB). There is less compliance with the latest standards, such as IFRS 3, 7, and 13. Also, IAS 17, 19, 36, and 37 are problematic across the sample. We also found that compliance has been increasing over the years.

Practical implications. For companies, our studies provide empirical evidence on the importance of having chartered accountants' corporate boards as well as competent audit committees involved in ensuring high compliance with IFRS. Our findings also provide valuable information for professional accounting organizations on the role of its members (chartered accountants) in the effectiveness of IFRS compliance.

Value/Contribution: This study complements and updates prior studies on IFRS compliance with findings from Africa, a region that has been neglected in the literature.

It provides empirical evidence on the importance of chartered accountants sitting on corporate boards in ensuring high compliance with IFRS.

Keywords: Africa, Compliance, IFRS, Stakeholder salience

1.0. Introduction.

The high speed of accounting harmonization makes International Financial Reporting Standards (IFRS) an unstoppable phenomenon, yet concerns have been raised as to whether countries' claims of IFRS adoption has being translated accurately into their financial statements (Ball, 2016; Nobes, 2013, 2011).

Based on positive accounting theory (Watts & Zimmerman, 1986), prior studies by Al-Mutawaa & Hewiady, (2010), Al-Shammari et al. (2008), Alsaeed, (2006), and Karim and Ahmed, (2005) have provided evidence of the relationship between firm characteristics and compliance level. However, these studies ignore the fact that companies can be forced to adopt IFRS but its compliance rests in the hands of management who act according to the directions of the stakeholders involved. We argue that compliance with IFRS at the firm level is more related to how stakeholders 'influence companies' reporting activities than firm-specific characteristics. This connection is very relevant in African countries where the stock market is not efficient to reflect external reporting. Hence, only some stakeholders may be interested in the company's accounting practices due to power, legitimacy, or urgency.

Africa provides unique settings and motivation for this research because of the following features. It is the host of emerging countries that have been beset by low compliance with global standards (Word Bank ROSC, Nobes, 2011) due to their weak institutional and enforcement framework (Bova & Pereira 2012). Also, Africa is mostly neglected in prior research. More important, due to its low economic growth, the stock market is not central to the development of most African countries (Nnadi & Soobaroyen, 2015).

Further, as argued by Gordon et al. (2012), Nnadi and Soobaroyen (2015), companies in developing economies have different ownership, financing, and governance structure compared to those in developed ones (see also La-Porta et al. 1999). Contrary to companies in Europe, the Americas and other parts of the world where ownership is dispersed among many active minority shareholders, ownership in most African companies is dominated by blocks and internal holdings. The few external holders are not active participants on the exchanges. African firms heavily depend on finance outside stock exchanges and more likely to respond to factors outside the capital market (Ntim 2013). This feature contrasts with most companies outside Africa, which usually secure funding on stock exchanges.

Consequently, there can be heterogeneity in compliance with IFRS. Thus, these features allow us to answer the distinct question, what are the drivers of IFRS compliance outside the capital

market theories? We argue that because most African companies' source finance outside the capital market, their level of compliance and associated factors will differ from prior studies on Europe, America, and Asia. Thus, African companies will not necessarily comply with IFRS for direct benefit in the capital as opined in existing literature.

Another point of difference in our study is the incorporation of adoption timing. The differences in adoption years allow us to examine the impact of years of IFRS experience on the level of compliance. Arguably, how long a country has been using IFRS is likely to impact compliance level; for example, the longer the years, the higher the compliance level. Despite this strong relationship, prior studies have not considered it.

To achieve our objective of examining determinants of IFRS compliance outside the capital market theories, we used a sample of 205 companies across 13 African countries. We also established the relationship between stakeholders' attributes and firm's compliance with IFRS through the stakeholder salience theory. In this study, we defined *IFRS adopted countries* as countries that mandatorily require all listed companies to report per IFRS as issued by IASB.

The average compliance score among the companies over the period was 70.94% (73.09%), with a minimum score of 58.59% (62.86%) and maximum of 83.55% (85.61%). Our results show that there is a significant positive association between audit committee competence (ACC), and compliance, and the same for chartered accountants on corporate boards (AOB). To the contrary, there is an inverse relationship between ownership concentration (OWN) and compliance level.

These findings provide incremental contributions and depart from prior literature in threefold. First, the study has incorporated the aspect of harmonization over time, which is lacking in prior studies. Thus, the study used panel data instead of single year data. Arguably, compliance disclosure increases over time (Hassan et al., 2006, Peng, 2008). Hence the 3-year period analyses provide an original contribution on how developing countries are growing with IFRS, which has been a continuous question from policymakers (IASB, IFAC, & PAFA) as well as academicians (Ball, 2016; Nobes, 2011, 2013). It also overcomes the limitation noted by Tsalavoutas (2011)¹ by providing evidence of IFRS compliance beyond the first year of adoption. Second, contrary to prior studies, that used capital market-based theories such as agency theory and positive accounting theory, we employed stakeholder salience theory to complement and extend literature. We argue that stakeholders' characteristic is more prevalent

¹ It focuses on the first year of mandatory implementation of IFRS.

in Africa than capital market-based theories. This is because the capital market is not central to the development of most of the African countries. More important, there are fewer participants in the markets compared to samples in prior studies. Third, we provide a comparison of compliance among African countries simultaneously. We also showcase the impact of years of IFRS experience over compliance. Prior studies have not considered these pertinent issues.

For companies, our studies provide empirical evidence on the importance of having chartered accountants' corporate boards as well as competent audit committees involved in ensuring high compliance with IFRS. Our findings also provide valuable information for professional accounting organizations on the role of its members (chartered accountants) in the effectiveness of IFRS compliance. Further, the findings are also useful for IASB and IFAC in encouraging IFRS compliance because it provides evidence of what needs to be done to achieve high compliance.

The remainder of the paper is structured as follows. Section 2.0 presents the review of the literature and Section 3.0 explores relevant theory and hypotheses. Section 4.0 describes the research methods and regression model that was used to test the hypotheses. Chapter 5 presents results and discussion on the findings. The paper concludes with implications and limitation of the study in Chapter 6.

2.0. Literature review.

IFRS has attracted numerous studies but dominated by consequences on the capital market (Barth et al. 2008; Hope et al. 2006, Liu et al. 2011). Liu et al. (2011) found an increase in accounting quality and value relevance of accounting information on the Chinese capital market. On comparability, Liu, (2011) highlighted that net income under IFRS is not completely comparable to US-GAAP due to difference in tangible assets revaluation and business acquisition recognition and presentation. However, these studies have found in common that the benefit of IFRS can only be achieved if there is high compliance. In a survey of literature, Houque et al. (2017) found that the benefits of IFRS in reducing information asymmetry and improving quality and transparency only manifest with good drivers of compliance and enforcement. Similarly, Hope (2003) showcased that firm-level disclosures are positively associated with accurate analyst forecasts. However, the relationship is much stronger if there is enforcement and a good environment for compliance. Dayanandan et al. (2015) also highlighted the relationship between disclosure determinants and benefits of IFRS.

In their studies, they found that common law countries with strong investor protection laws have high disclosures and that this relationship reduces income smoothing and earnings management.

Through a synthesis of theories and review of the literature on developing countries, Samaha and Khlif (2016) concluded that there are mixed results on firm characteristics and degree of IFRS compliance. The authors also indicated the scarcity of research in developing countries because few studies had explicitly looked at developing countries only.

In China, Chen and Rezaee (2012) provided empirical findings on the role of internal corporate governance in achieving high compliance with IFRS and its associated benefits of quality reporting. They found that Chinese-listed companies with effective boards of directors are more likely to comply with converged IFRS.

Using 411 compliance index items, Karim and Ahmed (2005) found a significant positive relationship between firm-level compliance and the Big4 auditing firms and an inverse relationship with corporate size among 188 companies in Bangladesh. However, in a cross-country analysis by Al-Shammari et al. (2008) among Gulf Co-operation Council members, it was revealed that large companies are more likely to comply with IFRS but no significant association was found between ownership dispersion and compliance with IFRS.

With the aid of 101 items from 12 IFRSs, Al-Mutawaa and Hewiady (2010) provided evidence on the significant positive influence of corporate size and audit type on compliance level among 121 companies in Kuwait. Similarly, Alsaeed (2006) highlighted that disclosure level is positively and significantly associated with firm size. However, there was low disclosure in Saudi Arabia.

With a comprehensive questionnaire survey, Uyar, Kilic, and Gokcen, (2016) revealed that there are variations in IFRS compliance among Turkish companies with the individual IFRS. Whereas almost all companies fully comply with inventories and cash flow statements (IAS 2 and IAS 7), compliance with IFRS 2; share-based payment and IFRS 4 insurance contracts are very low. They attributed these to the complexities of business operations in the country. However, the case might be that these two standards are not relevant to most of the companies. Their studies also documented that foreign ownership, firm size, listing status, and staff training as the significant determinants of IFRS compliance in Turkey.

A prior study by Demir and Bahadi (2014) on a sample of 168 companies showed that the compliance level in Turkey is about 79% which is influenced by the Big4 auditors and inversely

related to the leverage of the companies. They did not identify any statistically significant relationship between company size and age with IFRS compliance.

In a related study by Misurlioghlu, Tucker, and Yukselturk (2013), it was found that compliance to measurement requirements per IFRS was low in Turkey, due to lack of skills, resources, and irrelevancy of some standards to individual companies. The authors indicated that standards that involve subjective judgments such as fair valuation, impairment, and financial instruments were problematic to most companies. Concerning the influencing factors of compliance, their study concluded that auditor size/prominence and leverage have a significant positive impact on measurement compliance, whereas compliance with disclosure is determined by auditor size/prominence, firm size, and foreign ownership.

With a specific focus on the impact of privatization on voluntary disclosures, Al-Akra et al. (2010) found a significant increase in disclosure level after privatization in Jordan. Foreign investment, as well as company size, were also found to impact disclosures in Jordan.

In another study, Ahmed and Ali (2015) examined compliance with IFRS disclosure requirements of listed companies within the three major countries in South Asia, namely India, Pakistan and Bangladesh and evaluated the corporate attributes which influence the degree of compliance with these standards. The authors used a self-constructed scoring system to develop a total compliance index for each sample company. They reported significant variations in total compliance levels across companies and different national accounting standards. Their results also support the expectation that compliance levels are positively related to company size, profitability, and multinational company status.

Using different disclosure scores approach on intangible assets for Italian companies, Devalle, Rizzato and Busso, (2016), revealed that there is low compliance with mandatory disclosures on intangible assets among Italian companies. However, the degree of compliance differs among the scoring approaches and the weights impact on the independent variables that influence the level of compliance. Thus, each scoring approach yields a different determinant on IFRS compliance. Therefore, they argue that the findings of prior studies may be affected by a methodology which future research should control. Notwithstanding the conflicting results due to a different approach, the study documented that, the weight of interests on revenues have a significant positive impact on mandatory disclosure on intangible which is a distinctive feature on the Italian market due to the role of the banking system.

In Greece, Tsalavoutas (2011) study on 153 on listed companies shows the difference in compliance score between weighted and unweighted score approaches. The study also highlighted the low compliance among the sample companies. Regarding the determinants, Tsalavoutas (2011) found that the Big4 clients and companies with positive changes in IFRS 2004 restated profit comply most with IFRS mandatory disclose in 2005.

Santos et al. (2014), recorded that Brazilian companies comply with only 16.04% to 33.72% (for both partial and dichotomous unweighted scores) of IFRS requirements with the company size and the Big4 been the significant determinants of high compliance. The authors explain that the low level of compliance is due to cultural-institutional traditions, learning curve during the adoption of IFRS and weak enforcement. However, their findings and conclusion are expected as the study consider only first-year adoption which is characterized by such low compliance.

Using South African dataset, Sellamin and Fendri (2017), found that the independence of AC (measured as the number of independent directors on the committee) have a significant positive influence on company's compliance with related party disclosures. Similarly, the accounting and finance expertise of audit committee members are also associated positively with high disclosure on related party transactions. However, the size and number of meetings of the audit committee do not affect compliance with related party disclosures. Their study reported average compliance of 77% with seven companies obtaining full compliance.

With the aid of a weighted compliance score, Appiah et al. (2016) investigated the level of compliance by Ghanaian listed companies. Their study which covered 27 IFRS found that larger companies are likely to have high compliance due to listing requirements and avoidance of policy sanctions (see also Street & Bryant, 2000). Based on their findings of the positive relationship between the level of compliance and auditor type, Appiah et al. (2016) argue that listed firms use experts like the Big4 to avoid reputational risk. On company age, their study reported an inverse relationship with compliance with the reason that younger firms are more likely to comply with IFRS due to their higher investment needs than old firms which can generate internal funds or have established reputations.

While Samaha and Stapleton (2009) findings in Egypt were consistent with Karim and Ahmed (2005), in respect to the significant positive relationship between international auditors and IFRS compliance, their findings on ownership dispersion was positive and significant which contradicts Al-Shammari et al. (2008). Contrarily to Karim and Ahmed (2005), Al-Akra et al. (2010), documented that firm size, leverage and auditor size have a significant effect on IFRS

compliance but consistent with Al-Shammari et al. (2008), they did not find any significant relationship between ownership dispersion and compliance level. Using Kenya as a case study, Bova and Perera (2012), provided empirical evidence that supports a significant positive relationship between IFRS compliance and corporate size as well as auditor type. Also, they found that foreign ownership is positively associated with IFRS compliance.

It is evident from the above literature review that scholars have ignored the influence of stakeholder attributes on compliance with IFRS. Hence this study attempts to fill in this gap by providing original findings on the relationship between stakeholders' attributes and IFRS compliance in Africa.

3.0. Theory and hypotheses development.

This study employs the stakeholder salience theory proposed by Mitchell et al. (1997) to investigate the determinants of IFRS harmonization at the firm level. According to this theory, although the organization is environmentally dependent on different groups and individuals, the managers decide the salient stakeholder and the level of attention it deserves at any point in time. However, managers' decisions on salience stakeholders depend on the amount of power, legitimacy, and urgency that the stakeholder possesses. Managers' actions vary depending on the stakeholders involved. Moreover, such variations moderate the effects of management characteristics (Frederick, 1995). Thus, the ability of a stakeholder to influence compliance with the accounting practice depends on how managers perceive such stakeholders in regard to the power, legitimacy and urgency the stakeholders possess associated with financial reporting issues of the company, as well as the urgency exhibited by the stakeholders.

Unlike the positive accounting theory (Watts & Zimmerman 1986, 1990) that predicts and explains firm behavior based on external factors such as size, financing structure, firm reputation, and capital needs, stakeholder salience theory specifically examines the behavior of managers who are the center of firms' operations regarding its competing stakeholder. Management is more likely to comply with IFRS if the stakeholders involved have sufficiently strong attributes to influence managers. Mitchell et al. (1997) argued that managers' responses to the demands of a stakeholder depend on the interplay of power, legitimacy, and urgency of the stakeholder. Consequently, the interaction among these attributes results in different classes of stakeholders: dormant, discretionary, demanding, dominant, dangerous, dependent, and definitive. Arguably, not all classes of stakeholders may have the same level of interest in the

compliance with IFRS by the company. Therefore, this study has identified three classes of stakeholders who can influence managers in complying with IFRS.

3.1. Definitive stakeholder.

According to Mitchell et al. (1997), definitive stakeholders have power backed by law, and their claims are urgent. These claims become the top priority for managers because there is a clear and immediate mandate for managers to work on their issues (Mitchell et al. 1997). A stakeholder has power if they persuade management to do something that management may not willingly do (Pfeffer 1981; Dahl, 1957; Weber 1947). Power can stem from owning greater knowledge than the other party, through using force, or by position with legal backing. Unlike other board members or committees, competent audit committee power to influence management accounting practices does not only flow from their position as board members but from their professional knowledge of financial reporting systems as well.

Further, the audit committee has the legitimacy to check that management are adopting the best reporting practices. Suchman (1995), defined legitimacy as the assumption that the actions of a firm are appropriate (see Weber, 1947). The primary objective of the audit committee is to ensure management adopt the best practices for the true and fair presentation of the company's activities. As such, a competent audit committee will always demand that management comply with global accounting standards, such as IFRS.

Not only does the audit committee have power and legitimacy regarding harmonization of IFRS, but their claims are also considered as urgent because they ensure the right accounting practices. Mitchell et al. (1997) defined urgency as the degree to which stakeholders' claim requires immediate attention from management. Internationally recognized corporate governance codes or reports, such as the Cadbury Report 1992 and the *Sarbanes Oxley Act* (Sections 301 and 407) among others have indicated that the audit committee is a vital mechanism for safeguarding the integrity of financial reporting in a company. Hence, the existence of a competent audit committee is a matter of urgency for management in regard to best reporting practices. More specifically, the corporate governance principle(s) advocates that the audit committee is an efficient mechanism for monitoring financial reporting issues, such as compliance with IFRS. There is a common assertion in the literature that the audit committee benefits the company and general public in part by ensuring quality reporting (Bryce, Ali & Mather, 2014; Rupley, Almer & Philibrik, 2011; Sellami & Fendri, 2017). Bryce et al. (2014) found that the audit committee is more effective in ensuring quality reporting after IFRS adoption than in pre-IFRS periods. Similarly, Sellami and Fendri's (2017) results confirm

that competent audit committees ensure compliance among South African companies. On this basis, it is hypothesized that:

H₁: There is a positive association between audit committee competence and the level of IFRS compliance.

3.2. Dominant stakeholders.

According to the stakeholder salience theory, a dominant stakeholder has both the power and legitimacy to influence the firm's activities, but no urgency to receive immediate actions from management. Cyert and March (1963) stated that such stakeholders form the dominant coalition in the enterprise. All directors have a similar level of legal power for influencing management to comply with IFRS. However, professional accountants on board hold extra power flowing from their professional knowledge in accounting. Also, they are bound by their professional ethics to ensure that companies engage in sound financial reporting practices. Hence, professional accountants have more power and legitimacy to influence management around compliance with IFRS.

Contrary to the audit committee, not all professional accountants on corporate boards will be directly involved in the monitoring of financial reporting practices. Hence, their claim may not be urgent to demand an immediate response from managers. However, management is concerned about their expectations due to their power and legitimacy (Mitchell et al., 1997). Badolato, Donelson, and Ege (2014) argued that accounting experts on boards minimize accounting irregularities and abnormal accruals. Likewise, Abernathy et al. (2014) documented that public accountants on corporate boards ensure timely accounting information as compared to another type of financial expert on a board. Additionally, they found that the association is much stronger if an accountant chairs the committee.

Although accountants on corporate boards are dominant stakeholders in the financial reporting of management, and expect to receive much attention from managers, their influence depends on board numbers. Furthermore, it is assumed that the independence of directors strengthens their position on the board and influences company management. Because non-executive directors are not expected to receive any direct benefit (except allowances) from the company, they will act in a professional and unbiased manner. Thus, it can be posited that:

H₂: There is a positive association between the number of accountants on corporate boards and IFRS compliance.

3.3. Discretionary stakeholders.

Mitchell et al. (1997) suggested that discretionary stakeholders are those who hold legitimacy but no power to influence or urgency to demand claims from management. Shareholders, and especially minority interests, may have the legitimacy to demand companies to harmonize with best accounting practices such as IFRS, yet they do not have the power or urgency to request such claims. That is, in the absence of power and urgency, there is less pressure on managers in responding to the demand by shareholders to comply with accounting standards. However, because shareholding is concentrated around a few persons, shareholders will gain power from their ownership to force their legitimacy on management to comply with IFRS.

Shareholders with large holdings have both power and legitimacy as well as the urgency to demand management comply with IFRS. As stated by Mitchell et al. (1997), this class of stakeholder is not static, and may change as the company ownership structure changes hands. Arguably, concentrated shareholdings have high legitimacy and power to influence management on the type of accounting practices the company should implement. Therefore, it is hypothesized that:

H₃: There is a positive association between concentrated ownership and IFRS compliance.

4.0. Research methods

4.1. Population and sampling.

As at the time of collecting the data, 18 African countries mandatorily required the use of IFRS (IFRS Foundation 2017). Of these countries, only 13 operated active stock exchanges (African Markets, 2018). Hence the sample is limited to companies listed on these 13 stock exchanges. Consistent with prior studies (Al-Shammari et al. 2008, Mazzi, et al. 2017, Sellami & Fendri, 2017) this study covers 3-year accounting periods (2014–2016). This enables us to avoid the noise of first-time adoption problems (Abdullah et al. 2015) of the countries that recently adopted IFRS. (e.g., Nigeria adopted IFRS in 2012 and has one of the biggest stock exchanges in Africa). Also, the period 2014–2016 was chosen because is consistent with Sellami and Fendri's (2017) argument for using the recent financial statement to construct a compliance score. More important, the 3-year period is good for limiting confounding effects due to time-varying variables such as macro-economic factors and frequent revision of IFRS, which cannot be controlled for in the model (see also Chen and Rezaee 2012). A sample size of each country is not proportionate because of inadequate data and differences in size of stock exchanges.

However, the sample is a fair representation of all countries and key industries. The final sample consist of 205 non-financial listed companies in IFRS-adopting African countries. Table 1 summarises the step-by-step sample derivation. Because there is no database on compliance scores and other variables of interest, data were hand collected from the annual reports of the sample companies.

Insert Table 1.0: Sample selection

4.2. Compliance score

Two main approaches have emerged from existing literature on how the degree of harmonization is measured. Studies such as Guerreiro, Rodrigues and Craig, (2008); Jermakowicz and Gornik-Tomaszewski, 2006; Jones and Higgins, 2006; Joshi and Ramadhan, (2002); Larson and Street, (2004); Navarro-Garcia & Bastida, (2010); Rezaee, Smith and Szendi (2010); Uyara et al. (2016) used questionnaire surveys to record companies' degree of compliance with IFRS. Despite having the advantage of providing first-hand information, it limits the accuracy and reliability of any further analysis. The majority of the surveys used narrow coding of binary Yes or No to check if a company has implemented a standard. Such coding does not capture variations, such as companies that partially or fully comply. Moreover, respondents (managers) are more likely to give artificial answers to portray a positive image of their company.

The second approach to harmonization measurement is the construction of compliance scores based on the information provided in the annual financial statements of the companies (Appiah, et al. 2016; Bova & Perera, 2012; Devalle et al. 2016; Santos et al. 2014; Elsayed & Hoque, 2010). Although this approach involves subjective scoring, it captures vast amounts of information and is reliable. Due to its verifiability and ability to be repeated, it is widely used in literature. Therefore, this study also follows literature and constructs a compliance score based on information from annual financial statements.

The most challenging factor in analyzing compliance levels among companies is determining which of the IFRS standard applies to a particular industry. For example, while intangible assets are relevant to the IT industry, it may not be relevant or common among the merchandise industry. Consequently, a generalization of compliance across all companies may lead to a bias of high scores towards some industries. For instance, the manufacturing sector has been noted to have high compliance scores (Cooke 1992; Raffournier 1995), because most of the standards apply to manufacturing companies as compared to new industries, such as IT and real estate. To overcome this challenge, some scholars (Devalle, et al. 2016; Santos et al.

2014) have employed the relevant compliance approach through stepwise analysis. First, an examination is carried out to establish the applicable standard to each industry before compliance is calculated. Thus, compliance is measured based on the standards applicable to companies. Following from literature, this study used the stepwise approach to examine compliance on a company basis, with a focus on standards relevant to each company. We admit that determining which standard is applicable to a company involves subjectivity. Hence, we use the KPMG checklist as a guide in selecting applicable standards. Based on the characteristics of each company, the checklist suggests applicable standards.

Another challenge of calculating harmonization score is determining whether to score standards or individual requirements per standards. To address this, two approaches have evolved in literature: the unweighted index (Cooke index) and weighted score (partial score). Tsalavoutas (2011) argued that scores from Cooke's method might cause a misleading conclusion because of its sensitivity to different items in each standard. Because both approaches complement each other, this study adopts both approaches.

Unweighted compliance score (UCS): Under this approach, each item is assigned the same code (weight) irrespective of the standards. Thus, attention is given to the items, not the standards. The coding would involve 1 if a company disclosed the applicable item or 0 if it did not. While this approach is simple and understandable, is limited by giving the same weight to all standards irrespective of the number of disclosure requirements per standards. For example, IAS 1 (Financial statements presentation) that involve more requirements is weighted in the same way as the IAS 2 Inventory that is composed of fewer requirements.

Formula
$$\frac{\text{Total Items disclosed}}{\text{Total number applicable items}}$$

Weighted compliance score (WCS): To give relevance to a number of requirements per standard, WCS was developed (Abdullah et al. 2015; Street & Gray 2002; Tsalavoutas et al. 2011.). With this approach, compliance with each standard is examined before an overall compliance score is calculated. That is, the actual items disclosed per standards are matched with the applicable items per standard. Then, the average of the harmonization scores of all the standards is calculated to represent the compliance level of the company. That is, WCS involves a two-stage analysis:

Step 1;
$$\frac{\text{Total Items disclosed? per standard}}{\text{Total applicable items per standard}}$$

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

Mathematically the compliance score is calculated using this formula:

$$WCS_a = \frac{D}{M} = \frac{\sum_{i=1}^n dia}{\sum_{i=1}^m dia}$$

Where WCS_a is the total compliance score for each company, $0 \leq Z_a \leq 1$. D is the total number of items disclosed by the company a , and M is the maximum number of applicable required disclosures for company a . (this approach is consistent with Glaum et al. 2013; Hoogdoorn et al. 2008; Mazzi et al. 2017, Tsalavoutas 2011). In addition to recognizing the number of requirements per standards, WCS also has the advantage of providing information for the standard-by-standard analysis.

Calculation of compliance score: Following from the description of the compliance score, we developed a disclosure checklist using both the unweighted and weighted score. To achieve a comprehensive checklist, we rely on a checklist of the Big4 accounting firms as a guide². However, our final checklist is based on the requirements of each standard as issued by IASB. As market-oriented standards, there have been numerous amendments and revision in IFRS. Hence this study accounted for these amendments by incorporating relevant disclosure requirements according to years of revision. To cater for the different reporting period of companies and countries, the appropriate checklist was used depending on the year that the majority of the period falls in. For example, a company whose accounting period ends on 31st March will be assessed with 2014, 2015, and 2016 accounting years, but a company with an accounting year ending in September will be assessed on 2015-, 2016-, and 2017-applicable disclosures. These are minor cases because many of the sample companies' accounting years end in December. As established in prior studies, some disclosures³ were removed because it was not possible to assess them from the published financial statements only (Mazzi et al. 2017, Sellami & Fendri 2017).

An initial assessment of the different annual reports show that some companies presented IFRS disclosures in sections of the annual report other than the financial statements and footnotes

² Consistent with Al-Sharmari et al. (2008) who validated their checklist using Ernst and Young; KPMG checklist.

³ Examples IAS 34-Interim financial reporting; IAS 20 (36) (31), etc.

section; hence, we took extra care to read relevant parts of the annual reports⁴ to avoid penalizing companies for non-compliance. Although this approach yields comprehensive lookout for all disclosures, is likely to result in an upward bias of compliance index and negatively affect the significance levels in the estimation of the determinants of compliance (Glaum et al. 2013).

In accordance with the literature (Abdullah et al. 2015; Camfferman & Cooke, 2002; Cooke, 1992; Mazzi et al. 2017; Sellami & Fendri, 2017), the validity of the research instrument was established as follows. First, the author developed a checklist based on the text of each standard as issued by IASB. This checklist was compared with that of the Big4 accounting firms. After comparison, a revised checklist which aligns with the Big4 was drafted and sent to independent accounting practitioner. The final checklist is presented in Table 2.0

As used in other studies (Abdullah et al. 2015; Camfferman & Cooke, 2002; Cooke, 1992; Glum et al 2013; Mazzi et al. 2017; Sellami & Fendri, 2017; Steet & Gray 2002 Tsalvounts 2011), a score of *1* means the company complies with the applicable required item, and *0* means the company fails to comply with the applicable required item. *NA* means that the item is required but not applicable to the company⁵. As argued by Cooke (1992), this method has the advantage of not penalizing companies for not disclosing non-applicable requirements. However, due to its dichotomous nature, it does not give room for partial disclose of the item⁶. All the 3 years' financial statements of each company were reviewed and scored independently of each other.

Insert Table 2.0 Checklist for calculating compliance score.

4.3. Model Specification.

The model involves multivariate Ordinary Least Square regression with three main independent variables of interest, (*ACC*, *AOB* *OWS*), and six control variables (*EXP*, *OWT*, *BOD*, *NED*, *TAA*, *Big4*). For convenience, time and firm subscription are removed.

$$UCS/WCS = \alpha_0 + \beta_1 ACC + \beta_2 AOB + \beta_3 OWS + \beta_4 EXP + \beta_5 OWT + \beta_6 BOD + \beta_7 NED +$$

⁴ Some companies in South Africa disclose related parties such as key management compensation in Directors report.

⁵ 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.

⁶ For example IAS 12:87(b) requires the disclosure of important features of income tax systems and factors that affect the amount of the potential tax consequences on dividend. Is very difficult to determine if the company has fully disclose all relevant features.

$$\beta_8 TAA + \beta_9 Big4 + \varepsilon_t \dots\dots\dots EQ 3$$

Where: UCS/WCS – Compliance score

ACC - Audit Committee Competence

AOB - Accountants on Board

OWS – Ownership structure

EXP – IFRS Experience.

OWT – Type of Ownership.

BOD – Board size.

NED – Board Independence.

TAA – Firm size.

Big4 – Type of Auditor.

See table 9.0 variable description source and expected signs.

5.0. Results and discussions.

5.1. Descriptive statistics.

Table 3.0 presents the median score for the full sample and companies from the top 4 countries over the sample period. The average weighted (unweighted score) compliance score among the companies over the period is 70.94% (73.09%), which is relatively high, with a minimum score of 58.59% (62.86%) and maximum of 83.55% (85.61%). Contrary to prior studies, such as Glaum et al. (2013), Mazzi et al. (2017), and Sellami and Fendri (2017), but consistent with Al-Shammari et al. (2008), we did not find a fully compliant company over the sample period. The year-on-year mean score indicates that compliance with IFRS has been improving in Africa, probably because of the continuous application of the standards. That is, countries are growing well with IFRS. Al-Shammari et al. (2008) suggested that an overall increase in compliance signals a gradual progression towards de facto harmonization.

Notwithstanding the increase in compliance level over the period, the standard deviation of 6.99% (6.23%) shows differences that exist among the companies. Arguably, mandatory disclosure is not sticky over time because compliance with the standards is usually at the discretion of managers and their risks of non-compliance. Hence, there are variations in the level of disclosures across the standards.

Over the years, IAS 18 (Revenue) recorded the highest compliance level of 100%, probably because of the few requirements⁷, and this level is common for all companies. Other high scoring standards were IAS 33, IAS 10, IAS 7, IAS 20, and IAS 23. The lowest scoring standards included IAS 37, IFRS 13, IAS 17, and IAS 19. The high-scoring standards mostly have fewer disclosure requirements and are fundamental to all entities. It should be noted that “IFRS”-titled standards (e.g., IFRS 2 and IFRS 4) had less compliance compared with “IAS”-titled standards. Moreover, there is low compliance and high standard deviation of standards⁸ involving high proprietary cost.

We found that most companies provided limited disclosures on fair values using a common phrase “the carrying values of assets and liabilities approximate their fair values.” Another problematic standard is employee benefits (IAS 19). Except for companies in Mauritius that provided high disclosure on IAS 19, most companies failed to disclose extensive requirements on employee benefits, especially if they are using defined contributions. Companies also disclosed going concern status only when they made losses.

Consistent with Sellami and Fendri (2017), we found low compliance with IAS 24 “relative parties’ disclosures.”. Some of the missing disclosures were post-employment benefits and termination benefits of key management. More than 85% of the sample did not provide any disclose on the provision of doubtful debts related to the outstanding balance of related parties. Also, approximately 55% of the sample companies failed to disclose whether those related transactions were carried out on arms-length transactions or otherwise.

A minor non-disclosure across all sample companies was the reasons for a business combination. According to IFRS 3: B64(d) (Business combination), companies are required to disclose the reason for acquiring a subsidiary. However, our results show that about 80% did not disclose this relevant information.

There was also variation in the level of compliance to specific standards in each country. Whereas companies in Mauritius had high compliance with IAS 19, they were low in IAS 17. Similarly, South African companies had a high score in IAS 17 and a low score in IFRS 13. Nigeria, on the other hand, provided detailed disclosure on IAS 8 and less disclosure on IAS

⁷ According to the checklist IAS 18 had only 2 applicable requirements which are externally observable.

⁸ IAS 17, IAS 19 IAS 24 IAS 36 IAS 37 IFRS 13 IFRS 10

19. This trend implies that there are possible country-specific factors for compliance with IFRS⁹

For IAS 36, impairment of assets also received a low score. Similar to the findings of Glaum et al. (2013), we found that most companies did not report items such as a method for testing for impairment of goodwill, discount rates, and long-term growth rates (see also Mazzi et al. 2017). About 55% of the sample—for which section 134d¹⁰ of IAS 36 is/was applicable—did not disclose the key assumption for determining recoverable amount. Some companies (25%) failed to comply with the requirement of 129¹¹ of IAS 36 of disclosing impairment losses across the reportable segment.

In Table 3.0 we also present the median values of compliance scores for the top four countries by sample size. Under both WCS and UCS scores, all of the countries improved in compliance over the three years. It is evident that Mauritius had the highest score over the years, followed by South Africa, Kenya, and Nigeria. This difference among the countries is reflective of how earlier adopters¹² of IFRS have advanced in compliance further than late adopters. The compliance score among these four-sample countries is also similar to all the countries' scores, which signals consistency in the scoring.

Insert Table 3.0. Median compliance score by countries.

Insert Table 4.0. Descriptive statistics of variables

Table 4.0 summarises the descriptive statistics of the independent and control variables. It also includes variables that form part of the composite index¹³. Despite the recommendation by several corporate governance reports and codes such as the Cadbury Report 1992, *Sarbanes*

⁹ These factors are outside scope of this current study.

¹⁰IAS 36 134d(i) If recoverable amount is based on value in use:

i) each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts;

IAS 36 134e(i) Disclose the valuation techniques used to measure fair values

i) Each key assumption on which management has based its determination of fair value less costs of disposal.

¹¹ An entity that reports segment information in accordance with IFRS 8 Operating Segments shall disclose the following for each reportable segment:

a) the amount of impairment losses recognised in profit or loss and in other comprehensive income during the period; and

b) The amount of reversals of impairment losses recognised in profit or loss and in other comprehensive income during the period.

¹² Mauritius and South Africa adopted IFRS in 2001 and 2005 respectively making them earlier adopters while Nigeria adopted in 2012.

¹³ It includes number of accountants on audit committee, size of audit committee and independent directors on audit committee which are were used to construct audit committee competence.

Oxley Act 2002, and Kings Report III, some companies are yet to establish an audit committee¹⁴. For those who have formed audit committees, the membership ranged between 2 and 7. Similarly, the number of non-executive directors (NED) on the board ranged from 1 to 14 with a mean of 7 (median 7). The minimum board size of the sample companies was 4 and a maximum of 17, with a mean and median of 9 members.

On average, there are two (2) chartered accountants (CAs) on a company board, of which at least one serves on the audit committee. Some companies do not have a CA on its board or audit committee. For the majority of corporate boards, 75% of their members are non-executive directors, which is consistent with most governance reports (*Cadbury Report 1992*, *Sarbanes Oxley Act 2002*, Kings Report III). Similarly, about 88% of audit committee members are non-executive. Regarding the audit committee competence (ACC), which is a composite of the number of accountants on the audit committee, the number of non-executive directors, and the size of the audit committee, we found that ACC among the sample companies averaged 72.53% (median 75%) with a maximum of 95%. This result implies that most companies' audit committees have 72.53% competencies to discharge their duties. The standard deviation of 22.5% indicates variation across companies and countries. Companies in South Africa recorded the highest ACC due to the high level of corporate governance regulations. Mauritius followed because of the dominance of Western practices. Countries such as Malawi, Uganda, and Zambia have low ACC. The low score on ACC is driven by the low number of accountants on audit committees. As a cross-country study, we did not benchmark these results with any specific corporate governance code or act as in the Sellami and Fendri (2017) study on South Africa, because each country complies with different legislation.

Ownership percentage of the sample size ranges from 15.0% to 90% with a mean (median) of 44.48% (42.91%). A high percentage indicates high ownership concentration while a low percentage indicates spread of ownership. On average, almost 50% shares of sample companies are in the hands of a single investor (institution or person), mostly founders and promoters.

¹⁴ It must be noted that in Nigeria, according to section 359 of the Company and Allied Matters Act, companies are required to have an audit committee making up of six (6) members, made up of three (3) shareholders representative and three (3) directors. This audit committee are primary responsible to the shareholders as its Chairman is shareholder representative and may have different objective from the audit committee of the board. Hence companies do have additional committee for the board while others keep the mandatory audit committee for both purposes. In other companies, the 3 directors on the mandatory audit committee forms the audit committee of the board. Hence in constructing ACC we only focus on the either the directors on the mandatory board or audit committee of the board if any.

Related to the percentage of ownership is the type of ownership, which measures whether the top shareholder is foreign¹⁵ or local nationals. Of 224 sample companies, 90, representing 40%, have their majority shareholders as foreign-based persons or institutions. This shows that the sample is well balanced by capturing both locally owned and foreign-owned companies. More important, it shows that foreign investors will have an interest in the compliance of IFRS in Africa. Regarding the type of auditors, 85% of the total sample companies were audited by the Big4 and this percentage is almost the same across the study period.

As a pre-regression estimation procedure, we established the Pearson correlation matrix and calculated the variance inflation factor (VIF) to identify potential multi-collinearity issues. In Table 5.0 we present the Pearson pairwise correlation coefficient for all variables of interest. We include both methods of compliance score to check whether both scores capture similar information. Mazzi et al. (2017) argued that two scores capture similar information if both models are significantly positively correlated. From our results, both the WCS and UCS are positively related at the significant level of $p < 0.001$. Both scores are also positively correlated with independents (OWS, ACC, and AOB). These preliminary results are consistent with the hypotheses. As depicted in Table 5.0, the correlation coefficient of all variables is below 0.6 (above which there are multi-collinearity issues) except for the correlation between WCS and UCS, which is acceptable. Similarly, the untabulated VIF results indicated a maximum factor of 6.0, which is below the limit for potential multi-collinearity problems (Neter et al. 1996; Gujarati 2003). Since both results are within the required range, we conclude that there is no significant multi-collinearity problem among the variables.

Insert Table 5.0 Correlation matrix on compliance.

5.2. Regression results.

Prior literature asserted that using a raw disclosure score as the dependent variable in the regression model might be problematic. Al-Shaib (2003) opined that when the raw disclosure score is used in the model, the probability score results may be greater than 1 because raw compliance score is bounded between 0 and 1 (Cooke 1992). Another problem with using a raw score is potential violation of classical regression assumption of normality of the variable. After testing for normality of the score, it was found that the raw score is not normally distributed. Following prior studies (Abdullah et al. 2015, Glaum et al. 2013, Sellami & Fendri,

¹⁵ Foreign shareholders are defined as shareholders who are from countries other than African countries.

2017), we transformed the compliance variable to the log of odds ratio to overcome the non-normality of the dependent variable. Mathematically the log of the odds ratio is computed as follows:

$$Y = \log\left(\frac{Pa}{1 - Pa}\right)$$

Where Y is the transformed compliance score and Pa is the percentage score of company.

We also take the log of BOD, TAA, and NCD to overcome non-normality of these variables.

We also converted the compliance scores into percentage form as an alternative to the raw score.

To choose the appropriate model for the panel regression, we performed the Hausman test, which indicated that the fixed effect panel regression is appropriate. This is consistent with Sellami and Fendri (2017) and Bepari and Molik (2015).

Table 6.0 presents the results of the model (M) 1 and M2 using the log of compliance score as the dependent variable. To minimize the possibility that our results were susceptible to the different approaches of constructing the harmonization score, we tested whether the main findings were robust against a change in the structure of the compliance score (from UCS to WCS). The dependent variable in M1 is UCS and M2 is WCS. We replicated all relevant empirical tests. As presented in the M1 column, the results are identical to M2, hence the conclusion and implication do not change under the different approach of compliance score.

The similar R^2 across the different approaches indicates that both methods are similar in explaining the relationship between the dependent and independent variables (see Glaum et al. 2013). The F-statistics of 20.46 (21.66) at $p < 0.001$ indicates that the models are well specified.

Insert Table 6.0 Estimation results on compliance.

Compliance and audit committee competence - ACC (definitive stakeholder)

Overall, our results demonstrate that ACC has a positive and significant impact on the compliance level in Africa. This suggests that the level of ACC is very critical in ensuring compliance with IFRS among companies in Africa. Thus, the more competent an audit committee is, the more power it owns to demand high compliance with the standard from management. As the number of accountants' increases, the combined power of the audit

committee also increases as they use their level of expertise to pressure management for high compliance.

Similarly, the size and independence make the audit committee claim more legitimate and urgent for management to respond to it. A high level of independence means they are not likely to be influenced by management, and their claims will be seen as genuine and supported by shareholders. Therefore, our results confirm the hypothesis (H₁) that competence of an audit committee representing definite stakeholders has a significant positive relationship with IFRS compliance level of companies. This result indicates the importance of having a chartered accountant on the audit committee. Chartered accountants provide professional expertise and integrity in reporting. Most are former auditors who are well vested in accounting standards.

Compliance and Accountants on Boards – AOB (Dominant stakeholders).

Regarding the relationship between dominant stakeholders (AOB) and compliance level, we find evidence supporting our hypothesis (H₂) that AOBs on boards positively impact the level of compliance. Similar to the results on ACC, the higher the number of AOBs, the higher the compliance level. Due to their professional qualifications and affiliations, CAs are more likely to draw management attention to non-compliance with accounting standards. These members were former auditors or senior accountants themselves, hence, they are experienced in the preparation and presentation of financial statements (Mangena & Pike 2005). Also, the presence of an AOB puts management “on their toes” because some directors will ask questions about compliance; therefore, management will want to avoid such queries by complying with the standards. In our sample, we find that except for CFOs, other AOBs are non-executive directors, which increase their legitimacy on a board.

Compliance score and ownership (discretionary stakeholder). Consistent with prior expectations and literature (Abdullah et al. 2015 and Gluam et al. 2013), we find an inverse relationship between concentrated ownership and compliance level. Thus, there is low compliance and disclosure in closely held companies. Companies with a high ownership bloc by single or a few shareholders are less likely to comply with standards because the majority owner (promoter or founder) are usually involved in the day-to-day running of the business. Also, they tend to have power over management regarding what needs to be disclosed and not disclosed. Due to the proprietary nature of some disclosures, closely held companies prefer keeping information within themselves. Non-executive owners who have a high stake can easily access company information due to their influence. Our results chime with Abdullah et

al. (2015) who found that most institutional settings do not provide an effective mechanism for aligning the interest of dominant shareholders and minority shareholders. This is consistent with the agency theory that companies with diffuse shareholders will comply with standards to avoid multiple litigations from different investors.

Similarly, according to the salience stakeholder theory, multiple shareholders have the legitimacy to place management in checks on compliance with standards to avoid class litigation. However, as they increase their shareholding, their power grows. Hence, they tend to influence what management should disclose, and in this case they use their power to influence less disclosure as they become familiar with internal affairs. We incorporated the type of ownership (OWT) to understand whether the nationality of the majority shareholder has any impact on the compliance level. Our results showed that there is low compliance among companies with foreigners¹⁶ as majority shareholders. The reason is that most of the foreign investors are from countries such as the US Canada, and France, which are not enthusiastic about IFRS. More important, as majority shareholders, they hold key positions, such as CFO and CEO, thereby having access to internal information; hence no need for requesting high compliance. This result also fits into the resources-seeking FDI theory because most foreign investors in Africa are more interested in the resources of the country, not compliance with laws or standards. Overall, our results provide evidence for the rejection of hypothesis (H₃), which states that concentrated ownership is positively associated with compliance level. Our results accord with Sellami and Fendri (2017), who found a significant negative relationship between ownership concentration and related parties' disclosure of companies in South Africa. Similarly, our findings support the works of Gluam et al. (2013) and Atansovia (2015), who highlighted a similar relationship on IFRS 3 and IFRS 7 respectively.

Regarding the control variables such as board size (BOD) and board independence (NED), we found a significant relationship between board size and compliance level. Consistent with agency theory, Sellami and Fehnri (2017) and Xie et al. (2003), our results demonstrate the importance of board independence on the level of compliance. We followed the arguments of Faverse-Marchesi (2000) and Mangena and Pike (2005) in explaining the positive relationship between non-executive directors (NED)¹⁷ and compliance level. NED ensures the appointment of quality independent external auditors, which leads to high-quality assurance services. More important, NED is responsive to external shareholders, hence it will ensure high compliance

¹⁶ Foreigners are defined as investors or shareholders (persons or institutions) outside Africa.

¹⁷ To avoid complication independent directors are directors who does not hold executive positions.

(see Abdullah et al., 2015). This relationship is consistent with the results of other variables, such as non-executive directors on the audit committee and AOB. The higher the number of NEDs on board, the larger the audit committee size and the higher the chance of getting more CAs on boards and audit committees.

Similar to Sellami and Fehnri (2017) in South Africa, Abdullah et al. (2015) in Malaysia, Tsalavoutas et al. (2011) in Greece, we document a non-significant association between leverage (LEV) and compliance score. Also consistent with Sellami and Fendri (2017) in South Africa and Utaman and Utaman (2014) in Indonesia, our results show that the type of auditor does not impact on compliance level. We found an insignificant relationship between auditor type and compliance level because about 90% of sample companies were audited by the Big4.

5.3. Robustness and sensitivity analysis.

We conducted additional analysis using the percentage form of the dependent variable as well as NCA, BOD, and NED. We replicate all relevant empirical tests. As presented in Table 7.0 under M3 and M4, the results are identical to M1 and M2; hence, the conclusions and implications do not change under the different approach of compliance score.

Insert Table 7.0 Additional analysis using percentage format of the independent variable.

Sensitivity analysis. One of the limitations of cross countries studies is an unequal representation of countries in the sample size. Hence, is likely to be influenced by countries with the highest number in the sample size. Since this is the case for our study, we re-performed all the empirical tests on the major counties individually (the top 3 countries; Mauritius, Nigeria, and South Africa). The results are presented in Table 8.0 under M5-M7. While there is no significant change in results across the countries and base model, we find that the coefficient is much higher in the case of South Africa, followed by Mauritius and Nigeria. We also find that company size has a significant positive relationship in Mauritius but non-significant in South Africa and Nigeria. While NED is a significant determinant in South Africa, is not in Nigeria and Mauritius. Similarly, high-leveraged companies in South Africa are more likely to comply with IFRS than companies in Mauritius and Nigeria.

The R^2 reflects how the model explains the relationship across the country in both scenario. The relationship between the dependent and the independent variable is better explained in Nigeria and South Africa than in Mauritius.

Insert Table 8.0. Sensitivity estimation results.

Conclusion

Using 205 non-financial institutions in 13 African countries over 3-year period, we have documented that the average WCS (UCS) compliance score among the companies over the period is 70.94% (73.09%), with a minimum score of 58.59% (62.86%) and maximum of 83.55% (85.61%). Our study also highlighted the variation in compliance with standards (standard deviation of 6.99; 6.23). There is lower compliance with the latest standards, such as IFRS 3, 7, and 13. Also, IAS 17, 19, 36, and 37 are problematic across the sample. We also found that compliance has been increasing over the years.

Our results show that there is a significant positive association between audit committee competence (ACC) and compliance, and the same for chartered accountants on board (AOB). On the contrary, there is an inverse relationship between ownership concentration (OWN) and compliance level.

Our results imply that companies that appoint more Chartered Accountants to their boards are more likely to comply with the requirements of IFRS. Therefore, it is suggested that companies engage more chartered accountants in their governance. Also, corporate boards must strive to strengthen their audit committees by appointing more NEDs and CAs to the committee. As indicated in this study, competent audit committees ensure high compliance with standards such as IFRS.

Overall, our results portray that IFRS is growing well among companies in Africa. Moreover, most IFRS-compliant companies have a competent audit committee (ACC) and a good ratio of accountants on board (AOB). The year-on-year increase in compliance level reflects the journey towards de facto harmonization of accounting standards in Africa. This study complements and updates prior studies on IFRS compliance with findings from Africa, a region which has been neglected in the literature. It provides evidence on how the characteristics of different stakeholders influence the company's level of disclosures.

Consistent with Glaum et al. (2013), this study acknowledges the limitation of not being able to ascertain the causes of discrepancies in compliance levels between the years and among companies. As external assessors of published financial statements, we cannot attribute these discrepancies to either intentional or unintentional acts of the companies. Also, we could not estimate the impact of non-compliance on users of financial statements.

References

- Abdullah, M., Evans, L., Fraser, I. & Tsalavoutas, I. (2015), "IFRS mandatory disclosures in Malaysia: the influence of family control and the value (ir)relevance of compliance levels" *Accounting Forum*, 39(4), 328-348.
- Abernathy J., Beyer B., Masli A. & Stefaniak C. (2014). "The association between characteristics of audit committee accounting experts, audit committee chairs, and financial reporting timeliness". *Advances in Accounting* 30(2), 283-297.
- African Markets (2018). <https://www.african-markets.com/en/stock-markets> access on June 2018
- Ahmed, K. and Ali, M. (2015). "Has the harmonisation of accounting practices improved? Evidence from South Asia". *International Journal of Accounting & Information Management*, 23(4) 327-348.
- Al-Mutawaa, A., & Hewaidy, A. M. (2010). "Disclosure level and compliance with IFRSs: An empirical investigation of Kuwaiti companies". *International Business & Economics Research Journal*, 9, 33–49.
- Al-Akra, M, Eddie, A. Ali, J. (2010). "The influence of the introduction of accounting disclosure regulation on mandatory disclosure compliance: evidence from Jordan". *The British Accounting Review*, 42(3), 170-186.
- Al-Shiab, M. (2003). *Financial consequences of IAS adoption: The case of Jordan*. Newcastle Upon-Tyne, UK: University of Newcastle Upon-Tyne (Unpublished PhD thesis).
- Al-Shammari, B., Brown, P., & Tarca, A. (2008). "An investigation of compliance with international accounting standards by listed companies in the Gulf Co-Operation Council member states". *The International Journal of Accounting*, 43(4), 425–447.
- Alsaeed, K. (2006). "The association between firm-specific characteristics and disclosure: the case of Saudi Arabia". *Managerial Auditing Journal*, 21 (5), 476-496.
- Appiah, K. Awunyo-Vitor, D. Mireku, K. & Ahiagbah, C. (2016). "Compliance with international financial reporting standards: the case of listed firms in Ghana". *Journal of Financial Reporting and Accounting*, 14(1), 131 – 156.

- Atanasovski, A. (2015). "Empirical investigation into the determinants of compliance with IFRS 7 disclosure requirements". *AUDOE*, 11(2), 5-17.
- Badolato, P., Donelson, C. & Ege, M. (2014). "Audit Committee Financial Expertise and Earnings Management: The role of status". *Journal of Accounting and Economics*, 58(2-3), 208-230.
- Ball, R. (2016). "IFRS – Ten Years Later". *Accounting and Business Research*, 46(5), 545-571.
- Barth, M.E., Landsman, W.R. and Lang, M.H. (2008), "International accounting standards and accounting quality", *Journal of Accounting Research*, 46(3), 467-98.
- Bepari, M. & Mollik, A. (2015). "Effect of audit quality and accounting and finance backgrounds of AC members on firms' compliance with IFRS for goodwill impairment testing". *Journal of Applied Accounting Research*, 16(2), 196-220.
- Bova, F., & Perera, R. (2012). "The determinants and consequences of heterogeneous IFRS compliance levels following mandatory IFRS adoption: Evidence from a developing country". *Journal of International Accounting Research*, 11(1), 83–111.
- Bryce, M., Ali, M. & Mather, P. (2014). "Accounting quality in the pre-/post-IFRS adoption periods and the impact on audit committee effectiveness — Evidence from Australia". , *Pacific-Basin Finance Journal*, 35(A), 163-181.
- Cadbury, A., (1992). *The Financial Aspects of Corporate Governance (Cadbury Report)*, London, UK: *The Committee on the Financial Aspect of Corporate Governance (The Cadbury Committee)* and Gee and Co, Ltd,
- Camfferman, K. & Cooke, T. (2002). "An analysis of disclosure in the annual reports of UK and Dutch companies". *Journal of International Accounting Research*, 1(1), 3-30.
- Chen, Y. & Rezaee, Z. (2012) "The role of corporate governance in convergence with IFRS: evidence from China". *International Journal of Accounting & Information Management*, 20 (2), 171-188.
- Cooke, T. (1992). "The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations". *Accounting and Business Research*, 22 (87), 229-237.

- Cyert, R. M., & March, J. G. (1963). *The behavioural theory of the firm*. Englewood Cliffs, NJ: Prentice-Hall.
- Dahl, R. A. (1957). The concept of power. *Behavioural Science*, 2, 201-215.
- Dayanandan, A., Donker, H., Ivanof, M., & Karahan, G. (2016) "IFRS and accounting quality: legal origin, regional, and disclosure impacts", *International Journal of Accounting and Information Management*. 24 (3), 296-316.
- Demir, V. & Bahadir, O. (2014). "An Investigation of Compliance with International Financial Reporting Standards by Listed Companies in Turkey". *Accounting and Management Information Systems*, 13(1), 4-34.
- Devalle, A., Rizzato, F. & Busso, D. (2016). "Disclosure indexes and compliance with mandatory disclosure- The case of intangible assets in the Italian market". *Advances in Accounting incorporating Advances in International Accounting* 35 (Dec) 8-25
- Elsayed, M. & Hoque, Z. (2010). "Perceived international environmental factors and corporate voluntary disclosure practices: an empirical study". *The British Accounting Review*, 42(1), 17-35.
- Favere-Marchesi, M. (2000). "Audit quality in ASEAN". *International Journal of Accounting*, 35(1), 121–149.
- Frederick, C. (1995). *Values, nature and culture in the American corporation*. New York: Oxford University Press.
- Gordon, L. Loeb, M. & Zhu, W. The impact of IFRS adoption on foreign direct investment *Journal of Accounting and Public Policy*, 31 (4), 374-398.
- Glaum, M., Schmidt, P., Street, D. & Vogel, S. (2013). "Compliance with IFRS 3- and IAS 36- required disclosures across 17 European countries: company and country-level determinants". *Accounting and Business Research*. 43(3), 163-204.
- Guerreiro, S., Rodrigues, L & Craig, R. (2008). The preparedness of companies to adopt International Financial Reporting Standards: Portuguese evidence. *Accounting Forum*, 32(1), 75–88.
- Gujarati, D. (2003). *Basic econometrics (4th ed.)*. USA: McGraw-Hill.

Hassan, O. A. G., Giorgioni, G., & Romilly, P. (2006). "The extent of financial disclosure and its determinants in an emerging capital market: The case of Egypt". *International Journal of Accounting, Auditing and Performance Evaluation*, 3(1), 41–67.

Hope, O.-K., Jin, J. and Kang, T. (2006), "Empirical evidence on jurisdictions that adopt IFRS", *Journal of International Accounting Research*, 5(2), 1-20

Hoogendoorn, M., (2006). "International accounting regulation and IFRS implementation in Europe and beyond-experiences with first-time adoption in Europe". *Accounting in Europe*, 15(3), 23-26.

IFRS foundation (2017). <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/#analysis> access December 2017.

Jermakowicz, K. & Gornik-Tomaszewski, S. (2006). "Implementing IFRS from the perspective of EU publicly traded companies". *Journal of International Accounting, Auditing and Taxation*, 15(2), 170-196.

Jones, S., & Higgins, A. (2006). "Australia's switch to international financial reporting standards: A perspective from account preparers". *Accounting and Finance*, 46, 629–652.

Joshi, L. & Ramadhan, S. (2002). "The adoption of international accounting standards by small and closely held companies: Evidence from Bahrain". *The International Journal of Accounting*, 37(4), 429–440.

Karim, A. & Ahmed, J. (2005), *Determinants of IAS disclosure compliance in developing countries, evidence from exchange-listed companies in Bangladesh*, Working Paper No. 21,

Kings Report III accessed @ <http://www.pcb.org.za/wp-content/uploads/2015/04/CorporateGovernanceandKing3.pdf>

LaPorta, F. Lopez-de-Silanes, A. Shleifer & Vishny (1999) "Law and finance" *Journal of Political Economy*, 106 (6) 113-115.

Larson, R. K., & Street, D. L. (2004). "Convergence with IFRS in an expanding Europe: Progress and obstacles identified by large accounting firms' survey". *Journal of International Accounting, Auditing and Taxation*, 13(2), 89–119.

- Liu, C. (2011) "IFRS and US-GAAP comparability before release No. 33-8879: Some evidence from US-listed Chinese companies", *International Journal of Accounting & Information Management*, 19(1), 24-33.
- Liu, C., Lee J. Yao, Nan H,& Liu, L. (2011) "The Impact of IFRS on Accounting Quality in a Regulated Market: An Empirical Study of China". *Journal of Accounting, Auditing, and Finance*. 26 (4), 659-676.
- Mangena, M., & Pike, R. (2005). "The effect of audit committee shareholding, financial expertise and size on interim financial disclosures". *Accounting and Business Research*, 35(4), 327–349.
- Mazzi, F., Andre, P., Dionysiou, D. & Tsalavoutas, I. (2017). "Compliance with goodwill-related mandatory disclosure requirements and the cost of equity capital". *Accounting and Business Research*, 47(3), 268-312.
- Mitchell, R. Agle, B., & Wood, D. (1997). "Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts". *The Academy of Management Review*, 22(4), 853-886
- Mısırlıoğlu, U., Tucker, J. & Yükseltürk, O. (2013). "Does Mandatory Adoption of IFRS Guarantee Compliance?" *The International Journal of Accounting* 48(3), 327–363.
- Navarro-Garcia, J. C., & Bastida, F. (2010). "An empirical insight on Spanish listed companies' perceptions of international financial reporting standards". *Journal of International Accounting, Auditing and Taxation*, 19(2), 110–120.
- Neter, J., Kutner, M. Nachtsheim, C. & Wasserman, W. (1996), *Applied Linear Statistical Models*, Irwin, Chicago, IL.
- Nnadi. M & Soobaroyen. T (2015). "International financial reporting standards and foreign direct investment: The case of Africa". *Advances in Accounting, incorporating Advances in International Accounting*. 31(2) 228-238
- Nobes, C. (2013). "The continued survival of international differences under IFRS". *Accounting and Business Research* 43(2) 83-111.
- Nobes, C. (2011). "IFRS Practices and the Persistence of Accounting System Classification". *ABACUS*. 47(3), 267-283.

Noor Houqe, (2018) "A review of the current debate on the determinants and consequences of mandatory IFRS adoption". *International Journal of Accounting & Information Management*, 26 (3), 413-442.

Ntim, C. (2013). "Corporate ownership and market valuation in South Africa: Uncovering the effects of shareholdings by different groups of corporate insiders and outsiders." *International Journal of Business Governance and Ethics*, 8 (3) 242-264.

Peng, S., Tondkar, R. H., Smith, J., & Harless, D. W. (2008). "Does convergence of accounting standards lead to the convergence of accounting practices?" A study from China. *The International Journal of Accounting*, 43(4), 448–468.

Pfeffer, J. (1981). *Power in organizations*. Marshfield, MA: Pitman.

Raffournier, B. (1995). "The determinants of voluntary financial by Swiss listed companies". *European Accounting Review*, 4 (2), 261-280.

Report on the Observance of Standards and Codes- Accounting and Auditing (ROSC, AA). (2002-2015). Retrieved from <http://documents.worldbank.org/curated/en/docsearch/document-type/904555>

Rezaee, Z., Smith, L., & Szendi, J., (2010). "Convergence in accounting standards: Insights from academicians and practitioners." *Advances in Accounting, incorporating Advances in International Accounting*, 26(1), 142–154.

Rupley, K., Almer, E., Philbrick, D. (2011). "Audit committee effectiveness: Perceptions of public company audit committee members post-SOX." *Research in Accounting Regulation*, 23(2), 138-144

Samaha, K. & Khlif, H. (2016). "Adoption of and compliance with IFRS in developing countries: A synthesis of theories and directions for future research". *Journal of Accounting in Emerging Economies*, 6(1) 33 – 49.

Samaha, K. & Stapleton, P. (2009). "Firm specific determinants of the extent of compliance with international accounting standards in the corporate annual reports of companies listed on the Egyptian Stock Exchange: a positive accounting approach". *Afro-Asian Journal of Finance and Accounting*, 1(3), 266-294.

Santos, E., Ponte, V., & Mapurunga, P. (2014). "Mandatory IFRS Adoption in Brazil (2010): Index of Compliance with Disclosure Requirements and Explanatory Factors of Firms Reporting". *Revista Contabilidade e Finanças*, 25(65).

Sarbanes-Oxley Act of 2002 (SOX) Public Law No. 107-204, 116 Stat. 745, sec. 1-1107 GPO, Washington, DC (2002) accessed <https://www.sec.gov/about/laws/soa2002.pdf>.

Sellami, Y. & Fendri, H. (2017). "The effect of audit committee characteristics on compliance with IFRS for related party disclosures: Evidence from South Africa". *Managerial Auditing Journal*, 32 (6), 603-626

Street, L. & Bryant, S. (2000). "Disclosure level and compliance with IASs: a comparison of companies with and without US listings and fillings". *International Journal of Accounting*, 35 (3), 305-329.

Street, L., & Gray, J. (2002). "Factors influencing the extent of corporate compliance with International Accounting Standards: summary of a research monography". *Journal of International Accounting, Auditing and Taxation*, 11 (1), 51-76

Suchman, M. C. (1995). "Managing Legitimacy: Strategic and Institutional Approaches". *Academy of Management Journal*, 20(3), 571 - 610.

Tsalavoutas, I. (2011). "Transition to IFRS and compliance with mandatory disclosure requirements: What is the signal?", *Advances in Accounting*, 27 (2), 390-405.

Watts, R. and Zimmerman, J. (1986), *Positive Accounting Theory*, Prentice-Hall Inc., Englewood Cliff, NJ.

Weber, M. (1947). *The theory of social and economic organization*. New York: Free Press.

Utama, C. and Utama, S. (2014). "Determinants of disclosure level of related party transactions in Indonesia". *International Journal of Disclosure and Governance*, 11(1), 74-98.

Uyar, A. Kılıç, M. & Gökçen, B. (2016). "Compliance with IAS/IFRS and firm characteristics: evidence from the emerging capital market of Turkey", *Economic Research-Ekonomska Istraživanja*, 29(1), 148-161.

Xie, B., Davidson, W. & Dadalt, P. (2003). "Earning management and corporate governance the role of the board and the AC". *Journal of Corporate Finance*, 9(3), 295-316.

Table 1.0: Sample selection

Item	Number
Step 1 – Country selection	
Number of Countries in Africa	54
-Removal countries which have not fully mandated-IFRS.	(36)
Countries that have fully mandated IFRS	18
-Removal of Fully mandated IFRS countries without active stock exchanges	(6)
Selected countries	13
Step 2- Company selection	
Number of Listed Companies in Selected countries	943
-Removal of suspended companies	(127)
-Removal of financial companies.	(371)
-Removal of companies listed twice on Africa exchanges ¹⁸	(123)
-Removal of foreign companies listed as a secondary listing ¹⁹ .	(58)
-Removal of companies with unavailable data for the 3 years	(59)
Final sample	205

¹⁸ To avoid double counting, companies that are listed on more than one stock exchange among the selected countries are counted once. E.g. Kenyan Airways is listed in Kenya and Tanzania but is counted once.

¹⁹ These are companies that are incorporated outside and listed on foreign exchanges. E.g. Bannerman is Australian listed company with listing on Namibia.

Insert Table 2.0 Checklist for calculating compliance score.

Standard	Tsalavoutas	Delliotte	EY	KPMG	PWC	This Study
	2011					
IAS 1	72	80	81	76	78	81
IAS2	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

Table 3.0. Median compliance score by countries.

	Weighted (WCS)			Unweighted score (UCS)		
	2014	2015	2016	2014	2015	2016
All countries	68.79	71.56	75.85	72.25	76.72	80.36
Kenya	65.13	69.85	70.42	70.40	72.37	76.58
Mauritius	75.72	76.11	80.71	75.52	78.39	82.56
Nigeria	65.44	68.06	71.17	71.02	73.88	75.76
South Africa	72.70	73.27	78.485	75.11	75.57	80.85

Table 4.0. Descriptive statistics of variables.

Variables		Mean	Median	SDV	Min	Max
Weighted score	WCS (%)	70.94	71.86	6.99	58.59	83..55
Unweighted score	UCS (%)	73.09	73.87	6.23	62.86	85.61
Ownership	OW (%)	44.48	42.91	20.18	15.00	90.00
Accountants on Board	AOB	2	2	1.53	0	7
Audit Committee	ACC (%)	72.53	75.00	22.5	20.00	95.00
Competence						
Audit committee size	ACS	3	3	1.09	0	8
Accountants in Audit	AAC	1	1	0.84	0	3
Committee						
Non-executive directors on	NCC	3	3	0.		
Audit Committee						
Board size	BOD	9	9	2.41	4	17
Non-Executive directors on	NED	7	7	2.26	1	14
the Board.						
Total Asset	TA(\$M)	1.02	1.20	8.01	0.0089	197.8
						3
Leverage	LEV	0.65	0.58	0.03	0.0005	0.95

Table 5.0 Correlation matrix on compliance.

	WCS	UCS	ACC	NCA	OVS	BOD	NCD	AUD	OWT	TAA	LEV
WCS	1										
UCS	0.8272***	1									
ACC	0.2111***	0.1834**	1								
NCA	0.0741*	0.1523*	0.5774***	1							
OVS	0.3726***	0.4017***	0.5146	0.4801***	1						
BOD	0.1701*	0.3339***	-0.0242	0.3400***	0.2480**	1					
NCD	0.2216**	0.3650***	0.1286	0.2695	0.3480***	0.7673***	1				
Big4	0.4997***	0.5098***	-0.1065	-0.2476	0.0833	0.3018	0.3182	1			
OWT	0.1614*	0.1215*	0.4219	0.3714***	0.3263***	0.324***	-0.124	-0.136	1		
TAA	0.0778*	0.2302***	0.2175*	0.2435	0.4655	0.3667***	0.5710**	0.1282	0.1744*	1	
LEV	0.1745*	0.1164*	-0.2545	-0.0522	-0.2232	0.2917	0.036	0.0791	0.3606***	-0.09	1

Notes: Significant levels - *** = 1%, ** = 5%, * = 10%.

Table 6.0 Estimation results on compliance.

<i>Variable</i>	M 1 Unweighted (UCS)		M 2 Weighted (WCS)	
	Coef	t-stats	coef	t-stats
<i>ACC</i>	0.143	0.40**	0.17	0.47***
<i>NCA</i>	0.123	0.58***	0.1	1.54***
<i>OWS</i>	-0.0434	1.46***	-0.05	1.26**
<i>BOD</i>	0.0127	0.67*	0.16	0.66*
<i>NED</i>	0.023	1.7*	0.018	0.15
<i>AUD</i>	0.022	1.3	0.2	1.77
<i>OWT</i>	0.01	1.8*	0.006	2.59*
<i>EXP</i>	0.02	1.34**	0.031	1.73***
<i>TAA</i>	0.052	2.39*	0.035	1.82*
<i>LEV</i>	0.001	0.11	0.0001	3.17
<i>Constant</i>	4.147**		4.185***	
<i>R-Square</i>	0.2025		0.1089	
<i>F-Value</i>	20.46***		21.60***	
<i>OBS</i>	615		615	
<i>No. firms</i>	205		205	

Notes: Significant levels - *** = 1%, ** = 5%, * = 10%.

Table 7.0 Additional analysis using percentage format of the independent variable.

	M3		M4	
	Unweighted (UCS%)		Partial score (WCS%)	
	Coef	t-stats	Coef	t-stats
ACC	0.051	1.00**	0.067	0.55**
NCA	0.0727	2.77***	0.089	0.12***
OWS	-0.003	2.96***	-0.0045	0.43***
BOD	0.00246	2.44**	0.00198	1.33*
NED	0.0017	0.56*	0.0011	0.34
AUD	0.00523	2.00**	0.0035	0.34**
OWT	0.00698	0.94	0.005	0.93
EXP	0.008	1.53**	0.006	0.73**
TAA	0.0247	1.77*	0.0232	1.64*
LEV	0.001	0.73	0.001	2.85
Constant	6.1	3.3***	6.7	2.4***
R-Square	0.1925		0.0905	
F-Value	15.64***		22.24***	
OBS	615		615	
No. firms	205		205	

Notes: Significant levels - *** = 1%, ** = 5%, * = 10%.

Table 8.0. Sensitivity estimation results.

VARIABLES	WCS		
	Mauritius	Nigeria	South Africa
	M 5	M 6	M 7
	Coef	Coef	Coef
ACC	0.012**	0.042**	0.13**
NCA	0.015***	0.02***	0.04***
OWS	-0.005*	-0.003**	-0.004**
BOD	0.024*	0.016**	0.007**
NED	0.025	0.008	0.005*
AUD	0.003*	0.004**	0.005***
OWT		0.028*	0.037*
TAA	0.001*	0.002**	0.011***
LEV	0.001	0.001	0.004
CONSTANT	4.26***	4.59***	4.37***
R-SQUARE	0.127	0.3268	0.3938
F-VALUE	6.04***	2.85***	15.11***
OBS	108	99	123
NO. FIRMS	36	34	41

Notes: Significant levels - *** = 1%, ** = 5%, * = 10%.

IFRS experience is removed because it is reductant as all the companies in the same country have similar years of experiences.

Table 9.0. Variable description and sources of data for compliance.

Determinants	Variable.	Acronym.	Description	Data Source	Expected sign
Dependent	Compliance score	UCS/WCS	Constructed using different harmonization scoring approaches (unweighted and weighted scoring) based on financial statements presented in company report.	Author own construction	
Definitive Stakeholder	Audit committee competence	ACC	Measures the competence of the Audit Committee. It is the sum of existence, independence and having accounting or finance professional on the committee.	Annual report	Positive
Dominant Stakeholder	Accountants on Board	AOB	Number of qualified chartered accountants on the company board.	Annual report	Positive
Discretionary Stakeholder	Ownership structure	OWS	Ownership percentage of the highest single shareholding	Annual report	Positive
control variables	IFRS experience	EXP	Number of years since IFRS was allowed in the country	Annual report	Positive
	Type of Ownership	OWT	Nationality of Major shareholder (foreign or domestic) 1= domestic; 0= foreign	Annual report	Positive
	Board size	BOD	Number of board members.	Annual report	
	Board Independence	NED	Number of independent directors as proportion of board size.	Annual report	Positive
	Total Asset	TAA	Total assets in US\$	Annual report	Positive
	Big4	Big4	Type of Auditor measured as 1=Big4; 0 = others	Annual reports	Positive