Why Do African Countries Adopt IFRS? An Institutional Perspective

Abstract

We examine the institutional drivers of International Financial Reporting Standards (IFRS) adoption in Africa. The study covers all 54 African countries and relies on data from 2010 to 2015. Our results support the neo-institutional theoretical predictions that coercive, mimetic, and normative isomorphism influence IFRS adoption in Africa, although the circuits of isomorphic pressures differ from previous studies investigating adoption at the worldwide level and in emerging economies. Specifically, we find evidence of the influence by the World Bank and International Monetary Fund on African countries made subject to the Report on Observance of Standards and Codes – Accounting and Auditing program of assessment. We also found that the presence of global audit firms and the years of membership in the International Federation of Accountants are strongly associated with a country's decision to adopt IFRS. Also, countries with a more structured and active professional accounting organization are more likely to adopt IFRS. Our findings provide insights into the significant role played by local professional accounting organizations in the promotion of IFRS. Furthermore, we provide empirical evidence that the nature of the isomorphic pressures in Africa is different from those suggested in prior studies, reinforcing the view that IFRS adoption is primarily driven by social and political dimensions, rather than the economic dimension usually professed by IFRS proponents.

Keywords: Accounting; Africa; IFRS adoption; neo-institutional theory.

Acknowledgments: We thank Professor Christoper Nobes from Royal Holloway University of London and Assistant Professor Oksana Kim from Minnesota State University for their useful comments and suggestions.

1. Introduction

Over the last few decades, the African continent has become more globally connected through foreign investments and trade. For example, foreign direct investment (FDI) in Africa increased from US $14 billion in 2004 to US $73 billion in 2014, and initial public offerings (IPOs) grew by 17% over the same period (PWC, 2017). One factor purportedly contributing to the rise of foreign investment and trade is the availability of financial accounting information to underpin the decisions by investors and international suppliers and customers (Nnadi & Soobaroyen, 2015). Specifically, over the last twenty years, IFRS diffusion has been characterized as a global endeavor to harmonize disparate accounting practices mandated in local standards and hence facilitate the global flow of investment and trade (Alon & Dwyer, 2014; Chua & Taylor, 2008). At the global level, 65% of countries have adopted IFRS. In contrast, as of 2015, only one-third of African countries have adopted IFRS in its fully-fledged form (18 out of 55 countries), and 48% of the countries on the continent use local accounting standards. This brings to the fore the question of what factors might be associated with the decision of whether to adopt IFRS. Consequently, this paper aims to provide insights into the factors that are associated with IFRS adoption in Africa.

Following Judge et al. (2010) and other work examining the dynamics of IFRS adoption (e.g., Alon & Dwyer, 2014; Hassan et al., 2014; Nurunnabi, 2015), this paper draws from neo-institutional theory. According to this perspective, nation-states are conceptualized as social actors that seek legitimacy and social acceptability, and as such, they are subject to transnational, international, and national forces (or constraints). These forces (or constraints) bring about a wide array of pressures that shift countries towards the adoption of similar practices (i.e., isomorphism) within a given institutionalized environment of global norms, customs, and rules

of governance (Alon & Dwyer, 2014; Chua & Taylor, 2008; Hopper et al., 2017; Nurunnabi, 2015). Conceptually, DiMaggio and Powell (1991) classify isomorphism into coercive, mimetic, and normative pressures. In this context, coercive isomorphism emanates from a financial dependency and other conditions associated with support from donor nations or international financial institutions such as the World Bank (WB) and the International Monetary Fund (IMF), and it is measured as the total commitment from foreign donors and the nature of recommendations from the Report on Observance of Standards and Codes (ROSC) relating to a given country (Chua & Taylor, 2008). Mimetic isomorphism arises from the replication of practices across nations, whereby there is a tendency to emulate what more successful countries have done to secure benefits and social acceptance (Nurunnabi, 2015), often as a result of initiatives championed by national "enabling" organizations that are affiliated with international IFRS "champions" (Chua & Taylor, 2008). This is measured as the number of years the country has been a member of the International Federation of Accountants (IFAC) and the number of international audit firms operating in the country. Lastly, normative isomorphism refers to the role and influence of professionalization processes led by local bodies and/or institutions (e.g., universities, regulators) that establish what is required of a qualified accountant (Hassan et al., 2014). This is measured by the number of qualified accountants and the strength or level of structuring of the professional accounting organization (PAO). Drawing from prior findings on IFRS adoption (Ben Othman & Kossentini, 2015; Judge et al., 2010), we controlled for import penetration, growth rate of gross domestic product, prevalence of foreign ownership, market capitalization, and colonial history.

As of 2015, only 18 African countries have mandated IFRS for all listed and large companies, whereas six countries require some companies to use IFRS. Only five countries

allow voluntary adoption, but 25 countries have not committed to the use of IFRS. Our study finds that coercive, mimetic, and normative pressures are associated with IFRS adoption in Africa, albeit the "circuits" of pressure differ from prior studies (e.g., Judge et al., 2010). In particular, our results show IFRS adoption in countries where the WB and IMF recommended IFRS adoption (in their ROSC reports), and where there are more global audit firms. Countries with longer IFAC membership and stronger PAO are also more likely to adopt IFRS. As a robustness test, a firm-level analysis reveals African companies that voluntarily adopted IFRS have a larger number of chartered accountants on the board and have been audited by one of the Big Four firms. The results are robust when considering alternative measures and econometric models.

Our findings contribute to the literature in the following ways. First, we complement the cross-national insights by Judge et al. (2010), Koning et al. (2018), and Ben Othman and Kossentini (2015) by emphasizing the incremental socio-political, rather than purely economic, dimensions of the determinants of IFRS adoption in Africa associated with both transnational and national sources. These prior studies highlighted foreign aid, import penetration, trade freedom, and secondary school education. However, IFRS adoption in Africa seems to be predicated on the existence of coercive pressures from the IMF and WB, mimetic pressures via IFAC membership, and normative pressure from the strength of PAOs. These findings echo those of selected single-country case studies (e.g., Hassan et al., 2014; Nurunnabi, 2015). Secondly, our results bring to the fore the regional specificities of the nature and type of pressure underlying IFRS adoption and, hence, strengthen calls for studies that can capture the unique features and dynamics of accounting practices in Africa (Lassou & Hopper, 2016; Rahaman, 2010). They also raise questions about the monolithic use of generalized proxies and

assumptions that consider institutional frameworks in Africa to be similar to those of other regions.

The remainder of this paper is organized into five sections. Section 2 reviews the literature; Section 3 sets out the theory and hypothesis development; Section 4 describes the research methodology; Section 5 reports the results with interpretations; Section 6 presents the conclusion.

2. Literature Review

2.1. Empirical literature on the institutional determinants of IFRS

In relation to the determinants of IFRS adoption, Judge et al. (2010) examined the relevance of isomorphic pressures for a sample of 132 countries and found that foreign aid, import penetration, and educational attainment are respectively and significantly coercive, mimetic, and normative predictors of a country's decision to adopt IFRS. A crucial point by the authors is that these factors are observed to be more significantly associated with a country's level of IFRS adoption compared to the "traditional" legal and cultural variables used by Ding et al. (2005) and Hope et al. (2006). These factors are rooted in historical and, arguably, increasingly less relevant circumstances. Notwithstanding evidence of an existing debate about whether weak investor protection rules and legal origin "outweigh" cultural dimensions (refer to Hope et al. 2006; Ding et al., 2005) as factors influencing IFRS adoption, Judge et al. (2010) revealed that normative isomorphism (educational attainment) has the strongest influence on IFRS adoption. Judge et al. (2010) argued that the peculiarity of this result may be related to an observation that the accounting profession is more susceptible to normative pressures relative to other institutional norms "because professional norms and practices are supposed to transcend national beliefs and common practices." (p. 169) While the authors do offer some anecdotal evidence (United States

and Japan), there is room to investigate whether there is a normative "circuit of professional influence" by relying on more specific measures of country-level accounting professionalization.

At the same time, and partially in response to Chua and Taylor's (2008) calls to study the international diffusion of IFRS and Judge et al.'s (2010) findings, several studies sought to investigate the dynamics of how and why the IFRS disseminates in developed as well as developing countries. Alon and Dwyer (2014) study the specific case of *early* adoption using a sample of 71 countries and inferred that countries with weaker governing structures and lower level of economic development tend to adopt IFRS earlier because of a presumed need for legitimacy and resources from international financial institutions (e.g., WB and IMF). However, the authors do not directly measure the extent of such a dependence towards these institutions. Koning et al. (2018) also assessed the transnational drivers of IFRS adoption in a large sample of 168 countries and found that IFRS adoption is not influenced by local determinants but by the policy diffusion forces of learning, competition, and emulation among countries. Hence, countries tend to adopt IFRS through learning or competing with an IFRS-adopted country, and there is little evidence of a coercive effect (e.g., from international financial institutions). Although the results largely support the neo-institutional perspective, we contend that their findings might be more relevant to the case of developed countries that already have established local settings, such as professional accounting organizations, regulatory framework for accounting and auditing services, presence of large international accounting firms, and a well-developed accounting education system (academically and/or professionally).

However, the case may be different in developing countries due to the absence of strong local institutional structures, and IFRS may not diffuse in the same way as argued by Koning et al. (2018). In this regard, local factors, as argued by Ball (2006) and Alon and Dwyer (2014),

may predominate. For instance, IFRS adoption may be associated to the state of national institutions, irrespective of what neighboring countries have decided; that is, while there may be an interest towards learning, competition, and emulation, national institutional structures may not be necessarily equipped (or well developed) to do so (refer to Hopper et al., 2017). Thus, local factors, such as the influence of the national professional accounting organizations (PAOs) and professional accountants, may remain the driving force behind IFRS adoption in developing countries. Notwithstanding these factors, an early study by Zeghal and Mhedhbi (2006) revealed a significant positive association between a country's IFRS adoption decision and educational levels, the existence of a capital market, and cultural closeness to Anglo–American culture, thereby highlighting the relevance of a combination of economic and cultural variables. It is acknowledged that the extent of IFRS adoption among developing and emerging economies at the time of the study was not so prevalent and inherently excluded many African countries.

In this regard, Ben Othman and Kossentini (2015) use a larger sample of 50 emerging economies (including nine African countries) by also relying on neo-institutional theory. They measured foreign aid and the use of ROSC reports as proxies for coercive isomorphism; trade freedom and the density of the Big Four auditing firm offices as mimetic isomorphism variables; and IFAC membership and the number of certified public accountants (CPA) per population as normative proxies. Their study revealed that both coercive and mimetic isomorphism are significant and are positively associated with a country's IFRS adoption decision. Consistent with Ritsumeikan (2011), Judge et al. (2010), Boolaky (2012), and Albu et al. (2011), Ben Othman and Kossentini (2015) find support for the coercive and mimetic nature of the institutional pressures on IFRS adoption in emerging economies. At the same time, Ben Othman and Kossentini (2015) reported a significant negative association between normative

isomorphism and IFRS adoption, implying that the higher the number of accounting professionals in an emerging country, the less likely a country will adopt IFRS. The authors inferred that countries facing a lack of qualified professional accountants are more likely to adopt IFRS due to the limited capacity to develop their own national standards. Ritsumeikan (2011) attempted to apply Judge et al.'s (2010) model to the case of emerging economies and found a stronger association for coercive isomorphism, although the results appear to be influenced by the weak proxies for the mimetic and normative dimensions.

While these results highlight the specificities of developing and emerging countries in relation to IFRS adoption, the findings remain mixed in terms of the relevance of various pressures and factors. The role of transnational institutions, as a coercive pressure, has been alluded to in several single-country studies (e.g., Romania - Albu et al., 2011; Iraq - Hassan et al., 2014; Bangladesh – Nurunnabi, 2015) and merits further analysis, particularly with reference to the African context.

2.2. Empirical literature on IFRS adoption in Africa

A few studies have assessed the adoption and development of accounting standards in Africa, predominantly examining the development of accounting or the consequences of IFRS in a particular country or regional setting. For example, Assenso-Okofo et al. (2011) documented that both institutional and political pressures significantly influenced the transition of local accounting standards towards IFRS in Ghana, but the regulatory environment to enforce it is fragile. In a similar vein, Bova and Pereira (2012) found that institutional structures, such as the type of corporate ownership, have shaped the adoption, compliance, and consequences of IFRS in Kenya. Stainbank (2014) investigated the case of 32 African countries and identified a number of economic motivations (faster economic growth rates, market capitalization) underlying IFRS

adoption, in addition to the observation that countries having cultural ties with the United Kingdom (as ex-British colonies) were more likely to adopt IFRS.

The above results do highlight the continued relevance of colonial influence in Africa, although it is not always clear how this influence is enacted or persists post-independence. In spite of a number of internal and external pressures, the accounting structures of most African Francophone countries are, for instance, still shaped by long-established traditions and a reliance on financial advisors associated to their ex-colonizer, France (Elad, 2015). In particular, Degos et al. (2019) argue that African French-speaking countries followed a different path compared to English-speaking countries in their relatively slow progress towards full IFRS adoption and convergence. They identified a number of interrelated factors, namely, the continued interaction and influence of French institutions on the development of local accounting standards, the academic and professional accounting educational structures, and the role of key consultants and actors in the field.

Lastly, some single-country studies in Africa do emphasize the direct lobbying efforts from international financial institutions with respect to IFRS adoption, particularly in the context of the WB's and the IMF's interventions on structural adjustment and assistance programs (Hopper et al., 2017; Rahaman, 2010). For example, Hassan (2008) highlighted that foreign aid provided by the IMF had been a key influential conduit through which Egypt was pressured to move towards IFRS. More recently, Zori (2015) reported that the adoption of IFRS in Nigeria was a core component of the WB-funded Economic Recovery and Governance Programme (ERGP) instigated by international institutions in return for financial assistance. Alongside other similar cases in the developing world (Hassan et al., 2014; Nurunnabi, 2015) and observations that a number of transnational governance bodies (e.g., Financial Stability Board, European

Union, International Organisation of Securities Commissions) have become more vocal in their support for the adoption of, or convergence to, common accounting, auditing, and governance standards (Alon & Dwyer, 2014), we contend that there is a need to more generally investigate the extent of the influence of transnational players on IFRS adoption in Africa.

3. Theory and Hypothesis Development

3.1. Background of neo-institutional theory

Neo-institutional theory remains one of the most commonly used theoretical perspectives in analyzing how organizations embed rules, beliefs, and cultural norms (Lounsbury & Zhao, 2013). According to this theory, institutions or organizations themselves are actors who facilitate growing similarities within a particular field (DiMaggio & Powell, 1991). Although the neo-institutional perspective is primarily drawn from cognitive and social psychology, anthropology, and political science, it has been applied in other areas, including management and accounting. Prior studies have used the neo-institutional perspective to establish the nature of internal and external institutional pressures driving the adoption of particular regulations and practices (Touron, 2005). For example, Guler et al. (2002) posited that the adoption of ISO 9000 standards was influenced by institutional factors, as was the case for hostile takeover legislation and practices (Schneper & Guillen, 2004).

The development of accounting standards and its adoption (at national and organizational levels) also follow a similar trend (Mueller et al., 1994). Rodrigues and Craig (2007) define institutionalization in the global accounting context as the social process through which countries accept that their local standards need to be replaced by international standards, ostensibly to achieve a global harmonization of accounting practices and standards. Early scholars who examined the process of harmonization of accounting standards revealed that country-specific

characteristics such as legal, cultural, economic, historical, and political features do, to varying extents, influence a country's decision of whether to adopt a new accounting practice or system (Archambault & Archambault, 2009; Boolaky & Soobaroyen, 2017; Ding et al., 2005; Hope et al., 2006; Zarzeski, 1996). However, these dimensions often reflect structural conditions within a jurisdiction and offer only limited, and sometimes contradictory, explanations. Instead, what is needed is a better understanding of the contemporary and dynamic forces behind what has been labelled as an unusually fast rate of IFRS adoption worldwide (Alon & Dwyer, 2014; Chua & Taylor, 2008; Judge et al., 2010).

We thus contend that a key assumption underlying the neo-institutional perspective is that participants seek legitimacy from the prevailing institutional environment by conforming to particular standards of behavior that are themselves seen to be appropriate and socially acceptable (Alon & Dwyer, 2014; Judge et al., 2010). In turn, the maintenance or gain in legitimacy provides participants with benefits and access to resources, ensuring survival. Scott (1987) also conceptualized an institutional environment as a sustainable system of socially organized practices and social benefits associated with different functional areas of the society. Following this concept of institution and his prior studies on institutionalism, Scott (2001) presents a three-level theoretical framework that elaborates how the higher institutional environment affects lower institutions. Consistent with previous institutional theory insights relating to the diffusion of IFRS at the national level (e.g., Alon & Dwyer, 2014; Judge et al., 2010), the top-tier institutional environment consists of a number of transnational and other societal bodies (e.g., WB, IMF) who use both formal and informal communications, recommendations, and proposals to shape the structures and environments of lower-level institutions. Governance structures, including organizational fields and the organizations

themselves, are the next level of Scott's (2001) framework. An organizational field consists of organizations in the same arena on the basis of similar services provided or other common characteristics, as well as influencing partners, such as bankers. Each organization's behavior influences or is influenced by others. For example, a poorly governed company may elect to adopt the practices of another company if it perceives the latter to be a successful and socially acceptable organization. At the last level of the framework are groups of individuals and actors (including accounting bodies and professionals) who are the "recipients" of the higher-order pressures to conform to institutional norms while also seeking to negotiate and influence the diffusion of these norms.

DiMaggio and Powell (1983) argued that these long-term interactions within an institutional environment lead to increased similarities in norms and practices across different institutional contexts (isomorphism) through three "circuits," namely, coercive isomorphism, mimetic isomorphism, and normative isomorphism. Admittedly, these three classifications of isomorphic pressures are not always empirically distinct. They intermingle in empirical settings, but since each pressure drives, and is driven by, different conditions, it is possible that these can lead to different outcomes.

3.2. Coercive isomorphism

Coercive isomorphism is the result of both formal and informal pressures exerted on organizations by other organizations on which they are dependent (DiMaggio & Powell, 1983, p. 150). Coercive isomorphism is premised on a financial and technical dependency that makes organizations subject to the demands of resource suppliers. That is, higher institutions can exert pressure on lower institutions due to the latter's dependence on higher institutions for support (DiMaggio & Powell, 1991; Mir & Rahaman, 2005). In this regard, international financial institutions (IFIs) require

developing countries to implement reforms and/or fulfill conditions to be eligible for funding (Rodrigues & Craig, 2007; Wyatt, 1997). Arguably, this higher financial dependency between these IFIs and African countries creates a "conditionality" for IFIs to exert pressure on the adoption of standards such as IFRS, as was reported in the case of Ghana (Assenso-Okofo et al., 2011). The WB loan or grant usually requires countries to reduce budget deficits, restructure foreign debts, devalue the currency, privatize state-owned companies in the longer term, and implement anti-corruption and market liberalization laws (World Bank, 2005). Previous accounting research has also shown how IFIs influence the nature and operation of accounting practices in developing countries (Hopper et al., 2017) and in Africa (Rahaman, 2010). In this regard, authors such as Efobi (2015) and Nnadi (2012) report that there have been increasingly persistent attempts by IFIs to press for the adoption of IFRS in developing countries (see also Hassan et al., 2014; Touron, 2005; Tyrrall et al., 2007).

A key historical juncture underlying this persistence, which is often referred to in the literature, is the Asian financial crisis of the late 1990s (Alon & Dwyer, 2014; Chua & Taylor, 2008). The crisis and its aftermath revealed the interconnectedness of financial, banking, and economic systems across developed and developing countries due to the quasi-free circulation of financial flows worldwide. A domestic crisis in a country with weak governance, accounting, and/or regulatory structures could thus spread rapidly to other countries and create regional and international financial instability. Since the WB and the IMF are in effect tasked to support countries in times of crises, a determined and strategic approach was effected to strengthen accounting, governance, and regulatory systems worldwide, with a particular emphasis on developing countries (Mir & Rahaman, 2005). A few transnational governing bodies and associations also emerged as powerful supporters of the WB and IMF initiatives, such as the

Financial Stability Board (FSB), IFAC, International Organizations of Securities Commissions (IOSCO), and Organization for Economic Cooperation and Development (OECD). This renewed emphasis by the WB and IMF, supported by these organizations, precipitated efforts to diffuse a common set of financial and regulatory standards,[1] including IFRS (Alon & Dwyer, 2014; Chua & Taylor, 2008).

A crucial mechanism underlying this coercive circuit has been the ROSC program jointly run by the WB and IMF. First launched in 1991, the accounting and auditing (AA) assessments investigated the accounting, auditing, and regulatory framework of a given jurisdiction and also reviewed a sample of financial statements of local companies, which concluded with an evaluation and recommendations. Almost 200 assessments and reports (twice for some countries) have been carried out, followed by regular discussions with countries, inclusive of the need to engage with IFRS. For instance, Zori (2015) claims that the 2004 ROSC (AA) on Ghana and Nigeria was the trigger for the two countries' IFRS adoption in 2007 and 2012, respectively. Although the ROSC reports only provide recommendations, the WB and IMF do rely on the recommendations to underpin discussions with countries, and as the dominant transnational players, they seek to establish a commonly understood societal framework for behavior (Alon & Dwyer, 2014). In addition to the fact that countries in need of financial assistance might be expected to adhere to the relevant conditions to secure financial assistance and accordingly adopt IFRS, the neo-institutional perspective suggests that nation-states that have been subjected to a scrutiny of their accounting and auditing systems (ROSC reports) would be more likely

[1] For example, the International Standards on Auditing (ISAs), Principles of Corporate Governance, Insolvency and Creditor Rights Standard, and Code of Good Practices on Transparency in Monetary and Financial Policies. In total, the Financial Stability Board recommends the adoption of 12 key standards for ensuring sound financial systems.

concerned about the state of their legitimacy vis-à-vis the transnational institutional environment. We therefore formulate the following hypothesis in respect to coercive pressures from international financial institutions:

> ***H_1:*** The likelihood of a country's IFRS adoption is associated with the existence of external pressure from international financial institutions to conform to globally legitimized models of accounting systems.

3.3. Mimetic isomorphism

DiMaggio and Powell (1983, p. 152) explained that mimetic isomorphism arises because "organizations tend to model themselves after similar organizations in their field that they perceive to be more legitimate or successful." Organizations (and nations) that do not have defined policies of their own are more likely to import existing institutionalized policies, mainly as a result of availability, certainty, and low cost. Mir and Rahaman (2005) argued that the reliance on "off-the-shelf" practices is a common mode of diffusion of international practices among developing countries. In this context, the role of global audit firms and their affiliated networks and firms in developing countries has been highlighted as a significant factor in translating and communicating the benefits of IFRS to a wider constituency of policymakers, regulators, and companies at the national level. Although global audit firms do not have the power to enforce any set of accounting standards on a country, they rely on the prominence and expertise of their professionals and their involvement in the accounting and audit of listed companies to advocate IFRS as a route to adopting high-quality accounting standards (Assenso-Okofo et al., 2011). On a related point, Chua and Taylor (2008) mention how global audit firms advocated IFRS as a way to facilitate the financial reporting requirements for multinational firms, and this gradually led to a situation where the global audit firms portrayed IFRS as the

most appropriate set of accounting standards for domestic listed companies. This reinforced the global firms' (and their national affiliates or networks) own market dominance due to their existing expertise on IFRS implementation and audit. In this respect, Albu et al. (2011) claimed that in Romania, the Big Four firms' drive for globalized accounting standards was a source of pressure on Romania to adopt IFRS. In a similar vein, Joshi et al. (2008) highlighted the influential role of the Big Four in Bahrain's adoption of IFRS. Furthermore, Ben Othman and Kossentini (2015) demonstrated that the presence of Big Four audit firms was positively and significantly related to IFRS adoption in emerging economies. In effect, the presence of global audit firms in the national context signals the extent of the country's integration with the global accounting community, and in turn, this leads to a diffusion of "international" norms of behavior. Respectively, in the case of Egypt and France, Hassan (2008) and Touron (2005) concurred that there was a strong impetus by local bodies and practitioners to mimic the global audit firms and adopt international standards in a bid to be seen as more "relevant" and "professional."

The role of global audit firms in contributing to the mimetic pressures to adopt IFRS is supported by other transnational professional organizations and institutions (Chua & Taylor, 2008). In particular, IFAC has gradually positioned itself as a key transnational professional agency not only in terms of the rapid development of the International Standards on Auditing (ISAs; Boolaky et al., 2020; Boolaky & Soobaroyen, 2017; Humphrey et al., 2009) but also in terms of taking the lead on a number of initiatives relating to the establishment of an international accounting education standards board (McPeak et al., 2012) and a model code of ethics for professional accountants (Clements et al., 2009). In this way, IFAC aims to institutionalize a set of norms and "best practices" in terms of how national professional accounting organizations might seek to define or conceptualize the various aspects and

dimensions of "professional accountancy." As an institutional member of IFAC, a national organization would rely on these pronouncements and guidance documents to ensure they operate in line with international norms. In this respect, professional accounting bodies seeking legitimacy, influence, and recognition on the global stage are more likely to adhere to IFAC's expectations and place more emphasis on international accounting standards than local accounting standards. As in the case of the global audit firms, IFAC does not have any direct authority to influence a country's adoption of accounting standards. However, affiliation with IFAC leads to influence in terms of the local professional accounting community being more aware of the practices being adopted by other national accounting associations and, thereby, considering it appropriate to adopt the same practices. Following Judge et al. (2010), we therefore hypothesize the relationship between mimetic pressures and IFRS adoption in this form:

> ***H_2:*** The likelihood of a country's IFRS adoption is associated with the extent to which it is integrated within the global accounting community.

3.4. Normative isomorphism

DiMaggio and Powell (1983) contend that normative isomorphism arises from the collective struggle of members of an occupation to define the conditions and methods of their work and to control the production of their products and services. These collective struggles and values help the organization to derive legitimacy from their occupational autonomy and expertise (Larson, 1977). Thus, normative isomorphism stems from a professionalization process whereby a form of "professional monopoly" is "facilitated through jurisdictional claims which focus on the content, control, and differentiation of work" (Sian, 2006, p. 296). The accounting profession in many countries has been particularly successful in ensuring that this monopoly in the provision

of "qualified accountant" services is maintained through the use of credentials, examinations, and/or registration that are typically endorsed by the State (Birkett & Evans, 2005). In this way, accounting education, including professional training, is able to exert influence towards the standardization of accounting practices (and accounting standards) among organizations within the same field (Hassan, 2008).

Hegarty et al. (2004) assert that the adoption of IFRS would require a minimum level in terms of the educational system and a relatively large number of qualified professionals. In this regard, Judge et al. (2010), Zeghal and Mhedhbi (2006), and Ritsumeikan (2011) find a strong positive and significant association between educational levels and IFRS adoption. Furthermore, several authors have argued that qualified accounting professionals and professional training are key ingredients for effective implementation of IFRS in developing countries (Albu et al., 2011; Muniandy & Ali, 2012; Perumpal et al., 2009; Phuong & Nguyen, 2012). Zeghal and Mhedhbi (2006) argued that the adoption of IFRS requires a high level of education, competence, and expertise, to be able to understand, interpret, and make use of the standards. However, according to several ROSC reports, accounting education at the secondary and university levels in Africa remains insufficient or inexistent (World Bank, 2004–2015), and in the case of many developing countries that have decided to adopt IFRS, there appears to be little in the way of a coherent and national program of professional development to underpin IFRS implementation (Hassan et al., 2014; Hopper et al., 2017; Nurunnabi, 2015).

Our contention is that the level of accounting education is closely related to the standing and competence of national PAOs (Al-Akra et al., 2009; Assenso-Okofo et al., 2011). The ROSC reports (World Bank, 2019) have often highlighted the absence of a functioning local PAO in African developing countries and the situation that many qualified accountants are members of

overseas accountancy bodies (e.g., Association of Chartered Certified Accountants, Institute of Chartered Accountants of England and Wales) and, hence, are not technically and directly accountable to local settings. In such situations, the ROSC reports have typically recommended the setting up or strengthening of the local PAOs in many African countries to handle examinations, professional development and accreditation, ethics and disciplinary procedures, and the registration of local accounting firms and professionals. According to Al-Akra et al. (2009), the accountancy profession is crucial for the development of financial reporting and auditing practices, and the profession's existence and capabilities are integral to the adoption of IFRS. PAOs can also be considered to have higher levels of influence and structuring if they can operate their professional certification qualifications. Following Judge et al. (2010), we hypothesize for the relationship between normative pressures and IFRS adoption as follows:

> ***H_3:*** The likelihood of a country's IFRS adoption is associated with the level of professionalization at the local level.

4. Data and Methodology

The sample consists of all 54 African Union–recognized countries between 2010 and 2015. We obtain data from World Economic Forum, World Development Indicators, the WB ROSC website, iasplus.com, IFRS.org, PWC, IFAC membership profile, OECD statistics, and African countries' PAO websites. Our dataset yielded 270 observations.

4.1. Measurement of variables

Countries' adoption status (dependent variable *IFRS _AD*). Although several studies (e.g., Alon & Dwyer, 2014; Hope et al., 2006; Judge et al., 2010) have used Deloitte's iasplus.com as the common source of jurisdiction adoption status, we argue that using only Deloitte's iasplus.com not only limits the classification but also appears to eliminate some

countries from the sample. Therefore, this study draws from five different sources to generate a country's IFRS adoption profile. The sources complement each other primarily because of the differences in the coverage of jurisdictions and help to yield a comprehensive country profile. Admittedly, conflicting information about a country's level of IFRS adoption does emerge. In this respect, Ben Othman and Kossentini (2015) excluded countries such as Egypt due to discrepancies from different sources. Instead, this study followed the approach by Ramanna and Sletten (2014) in resolving conflicting information from different sources by applying a majority rule for countries that have conflicting information from these different sources. *IFRS_AD* was measured as a binary variable; 1 for adopting countries and 0 for non-adopting countries. We also extended the measurement on the ordinal scale, with 0 = countries that do not permit; 1 = countries that permit; 2 = countries that require some companies; and 3 = countries that require all companies.

Coercive score (*COC*). Resource providers such as IMF and WB use different means to exert pressure on nation-states, including terms and conditions on loans and financial support, recommendations, and advocacy activities. For the adoption of rules, prior studies have argued that the most effective source of coercive pressure originates from the inclusion of IFRS adoption in the terms and conditions and as part of ROSC recommendations (Ben Othman & Kossentini, 2015; Judge et al., 2010). Therefore, we construct a coercive score (*COC*) from the rankings on total commitments (*TCC*) from the IMF and WB and from ROSC recommendations. We used a percentile to rank countries on a scale of 0 to 3 based on the level of total commitments received. Country *i* is ranked 0 if $TCC < 25^{th}$ percentile; $i = 1$ if $TCC > 25^{th} < 50^{th}$; $i = 2$ if $TCC > 50^{th} < 75^{th}$; $i = 3$ if $TCC > 75^{th} < 100^{th}$. Rankings based on *ROSC* were as follows on a scale of 0 to 3: 0 if ROSC was not issued in the country; 1 if ROSC was issued for the

country; 2 if ROSC recommended the development of accounting standards based on IFRS; 3 if ROSC recommended the adoption of IFRS. *COC* was estimated as the average of these two rankings per country.

Mimetic score (*MIM*): The pressure to adopt practices by mimicking other organizations and nations on the global stage can be seen to originate from a variety of sources, including FDI, the presence of multinational companies, membership in regional trading blocs, and the extent of import penetration (e.g., Judge et al., 2010). Insofar as accounting practices and standards are concerned, we contend that countries are more likely to be receptive to pronouncements and guidelines emanating from the global accounting community, such as IFAC and international audit firms, particularly when these discourses are endorsed by a number of transnational governance bodies such as IOSCO, FSB, and OECD. In this respect, we constructed a mimetic source (*MIM*) score from the average rankings of 10 international accounting firms (IAFs) in a given African country and the number of years the local PAO has been a member of IFAC. We used percentile to rank countries on scale of 0 to 3 as follows: Country *i* is ranked 0 if *IFAC* < 25^{th} percentile; *i* = 1 if *IFAC* > 25^{th} < 50^{th} ; *i* = 2 if *IFAC* > 50^{th} < 75^{th}; *i = 3* if *IFAC* > 75^{th} < 100^{th}. Rankings based on international audit firms were as follows: country *i* = 0 if *IAF* is 0–1; *i* = 1 if IAF is 2–4; *i* = 2 if *IAF* is 5–7; *i = 3* if IAF is 8–10.

Normative isomorphism (*NOR*): Accounting professionalism and the extent of a professionalization process are a function of the degree of formal education (academic and professional) environment. Considering that IFRS is a relatively complex area of accounting practice, the level of professional training and professionalization would be a relevant indicator of its adoption. Therefore, we derived a normative score (*NOR*) by averaging the rankings on the number of qualified accountants (*QA*) and the strength of professional accounting organization

(*PAO*). The strength of PAO is ranked on an ordinal scale: 0 if a country does not have a PAO; 1 if the country has a PAO; and 2 if the country has a PAO that provides its professional qualification examination. Rankings based on the number of qualified accountants (*QA*) were as follows: Country *i* is ranked 0 if *QA* < 35^{th} percentile; *i* = 1 if *QA* > 35^{th} < 75^{th} ; *i* = 2 if *QA* > 75^{th} < 100^{th}.

Each of the three scores (*COC, MIM, NOR*) was scaled from 0 to 1 using the formula: scaled variable = (variable minus minimum)/(maximum – minimum).

Control variables. Based on prior studies, such as Boolaky and Soobaroyen (2017), Ben Othman and Kossentini (2015), Judge et al. (2010), and Zeghal and Mhedhbi (2006), we control for economic growth with GDP growth rate (*GR*), trade openness with import penetration (*IMPT*), and stock market development with market capitalization (*MKC*). We also controlled for the prevalence of foreign ownership (*FOO*) and colonialization (*COL*). Refer to Table 1.0 for the measurement of these variables.

4.2. Empirical approach

Since our dependent variable (*IFRS-AD)* is binary and can be extended to an ordinal scale, it is more appropriate to use logit and ordered logit models, respectively.[2] To fit the logit model, we define IFRS adoption (*IFRS-AD)* as a binary variable of 0 and 1 to estimate. Next, we extend binary coding to an ordinal scale of 0 to 3 to apply an ordered logit regression model.

We use Eq. (1) to establish the association between the individual sources of institutional pressure and the adoption of IFRS:

[2] Following prior studies (Ben Othman & Kossentini, 2015; Boolaky & Soobaroyen, 2017; Judge et al., 2010; Ramanna & Sletten, 2014), we also run ordinary least square models, and the untabulated results are similar to the logit and ordered logit results.

$$\textbf{Zitlog}\frac{p(IFRS\_ADit=\pi)}{1-\pi} = \alpha_0 + \beta_1 TCC + \beta_2 ROSC + \beta_3 IAF + \beta_4 IFAC + \beta_5 PAO + \beta_6 NQA + \beta_7 COL + \beta_8 IMPT + \beta_9 GR + \beta_{10} MKT + \beta_{11}\text{FOO} + \varepsilon t. \quad (1)$$

Since institutional pressures flow from different sources, we run Eq. (2), where the individual source of pressure has been combined as a single score:

$$\textbf{Zitlog}\frac{p(IFRS\_ADit=\pi)}{1-\pi} = \alpha_0 + \beta_1 COV + \beta_2 MIM + \beta_3 NOR + \beta_4 COL + \beta_5 IMPT + \beta_6 GR + \beta_7 MKT + \beta_8 FOO + \varepsilon t \quad (2)$$

See Table 1.0 for variable descriptions.

[Insert Table 1, Variable Descriptions and Sources of Data]

5. Results and Discussion

5.1. Descriptive statistics

The descriptive statistics on the variables are reported in Table 2 (categorical variables) and Table 3 (continuous variables). From Table 2, as of 2015, only 18 African countries have mandated IFRS for all listed and large companies, while 25 countries have not committed to the use of IFRS. Five countries only require some companies to use IFRS, and only six countries allow a voluntary adoption of IFRS. Most of the IFRS-adopting countries are former British colonies, whereas the bulk of the non-IFRS counties are former French colonies. There are ROSC reports on 35 African countries. Of these reports, 12 countries were recommended to improve their own local standards, whereas 22 countries were recommended to adopt IFRS, and one country was recommended to improve their existing standards in line with IFRS. Hence, it is somewhat consistent to state that 18 African countries have mandated IFRS, as of 2015.

A review of *PAO* indicates that out of the 54 countries, 42 have a recognized PAO. However, only 13 of them organized their professional qualification examinations. There was an

average of 3,475 accountants per country (Table 3), with a high standard deviation of 12,237, minimum of 10, and a maximum of 67,890, which shows that some countries do have a significant shortage of accountants. Even in countries such as South Africa, Nigeria, and Ghana, which do have a relatively high number of accountants, the numbers on a per-capita basis are still insufficient to meet accounting needs. As of 2015, 22 African countries were full members of IFAC, with South Africa having the longest membership of 38 years. Finally, and although global accounting firms operate in a large number of countries worldwide, some of the top 10 global accounting firms do not operate in some African countries (e.g., Eritrea, Sudan)

[Insert Table 2, Descriptive Statistics of Categorical Variables and Table 3, Descriptive Statistics of Continuous Variables]

We present the Pearson pairwise correlation results in Table 4. All the variables of interest have a significant positive association with IFRS adoption status. The correlation among the variables is less than 0.80, thus not signaling multicollinearity issues (Field, 2000; Tabachnick & Fidell, 2007).

[Insert Table 4, Pairwise Correlation Between Variables]

5.2. Country-level regression results

Table 5 reports the results for the logit and ordered logit regression estimates, which test the three hypotheses on the different institutional pressures associated with IFRS adoption. In model M1, we explore the relationship between the individual sources of institutional pressures and a country's IFRS adoption decision. M2 provides the results for Eq. (2), whereby the different types of isomorphism are proxied by a score constructed from the individual sources of institutional pressures.

The results in M1 show that the different sources of institutional pressures are significant in their association with a country's IFRS adoption status, except for the level of total commitment (*TCC*). Specifically, the coefficient of 0.446 at 1% significance level for *ROSC* indicates that countries that received a recommendation from the IMF and WB to adopt IFRS are more likely to adopt IFRS than other countries. This, therefore, includes those countries that are engaging towards IFRS adoption as a result of a coercive pressure implied in the ROSC report. We also report a non-significant relationship between *TCC* and IFRS adoption. This can be interpreted by the point that a direct link between grants or loans and conditionality (such as adopting better governance and accountability regimes) has become less prevalent in WB and IMF policies (Hopper et al., 2017), given the emphasis of the financial support aimed directly at key issues such as poverty reduction, health, and education. Instead, the emphasis of international institutions, including that of WB and IMF, seems to be focused on developing and strengthening a global regime of economic, financial, and governance standards, via the use of ROSC reports and assessments as a form of "disciplining" mechanism (Chua & Taylor, 2008).

Although *TCC* is not significant in its own right, the *COC* coefficient, which represents the combined sources of external pressure, does support our first hypothesis that coercive pressures are significantly associated with IFRS adoption. In econometric terms, the coefficient of 1.934 (M2) for *COC* suggests that one standard deviation increase in the score of coercive pressure leads to a 1.825 increase in the likelihood of a country's adoption of IFRS (1.934 × 0.944).

Regarding mimetic pressure, the coefficient of both variables of interest, 0.551 (*IAF*) and 0.030 (*IFAC*), are statistically significant determinants of IFRS adoption at a p-value < .01. The results from the mimetic score (*MIM*) in M2 show that combined pressure from both *IAF* and

IFAC is positive and significantly associated with IFRS adoption. Specifically, in economic terms, the coefficient of 2.557 at 1% significance level on *MIM* suggests that one standard deviation increase in mimetic pressure increases the likelihood of a country adopting IFRS by 2.638 (2.557 × 1.032). These results support our hypothesis that African countries are more likely to engage with IFRS and international best practices as a result of a motivation to mimic practices endorsed and implemented by the transnational accounting agencies and firms, namely, IFAC and global audit firms. The results suggest that countries that host more IAFs are more likely to adopt IFRS because of the IAF's ability (expertise and resources) to engage at a practical level with policymakers, civil society, and industry leaders on the benefits of applying international standards. Opinion leaders within these sectors (e.g., politicians, company directors, regulators, investor associations, chamber of commerce) can be sensitized to the logic of relying on off-the-shelf, socially acceptable, and legitimate practices, thereby influencing relevant government authorities to consider mandating IFRS. The status of IAFs, particularly in their role as auditors or offering professional services to listed companies, ensures that their message is often taken authoritatively. In a similar vein, IFAC's active engagement with its regular statement of membership obligations (SMO) process has established a regular and transparent benchmark on the status of all IFAC member organizations when it comes to the adoption of standards and norms recommended by IFAC and other transnational institutions. Therefore, the longer a country has been an IFAC member and is therefore cognizant of the norms of its membership, the more likely it will be influenced to promote the adoption of IFRS (relative to new entrants).

The results on the strength of professional accounting organizations (*PAO*) and number of qualified accountants (*QA*) as a source of normative pressure support our third hypothesis.

The positive and significant coefficients of *PAO* (0.908, p > .01) and *QA* (0.071, p > .01) indicate that the level of accounting professionalism and professionalization plays a key role in a country's IFRS adoption decision. This is also evidenced in the positive significant coefficient of the normative score (*NOR* = 2.252, p > .01). To put it in an econometric perspective, one standard deviation increase in *NOR* leads to 1.542 likelihood of a country adopting IFRS. Put differently, the probability of a country adopting IFRS increases with the level of accounting professionalism in terms of the number of accountants and strength of the local accounting organization. Our findings indicate that PAOs that provide regular training to members have continuous engagement with members, and hence, are more able to influence the profession and opinion in relation to IFRS.

To assess the robustness of our inferences with respect to the association between the extent of IFRS adoption and the hypothesized institutional pressures, we estimate both Eq. (1) and Eq. (2) using ordered logit regression. The dependent variable *IFRS_AD* is measured on an ordinal scale of 0 to 3. The results are presented in M3 and M4 of Table 5. Overall, these results are not qualitatively different from those of the logit regression in M1 and M2. Hence, we reach the same inferences as those discussed on M1 and M2.

Most control variables revealed the expected signs in predicting a country's IFRS adoption status. The coefficient of colonial history (*COL* = 4.334) is positive and significant at 5% or less in all the models. Thus, ex-British colonies have a higher propensity to adopt IFRS compared to other countries in Africa (predominantly those previously colonized by France). The prevalence of foreign ownership is not deemed significant. One possible inference is that most foreign companies tend to report according to their home country's standards, which might not be IFRS. For instance, Canadian companies in Namibia report per Canadian GAAP (e.g.,

B2Gold, Merencia); Australian companies report as per Australian GAAP (e.g., Bannerman); and U.S. companies report per U.S. GAAP (e.g., Anglo-American companies).

[Insert Table 5, Country-Level Regression Results]

5.3. Comparison with prior studies

In this section, we elaborate on how our study generates unique evidence on Africa as compared to the two prominent studies on IFRS adoption, namely, by Judge et al. (2010) and Ben Othman and Kossentini (2015), which both include African countries in their dataset. To ensure an accurate comparison to these prior studies, we distinctively reconstructed the data used in those studies with a focus on African countries. Accordingly, the variables and period used in the comparative analysis are as similar as possible to data used in their respective original studies. Appendix B provides an extract describing the variables used and reported by Judge et al. (2010) and Ben Othman and Kossentini (2015). It has to be noted that the analysis by Judge et al. (2010) was cross-sectional, while that of Ben Othman and Kossentini (2015) used a pooled-regression approach. We also collected data on our variables: recommendations from *ROSC*, the number of international audit firms (*IAF*), and the strength of the professional accounting organization (*PAO*) for the same period as covered by these studies.

The results are presented in Table 6. Models 5–7 contain results of cross-sectional data using 2008 as the adoption year and averages as in Judge et al. (2010). M5 contains results using our variables, whereas M6 contains the variables of Judge et al. (2010). M7 contains results using our variables and those of Judge et al. (2010). Whereas all our variables (*COC*, *MIM*, and *NOR*) in M5 are significant at 1% and 5%, none of the Judge et al. (2010) variables in M6 are significant except for foreign aid (*FORAID*), which is significant at 5% but negatively associated to IFRS adoption. M7 confirms the significant power of our variables as compared with Judge et

al. (2010) in a single regression equation (Pseudo-R^2 of M7 = 0.4965 > M6 = 0.1442). Arguably, therefore, countries at different levels of development (in our case, from the African continent) exhibit different characteristics and differences in terms of the circuits and source of isomorphic pressures. Hence, the neo-institutional-theory-inspired findings drawn from a mix of developed and developing countries are not easily transposed to the African context. For instance, most developed countries, such as Australia, Canada, and the United Kingdom, have a high level of secondary school enrollment and low import penetration compared with most African countries, which have low secondary school enrolment but high import penetration. Furthermore, developed countries tend to be donors of foreign aid, while Africa is a net recipient of foreign aid. In effect, the sources of isomorphic pressures outlined by Judge et al. (2010) are at extreme opposite ends for the sampled countries.

Models 8–10 in Table 6 contain results of pooled data from 2005–2010. M8 contains results using our variables, and M9 the variables used by Ben Othman and Kossentini (2015). M10 contains results using our variables and those of Ben Othman and Kossentini (2015) in a single regression.

We found that all our variables *COC*, *MIM*, and *NOR* in M8 are significant at 1% and 5% levels, with only the mimetic variable (*BIGTRFF*) by Ben Othman and Kossentini (2015) being significant at 10%. Apart from the differences in the significance levels and direction of the coefficients, our variables provide higher explanatory power than those of the prior studies, as evidenced in the Pseudo-R^2. The Pseudo-R^2 of M8 is 56%[3] higher than M9, and this even applies to the single regression of M10. Overall, our comparative analyses in Table 6 showcase how our

[3] This calculated as (0.336 - 0.215)/0.215.

current study reveals institutional variables that are relevant and distinctive to the African context, which have been largely downplayed or ignored when relying on cross-continental or global research designs. In other words, our study provides a key contribution in providing empirical evidence of the specificity of neo-institutional variables and circuits driving the decision to adopt IFRS in Africa.

[Insert Table 6, Comparison with Prior Studies]

5.4. Firm-level regression results[4]

In this section, and as part of underpinning the robustness of our main results, we also investigate the institutional pressures of voluntary IFRS adoption using a sample of firms in African countries. Although there are a few studies, such as Bassemir (2018), Dumontier and Raffournier (1998), Francis et al. (2008), and Tarca (2004) on firm-level determinants, these focused on financial and economic factors and not on institutional pressures. Bassemir (2018) found private German firms that use IFRS are characterized by high growth opportunities, high international sales, high leverage, and high equity ownership. However, only a fraction of this sample relied on IFRS, implying that private firms do not expect a net gain from adopting IFRS. As most of the voluntary adopters are not listed companies, they are not expected to gain any net financial benefits from IFRS (Bassemir, 2018). Hence, it would be fair to argue that their adoption would be driven by nonfinancial factors.

We, therefore, operationalized sources of institutional pressure at the firm level using corporate governance structures, with ownership type (*OWT*) as a proxy variable for coercive pressure. Francis et al. (2008) claimed that foreign-owned companies face further information

[4] We acknowledge this useful suggestion by one of the reviewers to include firm-level analyses as a robustness test.

asymmetry problems because it is costly for foreigners to get more information about the company relative to local investors. Consequently, foreign investors are likely to exert external pressures for companies to adopt global standards that will reduce information asymmetry. Also, if foreign investors provide much of the capital, they will tend to bring in their home countries' practices into the company. In this case, *OWT* is measured as a dummy variable, equal to 1 if the nationality of the majority owner of the firm is different from the place of domicile of the firm and 0 otherwise.

Although the Big Four are not directly involved in the firm's decision-making process, they can effectively lobby firms to adopt global standards because of their experience (Bassemir, 2018) and the international network of IFRS experts. The Big Four firms also benefit from adoption of IFRS because they can draw from their global network of firms to undertake audits for multinational companies in Africa at a relatively low cost compared to other competing firms. Hence, the Big Four (*BIG4*) do exert mimetic pressure on firms to adopt IFRS (Assenso-Okofo et al., 2011). *Big4* is a dummy variable, with 1 = the company is audited by Big Four and 0 otherwise. Lastly, chartered accountants on board (*CAB*), in view of their professional affiliations, need to demonstrate high professional standards, inclusive of compliance with global standards. They are hence more likely to exert normative pressures on their firms to use IFRS. *CAB* is measured as the number of chartered accountants as a percentage of the total board size.

We also considered financial data, such as growth in revenue (*RG*), foreign sales (*FR*), leverage (*LEV*), and total assets (*TAA*). Financial variables were selected based on the findings of Bassemir (2018) and Francis et al. (2008), and they are limited to companies with available data. We also included control variables such as company size, with board size (*BS*) and listing status (*LS*). We collected data from 220 African companies in countries that permit IFRS for the

periods covering 2010 to 2015. The sample included both public and private companies. We admit that our measures of the institutional variables appear to be crude and hence, the results should be interpreted with caution.

The results of the multi-period logit regressions are presented in Table 7. M11 and M12 examine the association of firm-level institutional pressures and IFRS adoption decisions. M11 is a random effect, and M12 is fixed effect regression model. The coefficients of the models of firm-level institutional pressures are significant at 1% except for *OWT.* The results show that companies voluntarily adopting IFRS are characterized by a high number of chartered accountants on board. These results are consistent with the notion that IFRS is driven by normative pressures. Due to their professional qualifications and affiliations, chartered accountants are more likely to influence their companies to adopt IFRS to improve the quality of reporting. The coefficient of *BIG4* is positive and significant, as expected. Thus, firms that are audited by the Big Four are more likely to adopt IFRS, indicating how the Big Four firms exert some forms of memetic pressure on firms.

Against expectations, the insignificant coefficient of *OWT* implies that foreign-owned companies have a low propensity for adopting IFRS. The result is contrasted with Francis et al. (2008), who found a significant positive relationship between foreign ownership and IFRS adoption. We support our results with the argument that most of the foreign investors are from countries such as China, Canada, France, and the United States, which are not necessarily enthusiastic about IFRS.[5] More importantly, as majority shareholders, they hold key positions

[5] Relatedly, Nnadi and Soobaroyen (2015) find that, contrary to several worldwide studies, paradoxically, IFRS adoption is negatively associated to FDI levels in African countries. The authors inferred that foreign investors might be concerned with the costs of operating and the transparency implications of investing in African IFRS-adopting countries.

and thereby have access to internal information. Hence, there may be no need to request quality external reporting.

Next, in M13, we follow prior studies (Bassemir, 2018; Francis et al., 2008) to investigate the relationship between selected financial variables and the IFRS adoption decision of firms. The significant positive coefficients of both growth in revenue (*RG*) and leverage (*LEV*) imply that firms that require more financing have a greater propensity to adopt IFRS. This is consistent with the view that using IFRS improves financing through a reduction in the cost of capital and information asymmetry (Barth et al., 2008; Mazzi et al., 2017). The insignificant coefficient of foreign sales (*FR*) corroborates the results on foreign ownership (*OWT*). This is partly due to the fact that most companies do not have high levels of foreign sales or have few export trades to other African countries.

We combine both institutional and financial variables in M14. All the variables remain statistically significant and in the same direction as highlighted in M12 and M13. Furthermore, the Pseudo-R^2 for M14 (0.693) is higher than those of M12 and M13, although the number of observations is small. In sum, our analyses indicate that in addition to financial variables, institutional pressures do directly influence companies to voluntarily adopt IFRS, especially if the company is private or unlisted.

[Insert Table 7, Regression Results at the Firm Level]

6. Conclusion

Existing literature on IFRS has claimed that most countries, and in particular developing countries, adopt IFRS due to its substantive economic benefits, adoption by neighboring countries, and external pressures from IFIs in terms of loans and grants. However, our contention is that these findings are not self-evident for the African context, and many extant studies have

not directly examined Africa as a specific region. For example, common institutional variables, such as foreign aid, import penetration, secondary education, and market capitalization (Ben Othman & Kossentini, 2015; Judge et al., 2010; Koning et al., 2018; Ramman & Sletten, 2014; Stainbank, 2014; Zeghal & Mhedhbi, 2006), have been considered as explanatory variables, but we contend that some of the indicators are at the extreme lower end of the spectrum for African countries relative to other countries. Furthermore, during the past decade, more than 70% of countries worldwide have required the use of IFRS, and yet only 38% of African countries have mandated IFRS. This different trend in adoption suggests that there may be different dynamics that pertain to the African case, and this has motivated our study to analyze the specific driving forces behind the IFRS adoption decision within the continent. Informed by the neo-institutional perspective and therefore distinctively, we investigated the relevance of specific institutional pressures on IFRS adoption in Africa, controlling for other variables used in the literature.

Our findings reveal the relevance of coercive, mimetic, and normative pressures, respectively, in terms of (1) the role of ROSC reports issued by the WB and IMF; (2) the extent of the presence of international audit firms and the length of IFAC membership; and (3) the number of local professional accountants and degree of professionalization of the local PAOs. The nature of these pressures on IFRS in Africa is different from what has been reported in mainstream quantitative IFRS adoption studies and supports some of the country-level (qualitative) insights on IFRS adoption in developing and emerging countries (e.g., Hassan, 2008; Hassan et al., 2014; Nurunnabi, 2015). Furthermore, as a part of our robustness analyses, we were able to highlight the specificity of our neo-institutional proxies in the African context relative to prior studies (e.g., Ben Othman & Kossentini, 2015; Judge et al., 2010).

Our findings provide a number of implications. Firstly, it resonates with Chua and Taylor's (2008) critical claims about the rapid "rise and rise" of IFRS adoption and the relevance of the social and political dimensions behind the "IFRS globalization" project, in contrast to the mainstream economic motivations and discourses of foreign investment and stock market development. Such motivations and discourses appear to be merely symbolic and deployed as a way to justify prompt and rapid adoption. From this perspective, there are, however, lingering questions as to the speed with which African countries might be expected to adopt IFRS and the extent of these countries' preparedness for adoption (assuming it is at all needed). Secondly, and from a policymaking perspective, the results do reveal the relevance of crucial circuits by which the case for adoption can be made. Our evidence also indicates the important role of local accountants and PAOs in IFRS adoption. Hence, transnational governance bodies, international financial institutions, and national governments need to first consider the need for robust and in-depth capacity-building programs in accounting and enforcement expertise before proceeding towards IFRS adoption. One conjecture is that while IFRS adoption does appear to convey a strong legitimating signal for an African country and for its accounting community as a whole, the immediate benefits of such a rapid and unsupported adoption would most likely flow, almost exclusively, to a relatively small group of local IAF representatives and affiliate entities of IFRS-complying multinationals. This implies that relatively little benefit would come to the wider accounting profession and to the vast majority of local companies, which in turn may negatively impact a substantive, long-term, and in-depth national engagement with accounting standards.

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Tables

Table 1.0 Variable description and sources of data.

Determinants	Variable.	Acronym	Description	Data Source	Exp. Sign
Dependent	Country IFRS adoption status.	IFRS	A categorical variable measuring the level of IFRS adoption in a country. 0 – not permitted, 1 - permitted; 2 – required by some companies; 3 – required by all companies.	iasplus.com, IFRS.org, PWC, IFAC ROSC	
Coercive	Coercive score	COC	The average of TCC and ROSC rankings scaled to 0-1		Positive
	Total Commitments.	TCC	Total commitments disbursed by WB and IMF group to a country. Country *i* is ranked 0 if TCC <25th percentile; *i* = 1 if TCC>25th <50th ; *i* = 2, if TCC>50th <75th; *i = 3 if TCC >75th* <100th.	OECD statistics	
	Report on the Observance of Standards and Codes; Accounting and Auditing.	ROSC	The IMF & World Bank ROSC (AA) issued on the country. An ordinal variable of 0 – no ROSC on the country, 1 – ROSC issued on the country; 2 – ROSC recommended the development of accounting standard based on IFRS; 3 - ROSC recommended the adoption of IFRS.	ROSC website	
Mimetic	Mimetic Score	MIM	The average of IAF and IFAC rankings scaled to 0-1		Positive
	International Audit Firms	IAF	Number of the top 10 International Accounting Firms in the country. Rankings based on international audit firms were as follows country i =0 if IAF is 0-1; *i* = 1 if IAF 2-4 *i* = 2, if IAF is 5-7; *i = 3* if IAF is 8-10.	International Accounting Bulletin 2017	
	IFAC Membership	IFAC	Number of years a country has been a member of IFAC. Up to 2015. Country *i* is ranked 0 if IFAC <25th percentile; *i* = 1 if IFAC>25th <50th ; *i* = 2, if IFAC>50th <75th; *i = 3 if IFAC>75th* <100th	IFAC website	
Normative	Normative Score	NOR	The average of QA and PAO rankings scaled to 0-1		Positive
	Qualified Accountants	QA	Number of Qualified Accountants per listed companies. Rankings based on number of qualified accountants (QA) were as follows Country *i* is ranked 0 if QA <35th percentile; *i* = 1 if QA>35th <75th ; *i* = 2, if QA>75th <100th.	Country PAO websites, and annual reports	

	Professional Accountancy Organisation.	PAO	Measures the existence and strength of country PAO on the scale of 0-2, where 0-no PAO; 1- there is PAO but does not organize its professional examination; 2- PAO that organize its professional examination.	Country PAO websites, contacts and annual reports	
Control variables	Import Penetration	IMPT	The ratio of import value to commodities sold as a proportion of the gross domestic product.	WDI	Positive
	GDP growth rate	GR	Annual GDP growth rate.	WDI	Positive
	Market capitalization	MKC	Market capitalization as a percentage of GDP	WDI	Positive
	Foreign Ownership	FOO	Measures the prevalence of foreign ownership on a scale of 1-7	World Economic Forum	Positive
	Colonization	COL	Proxy for the colonial history of the country. 1 for all countries colonized by Britain and 0 for others.	Multiple sources	Positive

Table 2.0 Descriptive statistics of categorical variables

Variable	Categories	Frequency	Mean	Standard Err
	Non-Adopter (0)	31		0.0669
IFRS01	Adopters (1)	23	0.3889	0.0669
	Not permitted	25		0.0684
	Permitted	6		0.0487
IFRS0123	Required Some	5	1.2407	0.0359
	Required All	18		0.0637
	No ROSC issue	19		0.0655
ROSC	To improve	12		0.0571
	To develop IFRS	1	1.4814	0.0185
	To adopt IFRS	22		0.0675
	No PAO	12		0.0571
PAO	PAO no Training	29	1.0185	0.0684
	PAO & Training	13		0.0587

Notes: IFRS01 – binary coding where 0 – if a country has not adopted IFRS. 1 – if the country has adopted IFRS. IFRS0123 – order of 0, 1, 2 3. '0'= IFRS not permitted; '1' IFRS permitted; '2'= IFRS required by some companies; '3' = IFRS required by all companies. ROSC – Recommendations of ROSC (AA) reports. PAO – the strength of Professional Accounting Organisation

Table 3. Descriptive statistics of continuous variables

Variable	OBS	Mean	Std. Dev	Min.	Max
COC	270	1.490	0.944	0	3
MIM	270	1.166	1.032	0	3
NOR	270	0.962	0.685	0	2
TCC	270	3010.19	3173.866	30.75	13523.82
IAF	270	4	3	0	10
IFAC	270	9.6851	13.4302	0	38
OA	270	3,475	12,237	10	67,890

Notes: COC – Coercive score on an ordinal scale of 0-3. MIM-Mimetic score on an ordinal scale of 0-3. NOR – Normative score on an ordinal scale of 0-2. TCC - Total Commitments (in a million US$). IAF- Number of the top 10 International Audit Firms. IFAC- IFAC membership. QA - Number of Qualified Accountants. IMPT – Import Penetration. GR – GDP Growth Rate.

Table 4. Pairwise correlation between variables.

Variable	IFRS01	IFRS0123	TCC	ROSC	IAF	IFAC	QA	PAO	IMPT	GR
IFRS01	1.00									
IFRS0123	0.95***	1.00								
TCC	0.16	0.22	1.00							
ROSC	0.54***	0.55***	0.40***	1.00						
IAF	0.67***	0.69***	0.46***	0.54***	1.00					
IFAC	0.56***	0.54***	0.39***	0.40***	0.58***	1.00				
QA	0.41**	0.29**	0.21	0.24*	0.43****	0.55***	1.00			
PAO	0.65***	0.64***	0.50***	0.59***	0.74***	0.68***	0.35**	1.00		
IMPT	-0.02	-0.04	-0.47**	-0.14	-0.0725	-0.08	-0.16	-0.21	1.00	
GDR	0.28**	0.37****	0.45***	0.40***	0.311**	0.23*	0.04	0.34**	-0.05	1.00
COL	0.657***	0.725***	0.469***	0.518***	0.405***	-0.053	-0.102	0.298	0.464	0.067

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

Table 5. Country-level regression results.

		Main results		Robustness check	
Variables	**Isomorph.**	**Logit (M1)**	**Logit (M2)**	**Ordered logit (M3)**	**Ordered logit (M4)**
TCC	Coercive	-0.003		-0.000	
		(-0.09)		(-0.52)	
ROSC	Coercive	0.446***		0.522***	
		(6.60)		(3.95)	
IAF	Mimetic	0.551***		0.552**	
		(9.50)		(2.13)	
IFAC	Mimetic	0.030***		0.069**	
		(3.08)		(1.96)	
PAO	Normative	0.908***		1.293**	
		(4.46)		(2.29)	
QA	Normative	0.071***		0.002**	
		(3.32)		(2.13)	
COC	Coercive		1.934***		2.662***
			(10.62)		(2.60)
MIM	Mimetic		2.557***		4.091***
			(7.59)		(3.31)
NOR	Normative		2.252***		1.028**
			(5.37)		(2.25)
COL		4.334**	0.763***	3.987***	0.324***
		(2.34)	(8.65)	(3.86)	(4.13)
IMPT		0.064*	0.045*	0.031*	0.025
		(1.74)	(1.64)	(1.81)	(1.48)
GR		0.147*	0.076	0.057	0.056*
		(1.90)	(1.12)	(0.21)	(1.73)
MKT		0.053**	0.002*	0.121**	0.002**
		(2.08)	(1.85)	(2.13)	(2.20)
FOO		0.035	0.090	0.025	0.420
		(0.21)	(1.07)	(1.14)	(1.70)
Constant		-9.076***	-11.45***		
		(-3.51)	(-5.13)		
Year fixed effect		Yes	Yes	Yes	Yes
Number of obs.		270	270	270	270
Number countries		54	54	54	54
Pseudo R^2		0.6870	0.4158	0.4705	0.2562

Notes: This table reports estimates of multi-period, logit and ordered logit models with time-varying covariates for the likelihood of adopting IFRS at country level for the full sample. Model 1 is logit regression and Model 2 is ordered logit regression for the main results. Models 3 and 4 are is logit regression and Model 2 is ordered logit regression respectively for robustness check where COC, MIM, and NOR are scaled to 0-1. The models include all observations available from 2010 to 2015. Explanatory variables are measured contemporaneously with IFRS years, i.e. they are not lagged. For variable definitions, see Table 1. Z-statistics are presented in parentheses. Stars indicate statistical significance: *p < .1, **p < .05, ***p < .01.

Table 6.0 Comparison with prior studies (using logit regression where IFRS 0 or 1)

Variables	Isomorph.	Judge et al. 2010 study M5	M6	M7	Kossentini &Othman M8	M9	M10
COC	Coercive	0.691**			0.071		
		(2.40)		0.767**	**		0.650***
				(2.05)	(2.17)		(4.47)
MIM	Mimetic	1.19***			0.920		
		(3.15)		0.467***	**		0.705***
				(3.29)	(2.20)		(3.53)
NOR	Normative	0.128**			1.348		
		*		0.505**	**		0.955***
		(4.19)		(2.55)	(2.02)		(3.21)
Judge et al. (2010)							
FORAID	Coercive		-0.028**	-0.018**			
			(2.01)	(2.28)			
IMPT	Mimetic		0.001	0.050			
			(0.45)	(1.53)			
SECON	Normative		0.055	0.033			
			(1.09)	(0.90)			
Kossentini & Othman 2015							
FAROSC	Coercive					0.022	0.022
						(0.76)	(1.55)
BIGTRFF	Mimetic					0.083*	0.060
						(1.72)	(1.14)
QAIFAC	Normative					0.001	0.000
						(1.18)	(0.58)
Number of observations		54	54	54	324	324	324
Number countries		54	54	54	54	54	54
Pseudo - R^2		0.3664	0.1442	0.4965	0.336	0.2152	0.3915

Notes: This Table reports the logit estimates of single period and multi-period with time-varying covariates for the likelihood of adopting IFRS at country level for different sample size and period in comparison to Judge et al. 2010 and Kossentini & Othman (2015). Models 5-7 contains results of cross-sectional data using 2008 as adoption year and averages as done in Judge et al. 2010. M5 contains results using our variables. M6 contains results using the Judge et al. variables. Model 7 contains results using our variables and that of Judge et al. (2010). Models 8 -10 contain the results of pool-data data from 2005-2010. M8 contains results using our variables. M9 contain results using the Kossentini & Othman. variables. M10 contains results using our variables and that of Kossentini & Othman. For variable definitions, see Table 1 and Table 8. Z-statistics are presented in parentheses Stars indicate statistical significance: *p < .1, **p < .05, ***p < .01.

Table 7.0. Regression results at firm-level.

Variables	Institutional variables (RE) M11	Institutional variables (FE) M 12	Financial variables (FE) M 13	Institutional & Financial (FE) M 14
OWT	0.61	0.41		0.35
	(1.54)	(0.82)		(1.19)
BIG4	1.96***	2.18***		3.13***
	(3.13)	(3.25)		(4.44)
CAB	5.65***	3.73***		2.37**
	(3.18)	(2.93)		(1.99)
BS	1.26	0.97		0.71
	(1.17)	(1.02)		(1.46)
LS	4.06***	3.26***		3.21***
	(2.78)	(2.81)		(2.87)
RG			0.72***	0.63**
			(2.32)	(1.77)
FR			0.031	0.053
			(0.98)	(1.27)
LEV			3.15***	1.73**
			(5.26)	(2.05)
TAA			1.96***	2.23***
			(3.99)	(4.61)
Time dummy	Yes	Yes	Yes	Yes
Pseudo R^2		0.451	0.523	0.693
Observations	1,100	1,100	485	485
Firms	220	220	97	97

Notes: This table reports estimates of multi-period logit models with time-varying covariates for the likelihood of adopting IFRS for at firm level. Except for M11, all models are firm fixed-effects (FE) logit model. The models include all observations available from 2010 to 2015. Explanatory variables are measured contemporaneously with IFRS years, i.e. they are not lagged. *OWT* – Ownership type = 1 if the majority shareholder is foreign national or institution or 0 otherwise. *BIG4* - 1 = if the company is audited by *Big4* or 0, otherwise. *CAB* - the number of chartered accounts as a percentage of the total board size. *BS* – board size measured as number of directors. *LS* – 1 if the firm is listed firm and 0 otherwise. *RG* – percentage growth in revenue. *FR* – percentage of sales from organization foreign countries. *LEV* – debt to capital ratio. *TAA* – Log of total assets. Z-statistics and are presented in parentheses. Stars indicate statistical significance: *p < .1, **p < .05, ***p < .01.

Appendix A. IFRS adoption status of African countries.

Required for all companies (3)	**Required for some companies (2)**	**Permitted (1)**	**Not permitted (0)**
Botswana [1] (2004)	Eritrea[2] (2008)	Cabo Verde[4] (2010)	Algeria[2]
Ghana[1] (2007)	Gambia[1] (2013)	Djbouti[4] (2013)	Angola[1]
Kenya [1] (1999)	Liberia[2] (2012)	Ethopia[4] (2005)	Benin[1]
Lesotho[1] (2002)	Morocco[2] (2008)	Libya[4] (2005)	Burkina Faso[1]
Malawi[2] (2002)	Seychelles[4] (2004)	Madagascar[1] (2013)	Burundi[1]
Mauritius[1] (2002)		South sudan[4] 2013	Cameroon[1]
Mozambique[2] (2011)			Central Africa[1]
Namibia[1] (2005)			Chad[3]
Nigeria[1] (2012)			Comoros[1]
Rwanda[1] (2009)			Congo Republic[1]
Sénégal[1] (2014)			Congo DR[1]
Sierra Leone[1] (2009)			Cote Divore[1]
South Africa[1] (2005)			Egypt[1]
Swaziland[1] (2010)			Equatorial Guinea[1]
Tanzania[1] (2004)			Gabon[1]
Uganda[1] (1998)			Guinea[1]
Zambia[1] (2005)			Guinea Bissau[1]
Zimbabwe[1] (1996)			Mali[1]
			Mauritania[2]
			Niger[1]
			Sao Tome[3]
			Somalia[4]
			Sudan[4]
			Togo[4]
			Tunisia[3]

Sources:

1. *IFRS.org/use around the world.*
2. *iasplus.com*
3. *PWC- IFRS adoption by countries*
4. *Other sources (ROSC (AA, IMF reports, articles Memos, etc)*

In some cases, we collect the year of adoption from sources other than the source of adoption status.

Appendix B. Description of variables used in prior studies

Judge et al. 2010 variables.		
Coercive isomorphism	Foreign aid (FORAID)	It is computed as the average proportion of foreign aid relative to the gross domestic product during the period of 2003–07
Mimetic isomorphism	Import penetration (IMPT)	we used the average important penetration from 2003–06.
Normative isomorphism	Education (SECON)	the enrolment in secondary schools as a percentage of the total population in the age group for secondary education in 2004.
Kossentini and Othman (2015)		
Coercive isomorphism	Interaction of ROSC and foreign aid (FAROSC)	Indicator proxy of ROSC reports foreign aid as a percentage of GDP
Mimetic isomorphism	Interaction of BIG4 and Trade freedom (BIGTRFF)	the number of BIG 4 offices over the population in millions. Trade freedom
Normative isomorphism	Interaction of IFAC and number of CPA over the population in million (QAIFAC)	we include the indicator proxy of IFAC membership we consider the proxy of the number of CPA's over population in millions as an indicator of accounting development.