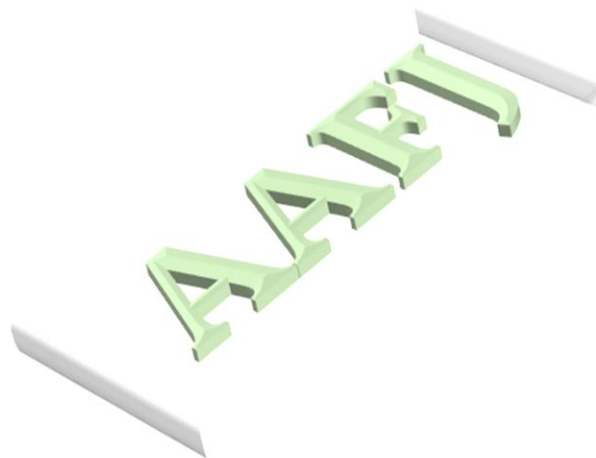


African Accounting & Finance Journal

Volume 6, Number 1 | October 2024



African Accounting and Finance Journal Vol. 6, No.1 2024

© African accounting and Finance Association

ISSN 2683-6599

African Accounting and Finance Journal (AAFJ)

Editor-in-Chief

Collins Ntim, University of Southampton, UK

Senior Editors

Stephen K. Nkundabanyanga, Makerere University Business School, Uganda

Yinka Moses, Victoria University Wellington, New Zealand

Philippe Lassou, University of Guelph, Canada

Kelum N. Jayasinghe, University of Sheffield, UK

Aziza Laguecir, EDHEC Business School, France

Musa Mangena, University of Nottingham, UK

Emmanuel Adegbite, University of Nottingham, UK

Associate Editors

Kemi Yekini, Aston University, UK

Ellie Chapple, Queensland University of Technology, Australia

Noor Houqe, Massey University, Auckland, New Zealand

Danson Kimani, University of York, UK

Sedzani Musundwa, University of South Africa, South Africa

Sarah Lauwo, Robert Gordon University, UK

Samuel Fosu, University of Sussex, UK

Konan Anderson Seny Kan, Grenoble Ecole de Management, France

Henry Agyei-Boapeah, University of Essex, UK

John Kalimilo Malagila, University of Essex, UK

Mohamed Elmagrhi, University of Swansea, UK

Tunyi Abongeh, Swansea University, UK

Ernest Ezeani, Heriot-Watt University, UK

Franklin Nakpodia, Durham University, UK

Editorial Assistant

Doreen Musimenta, Makerere University Business School, Uganda

Online and Social Media Assistant

Frank Kabuye, Makerere University Business School, Uganda

Editorial Board

Teerooven Soobaroyen, Aston University, UK

Irene Nalukenge, Makerere University Business School, Uganda

David Mathuva, Strathmore University, Kenya

Serge Agbodjo, University of Toulouse3 Paul Sabatier, France

Joseph Olorunfemi Akande, Walter Sisulu University, South Africa

Uwuigbe Olubukola Ranti, Covenant University, Nigeria
 Ainul Islam, Victoria University of Wellington, New Zealand
 Innocent Okwuosa, Pan-Atlantic University, Nigeria
 Ernest Gyapong, Alfaisal University, Saudi Arabia
 Olayinka Erin, University of South Africa, South Africa
 Pawan Adhikari, Essex University Business School, UK
 Gloria Agyemang, Royal Holloway, University of London, UK
 Bedanand Upadhaya, University of Essex, UK
 Robert Faff, Bond University, Australia

Editorial Advisory Board

Trevor Hopper University of Sussex
 Charles H. Cho, Schulich School of Business York University, Canada
 Venancio Tauringana, University of Southampton, Southampton, UK
 Mariaan Roos, Stellenbosch University, South Africa
 Mathew Tsamenyi, China Europe International Business School (CEIBS), Ghana
 Lesley J. Stainbank – University of KwaZulu-Natal, South Africa
 Giuseppe Grossi, Nord University (Norway) & Kristianstad University (Sweden)
 Jane Ande, University of Jos, Jos, Nigeria
 Hisham Farag, University of Birmingham, UK
 Neema Mori, University of Dar es Salaam Business School, Tanzania
 Lisa Jack, Portsmouth Business School, UK
 Phillip De Jager, Department of Finance and Tax, University of Cape Town
 Susela Devi K Suppiah, Sunway University Business School, Malaysia
 Dandre Van Der Merwe, Stellenbosch University, South Africa
 Elewechi Okike, International Centre for Research in Accountability and Governance, UK
 E.G. Kitindi University of Dar es Salaam Business School, Tanzania
 Alain Kenmogne Simo, Université de Yaoundé II, Cameroon
 Kemo Balde, CESAG Business School, Senegal
 Joshua Abor, University of Ghana, Ghana
 Danture Wickramasinghe, University of Glasgow, UK.
 Sulait Tumwine, Makerere University Business School, Makerere University, Uganda
 Chandana Alawattage, University of Glasgow, UK.
 Wafa Khlif, Université de Tunis – Tunis
 Hakim Ben Othman, the American University of Malta, Malta
 Abu Shiraz. Rahaman, Haskayne School of Business, University of Calgary

Contents

African Accounting and Finance Journal (AAFJ).....	1
Editor-in-Chief.....	2
Senior Editors	2
Associate Editors	2
Editorial Assistant.....	2
Online and Social Media Assistant	2
Editorial Board	2
Editorial Advisory Board	3
Epistemic freedom and situated theoretical perspectives in accounting research in African contexts ...	5
Corporate environmental reporting practices and performance of listed manufacturing companies in Nigeria	18
IFRS in Africa: Driving factors and consequences of adoption.....	42
Assessment of budget compliance: Evidence from the Nigerian public sector	72

Epistemic freedom and situated theoretical perspectives in accounting research in African contexts*

Professor Aziza Laguecir

EDHEC Business School, France

Email: aziza.laguecir@edhec.edu

*This paper contains reflections from Professor Aziza Laguecir, EDHEC Business School, France, keynote speaker's speech from the 2023 African Accounting and Finance Association (AAFA) Annual Conference held at the China Europe International Business School (CEIBS) in September 2023, Accra, Ghana. This is the first in the series of keynote speaker speeches to be published in the African Accounting and Finance Journal (AAFJ).

Acknowledgements: I would like to thank the organising committee of the 2023 African Accounting and Finance Association (AAFA) Annual Conference held at the China Europe International Business School (CEIBS) in September 2023, Accra, Ghana, for their invitation. I am grateful to Teerooven Soobaroyen for introducing me to this fantastic community, Mathew Tsamenyi and Victoria Attakpah for hosting the conference and welcoming me to Ghana, the presidents of AAFA, Mariaan Roos and Stephen Nkundabanyanga and its vice-president, Yinka Moses and Collins Ntim for providing this forum. I benefited from the funding of the European Accounting Association.

Abstract

Purpose: This essay advocates for epistemic freedom and the development of situated theoretical perspectives in accounting research relevant to African contexts. The paper underscores the urgent need to move away from the dominance of Global North frameworks, which often impose ethnocentric perspectives on African accounting practices, and foster research grounded in Africa's socio-political, economic, and cultural realities. The essay argues for the critical need for context-specific theorising in African accounting informed by African intellectual traditions.

Methodology: The paper is a reflective essay that intends to decolonise the study of accounting in Africa, allowing for more relevant and diverse insights into the continent's accounting practices and phenomena. It encourages African scholars to embrace their own intellectual heritage and contribute original, contextually grounded theories to the field.

Findings: The essay outlines that despite the increasing attention paid to African contexts, most accounting and finance research on Africa applies Global North theoretical frameworks without considering African countries' specific socio-cultural and political contexts. This results in a limited understanding of Africa's accounting and finance practices and phenomena. The findings highlight the importance of African scholars taking inspiration from local intellectual traditions, philosophers, and social theorists to develop more relevant theoretical frameworks. The paper suggests drawing upon frameworks from prominent African intellectuals to shape more relevant and contextually grounded research.

Implications (optional): By advocating epistemic freedom, the paper encourages African scholars to rethink and reshape accounting theories to suit their contexts better, resisting the colonial legacy in academic research. The paper finally calls for a decolonial approach to finance and accounting research, urging a shift from the imposition of Global North theories to creating knowledge that reflects Africa's realities.

Originality: This essay's originality lies in its emphasis on decolonising accounting research by fostering situated theoretical perspectives based on African contexts. It highlights the gap in African accounting research and proposes a movement toward epistemic freedom. Furthermore, it advocates for embracing African philosophical and intellectual contributions, a novel approach that challenges the dominant Global North paradigms in accounting research.

1. Introduction

This paper reflects my keynote address at the esteemed African Accounting and Finance Association in 2023 in ACCRA, Ghana. The title of my speech was "Contemporary Issues in Qualitative Research: insights into the African Contexts." This address was a significant platform to discuss the scarcity of research on African countries in accounting and finance.

As a scholar from the Algerian diaspora in France, I often found it challenging to find platforms to express my ideas and interests in African contexts. The invitation to speak at the African Accounting and Finance Association in 2023 in ACCRA, Ghana, was a pivotal opportunity for which I am deeply grateful and appreciative.

Upon reviewing the relevant accounting literature, a stark reality emerged—there is a significant scarcity of research on African countries. As some scholars (Lassou et al., 2021; Ashraf et al., 2019) have pointed out, the volume of accounting research on African countries remains notably low while showing some improvement. Their review of 13,805 articles from 2009 to 2018 in accounting journals (categorised as A*, A and B by the 2016 Australian Business Deans Council ranking) revealed that a mere 190 articles (1.38%) were dedicated to African contexts, with a predominant focus on Anglophone African countries. These findings also converge with more recent work (Moses and Hopper, 2022; Agbodjo and Seny Kan, 2024).

While examining this research, I noticed that I could distinguish two types of research. On the one hand, conventional research used data from African contexts (e.g., Goddard & Juma Assad, 2006; Neu, Rahaman, & Everett, 2010; Rahaman, Lawrence, & Roper, 2004; Shiraz Rahaman, Everett, & Neu, 2007). Here, the African context is treated chiefly empirically with a traditional theorisation. For instance, the paper by Rahaman et al. (2004) deals with social and environmental disclosure and corporate disclosures, conceptually drawing upon a combination of institutional theory and legitimation theory to analyse social and environmental reporting at the Volta River Authority (VRA), a Ghanaian public sector organisation. In their paper, Neu et al. (2010) investigate social purpose inter-organisational alliances. They draw empirically upon the fight against HIV/AIDS in Ghana to examine how accounting practices are used to arrange, coordinate, and control a geographically dispersed and heterogeneous group of actors involved in this fight. Whereas the World Bank is central in both empirical inquiries, the two papers used African data without further reflection on the specificities of such contexts, empirically and theoretically. However, I remember reading these papers and thinking Africa could provide fruitful empirical inquiries in leading journals. On the other hand, I identified a

body of research which explores Africa and its specificities, adopting an emerging countries perspective, which provided an overview and calling for future research (e.g., Nyamori, Abdul-Rahaman, & Samkin, 2017; Soobaroyen, Tsamenyi, & Sapra, 2017). This body of research provides an overview and calls for future research that explores the specificities of African contexts, inspiring a sense of possibility and potential for growth in the field.

I also found special issues on Africa in the 2010 issue of *Critical Perspectives on Accounting*, the 2017 issue of *Accounting, Auditing & Accountability Journal*, and the 2021 issue of *Critical Perspectives on Accounting*. I also found some interesting literature reviews (Seny Kan, Agbodjo, & Gandja, 2021; Ndemewah & Hiebl, 2022; Rahaman, 2010) showing that accounting scholars are paying increasing attention to African contexts. Interestingly, this attention was overwhelmingly empirical, with studies using widespread theorising. Indeed, many studies conceptually draw from new institutionalism (e.g., Mkasiwa, 2022; Mzenzi & Gaspar, 2022; Rozenfeld & Scapens, 2021). For instance, Rozenfeld and Scapens (2021) show selective coupling and differences in institutional logic at inter-organisational and individual levels in Ghana; Abdul-Baki, Uthman, and Kasum (2021) look at the institutionalisation of corruption in an oil subsidy scheme in Nigeria; Jayasinghe et al. (2021) combined epistemic communities, institutional logics and selective ignorance to analyse public sector financial reporting in ten Sub-Sahara African countries; and more recently Ghattas, Soobaroyen, and Marnet (2024) use the institutional void perspective to conceptualise the intervention of private actors as well as to articulate the elements of a void in an audit regulatory process, in an Egyptian context.

Furthermore, other studies empirically draw from Foucauldian perspectives (Alawattage & Azure, 2021; Azure, Alawattage, & Lauwo, 2024), Debord concept of spectacle (Ghattas, Soobaroyen, Uddin, & Marnet, 2024), structuration (Uddin & Tsamenyi, 2005), or political economy perspectives (Ghattas, Soobaroyen, & Marnet, 2021; Lassou & Hopper, 2016). These studies illustrate theoretical pluralism but highlight the urgent need for a more diverse theoretical perspective. The accounting research on Africa overwhelmingly uses Global North theorisation (Bryer, 2023; Sauerbronn, Ayres, da Silva, & Lourenço, 2021), denoting ethnocentrism giving the illusion of universalism, where Africa tends to be regarded monolithically, with scant consideration given to the diverse realities of its many and varied countries (Lassou, Hopper, & Ntim, 2017, 2021a). Neocolonialism is not only at play in the accounting systems and practices (Lassou & Hopper, 2016) but also in the accounting academia.

There are notable exceptions of accounting studies using theorisation or conceptual categories developed in or from African contexts. These theorisation include, for example, neopatrimonialism (e.g., Bakre & Lauwo, 2016; Kimani, Ullah, Kodwani, & Akhtar, 2021; Lassou & Hopper, 2016; Lassou, Hopper, Soobaroyen, & Wynne, 2018), the two publics concepts by Ekeh (1975) (Goddard, Assad, Issa, Malagila, & Mkasiwa, 2016; Lassou, Hopper, & Ntim, 2021b; Lassou, Sorola, Senkl, Lauwo, & Masse, 2024), and perspective derived from Bourdieu's work¹ (Goddard, 2021; Nyamori & Gekara, 2016; Neu, Rahaman, & Everett, J., 2010). These theoretical perspectives are instrumental in investigating African phenomena, providing relevant lenses rather than imposing Western ones (Alawattage, Wickramasinghe, & Uddin, 2017; Grossi et al., 2023).

The core of my keynote was arguing for situated theorising for and of the African context. Following the South American movement (Sauerbronn et al., 2021), I compel my fellow scholars (be they African, situated in or studying African contexts) to embrace the theoretical diversity and richness of our motherland, Africa. Hopper, Tsamenyi, Uddin, & Wickramasinghe (2012) advocate improving and

¹We consider Bourdieu's theorisation an African one, as it was developed during his PhD to conceptualise phenomena observed in Algeria.

strengthening accounting systems in emerging countries by adopting context-specific solutions (systems), involving local populations rather than externally imposed solutions (based on Western ideologies and practices), strengthening the contribution and capabilities of emerging countries (through training) and improving coordination at global level. Hopper and colleagues' (2015) reflection offers an opportunity for accounting researchers in the African contexts to draw on the wealth of disciplines in the African humanities and social sciences to make sense of accounting practices in Africa.

In this perspective, I review some authors and their African-based theorisations, which I hope may stimulate further theoretical pluralism more aligned with African contexts. Among the numerous great African thinkers, I have selected five of them. Of course, this selection of thinkers (both anglophone and francophone) is not exhaustive and far from being unbiased, as it reflects my readings, personal interests, and limited knowledge. Among these authors, you can find male and female philosophers, historians, and economists from all parts of Africa, from the diaspora, or not African by birth but by heart (to quote Nkrumah). I am happy to briefly present some of the most influential, prolific African thinkers: Frantz Fanon, Thomas Sankara, Peter Ekeh, Fabien Eboussi Boulaga, Sabelo Ndlovu-Gatsheni, Jean-Godefroy Bidima, Achille Mbembe, Souleymane Bachir Diagne, and Nadia Yala Kisukidi. Of course, this list is not exhaustive.

2. The early thinkers: colonialism and decolonialism

2.1 Frantz Fanon: a psychological approach of colonialism and the double alienation

Fanon is a native of the French West Indies (la Martinique) who became an Algerian citizen later. He studied medicine in France and specialised in psychiatry while taking courses in literature and philosophy. In 1952, he published *Peau noire, masques blancs* (Fanon, 2015), in which he questions the notions of identity, assimilation, and racism against black people through his experience as a West Indian born in Martinique and settled in France.

In 1953, he became head of the Blida Psychiatric Hospital in Algeria. When the Algerian War broke out, he treated French soldiers during the day and National Liberation Front fighters at night. Confronted with colonial society's injustices and the neuroses of the populations who suffered them, he developed methods to treat the psychological effects of the colonial system on the colonised, in particular depersonalisation and dehumanisation, which made the colonised man, being infantilised, oppressed, rejected, dehumanised, acculturated, alienated, suitable for being taken care of by the colonising authority. He highlighted the psychological processes by which the colonised interiorises the domination and the centrality of violence in colonialism.

Interestingly, he highlighted a dual alienation: the consciousness of black individuals, making them feel inferior and dehumanised, and the consciousness of the whites, making them feel superior and in charge of the colonised. Fanon wrote some of the most influential texts of the anti-colonialist movement, such as *Year V of the Algerian Revolution* (1959) and *The Wretched of the Earth* (1961). Fanon's approach to questions of identity, race, and domination, nourished by his experience as a psychiatrist, as an uprooted West Indian, and as an anti-colonialist activist, made him a pioneer of postcolonial studies and a critical thinker of black identities in the face of society's racism.

2.2 Thomas Sankara: intersectionality and eco-feminism precursor

Thomas Sankara, a Burkina Faso leader and political thinker, is well-known for his early theorisation of eco-feminism and his fight against imperialism. Staging a successful coup in August 1983, he became

the President of the Upper Volta (today Burkina Faso), leading decolonial progressive policies. Sankara argued that Africa's development relied upon two axes: internal transformation and opposition to corrupt forces (in line with Fanon, Sankara considers corruption as a product of colonialism) and resistance and freedom from the imperialism of the North. He notably changed the country's name to Burkina Faso, i.e., the land of the upright people (in the two primary languages of the country, Mòoré and Dioula), and made his country self-sufficient.

His perspective on women's emancipation and their role in the State's construction are considered the premisses of intersectionality (Ferdinand, 2019). Sankara was a precursor of ecology, feminism, and social and participative democracy. In the 80s, Sankara became the first president to combat the impending threat of desertification. In his view, the patriarchal society in Burkina Faso was a product of capitalism and colonial rule, and Burkinabé men only had sexist ideology because of their underlying social conditions. Sankara's vision of liberating women was also not limited to the confines of Burkina Faso, he recognised that it was a worldwide struggle, a disproportionately struggle for black women in black minority countries.

He was also exemplary in his fight against corruption and responsible governance (cutting the salaries of government officials, including his own, and reducing all presidency-related expenses to the bare minimum). He massively invested in people's education with a pioneering movement in the education system. His intersectional position is also reflected in his Pan-Africanism, anti-imperialism, communism, and anti-corruption fight. In line with Fanon's perspective, Sankara raised criticism regarding black enablers of imperialism.

2.3 Peter Ekeh: an African theorisation of the public and the state

Peter Ekeh is a native of Nigeria and a thinker on African civic citizenship (Ekeh, 1975). According to Ekeh, post-colonial states do not have one civic public like in Western states. Instead, they comprised *two publics* with different rights and citizenship obligations. The primordial public is built on ethnicity and traditional values, ethics, and morals. Good citizenship is constructed around a moral obligation to advance the security of the ethnic group. The civic public, an imported colonial structure based on the Western state, is considered amoral. It lacks the legitimacy to shape societal morality and cosmopolitan citizenship. The civic public is used for gain to benefit the primordial public. These two publics collectively shape socio-political African citizenship and create a contested sense of what is a good citizen.

As mentioned above, accounting scholars have used Ekeh's conceptualisation of the public to investigate the public sector in Tanzania, combined with the New Institutional theory (Goddard et al., 2016) and the Benin state audit failure in the fight against corruption (Lassou et al., 2021b). While the relevance of this theorisation has been demonstrated, I suggest that this specific conceptualisation of the state and the public may also be instrumental in understanding broader traditional contexts in emerging countries.

2.4 Fabien Eboussi Boulaga: the Muntu, a philosophy of the human being in African conditions

Eboussi Boulaga is a Cameroonian philosopher. His work is at the crossroads of political science, philosophy, and theology, and it has built up the foundations of a rigorous African philosophical practice free from the burdens of rationality (Eboussi Boulaga, 1993, 2014). Eboussi Boulaga examined the effects of colonisation on African culture, societies, and knowledge (Eboussi Boulaga, 1993, 2014). His

work also explores the materiality of the political sites where the future of the African continent is played out.

Fabien Eboussi Boulaga's work spans different periods of African history, from the colonial era to the era of violence ushered in by the arbitrary rule of certain post-colonial African states. His reflections lie on existential questioning, which goes beyond the objective analysis of the African postcolonial condition to examine how the colonial fact attacked subjectivities, conveying a type of trauma whose multiple expressions work on the psyche, bodies, interpersonal relationships and contemporary forms of culture.

Eboussi Boulaga rejects the traditional Cartesian philosophy, intimately linked to the history of the West, to develop his concept of *Muntu*, 'The Muntu is the man in the African condition who must assert himself by overcoming that which challenges his humanity and endangers it', the human being in the African condition. Eboussi Boulaga argues that to conform to Western philosophy, the Muntu must renounce his own memory, traditions and desires. Eboussi Boulaga initiates a practice of philosophy that assumes and testifies to the singularity of the African situation today, with the Muntu being the subject and object of his reflection and discourse. Fabien Eboussi Boulaga shows how the Muntu's practice of philosophy can be a practice of emancipation and freedom and a creative practice that assumes all his historical determinations, a path for de-domination.

3. The contemporary African thinkers: thinking the African societies

3.1 Sabelo Ndlovu-Gatsheni: epistemic freedom

Ndlovu-Gatsheni is a historian from Zimbabwe. His work mainly deals with epistemic freedom in Africa (Ndlovu-Gatsheni, 2018). In his seminal book, *Epistemic Freedom in Africa: Deprovincialization and Decolonisation* (2018), Ndlovu-Gatsheni argues that epistemic freedom in Africa is about the struggle for African people to think, theorise, interpret the world and write from where they are located, unencumbered by Eurocentrism. He further argues that the imperial denial of common humanity to some human beings meant that, in turn, their knowledge and experiences lost their value, their epistemic virtue.

In a later work (Ndlovu-Gatsheni, 2013), *Coloniality and Power in Postcolonial Africa: Myths of Decolonization*, he suggests an interesting concept of coloniality. Ndlovu-Gatsheni suggests that the decolonisation of Africa is a myth, the continent's freedom an illusion. The independence of African nations has not put an end to relations of domination, which is evidenced by the imposition of economic sanctions or military interventions on the continent in the name of human rights, democracy or the fight against terrorism. He then argues that the relations between the West and Africa are relationships of *coloniality*, which refers to the planetary articulation of a Western power system which survived colonialism.

Actively promoting an interdisciplinary approach, Sabelo Ndlovu-Gatsheni calls for a decentring of the gaze, a departure from the academic spaces forged by a European world engaged in a project of imperial conquest, and an exploration of the margins and frontiers. He further argues that violence is not just physical or psychological; it is also epistemic, and he calls for the development of new concepts and new intellectual frames of reference to build a humanity based on equity, social justice, ethical coexistence, and end-class and race relations.

3.2 Jean-Godefroy Bidima

Jean-Godefroy Bidima is a Cameroonian philosopher who strives to read our world through its imaginary worlds and the asymmetrical relationships and domination that structure it. An expert of the Frankfurt School (Bidima, 1993), he is a full professor at Tulane University in New Orleans. In his prolific work, Bidima examines African and global realities through the unspoken, deconstructs pretences, and questions the interstices and margins.

In particular, he outlines the domination of Western instrumental rationalism and the violence imposed by the related managerial spirit (Bidima & Zoungbo, 2017). Bidima raises concerns about the notion of development and its instrumental calculative reasoning. In his writings on Negro-African philosophy (Bidima, 1993, 1995), Jean-Godefroy Bidima developed the concept of ‘traversée’, which refers more to an attitude to reality, a desire to detect the multiple and the diverse, to perceive the potential and the unexpressed, to untangle the confused and the unspoken to allow the possible to blossom and which makes room for emancipating utopias. Achille Mbembe shares this perspective.

In his approach, Bidima seems to stress heavily on the very nature of the African, his being in the world and his right to assert his existence. Far from what others say, what does the African say about himself? He says: “The essential thing is not so much what is said about African art as what Africans say about themselves. So, what are the denials at work when an African today talks about his art or makes it talk? Drawing upon this presupposition, Bidima thus enters into the debates surrounding the idea of the debates surrounding the idea of an African philosophy.

3.3 Achille Mbembé

Achille Mbembe is a Cameroonian philosopher and political scientist. Mbembé is a professor of history at the University of the Witwatersrand in Johannesburg and Duke University. Despite not claiming it, he is considered a specialist in postcolonial theory (Mbembé, 2000). Influenced by Frantz Fanon, he defends Afropolitanism. He takes a sharp, uncompromising look at our world, which, he reminds us, was built on racism and the commodification of the black body (Mbembe, 2013a).

He repeatedly argues that Europe has lost its international leadership, and in this economic and political reconfiguration, the future of humanity is being shaped on the continent (Mbembe, 2013b). Mbembe argues that at a time when identity-based tensions are on the rise, when the battle of all against all is raging, and democracies, in the name of the war on terror (Membe, 2016), are ready to call into question their very foundations, there is an urgent need to build an Africa that is tolerant, open and Creole. An ‘Africa-world’ where everyone, whatever their religion, skin colour, gender or sexual orientation, can fulfil their potential.

Mbembe's influential concepts include the *necropolitics* theory, which explores how sovereignty is exercised through control over life and death. His work often examines the intersections of power, identity, and history, particularly in the context of African societies and the legacies of colonialism. Mbembe has also led critical reflections on globalisation and its impacts on the global South.

3.4 Souleymane Bachir Diagne

Souleymane Bachir Diagne is a Senegalese philosopher who trained at the Ecole Normale Supérieure in France and is a professor at Columbia University in New York. He has contributed to philosophy (particularly in Islamic thought), African philosophy, and the philosophy of science (Diagne, 2013,

2014). He has made significant contributions to understanding the intersections between African and Western philosophies and the impact of globalisation on intellectual traditions (Diagne, 2017).

Diagne worked on bridging various philosophical traditions and focusing on how African thought can engage with global philosophical discourses (Diagne, 2013). He has written extensively on the legacy of colonialism and how African scholars can contribute to and reshape global intellectual debates (Diagne & Amselle, 2018). Diagne also addresses issues related to modernity, identity, and the relevance of African philosophy in contemporary discussions.

A specialist in Boolean algebra and logic, particularly translation, he suggests that moving from one language to another allows us to see how philosophical problems, considered universal, are strongly linked to the different languages in which they are formulated. By doing so, he puts into question the claim to universality of certain philosophical statements by placing them in their cultural context. However, like Jean-Godefroy Bidima, he does not entirely reject the idea of universalism. Instead, Souleymane Bachir Diagne uses Merleau-Ponty's distinction between an overhanging and a lateral universalism, which is possible with postcoloniality and the expression of diversities, to make a world-in-common.

3.5 Nadia Yala Kisukidi

Nadia Yala Kisukidi is a Franco-Congolese philosopher and scholar known for her work in philosophy, gender studies, and postcolonial theory. She has contributed significantly to understanding the intersections of race, gender, and colonial history, particularly in the context of African and diasporic experiences.

Yala Kisukidi aims to decolonise philosophy and denounce reasoning that defines the boundaries between reasoning and what is excluded. In her work (Kisukidi, 2014, 2015, 2020), she shows that African philosophers, such as Fabien Eboussi Boulaga, have helped to renew thinking on religion by turning it into a means of emancipation. This Bergson specialist teaches the first seminar on African philosophy in a French university. Yala Kisukidi is calling for an end to one of these epistemic injustices: the non-recognition of the existence of philosophical thought in African lands.

This non-recognition stems from Western philosophers themselves (Hegel, among others, excludes black people from the march of History and therefore of reason) but also from colonial agents, foremost among them the first anthropologists, who decreed that there was no Reason south of the Sahara but a 'primitive mentality' (Henri Levy-Bruhl). She argues that this colonial heritage still weighs heavily on philosophy teaching in France, where African philosophy is not recognised by the academic world, unlike in the United States. It is, therefore, impossible for young French people to learn that while Descartes was publishing his *Discourse on Method*, an Ethiopian named Zera Yacob was writing *Hatata*, a treatise on rationalist philosophy.

4. Africa's prolific intellectual contribution: to a decoloniality research program

There are so many great thinkers in and from Africa; a keynote is insufficient to mention them all. Whereas many think that Africa is doomed, I prefer to take Mbeme's view of Africa as the future of humanity and humanism. I encourage all scholars interested in Africa to look at situated epistemically free philosophers (like the Senegalese Chekh Anta Diop, the Ghanaian Kwasi Wiredu or the Congolese Valentin-Yves Mudimbe), sociologists (the Tunisian Mounira

Charrad, the Algerian Abdelmalek Sayad), authors, and economists (the Togolese Kako Nubukpo; the Senegalese Felwine Sarr; the Cameroonian Célestin Monga) or novelist (Cameroonian Léonora Miano).

African literature is prolific about decolonial studies. However, Ndlovu-Gatsheni suggests while the decolonial period may end, coloniality might remain in the invisible structures of domination built by colonialism. For the philosopher, the question is what to do with the enduring colonial discourse, which "created a whole set of works and representations concerning Africa." In 1970, Edward Saïd analysed the orientalist discourse as an invention of the Orient: "Europe began to have a discourse about others, to invent others, to translate them for itself, into its own language, by making them 'absolutely other'". Mudimbe highlights a similar phenomenon in his most influential work, *"The Invention of Africa: Gnosis, Philosophy, and the Order of Knowledge"* (1988), in which he examines how Africa has been represented and constructed within Western thought and how African knowledge systems and philosophies have been marginalised or misinterpreted. He explored the concept of "Africanity" and critiques the epistemological frameworks that have historically shaped the understanding of Africa and its peoples.

I want to end this speech coming back to Fabien Eboussi Boulaga's work, where he explored the possibility of establishing a new order of African discourse without immediately mobilising transcendent conceptual categories forged in other places for other experiences and requiring, methodologically, certain interdisciplinarity that spans the arc from the 'hard sciences' to the human and social sciences.

This is what this speech is about. As Fabien Eboussi Boulaga argued, thinking and conceptualisation are not aspatial and atemporal. Instead, they must be situated and embrace the very nature of the African context. One might think that Western theorisation is more robust or relevant; I encourage all African scholars to be more reflexive about their own journey. What I learned from all these readings is that when studying Africa, being an African, you must consider that you are subject to alienation, interiorisation and all colonial-related invisible processes. We should work hard on the decolonialisation theorisation, but more than everything else, we should work on our theorisations. We should be proud of our intellectual heritage and expand and continue it.

5. Summary and conclusion

This keynote paper illuminates the pressing need for epistemic freedom and the decolonisation of accounting research in African contexts (I insist on the plurality and heterogeneity of these contexts). It underscores the limited research focused on African countries and questions the dominance of Global North theoretical frameworks, which fail to capture the specificities of African contexts. By advocating for a shift towards situated theorising rooted in African intellectual traditions, the paper calls on African scholars to embrace their cultural heritage and develop theorisations that are contextually relevant and reflective of the diversity of accounting phenomena in Africa.

The paper serves as a pivotal reminder that African scholars must take ownership of their intellectual landscape, deconstructing and resisting the colonial legacies embedded in current academic discourse. This involves not only rethinking accounting practices but also recognising the importance of earlier and more recent African thinkers in shaping future research. By doing so, African accounting and finance scholars can contribute more profoundly to global knowledge, offering unique insights and solutions that emerge from their own experiences and histories.

I encourage African scholars to counter the psychological effects of colonialism, outlined by Fanon, emphasising the impact of the colonial system on the colonised and the coloniser. We must fight our perception of Global North theorising as central to academia. This implies constant work as authors, reviewers, editors, and teachers. Following Fanon and Kkrumah, I argue that African consciousness is a path to academic emancipation. We must develop our own research agenda, with relevant theorising and situated implications, free from colonial influence and beyond coloniality imposed by the publication industry.

Ultimately, this work is a call to action for African researchers to explore new paradigms that align with Africa's socio-political and economic landscapes. It encourages the scholarly community to take up the challenge of theorising from within African contexts, ensuring that the continent's voices are central to its academic and practical development.

I will end my reflection with two Kwame Nkrumah quotes. Despite his prominent work, I did not mention him in the African intellectual figures (Nkrumah, 1970), mainly because this speech was given in Ghana. I felt that his legacy is perpetuated here more than anywhere else. I chose these quotes because they illustrate another path for Africa instead of following the Global North one. These quotes are from 1957 and illustrate how Africa can pioneer sustainable and responsible development.

Development is not merely about GDP statistics, but it is, above all, about people.

We shall measure our progress by the improvement in the health of our people, by the number of children in school, and by the quality of their education, by the availability of water and electricity in our towns and villages, and by the happiness which our people take in being able to manage their own affairs.

24 December 1957, Kwame Nkrumah

References

- Abdul-Baki, Z., Uthman, A. B., & Kasum, A. S. (2021). The role of accounting and accountants in Nigeria's oil subsidy corruption scandal. *Critical perspectives on Accounting*, 78, 102128.
- Agbodjo, S., Seny Kan, K. A. (2024), Toward a consciencism of accounting research on the African continent: A review of the international literature, - Accounting Auditing Control (forthcoming)
- Alawattage, C., & Azure, J. D.-C. (2021). Behind the World Bank's ringing declarations of "social accountability": Ghana's public financial management reform. *Critical perspectives on Accounting*, 78, 102075.
- Alawattage, C., Wickramasinghe, D. et Uddin, S. (2017). Theorising management accounting practices in Less Developed Countries. Dans *The Routledge companion to performance management and control* (p. 285-305). Routledge.
- Ashraf, J., Hopper, T., Lassou, P., Moses, O., Jayasinghe, K., Soobaroyen, T., & Uddin, S. (2019). Researching and publishing on accounting in emerging economies: An experiential account. In *The Routledge companion to accounting in emerging economies* (pp. 259-273). Routledge.
- Azure, J. D.-C., Alawattage, C., & Lauwo, S. G. (2024). Politics of fiscal discipline: counter-conducting the World Bank's public financial management reforms. *Accounting, Auditing & Accountability Journal*, 37(4), 1012-1040.
- Bakre, O. M., & Lauwo, S. (2016). Privatisation and accountability in a "crony capitalist" Nigerian state. *Critical Perspectives on Accounting*, 39, 45-58.
- Bidima, J.-G. (1993). Théorie critique et modernité négro-africaine. *De l'Ecole de Francfort {Docta spes africana*.
- Bidima, J.-G. (1995). *La Philosophie négro-africaine*, Paris. Paris: Presses Universitaires de France.
- Bidima, J.-G., & Zoungbo, V. L. (2017). *Réalités et représentations de la violence en postcolonies*: Presses universitaires de Perpignan.
- Bryer, A. (2023). Critical accounting as an indigenous project. *Critical perspectives on Accounting*, 93, 102579.
- Diagne, S. B. (2013). *L'encre des savants: réflexions sur la philosophie en Afrique*: Présence Africaine.
- Diagne, S. B. (2014). *Comment philosopher en islam?* : Philippe Rey.
- Diagne, S. B. (2017). Pour un universel vraiment universel. *Ecrire l'Afrique-monde*, 71-78.
- Diagne, S. B., & Amselle, J.-L. (2018). *En quête d'Afrique (s): Universalisme et pensée décoloniale*: Albin Michel.
- Eboussi Boulaga, F. (1993). L'intellectuel exotique. *Politique africaine*, 51(1), 26-34.
- Eboussi Boulaga, F. (2014). Muntu in crisis.
- Ekeh, P. P. (1975). Colonialism and the two publics in Africa: A theoretical statement. *Comparative studies in society and history*, 17(1), 91-112.
- Ghattas, P., Soobaroyen, T., & Marnet, O. (2021). Charting the development of the Egyptian accounting profession (1946–2016): An analysis of the State-Profession dynamics. *Critical perspectives on Accounting*, 78, 102159.
- Ghattas, P., Soobaroyen, T., & Marnet, O. (2024). *Investigating ISA adaptation in a developing country context: the selective influence of Big Four affiliates*. Paper presented at the Accounting Forum.
- Ghattas, P., Soobaroyen, T., Uddin, S., & Marnet, O. (2024). Auditing the auditors: a performative "spectacle" of public oversight. *Accounting, Auditing & Accountability Journal*, 37(3), 764-789.
- Goddard, A. (2021). Accountability and accounting in the NGO field comprising the UK and Africa—A Bordieusian analysis. *Critical perspectives on Accounting*, 78, 102200.
- Goddard, A., Assad, M., Issa, S., Malagila, J., & Mkasiwa, T. A. (2016). The two publics and

- institutional theory—A study of public sector accounting in Tanzania. *Critical perspectives on Accounting*, 40, 8-25.
- Goddard, A., & Juma Assad, M. (2006). Accounting and navigating legitimacy in Tanzanian NGOs. *Accounting, Auditing & Accountability Journal*, 19(3), 377-404.
- Grossi, G., Steccolini, I., Adhikari, P., Brown, J., Christensen, M., Cordery, C., . . . Raudla, R. (2023). The future of public sector accounting research. A polyphonic debate. *Qualitative Research in Accounting & Management*, 20(1), 1-37.
- Hopper, T., Tsamenyi, M., Uddin, S. et Wickramasinghe, D. (2012). Introduction: accounting and development. Dans *Handbook of Accounting and Development*. Edward Elgar Publishing.
- Hopper, T., Ashraf, J., Uddin, S., & Wickramasinghe, D. (2015). Social theorisation of accounting: Challenges to positive research. Dans *The Routledge Companion to Financial Accounting Theory* (p. 472-491). Routledge.
- Jayasinghe, K., Adhikari, P., Soobaroyen, T., Wynne, A., Malagila, J., & Abdurafiu, N. (2021). Government accounting reforms in Sub-Saharan African countries and the selective ignorance of the epistemic community: A competing logics perspective. *Critical perspectives on Accounting*, 78, 102246.
- Kimani, D., Ullah, S., Kodwani, D., & Akhtar, P. (2021). Analysing corporate governance and accountability practices from an African neo-patrimonialism perspective: Insights from Kenya. *Critical perspectives on Accounting*, 78, 102260.
- Kisukidi, N. Y. (2014). Négritude et philosophie. *Rue Descartes*(4), 1-10.
- Kisukidi, N. Y. (2015). Décoloniser la philosophie. Ou de la philosophie comme objet anthropologique. *Présence africaine*(2), 83-98.
- Kisukidi, N. Y. (2020). L'universel dans la brousse. *Esprit*(1), 47-59.
- Lassou, P. J. C., & Hopper, T. (2016). Government accounting reform in an ex-French African colony: The political economy of neocolonialism. *Critical perspectives on Accounting*, 36, 39-57.
- Lassou, P. J. C., Hopper, T., & Ntim, C. (2017). Special Issue on African Accounting and Development. In Lassou, P. J. C., Hopper, T., & Ntim, C. (2021a). *Accounting and development in Africa*. In (Vol. 78, pp. 102280): Elsevier.
- Lassou, P. J. C., Hopper, T., & Ntim, C. (2021b). How the colonial legacy frames state audit institutions in Benin that fail to curb corruption. *Critical perspectives on Accounting*, 78, 102168.
- Lassou, P. J. C., Hopper, T., Soobaroyen, T., & Wynne, A. (2018). Participatory and incremental development in an African local government accounting reform. *Financial Accountability & Management*, 34(3), 252-267.
- Lassou, P. J. C., Sorola, M., Senkl, D., Lauwo, S. G., & Masse, C. (2024). Monetization of politics and public procurement in Ghana. *Accounting, Auditing & Accountability Journal*, 37(1), 85-118.
- Mbembe, A. (2013a). *Critique de la raison nègre*. Paris.
- Mbembe, A. (2013b). *Sortir de la grande nuit: Essai sur l'Afrique décolonisée: La découverte*.
- Membe, A. (2016). Politiques de l'inimité. *Paris: La Découverte*.
- Mkasiwa, T. (2022). Competing logics in budgeting in a university setting in Tanzania. *Qualitative Research in Accounting & Management*, 19(5), 633-664.
- Moses, O., & Hopper, T. (2022). Accounting articles on developing countries in ranked English language journals: a meta-review. *Accounting, Auditing & Accountability Journal*, 35(4), 1035-1060.
- Mzenzi, S. I., & Gaspar, A. F. (2022). Managing competing institutional logics in governance of public-sector entities in Tanzania. *Journal of Accounting in Emerging Economies*, 12(3), 507-546.
- Ndlovu-Gatsheni, S. (2013). *Coloniality of power in postcolonial Africa*: African Books Collective.
- Ndlovu-Gatsheni, S. (2018). *Epistemic freedom in Africa: Deprovincialization and decolonization*: Routledge.

- Neu, D., Rahaman, A. S., & Everett, J. (2010). Accounting for social purpose alliances: confronting the HIV/AIDS pandemic in Africa. *Contemporary Accounting Research, Forthcoming*.
- Nyamori, R. O., Abdul-Rahaman, A. S., & Samkin, G. (2017). Accounting, auditing and accountability research in Africa: Recent governance developments and future directions. *Accounting, Auditing & Accountability Journal, 30*(6), 1206-1229.
- Nyamori, R. O., & Gekara, V. O. (2016). Performance contracting and social capital (re) formation: A case study of Nairobi City Council in Kenya. *Critical Perspectives on Accounting, 40*, 45-62.
- Rahaman, A. S., Lawrence, S., & Roper, J. (2004). Social and environmental reporting at the VRA: institutionalised legitimacy or legitimation crisis? *Critical perspectives on Accounting, 15*(1), 35-56.
- Rozenfeld, G. C., & Scapens, R. W. (2021). Forming mixed-type inter-organisational relationships in Sub-Saharan Africa: The role of institutional logics, social identities and institutionally embedded agency. *Critical perspectives on Accounting, 78*, 102232.
- Sauerbronn, F. F., Ayres, R. M., da Silva, C. M., & Lourenço, R. L. (2021). Decolonial studies in accounting? Emerging contributions from Latin America. *Critical perspectives on Accounting, 102281*.
- Shiraz Rahaman, A., Everett, J., & Neu, D. (2007). Accounting and the move to privatize water services in Africa. *Accounting, Auditing & Accountability Journal, 20*(5), 637-670.
- Soobaroyen, T., Tsamenyi, M., & Sapra, H. (2017). Accounting and governance in Africa—contributions and opportunities for further research. *Journal of Accounting in Emerging Economies, 7*(4), 422-427.
- Uddin, S., & Tsamenyi, M. (2005). Public sector reforms and the public interest: A case study of accounting control changes and performance monitoring in a Ghanaian state-owned enterprise. *Accounting, Auditing & Accountability Journal, 18*(5), 648-674.

Corporate environmental reporting practices and performance of listed manufacturing companies in Nigeria

Mubaraq Sanni

Department of Accounting and Finance, Kwara State University, Malete, Nigeria.

mubaraq.sanni@kwasu.edu.ng

Muhammed Kamaldeen Usman

Department of Accounting and Finance, Kwara State University, Malete, Nigeria.

usmankamal22@gmail.com (Corresponding author)

Abstract

Purpose – This study aims to provide empirical insights into the impact of corporate environmental reporting practices on the performance of listed manufacturing companies in Nigeria

Design/methodology/approach – The study adopts an ex-post facto research design and focuses on a population of seventy-six (76) quoted manufacturing firms, from which a sample of sixty-four (64) companies was selected. Data from fifty-two (52) companies with complete datasets were used to ensure a balanced panel model. Panel Corrected Standard Error Model (PCSE) Regression techniques were applied to analyze data obtained from the annual reports and financial statements of the selected companies over a seven-year period (2016–2022).

Findings – The results indicate that environmental policy disclosure, environmental cost disclosure, and environmental performance disclosure significantly influence the performance of the sampled companies at a 5% level of significance. The findings suggest that effective management and reporting of environmental information can positively impact company performance. Among the disclosure types, environmental performance disclosure has the most substantial effect on company performance.

Research limitations/implications – Corporate environmental disclosure is a crucial predictor of company performance. Regulatory bodies should encourage the integration of environmental reporting in annual reports, ensuring compliance with both mandatory and voluntary requirements. Future research could extend these findings by examining other sectors or geographies to generalize the relationship between environmental disclosures and performance.

Originality/value – This study provides a comprehensive examination of the impact of different types of environmental disclosures on corporate performance. By applying PCSE regression, the study offers a robust analysis of the relationships between environmental disclosure practices and performance outcomes in a developing country context, thereby contributing valuable insights to the existing literature on corporate environmental reporting.

Keywords: Corporate Environmental Reporting, Environmental Cost, Environmental Policy, Environmental Performance

1. Introduction

This paper aims to bridge a notable deficiency in current scholarly works on corporate environmental reporting by examining the relationship between the environmental reporting practices and performance of listed manufacturing firms in Nigeria. The research explores the influence of corporate environmental disclosure practices on the performance of these listed manufacturing companies by (i) assessing the impact of environmental cost reporting on financial performance (ii) examining the influence of environmental policies reporting on financial performance and (iii) ascertaining the effect of environmental performance reporting on financial performance with particular focus on listed manufacturing companies in Nigeria because of their environmental sensitivity than other sectors. In the contemporary business environment of today, the achievement of corporate success is no longer solely measured by profitability as it is now widely recognized that a company's performance is not only measured by its economic gains but also by its commitment to environmental sustainability and social responsibility (Usman, 2019). With globalization and industrialization shaping our current era, there has been a proliferation of industries, lowering entry barriers into the market and bolstering the economic standing of nations. However, a significant challenge arises as companies prioritize profit generation often at the expense of exploiting environmental resources (Yusuf, 2023). This strategy results in a range of environmental challenges including the exhaustion of natural resources, alteration in climatic conditions, worldwide increase in temperature, pollution, deterioration, and additional associated risks.

Corporate environmental reporting (CER) has emerged as a crucial component of modern business practices, driven by increasing stakeholder demand for transparency and accountability in environmental stewardship (Qin, et al., 2019). According to a 2023 report by the Global Reporting Initiative, over 90% of the world's largest 250 companies now issue sustainability reports, underscoring the growing recognition of environmental responsibility. This surge in CER adoption is not merely a compliance measure but also reflects a strategic approach to enhancing corporate reputation, stakeholder trust, and competitive advantage. The link between CER and financial performance has garnered significant attention, with studies suggesting that proactive environmental disclosure can lead to improved financial outcomes, including higher profitability and market valuation (Usman, 2024). Empirical evidence supports the positive correlation between robust environmental reporting and financial performance. For instance, a study by Harvard Business Review in 2022 found that firms with comprehensive CER practices experienced a 5% higher return on equity (ROE) compared to those with minimal reporting. Moreover, research by the CFA Institute in 2021 highlighted that companies with strong environmental, social, and governance (ESG) disclosures, which include environmental reporting, showed a 15% increase in their stock prices over a three-year period. These findings indicate that investors and consumers increasingly value transparency in environmental practices, rewarding firms that integrate sustainability into their corporate strategies. This research aims to delve deeper into the specific mechanisms through which CER influences financial performance, providing insights into how firms can leverage environmental reporting to achieve both sustainability and economic objectives.

In developed nations, the mandatory disclosure of environmental information is a well-established practice. Governments and regulatory bodies have implemented stringent guidelines and frameworks to ensure companies provide comprehensive environmental data in their annual reports or standalone sustainability reports. For instance, the European Union's Non-Financial Reporting Directive (NFRD) requires large public-interest companies to disclose information on environmental matters, social and employee-related aspects, and respect for human rights, anti-corruption, and bribery issues. Similarly, in the US, the Securities and Exchange Commission (SEC) mandates public companies to include

material environmental information in their filings. Failure to disclose environmental information can have severe implications for companies in developed nations. Non-compliance with mandatory disclosure requirements can lead to legal penalties, fines, and sanctions from regulatory authorities. Additionally, companies may face reputational damage, which can erode stakeholder trust and lead to a decline in customer loyalty (Mu & Lee, 2023). Investors are increasingly prioritizing environmental, social, and governance (ESG) factors in their investment decisions and a lack of transparency in environmental reporting can result in reduced access to capital and higher cost of financing. Moreover, companies might encounter difficulties in establishing partnerships and collaborations with other businesses that prioritize sustainability (Alabi et al., 2024).

The disclosure of environmental information can significantly impact the financial performance of companies in developed nations. Transparent and comprehensive reporting on sustainability practices can enhance a company's reputation, leading to increased customer loyalty and brand value. It can also attract environmentally conscious investors, resulting in improved access to capital and potentially lower costs of financing. Companies that demonstrate a commitment to sustainability may benefit from operational efficiencies and cost savings through better resource management and waste reduction practices. Moreover, environmental disclosure can drive innovation by encouraging companies to adopt new technologies and processes that minimize environmental impact. This proactive approach can open up new market opportunities and revenue streams. Furthermore, companies that are transparent about their environmental performance are better positioned to anticipate and manage risks related to regulatory changes, climate change, and resource scarcity.

In Nigeria and some other African countries, the voluntary nature of sustainability information disclosure leads to significant consequences (Usman, 2024). Without mandatory reporting, corporate entities often operate with minimal accountability and transparency regarding their environmental impact. This opacity hinders regulators, stakeholders, and the public from effectively assessing and addressing corporate environmental performance. The lack of compulsory reporting allows companies to prioritize short-term profits over sustainable practices, resulting in increased pollution and depletion of natural resources, further exacerbating environmental degradation and public health crises. For instance, cities like Onitsha, Kaduna, Aba, and Umuahia suffer from some of the worst air quality globally, contributing to high rates of respiratory and cardiovascular diseases. The economic repercussions of not disclosing environmental information are substantial. Companies that lack transparency in their environmental practices may struggle to attract investment, secure financing, or form international partnerships, hindering economic growth and development. Public trust in corporations diminishes when there is a lack of transparency, potentially leading to social unrest and damaged community relationships. Additionally, regulatory bodies face challenges in enforcing environmental laws without access to detailed environmental reports, resulting in weak regulatory enforcement. Pollution as one of the significant environmental problems caused by the operations of firms worldwide. In Nigeria, according to a 2016 World Health Organization (WHO) report, Onitsha, Kaduna, Aba, and Umuahia were among four of the 20 African cities with the worst air quality globally (WHO, 2016).

Air pollution is literally choking the life out of Nigerians. Both indoors and outdoors, air pollution is killing more urban residents today than ever before. The air pollution in Nigeria is more likely to cause harm than the air in any other African country. Nigeria currently has the highest burden of fatalities from air pollution in Africa and the fourth highest in the world, with 150 deaths per 100,000 people attributable to pollution (WHO, 2016). Additionally, the annual State of the Global Air Report published by the Health Effects Institute (HEI) indicates that air quality in Nigeria and at least 10 other

countries is among the deadliest in the world. Higher-than-ambient air pollution death rates result from environmental hazards combined with extreme pollution sources such as generator fumes, vehicle emissions, and crop burning, among others (Usman, 2019).

In the context of Nigeria, the absence of compulsory regulations necessitating companies to disclose their environmental sustainability highlights the voluntary nature of environmental reporting. This absence of reporting regulations raises concerns, especially given Nigeria's ranking as the seventh nation globally for gas flaring and the fourth country in Africa for air pollution, according to the World Bank. The nation's slow response to growing environmental concerns is notable, considering that many Nigerian companies' operations, such as manufacturing, contribute to environmental problems like pollution emissions (Ajide et al., 2024). Meanwhile, there is a lack of comprehensive understanding regarding the extent of environmental information presented in corporate annual reports, along with the disclosure of environmental policies by Nigerian companies and the transparency regarding costs associated with environmental maintenance. Nigeria's response to the growing concern over the environmental aspects of company activities has been notably sluggish. This not only impacts the local environment but also adds to the broader global issue of climate change. A crucial aspect of this discussion involves grasping the complex connection between disclosing environmental information and company's performance, particularly within the manufacturing sector. Corporations are now under growing scrutiny not just for their financial achievements but also for their environmental responsibility (Li et al., 2023). As sustainability takes centre stage, the degree to which companies reveal their environmental practices can significantly affect their overall performance and long-term sustainability.

According to He et al. (2023), the absence of environmental information, particularly regarding expenses related to the environment and compliance with environmental policies by companies, can have significant consequences for various stakeholders. This includes individuals whose livelihoods depend on the environment, such as farmers experiencing land degradation due to corporate activities. The shift towards a stakeholder perspective emphasizes the importance of corporate environmental reporting practices in assessing company performance. While some companies do report environmental activities, especially costs, they may do so primarily to minimize taxes rather than genuinely address environmental concerns (Souguir et al., 2024). Stakeholders currently express an interest in not solely the financial performance, but also in acquiring information pertaining to the social and environmental dimensions of corporations, highlighting the need for more comprehensive and transparent reporting. Despite the negative environmental impact of certain companies, there is a lack of disclosure regarding their environmental performance.

Theoretically, corporate environmental reporting practices, such as environmental cost reporting, environmental policy reporting, and environmental performance reporting, can significantly impact a firm's financial performance through the lens of legitimacy theory. Legitimacy theory suggests that companies seek to operate within the bounds of societal norms and expectations to maintain their legitimacy. By transparently reporting their environmental costs, policies, and performance, firms demonstrate their commitment to sustainable and responsible practices, which can enhance their reputation and trust among stakeholders (Agu et al., 2024). This increased legitimacy can lead to stronger relationships with customers, investors, and regulatory bodies, ultimately resulting in improved financial performance. Firms that actively disclose their environmental efforts are often perceived as more credible and trustworthy, which can attract environmentally conscious investors and customers, driving revenue growth and potentially reducing the cost of capital. Signalling theory further elucidates the impact of corporate environmental reporting on financial performance. According to signalling theory, companies use environmental reporting to signal their quality and commitment to sustainability

to the market. By providing detailed and transparent information about environmental costs, policies, and performance, firms can differentiate themselves from competitors and signal their long-term viability and ethical standards. This can lead to positive market reactions, such as increased stock prices and investor confidence (Mu & Lee, 2023). Moreover, comprehensive environmental reporting can indicate efficient management practices and risk mitigation strategies, which are highly valued by investors and can result in lower financing costs. Consequently, firms that engage in robust environmental reporting are likely to experience enhanced financial performance due to improved market perception and investor relations (Yusuf, 2023).

To address the compromised corporate images and maintain financial performance, certain profit-rich companies seem motivated to showcase positive contributions to the environment. They achieve this by providing detailed information on the costs incurred in their social initiatives and in supporting host communities (Ding et al., 2022). However, the reliability of these cost-related details, particularly concerning environmental aspects, may be questionable. In cases where a company recognizes that its performance is influenced by responsible environmental practices, there is a tendency to emphasize appealing sustainability information while omitting crucial negative details that could aid stakeholders in making informed decisions (Welbeck et al., 2017). Despite the considerable focus on shareholder interests in previous research on corporate environmental reporting, there has been a limited number of studies examining corporate environmental disclosure practices and their impact on firm performance. Most previous studies, such as those by Abdul-Latif *et al.*, 2023; Kabara *et al.*, 2023; Chandula *et al.*, 2023; Githaiga, 2023; Coscia's, 2023; Abedin *et al.*, 2023; Alkhalifah *et al.*, 2023), have primarily investigated various factors influencing corporate environmental reporting.

However, prior empirical research on corporate environmental disclosure can be categorized into five groups. The first group examines the volume of corporate environmental disclosure, often making comparisons across countries, sectors, or media. The second group focuses on the quality of the information disclosed. The third group investigates the determinants of corporate environmental disclosure, while the fourth group explores the relationship between environmental disclosure and corporate environmental performance. Finally, the fifth group of studies analyzes market reactions to corporate environmental disclosure (Andrikopoulos & Krikilani, 2013; Damak-Ayadi, 2010; Jose & Lee, 2007). There are gaps in corporate environmental disclosure studies that need to be addressed. Methodologically, most studies have employed various estimation techniques such as Ordinary Least Squares (OLS) regression, multiple regressions, and ordinary regression (Guastella et al., 2022; Gerged et al., 2021; WanMohammad & Wasiuzzaman, 2021; Pedron et al., 2021; Girón et al., 2021; Boakye et al., 2021; Usman, 2019; Ahmadi & Bouri, 2017; Omoye & Oshilim, 2018; Welbeck et al., 2017; Jariya, 2015; Prasad et al., 2015; Trencansky & Tsaparlidis, 2014; Suttipun & Stanton, 2012). To the best of the researcher's knowledge, no study has utilized Panel Corrected Standard Error Model Regression, which is designed to be robust against violations of assumptions such as serial correlation, constant residuals, and normality.

Conceptually, most studies in Nigeria have used corporate environmental disclosure practices as their dependent variables (Olayinka & Olumayowa, 2014; Che-Ahmad et al., 2015; Ohidoa et al., 2016; Abubakar, 2017; Odoemelam & Okafor, 2018; Omoye & Oshilim, 2018). This study, however, considers corporate environmental disclosure practices as the independent variable and company performance as the dependent variable, positing that well-managed environmental disclosure practices can positively influence company performance, given the diverse information needs of annual report users. Additionally, most Nigerian studies on environmental reporting have focused primarily on listed oil and gas companies and other industrial goods companies, neglecting other environmentally sensitive

sectors such as consumer goods, construction/real estate, and health. Furthermore, previous studies have measured financial performance using various metrics like Return on Capital Employed (ROCE), Return on Assets (ROA), Return on Equity, Net Profit Margin, and Gross Profit Margin. This study deviates by using Tobin's Q, based on the premise that real profitability occurs when additional wealth is created for shareholders, with projects generating returns above their cost of capital.

The study encompasses all seventy-six (76) manufacturing companies listed on the Nigerian Exchange Group as at December 2022. These companies were selected due to their recognized environmental sensitivity compared to others (Welbeck et al., 2017). Additionally, the study spans a seven-year period from 2016 to 2022. The choice of 2016 as the starting point is attributed to the release of the 2016 Corporate Governance Code by the Nigerian Financial Reporting Council, which includes guidelines for various sectors, and the launch of the Global Reporting Initiative's (GRI) 101, defining reporting principles for sustainability reports. Furthermore, 2022 marks the latest year of data collection for this study, capturing the post-period affected by the industrial global downturn due to the Covid-19 Pandemic.

The remainder of the paper is organized as follows. Section 2 discusses corporate environmental regulations and reporting reforms in Nigeria, 3. Theoretical framework, 4. Empirical literature review and hypotheses development, 5. Research design, 6. Empirical results and discussion, while section 7 outlines the summary and conclusion.

2. Corporate environmental reporting regulations and reporting reforms in Nigeria

Corporate environmental reporting in Nigeria has evolved significantly over the years, driven by a growing awareness of environmental sustainability and the need for corporate accountability. This evolution is also influenced by global trends and pressures, as well as local challenges such as pollution, resource depletion, and the social impacts of industrial activities. Understanding the regulatory landscape and the ongoing reforms in Nigeria is crucial for comprehending how companies disclose their environmental practices and the implications for stakeholders. Empirical data on corporate environmental reporting in Nigeria highlights the progress and challenges in this area. According to a study by Odoemelam and Okafor (2018), approximately 45% of listed companies in Nigeria disclosed some form of environmental information in their annual reports. However, the quality and comprehensiveness of these disclosures vary significantly across industries. A survey conducted by the Financial Reporting Council of Nigeria (FRCN) in 2020 revealed that about 30% of companies reported their environmental policies, while only 20% disclosed detailed environmental performance metrics. The survey also highlighted that the oil and gas sector leads in environmental reporting due to the high environmental impact of their operations and the regulatory pressure they face.

Meanwhile, Nigeria's regulatory framework for environmental reporting is still developing, with several key institutions playing critical roles in shaping the landscape (Elaiwu et al., 2024). The Federal Ministry of Environment is the primary governmental body responsible for environmental protection and regulation in Nigeria. It sets policies and guidelines to ensure sustainable environmental practices. The Ministry's efforts are crucial in promoting corporate environmental responsibility. National Environmental Standards and Regulations Enforcement Agency (NESREA) is an important regulatory agency under the Federal Ministry of Environment. It is responsible for enforcing environmental laws, regulations, and standards in Nigeria. NESREA's mandate includes ensuring that companies comply with environmental regulations and report their environmental performance. The agency has introduced various regulations targeting specific industries to mitigate environmental impact. The Financial Reporting Council of Nigeria (FRCN) oversees the preparation and publication of financial reports,

including sustainability and environmental disclosures. While its primary focus is financial reporting, the FRCN encourages companies to integrate environmental information into their reports, aligning with global best practices. The SEC in Nigeria mandates listed companies to include sustainability information in their annual reports. This includes environmental, social, and governance (ESG) disclosures. The SEC's regulations aim to enhance transparency and ensure that investors have access to comprehensive information about a company's sustainability practices.

In recent years, there have been significant reforms and initiatives aimed at improving corporate environmental reporting in Nigeria. The Nigerian government, through the Federal Ministry of Environment, has developed a National Action Plan on Environmental Sustainability (Usman, 2019). This plan outlines strategies for promoting environmental sustainability across various sectors. It emphasizes the importance of corporate environmental reporting as a tool for accountability and transparency. The Central Bank of Nigeria, in collaboration with the Nigerian Bankers' Committee, introduced the Nigeria Sustainable Banking Principles (NSBP) in 2012. These principles provide guidelines for banks and financial institutions to integrate environmental and social considerations into their operations and reporting. The NSBP aims to promote sustainable development and encourage responsible environmental practices within the banking sector. Several Nigerian companies have voluntarily adopted international reporting frameworks such as the Global Reporting Initiative (GRI) Standards and the Carbon Disclosure Project (CDP). These frameworks provide comprehensive guidelines for reporting environmental performance, helping companies align with global best practices and meet stakeholder expectations.

Corporate environmental reporting in Nigeria is gradually evolving, driven by regulatory efforts, voluntary initiatives, and global trends. While significant progress has been made, challenges such as lack of mandatory regulations, limited awareness, and data reliability need to be addressed. Strengthening regulations, building capacity, providing incentives, and fostering collaboration are essential steps towards enhancing corporate environmental reporting in Nigeria. As the country continues to grapple with environmental challenges, robust and transparent reporting practices will play a crucial role in promoting sustainability and accountability in the corporate sector.

3. Theoretical framework

This study utilizes legitimacy and signalling theories to explain the relationship between corporate environmental reporting and the financial performance of listed manufacturing companies in Nigeria. Both theories offer valuable perspectives on how corporate disclosure of environmental practices and performance impacts stakeholder perceptions, trust, and ultimately, financial outcomes. Legitimacy theory posits that organizations are driven to act in ways that align with the expectations and norms of society in order to maintain their legitimacy. As Dowling and Pfeffer (1975) explain, legitimacy is crucial for an organization's survival because it establishes a social contract between the company and its stakeholders, where the company's actions are perceived as congruent with societal values. When a company operates in ways that the public perceives as responsible and ethical, it secures its place within the broader social framework. Conversely, failure to conform to these norms can lead to negative perceptions, loss of stakeholder trust, and a weakened financial position.

Corporate environmental reporting becomes a means for companies to demonstrate their commitment to environmental responsibility, which is a growing societal expectation globally. By disclosing information about environmental policies, costs, and performance, companies signal to their stakeholders including investors, customers, regulators, and the public that they are not only focused on

financial profitability but also on sustainable practices and environmental stewardship (Cerciello et al., 2023). This aligns the company with broader societal values related to environmental sustainability, which enhances its legitimacy. For companies in Nigeria, where environmental concerns are increasingly gaining attention, corporate environmental reporting provides an avenue to build a positive image and foster goodwill among stakeholders. According to Dowling and Pfeffer (1975), firms, which often have significant environmental impacts, can use such reporting to show that they are addressing environmental challenges proactively. This helps them mitigate risks of reputational damage or regulatory penalties while also tapping into opportunities to improve stakeholder relationships as argued by legitimacy theory. The positive public image resulting from adherence to societal norms of environmental responsibility can attract socially conscious investors and customers, ultimately improving the company's financial performance (Le, 2023).

Signalling theory, introduced by Ross (1979), provides another perspective on how corporate environmental reporting influences financial performance. The theory suggests that organizations disclose information as a signal to the market, indicating their quality, competence, and long-term viability. According to Lee et al. (2023), companies with strong financial performance and sound operational strategies often provide more extensive and transparent disclosures, as they have a competitive advantage to highlight. By voluntarily disclosing environmental information, firms signal their commitment to sustainability and ethical business practices, distinguishing themselves from competitors that may not engage in similar levels of transparency.

In Nigeria, where there are no mandatory guidelines for environmental reporting, companies that voluntarily disclose their environmental performance, costs, and policies send a strong signal to investors and other stakeholders. This type of disclosure indicates that the company is forward-thinking and proactive in managing environmental risks, which are increasingly seen as critical to long-term financial success. For instance, by sharing data on emissions reductions, waste management, or sustainable resource use, a company demonstrates its dedication to minimizing environmental impact, thus reinforcing perceptions of reliability and operational excellence. This signalling effect is particularly important in attracting investors who are prioritizing environmental, social, and governance (ESG) factors in their decision-making processes (Khamisu et al., 2024). Companies that disclose robust environmental information are more likely to attract ESG-focused investors who are interested in long-term sustainability rather than short-term gains. Additionally, companies that can signal environmental responsibility may find it easier to access capital, reduce their cost of debt, and build stronger partnerships with environmentally conscious suppliers and clients (Gao & Wan, 2023). Thus, signalling theory explains how environmental reporting not only enhances a company's reputation but also contributes to financial gains through better stakeholder relations and investor confidence.

Both Legitimacy and signalling theories complement each other in explaining how environmental reporting can enhance financial performance. Legitimacy theory focuses on aligning company actions with societal expectations to maintain public trust and secure a favorable position in the market. Signalling theory, on the other hand, emphasizes how companies can use voluntary disclosure of environmental information to differentiate themselves from competitors and attract stakeholders who value sustainability. In the Nigerian manufacturing sector, where companies face increasing pressure to demonstrate corporate social responsibility, both theories underscore the importance of environmental reporting as a tool for building stakeholder trust and securing financial advantages. By demonstrating compliance with societal norms and signalling strong environmental performance, companies can enhance their legitimacy and stand out in the market, thereby improving their overall financial outcomes.

4. Empirical Literature review and hypotheses development

4.1 Environmental cost reporting and firm performance

The significance of environmental cost reporting in relation to firm performance has garnered increasing attention in recent years, as evidenced by various studies (Zhao et al., 2022; Abdullahi and Muhammed, 2023; Echobu and Ikechukwu, 2023; Olabisi et al., 2022; Duffin, 2023). These studies underscore the intricate and often context-dependent nature of this relationship, highlighting that while environmental costs can drive innovation and improve operational efficiency, their influence on financial metrics like market valuation and shareholder returns is more variable. This variation is particularly pronounced across different sectors, ownership structures, and regulatory environments, emphasizing the need for comprehensive and transparent environmental cost reporting.

Research by Al-Waeli et al. (2022), Ifada and Saleh (2022), Wang et al. (2023), and Ifada and Jaffar (2023) has consistently demonstrated a positive and significant relationship between environmental cost reporting and firm performance. These studies argue that firms that actively disclose their environmental costs tend to experience improved financial outcomes, largely due to enhanced stakeholder trust, better risk management, and a stronger reputation for sustainability. As sustainability becomes an increasingly critical factor in investment and consumption decisions, environmental cost reporting emerges as a vital tool for firms to communicate their commitment to responsible business practices. Moreover, transparent reporting of environmental costs plays a pivotal role in promoting **corporate accountability** and **transparency**, which are crucial for satisfying the growing expectations of stakeholders such as investors, customers, and regulatory bodies. These stakeholders are increasingly focused on sustainability and are more likely to engage with firms that demonstrate a clear commitment to environmental stewardship. By openly disclosing environmental expenditures, firms not only meet regulatory requirements but also strengthen their credibility and build trust with both the public and the investment community. For instance, environmentally conscious investors are more likely to support companies with transparent environmental practices, while customers may favour products from companies that demonstrate a commitment to reducing their environmental impact.

Environmental cost reporting also provides internal benefits to companies. It can act as a **strategic tool** to identify areas for efficiency improvements, leading to cost savings and fostering innovation, especially in the development of cleaner technologies (Alabi et al, 2024). By closely monitoring and reporting environmental costs, companies may uncover opportunities to optimize resource use, reduce waste, and lower emissions, all of which can improve operational efficiency and contribute to long-term sustainability. This reporting can also encourage firms to integrate sustainability into their core business strategies, aligning environmental objectives with financial goals. Such integration can enhance the firm's **competitiveness**, particularly in markets where environmental responsibility is increasingly valued by consumers and investors alike.

The relationship between environmental cost reporting and financial performance is further influenced by **sectoral and structural differences**. Prior studies have predominantly focused on specific industries such as oil and gas, consumer goods, and industrial goods, where the environmental impact is more direct and measurable. However, this study seeks to broaden the scope by examining the relationship between environmental cost reporting and financial performance across different sectors within the manufacturing industry in Nigeria. Manufacturing companies often have diverse environmental footprints depending on the nature of their operations, and a cross-sectoral analysis will provide a more

comprehensive understanding of how environmental cost reporting influences financial outcomes in different contexts.

Given the evidence from previous studies and the growing importance of environmental accountability, this study hypothesizes that environmental cost reporting plays a significant role in shaping the financial performance of manufacturing companies in Nigeria. Transparent and comprehensive reporting not only enhances corporate accountability and operational efficiency but also serves as a strategic tool for navigating the complexities of sectoral differences and ensuring long-term competitiveness. **Based on the above, the study hypothesises that:**

H1: Environmental cost reporting has no significant impact on the performance of listed manufacturing companies in Nigeria.

4.2 Environmental policy reporting and firm performance

The disclosure of environmental policies has the potential to significantly influence the performance of firms, as demonstrated by recent studies (Dagestani and Qing, 2022; Pulino et al., 2022; Ding et al., 2022; Lin Qamruzzaman, 2023, Hoang, 2024 and Waheed et al., 2024). These studies suggest that when firms transparently communicate their environmental policies, they signal a commitment to sustainability and responsible environmental management. This form of disclosure provides key stakeholders such as regulators, investors, customers, the local community, and the general public with critical insights into the firm's environmental strategy, objectives, and actions. By openly sharing their policies, companies demonstrate an awareness of environmental risks and opportunities, along with a proactive approach to mitigating those risks and capitalizing on sustainability opportunities.

The benefits of environmental policy disclosure extend beyond simple compliance with regulations (Waheed et al., 2024). Transparency in this area fosters trust and credibility with stakeholders, helping firms build stronger relationships with key groups. This trust can lead to enhanced reputational benefits, which are crucial in today's business environment where sustainability is an increasingly important criterion for evaluating corporate performance. For example, environmentally conscious customers may be more likely to support companies that actively disclose their environmental policies, while investors may view such firms as lower-risk and more aligned with long-term sustainable growth.

Moreover, firms that disclose their environmental policies can better position themselves to attract **socially responsible investors (SRIs)** and access **green financing opportunities** (Daugaard et al., 2024). SRIs are increasingly prioritizing companies that demonstrate a strong commitment to environmental stewardship, and by providing clear and detailed information on their environmental policies, firms can signal their alignment with global sustainability goals. This can result in more favourable financing terms, reduced capital costs, and improved access to capital markets that reward environmental responsibility. Additionally, firms that openly disclose their environmental policies are often better equipped to comply with evolving regulatory frameworks, which can further enhance their competitiveness in both domestic and international markets (Hoang, 2024).

Furthermore, environmental policy disclosure can help companies differentiate themselves in competitive markets. In industries where consumers and business partners are becoming increasingly environmentally conscious, having well-articulated and transparent environmental policies can serve as a competitive advantage. Companies that take the lead in disclosing their environmental policies

demonstrate foresight and strategic thinking, which can positively influence their market positioning, brand image, and customer loyalty.

Despite the growing recognition of these benefits, the relationship between environmental policy disclosure and firm financial performance remains underexplored in the Nigerian context. While significant research has been conducted in other countries, no study to the best of the researcher's knowledge has specifically examined this relationship within Nigeria's manufacturing sector. This presents a critical gap in the literature, given the unique regulatory, economic, and environmental challenges faced by Nigerian companies. Understanding how the disclosure of environmental policies influences financial performance in this context could provide valuable insights for both academics and practitioners. By addressing this gap, the current study seeks to explore whether environmental policy reporting can influence the financial performance of listed manufacturing companies in Nigeria. Given the importance of environmental transparency for stakeholder relations, regulatory compliance, and competitive differentiation, this study aims to shed light on whether such disclosures translate into tangible financial benefits for Nigerian firms. **Based on the above, the study hypothesises that:**

H2: Environmental policies reporting has no significant influence on the performance of listed manufacturing companies in Nigeria.

4.3 Environmental performance reporting and firm performance

Environmental performance refers to a company's ability to effectively manage and minimize its environmental impact. This concept encompasses the assessment of a company's operations, products, and services, particularly in how they align with environmental objectives and comply with relevant regulations and standards. As a key pillar of corporate sustainability and corporate social responsibility (CSR), environmental performance is integral to how companies demonstrate their commitment to reducing their environmental footprint and contributing to the broader goals of sustainability (Yusuf, 2023). Environmental performance reporting, which involves the transparent disclosure of environmental impacts and achievements, plays a vital role in this process. By offering insight into a company's environmental efforts, it enhances stakeholder confidence and drives accountability (Agyemang et al., 2024).

Prioritising **environmental performance reporting** can significantly influence a firm's overall performance. Studies suggest that such transparency helps build stakeholder trust, which is increasingly critical in today's market where consumers, investors, and regulators expect companies to act responsibly in relation to the environment (Abgineh et al., 2023 and Zhou et al., 2024). By providing detailed reports on environmental metrics, companies can signal to stakeholders that they are committed to minimizing environmental harm and operating sustainably. According to Zhou et al. (2024), this transparency fosters stronger relationships with investors who are concerned with environmental, social, and governance (ESG) factors, thereby improving a company's reputation and potentially attracting environmentally conscious investors. Additionally, it helps strengthen relationships with customers, regulators, and local communities by demonstrating that the firm is serious about reducing its environmental footprint.

Beyond enhancing stakeholder trust, environmental performance reporting can drive **internal improvements** within a company. By publicly disclosing key environmental targets and metrics, companies are encouraged to adopt more rigorous environmental management systems and sustainable practices. These initiatives may include investing in eco-friendly technologies, improving waste

management, reducing carbon emissions, and optimizing resource use. In turn, these improvements lead to **operational efficiencies**, including reduced energy consumption, lower production costs, and minimized regulatory penalties. Moreover, focusing on sustainability can open avenues for **innovation**, encouraging firms to develop new products and services that meet rising consumer demand for environmentally friendly alternatives. These outcomes can enhance a company's financial performance while also securing its competitive edge in the market.

The potential positive impact of environmental performance reporting is not only supported by the theoretical foundations of corporate sustainability but also by empirical studies. For instance, research by Digdowiseiso et al. (2022), Pulino et al. (2022), and Nur and Panggabean (2023), Carchano et al. (2024), all examine the relationship between environmental performance reporting and financial outcomes, although their findings vary. Some studies affirm that companies with robust environmental performance reporting tend to experience better financial outcomes due to enhanced reputational benefits and operational efficiencies. Others, however, highlight the **mixed findings** in different contexts, suggesting that sectoral differences, regulatory environments, and the specific nature of the environmental activities undertaken by firms can all influence the strength of this relationship.

These mixed findings point to the complexity of the relationship between environmental performance reporting and firm performance. While the benefits of transparency and proactive environmental management are clear, the degree to which these factors influence financial performance may depend on numerous variables, including the industry in which a firm operates, the stringency of environmental regulations, and the expectations of its stakeholders. In sectors where environmental impact is more pronounced, such as manufacturing, companies may see greater financial benefits from rigorous environmental performance reporting than firms in less resource-intensive industries.

In light of these observations, the current study seeks to explore the relationship between **environmental performance reporting** and **firm financial performance** within the context of listed manufacturing companies in Nigeria. Given the manufacturing sector's significant environmental footprint, this study aims to determine whether transparency in reporting environmental performance can positively influence the financial outcomes of these firms. **Based on the above, the study hypothesises that:**

H3: There is no significant effect of environmental performance reporting on the performance of listed manufacturing companies in Nigeria.

5. Research design

The study adopted an *expo facto* research design, employing content analysis to extract data from the annual reports and accounts of listed manufacturing companies in Nigeria. This methodology was chosen to assess the impact of corporate environmental reporting practices on company performance. The *expo facto* research design was preferred due to its quasi-experimental nature, dealing with pre-existing data that cannot be manipulated or controlled by the researcher.

5.1 Population of the study

The study focused on a population comprising seventy-six (76) listed manufacturing companies on the floor of Nigerian Exchange Group as of December 2022. The aforementioned companies encompass a total of seven (7) distinct sectors, comprising construction/real estate, consumer goods, healthcare, industrial goods, natural resources, oil and gas, and conglomerate sectors.

5.2 Sample size and sampling techniques

Utilizing the Krejcie and Morgan (1970) table for sample size determination, a total of sixty-four (64) companies were selected for the study. The process of sample selection encompassed the application of both stratified sampling and random sampling methodologies. This involved the segmentation of the various sectors' populations into distinct strata, with the sample size being determined in accordance with specified proportions. Consequently, companies were selected at random from each sector. In order to establish a well-rounded panel model, fifty-two (52) companies with comprehensive data spanning the period from 2016 to 2022 were incorporated in the research.

Table 5.1: Sample size and sampling technique

S/N	Sector (Stratum)	Population	Krejcie and Morgan	Sample Size
1	Construction/Real estate	9	$9/76*64 = 8$	6
2	Consumer goods	21	$21/76*64 = 17$	14
3	Health care	10	$10/76*64 = 8$	8
4	Industrial goods	14	$14/76*64 = 12$	8
5	Natural resources	4	$4/76*64 = 4$	4
6	Oil and gas	12	$12/76*64 = 10$	8
7	Conglomerates	6	$6/76*64 = 5$	4
Total		76	64	52

Source: Researcher's Computation (2024)

5.3 Definition and measurement of variables

This study incorporated three variables: the dependent variable, independent variables, and a control variable. Table 5.2. shows the measurement model of the three variables used in the study.

Table 5.2: Measurement of variable

Variable	Measurement	Source	A-Prior expectation
<i>Dependent</i>			
Performance	Measured using Tobin's Q) $Q = \text{Market Value}/\text{Asset Value}$		
<i>Independent</i>			
Environmental policies disclosure	Dichotomous scores: The value is set to 1 if the company discloses, and 0 otherwise (See Appendix for Checklist)	Odoemelam and Okafor, (2018); Usman, 2019; NSE (2019)	+
Environmental cost disclosure	Dichotomous scores: The value is set to 1 if the company discloses, and 0 otherwise (See Appendix for Checklist)	Odoemelam and Okafor, (2018); Usman, 2019; NSE (2019)	+
Environmental performance disclosure	Dichotomous scores: The value is set to 1 if the company discloses, and 0 otherwise (See Appendix for Checklist)	Odoemelam and Okafor, (2018); Usman, 2019; NSE (2019)	+
<i>Control</i>			
Firm size	Total assets of the firm		

Source: Field Survey (2024)

6. Empirical results and discussion

6.1 Descriptive statistics of variables

Table 6.1 presents the descriptive statistics of the variables analyzed within this investigation. In terms of firm performance, quantified through Tobin's Q, the average figure stands at 1.052, accompanied by a standard deviation of 1.485. This implies that, typically, Tobin's Q for the manufacturing firms included in the sample amounts to 1.052. The proximity between the mean and standard deviation suggests a relatively limited range of the firm performance metric across the companies surveyed. The minimum and maximum values of 0.054 and 11.175, respectively, represent the lowest and highest Tobin's Q observations.

Table 6.1: Descriptive statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
TBQ	364	1.052	1.485	.054	11.175
EPOR	364	.217	.19	0	1
ECR	364	.176	.168	0	1
EPER	364	.204	.172	0	1
FSIZE (Millions)	364	104,815	238,451	321	2,022,451

Source: Author's Computation (2024)

Environmental policies reporting is depicted as a ratio that falls within the spectrum of 0 to 1 or in percentage form. The mean value of 0.217, translating to 21.7%, signifies the average environmental reporting policies observed throughout the study period. With a standard deviation of 0.217, there exists minimal variability in the disclosure of environmental policies among the manufacturing firms included in the sample. The spectrum ranges from 0% to 75%, illustrating a wide array of disclosure activities. In relation to the disclosure of environmental costs, the mean value of 0.176 indicates that, on average, firms disclose 17.6% of their environmental cost data. The standard deviation of 0.168 indicates similar disclosure patterns among the firms, with a range that spans from 0% to 50%. The examination also delves into the disclosure of environmental performance, revealing a mean value of 0.204, which equates to an average disclosure rate of 20.4%. The standard deviation of 0.172 suggests a moderate level of variance in environmental cost disclosure, with the range stretching from 0% to 77.8%, showcasing diverse reporting strategies. Concerning firm size, as measured by total assets, it varies from N321 million to N2.02 trillion in Nigerian Naira. The mean value of N104.8 million indicates that, on average, a listed company in Nigeria holds assets valued at N104.8 million Naira. The significant diversity in total assets among the firms in the study sample is mirrored by the standard deviation of N238.4 million.

6.2 Preliminary diagnostic test

The preliminary tests conducted encompassed assessments for multicollinearity, auto and serial correlation, heteroskedasticity, normality, and specification test.

6.3 Correlation analysis

The utilisation of the Pearson Product Moment Correlation aimed at exploring the bivariate connections between the variables within the framework, ensuring compliance with the linearity assumption of normality in the frameworks. The correlation matrix displayed in Table 4.2 delineates the characteristics of the associations amidst the reliant and autonomous variables of the investigation, alongside the connections among the autonomous variables. An outline of the relationships among the variables under study is depicted in the subsequent Table 4.2.

Table 6.2 Correlation Matrix

Variables	TBQ	EPOR	ECR	EPER	SIZE
TBQ	1.000				
EPOD	-0.277	1.000			
ECD	-0.235	0.861	1.000		
EPED	0.351	-0.933	-0.847	1.000	
PPED	0.314	-0.847	-0.932	0.873	
SIZE	-0.221	0.503	0.360	-0.475	1.000

Source: Author's Computation (2024)

From table 4.2, it can be observed that the correlation coefficient ranges from 1.0 to -1.0. An exact coefficient of 1.0 within the matrix (diagonal) indicates a robust positive linear relationship within a variable, whereas -1.0 denotes a strong negative association. When the correlation coefficient falls between 1.0 and -1.0, it suggests a relationship of moderate or weak strength. More specifically, a value of $r > 0$ signifies a positive relationship, $r < 0$ indicates a negative relationship, and $r = 0$ implies no relationship. The general principle for interpreting the correlation matrix is as follows: 1-10% represents a very weak relationship, 11-29% indicates a weak relationship, 30-60% suggests a moderate relationship and 61% and above signifies a strong relationship. Concerning firm performance, there exists a negative correlation between environmental policy disclosure and Tobin's Q, with a weak correlation coefficient of 0.277. Similarly, the correlation between environmental cost disclosure and Tobin's Q is also negative and weak, with a correlation coefficient of -0.235.

Nevertheless, the disclosure of environmental performance highlights a positive and moderately robust association with Tobin's Q, boasting a correlation coefficient of 0.351. Conversely, the size of the organization demonstrates a negative and feeble correlation with Tobin's Q, possessing a correlation coefficient of -0.221. When examining the correlation among the independent variables, it is crucial to recognize that a correlation coefficient surpassing 0.80 between two independent variables is deemed excessive (Gujarati, 2004). A majority of the correlation coefficients among independent variables in the dataset exceed 0.80, suggesting a potential presence of detrimental multicollinearity.

6.4 Hausman specification test

Following a thorough evaluation of the aforementioned models, the model selection process is accompanied by Hausman's test. In this test, the study posited a fixed effect on TBQ, aiming to ascertain the suitability of either the random or fixed model. The interpretation of the model, as depicted in the table below, relies on the determination of the appropriate model guided by Hausman's test results presented in Table 4.4 for the TBQ model.

Table 6.3: Hausman's specification test on TBQ Model

Test: Ho: difference in coefficients not systematic		
Chi-square test value	=	132.43
P-value	=	0.000

Source: Author's Computation (2024)

As illustrated in table 4.3 provided, the chi-square value equals 132.43, resulting in a probability value of 0.006. This observation presents compelling evidence for the rejection of the null hypothesis, which posited the appropriateness of the random effect model. The statistical significance is clearly evident at

a significance level of 5%, as the probability value falls below the established threshold. In accordance with conventional principles of hypothesis testing, the dismissal of the null hypothesis provides credence to the validity of the alternative hypothesis. Consequently, the fixed effect TBQ model is validated.

6.5 Auto correlation and serial correlation

It is crucial for OLS or panel regression results to be credible and valuable for reporting that the model is free from auto/serial correlation, the study conducted the Wooldridge auto correlation test.

Table 6.5 Auto and serial correlation test

Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

F(1, 44) = 57.095

Prob> F = 0.0000

Source: Author's Computation (2024)

The outcomes of the examination reveal the existence of both auto and serial correlation, which is supported by the statistically significant chi-square probability at the 1% level of significance. In order to address these challenges, the research employed Panel Corrected Standard Error (PCSE) for Fixed Effect. PCSE tackles autocorrelation through the maintenance of observation weighting, alongside the adjustment of standard errors utilizing a sandwich estimator to consider cross-sectional dependency (Mantobaye et al., 2017).

6.6 Normality distribution of the residuals

Another critical assumption in linear regression is the normal distribution of data, which is essential for conducting parametric test analysis. However, it is argued that the normality test should be performed on the residuals of the model rather than the data itself, with the type of parametric analysis determined by the dependent variable (Ghasemi & Zahediasl, 2012). As a result, a Shapiro-Wilk normality test was conducted on the residuals.

Table 6.6 Shapiro-Wilk W test for Normality

Variable	Obs	W	V	Z	Prob>z
res	364	0.8959	26.076	7.721	0.000

Source: Author's Computation (2024)

6.7 Heteroskedasticity test

This examination aimed to determine if there is constant variability in the error terms. The presence of heteroscedasticity contradicts the assumption of homoscedasticity and may lead to inaccurate conclusions. The Modified Group Wise test was employed to assess heteroskedasticity in this analysis.

Table 6.7 Heteroskedasticity test on TBQ Model

Modified Wald Test for Groupwise Heteroskedasticity In Fixed Effect The Regression Model

Ho: constant variance

Variables: fitted values of tbq

chi2(14) = 6.0e+05

Prob> chi2 = 0.0000

Source: Author's Computation (2024)

The findings from the examination of the TBQ model suggest the existence of heteroskedasticity, as indicated by the statistically significant chi-square probability of 0.0000 at the 1% level of significance, implying the lack of homoskedasticity in the model. Consequently, it may not be appropriate to utilize Fixed Effect regression in this particular research. To summarize, a reevaluation of the fixed effect TBQ model is necessary based on the outcomes of Hausman's test. Nevertheless, due to the presence of heteroskedasticity in the TBQ model, the fixed effect model becomes unsuitable. In order to overcome the limitations of the Fixed Effect model in the context of heteroskedasticity, Panel Corrected Standard Error (PCSE) was adopted in this study. Consequently, following the recommendation of Gujarati and Porter (2017), the PCSE model was executed. Subsequent to this, the PCSE model is detailed and analyzed in the subsequent sections.

6.8 Restatement of hypotheses and discussion of findings

This section presents the result of the Panel Corrected Standard Error (PCSE) for Fixed Effect test to test hypotheses stated earlier in the study.

The summary of the PCSE regression results obtained from the TBQ model of the study is presented in Table 6.8:

Table 6.8: Panel corrected standard error model regression result for TBQ

Variables	Coefficient	Std. Err	Z-values	Sig
CONSTANT	4.290677	.9492432	4.02	0.000
EPOD	.9194775	.3826111	2.40	0.016
ECD	6.008976	1.782201	3.37	0.001
EPED	1.936827	.4726561	4.10	0.000
PPED	3.094413	1.506067	2.05	0.040
SIZE	-.0593475	.0326412	-1.82	0.069
R ²	0.1726			
Wald chi ²	37.06			
Prob Wald chi ²	0.0000			
No of Observation	364			
Panels:	Correlated(balanced)			
Correlation:	No autocorrelation			

Source: Author's Computation (2024)

6.9 Environmental policy reporting and firm performance

The results of this study demonstrate that environmental policy disclosure has a significant positive impact on the performance of manufacturing firms listed in Nigeria, as indicated by a Z-value of 2.40, a coefficient value of 0.919, and a p-value of 0.016 at the 5% significance level. This finding can be explained through the lens of legitimacy theory, which posits that organizations seek to align their operations with societal norms and expectations to maintain their legitimacy. By disclosing environmental policies, firms signal their commitment to sustainability and environmental responsibility, thereby enhancing their legitimacy in the eyes of stakeholders. This enhanced legitimacy, in turn, leads to improved performance, as it strengthens the company's reputation, attracts investors, and fosters trust among stakeholders.

Additionally, the results align with stakeholder theory, which emphasizes the importance of addressing the needs and interests of all stakeholders, including investors, customers, employees, and the broader community. The positive correlation between environmental policy disclosure and firm performance suggests that transparent communication of such policies to stakeholders is valued by the market, leading to an increase in the average stock price of the company. This reflects the market's recognition of the benefits associated with sustainable business practices, such as reputation enhancement, access to new markets and capital, and competitive advantage.

Furthermore, the research provides evidence to refute the alternative hypothesis that suggests no significant relationship between environmental policy disclosure and firm performance, as the p-value does not exceed the 5% significance level. These findings are consistent with the work of Dagestani and Qing (2022), Ding et al. (2022) Pulino et al. (2023), Hoang (2024) and Carchano et al. (2024), who also observed a positive and significant impact of disclosing information on compliance with corporate environmental regulations on financial performance metrics.

6.10 Environmental cost reporting and firm performance

The correlation between reporting environmental costs and the performance of listed manufacturing firms reveals a positive relationship, as evidenced by the statistically significant coefficient of 6.008 at the 1% level (p-value of 0.001). This indicates that increased transparency in disclosing environmental costs is associated with enhanced firm performance. This finding can be understood through the lens of legitimacy theory and stakeholder theory. According to legitimacy theory, companies seek to align their operations with societal expectations, and by reporting environmental costs, manufacturing firms demonstrate their commitment to addressing environmental concerns. This alignment enhances their legitimacy in the eyes of stakeholders, leading to improved performance. Stakeholder theory further supports this by emphasizing that companies are accountable to a broad range of stakeholders, including investors, society, and the local community.

By meeting the information needs of these stakeholders through environmental cost disclosure, firms can boost their overall performance. The study's results, which align with the findings of Ifada and Saleh (2022), Ifada and Jaffar (2023), Zhao et al. (2022), Abdullahi and Muhammed, (2023), Echobu and Ikechukwu (2023), Olabisi et al. (2022), Duffin (2023) and Wang et al. (2023), underscore the significant influence of environmental cost disclosure on financial performance, particularly in areas such as waste management and employee health and safety. The substantial evidence provided by the p-value above 5% refutes the alternative hypothesis, reinforcing the critical role of environmental cost disclosure in the performance of listed manufacturing firms in Nigeria.

6.11 Environmental performance reporting and firm performance

The Z-value of 4.1, a coefficient value of 1.93, and a p-value of 0.0000 for environmental performance disclosure indicate a statistically significant positive relationship with firm performance among publicly traded manufacturing companies in Nigeria, significant at the 1% level. This finding aligns with both legitimacy theory and stakeholder theory, suggesting that higher levels of environmental performance disclosure enhance firm performance. According to legitimacy theory, firms that disclose their environmental performance effectively signal to stakeholders that they are meeting societal expectations for sustainability, thereby gaining legitimacy and support. Stakeholder theory further supports this, positing that such disclosures foster trust and satisfaction among stakeholders, which can lead to increased support and ultimately, improved financial outcomes, such as higher share prices.

The evidence provided by this study, with its p-value far below the 5% threshold, strongly supports rejecting the null hypothesis and confirms a substantial correlation between environmental performance disclosure and firm performance. These findings are consistent with stakeholder theory and the study of Abgineh et al. (2023), Yusuf (2023), Zhou et al. (2024) and Carchano et al. (2024), which emphasizes the importance of environmental reporting in securing stakeholder backing. However, they contrast with the results of Pulino et al. (2022) and Nur and Panggabean (2023), who argued that environmental reporting does not significantly impact financial performance.

6.12 Policy implications of the findings

The study findings shed light on the influence of environmental disclosure practices on firm performance, offering valuable insights for policy implications. The results underscore the economic significance of integrating corporate environmental disclosure practices into corporate strategy. Adopting a culture of environmental disclosure practices represents a pivotal step towards sustainable development, resource conservation, and legitimizing firm operations by fostering beneficial relationships with stakeholders. Manufacturing firms are encouraged to engage in environmental disclosure practices to enhance their reputation among investors and stakeholders, ensuring transparency and accountability. Moreover, the study highlights that environmental disclosure practices contribute to firms' performance improvement, emphasizing the importance of such reporting practices. Enhanced disclosure aids stakeholders in making informed decisions, ultimately bolstering market share. However, the extent of disclosure within Nigeria's manufacturing sector is comparatively low compared to other countries, resulting in limited impact. The study suggests that manufacturing firms in Nigeria should increase their disclosure of environmental information to enable stakeholders to make well-informed decisions, thereby enhancing overall performance.

7. Summary and conclusion

The study empirically examined the relationship between corporate environmental reporting practices and firm performance in Nigerian manufacturing firms. The findings indicate a significant positive correlation between the proxies of environmental reporting practices such as disclosures on environmental policies, costs, and performance metrics and the overall performance of these firms. This research contributes to the existing literature by providing empirical evidence supporting the notion that corporate environmental reporting can positively impact firm performance. It also offers practical insights for Nigerian manufacturing firms, suggesting that enhancing transparency in environmental disclosures can lead to improved stakeholder relationships and competitive advantages.

The implications of these findings are multifaceted. For manufacturing firms in Nigeria, the study underscores the importance of environmental reporting as a strategic tool for achieving better performance outcomes. By providing comprehensive and transparent environmental information, firms can not only meet regulatory requirements but also attract investors, customers, and other stakeholders who prioritize sustainability. This, in turn, can lead to enhanced market reputation, increased customer loyalty, and potentially higher financial returns.

Furthermore, the study suggests that regulatory bodies and industry associations should encourage or mandate comprehensive environmental reporting standards. This could help create a level playing field and ensure that all firms adhere to minimum disclosure standards, thereby enhancing overall industry transparency and accountability. While the study provides valuable insights, it is not without limitations. The research primarily focuses on Nigerian manufacturing firms, which may limit the generalizability

of the findings to other sectors or regions. Additionally, the study relies on proxies for environmental reporting and firm performance, which may not capture all aspects of these constructs. There is also the potential for self-selection bias, as firms that are already performing well may be more likely to invest in robust environmental reporting practices.

Future research could address these limitations by expanding the scope of the study to include firms from different industries and regions, thereby enhancing the generalizability of the findings. Additionally, longitudinal studies could provide deeper insights into the long-term impact of environmental reporting on firm performance. Researchers could also explore the specific mechanisms through which environmental reporting affects performance, such as through improved operational efficiency or enhanced stakeholder trust. Moreover, future studies could investigate the role of different types of environmental disclosures (e.g., qualitative vs. quantitative, mandatory vs. voluntary) and their respective impacts on firm performance. Finally, it would be valuable to explore the perspectives of different stakeholders, including investors, customers, and regulatory bodies, to understand how they perceive and respond to corporate environmental reporting practices.

Reference

- Abdul Latif, R., Taufil Mohd, K. N., Kamardin, H., & Mohd Ariff, A. H. (2023). Determinants of sustainability disclosure quality among plantation companies in Malaysia. *Sustainability*, 15(4), 3799.
- Abdullahi, A., & Muhammad, P. (2023). Impact of Environmental Cost on Financial Performance of Listed Industrial Goods Firms in Nigeria. *International Journal of Research and Scientific Innovation*. <https://doi.org/10.51244/ijrsi.2023.1012006>.
- Abedin, S. H., Subha, S., Anwar, M., Kabir, M. N., Tahat, Y. A., & Hossain, M. (2023). Environmental performance and corporate governance: evidence from Japan. *Sustainability*, 15(4), 3273.
- Abgineh, M., Ghanbary, M., & Rahmani, M. (2023). Financial performance with emphasis on the role of environmental information disclosure. *Journal of Advances in Environmental Health Research*. <https://doi.org/10.34172/jaehr.2023.07>.
- Agu, E. E., Iyelolu, T. V., Idemudia, C., & Ijomah, T. I. (2024). Exploring the relationship between sustainable business practices and increased brand loyalty. *International Journal of Management & Entrepreneurship Research*, 6(8), 2463-2475.
- Agyemang, A. O., Yusheng, K., Twum, A. K., Edziah, B. K., & Ayamba, E. C. (2024). Environmental accounting and performance: empirical evidence from China. *Environment, Development and Sustainability*, 26(2), 3687-3712.
- Ajide, F. M., Soyemi, K. A., & Oladipupo, S. A. (2024). Business climate and environmental degradation: evidence from Africa. *Environment, Development and Sustainability*, 26(2), 4753-4779.
- Al-Waeli, A., Ismail, Z., Hanoon, R., & Khalid, A. (2022). The impact of environmental costs dimensions on the financial performance of Iraqi industrial companies with the role of environmental disclosure as a mediator. *Eastern-European Journal of Enterprise Technologies*. <https://doi.org/10.15587/1729-4061.2022.262991>.
- Alkhalzali, Q., Shahbudin, A., & Ghazali, A. (2023). The relationship between corporate governance mechanisms and CSR disclosure: evidence from Jordanian's listed firms. *Journal of Public Administration and Governance*, 12(4), 4768-4768.
- Bhat, S. R., & Abdullah, M. A. A. (2023). Factors influencing sustainability reporting practices among listed companies in Oman. *International Journal of Economics and Financial Issues*, 13(3), 74.
- Carchano, M., Carrasco, I., & González, Á. (2024). Eco-innovation and environmental performance: Insights from Spanish wine companies. *Annals of Public and Cooperative Economics*, 95(2), 595-623.
- Cerciello, M., Busato, F., & Taddeo, S. (2023). The effect of sustainable business practices on profitability. Accounting for strategic disclosure. *Corporate Social Responsibility and Environmental Management*, 30(2), 802-819.
- Chandula, A. M. T., Dissanayake, H., & Anuradha, I. (2023). Role of gender diversity on corporate social responsibility: evidence from a developing economy. *International Journal of Academic and Industry Research*, 4(1), 24-45.
- Coscia, M. (2023). Board gender diversity and family firms' corporate environmental responsibility: does "critical mass" matter?. *Corporate Governance and Research & Development Studies*, (2022/2).
- Daugaard, D., Jia, J., & Li, Z. (2024). Implementing corporate sustainability information in socially responsible investing: a systematic review of empirical research. *Journal of Accounting Literature*, 46(2), 238-276.

- Digdowiseiso, K., Subiyanto, B., & Setioningsih, R. (2022). What drives environmental disclosure? Evidence from mining companies listed on the Indonesia stock exchange. *International Journal of Energy Economics and Policy*. <https://doi.org/10.32479/ijeep.13170>.
- Ding, X., Ye, L., Yang, Y., Efimova, O., Steblyanskaya, A., & Zhang, J. (2022). The impact mechanism of environmental information disclosure on corporate sustainability performance—micro-evidence from China. *Sustainability*. <https://doi.org/10.3390/su141912366>.
- Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific sociological review*, 18(1), 122-136.
- Duffin, D. (2023). The influence of environmental cost and environmental performance towards company's value moderated by ownership structure. *Journal of Economics and Business UBS*. <https://doi.org/10.52644/joeb.v12i1.160>.
- Echobu, O., & Ikechukwu, P. (2023). Environmental Costs and Key Financial Performance Indicators of Oil Firms in Nigeria. *International Journal of Economics and Financial Management*. <https://doi.org/10.56201/ijefm.v7.no6.2022.pg11.27>.
- Elaigwu, M., Ugwu, J. I., Alghorbany, A., Ngwoke, O. M., Ude, A. O., Desmond, O. C., & Audu, P. (2024). Sustainability disclosure quality of Nigerian listed firms: the role of female leadership, board communication, and external assurance. *Cogent Business & Management*, 11(1), 2376774.
- Gao, L., & Wan, L. (2023). Does corporate environmental responsibility contribute to financial performance? A dual path analysis through operational efficiency and the cost of debt. *Corporate social responsibility and environmental management*, 30(1), 308-323.
- Githaiga, P. N. (2023). Sustainability reporting, board gender diversity and earnings management: Evidence from East Africa community. *Journal of Business and Socio-Economic Development*.
- He, X., Jing, Q., & Chen, H. (2023). The impact of environmental tax laws on heavy-polluting enterprise ESG performance: a stakeholder behavior perspective. *Journal of environmental management*, 344, 118578.
- Hoang, H. V. (2024). Environmental, social, and governance disclosure in response to climate policy uncertainty: Evidence from US firms. *Environment, Development and Sustainability*, 26(2), 4293-4333.
- Ifada, L., & Jaffar, R. (2023). Does environmental cost expenditure matter? Evidence from selected countries in the Asia-Pacific Region. *Sustainability*. <https://doi.org/10.3390/su15054322>.
- Ifada, L., & Saleh, N. (2022). Environmental performance and environmental disclosure relationship: the moderating effects of environmental cost disclosure in emerging Asian countries. *Management of Environmental Quality: An International Journal*. <https://doi.org/10.1108/meq-09-2021-0233>.
- Kabara, A. S., Abdullah, D. F., Khatib, S. F., Bazhair, A. H., & Al Amosh, H. (2023). Moderating Role of Governance Regulatory Compliance on Board Diversity and Voluntary Disclosure of Non-Financial Firms in a Developing Country. *Sustainability*, 15(5), 4527.
- Khamisu, M. S., Paluri, R. A., & Sonwaney, V. (2024). Stakeholders' perspectives on critical success factors for environmental social and governance (ESG) implementation. *Journal of Environmental Management*, 365, 121583.
- Le, T. T. (2023). Corporate social responsibility and SMEs' performance: mediating role of corporate image, corporate reputation and customer loyalty. *International Journal of Emerging Markets*, 18(10), 4565-4590.
- Lee, S. W. A., Rodrigs, M., Nathan, T. M., Rashid, M. A., & Al-Mamun, A. (2023). The relationship between the quality of sustainability reporting and corporate financial performance: A cross-sectional and longitudinal study. *Australasian Accounting, Business and Finance Journal*, 17(2), 38-60.

- Lepore, L. (2020). The Role of stakeholder E-engagement on the relation between board independence and environmental disclosure. *Toward a Cohesive Corporate Governance. Evidence from Italian Listed Companies.*
- Li, W., Li, W., Seppänen, V., & Koivumäki, T. (2023). Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage. *Business strategy and the environment*, 32(1), 820-841.
- Lin, J., & Qamruzzaman, M. (2023). The impact of environmental disclosure and the quality of financial disclosure and IT adoption on firm performance: Does corporate governance ensure sustainability?. , 11. <https://doi.org/10.3389/fenvs.2023.1002357>.
- Mu, H., & Lee, Y. (2023). Greenwashing in corporate social responsibility: A dual-faceted analysis of its impact on employee trust and identification. *Sustainability*, 15(22), 15693.
- Nur, T., & Panggabean, R. (2023). The impact of environmental Performance on environmental disclosure, moderated by company characteristics. *Proceedings of the International Conference on Industrial Engineering and Operations Management*. <https://doi.org/10.46254/ap03.20220504>.
- Qin, Y., Harrison, J., & Chen, L. (2019). A framework for the practice of corporate environmental responsibility in China. *Journal of Cleaner Production*, 235, 426-452.
- Olabisi, J., Oladiran, R., Aransiola, S., & Adenekan, D. (2022). Environmental Reporting and Performance of Nigerian Listed Oil and Gas Firms. *ACTA VŠFS*. <https://doi.org/10.37355/acta-2022/2-01>.
- Pulino, S., Ciaburri, M., Magnanelli, B., & Nasta, L. (2022). Does ESG disclosure influence firm performance?. *Sustainability*. <https://doi.org/10.3390/su14137595>.
- Ross,S.A.(1979). Disclosure regulation in financial market.MC Grawhill,New York.
- Souguir, Z., Lassoued, N., Khanchel, I., & Bouzgarrou, H. (2024). Environmental performance and corporate tax avoidance: Greenwashing policy or eco-responsibility? The moderating role of ownership structure. *Journal of Cleaner Production*, 434, 140152.
- Usman, M.K. (2019). Determinants of corporate environmental disclosure of listed manufacturing company in Nigeria. Kwara State University.
- Usman, M. K. (2024). Sustainability committee, audit firm type and corporate sustainability reporting of non-financial firms in Nigeria. *Copernican Journal of Finance and Accounting*, 13(1), 63.
- Waheed, A., Shahid Khan, M., Warraich, M. A., & Ali, M. A. (2024). Environmental policy vs. environmental innovation: An examination of policies disclosure on sustainable development from stakeholder theory perspective. *Sustainable Development*, 32(3), 2506-2516.
- Wang, L., Shang, Y., Li, S., & Li, C. (2023). Environmental information disclosure-environmental costs nexus: Evidence from heavy pollution industry in China. *Sustainability*. <https://doi.org/10.3390/su15032701>.
- Welbeck, E.E., Owusu, G.M., Bekoe R.A., Kusi J.A. (2017). Determinant of environmental disclosures of listed firm in Ghana. *International Journal of Corporate Social Responsibility*.
- Yusuf, M. (2023). The impact of climate change on environmental disputes and conflicts in Indonesia. *Communale Journal*, 1(3), 160-168.
- Zhou, K., Jin, X., Li, X., & Tao, Y. (2024). Enhancing sustainable development through effective disclosure: Corporate environmental performance and readability. *Corporate Social Responsibility and Environmental Management*, 31(1), 274-291.

Appendix**Disclosure checklist for corporate environmental disclosure practices**

	Corporate environmental disclosure practices	Score
A	Environmental policies disclosure	
1	Actual statement of Environmental Policies	
2	Departments or Positions for environmental and/or safety Management	
3	Environmental impact studies	
4	Health and safety policies	
5	Discussion of environmental regulations and requirements	
6	Compliance with pollution laws and regulations	
7	Compliance with health and safety standards and regulations	
8	Compliance status with environmental and/or health and safety such as ISO, EMS, BS OHSAS and PAS	
B	Environmental cost	
1	Disclosure of environmental cost	
2	Past, current or future estimates of capital and operating expenditure for environmental protection or remediation	
3	Research and development expenditure for pollution abatement	
4	Financing of pollution control equipment and facilities	
C	Environmental performance	
1	Environmental investment	
2	Environmental investment appraisal	
3	Conservation of natural resources	
4	Environmental contingent liabilities and provisions	
5	Product stewardship (product's impact on the environment)	
D	Product and process-related environmental issues	
1	Pollution emissions and effluent discharge	
2	Waste management	
3	Packaging	
4	Recycling initiatives	
5	Products and product development/ innovation	
6	Efficient use of materials	
7	Energy efficiency of products/ energy consumption	
8	Water consumption	
9	Product Safety	

IFRS in Africa: Driving factors and consequences of adoption

Isaac Ruhinda

Department of Accounting, Southampton Business School, University of Southampton, Boldrewood Innovation Campus, Burgess Road, Southampton, Hampshire, SO16 7QF, United Kingdom

Email: isaac.ruhinda@icloud.com

Abstract

Purpose: This paper explores accounting practices in Africa by examining the driving factors and stock market consequences of IFRS adoption.

Methodology: Regression analysis was undertaken to identify the role of national governance factors and Foreign Direct Investment on IFRS adoption in Africa, as well as the impact of adoption on the market capitalization of public stock exchanges, considering the different extents of adoption.

Findings: The findings are consistent with a neo-institutionalist framework. Jurisdictions that receive more FDI are more likely to be stronger adopters of IFRS. Jurisdictions with a stronger rule of law are more likely to be strong adopters of IFRS. There is also evidence of IFRS used as a corruption control technique, as more corrupt countries adopt IFRS. IFRS adoption is correlated with increased market capitalisation.

Implications: The findings of this research contribute to the body of research into IFRS convergence. The findings are relevant for policymakers and regulators across Africa.

Originality / Research value: There is limited research into IFRS adoption across Africa, proving this research valuable.

Keywords: IFRS, Africa, driving factors, regression analysis, national governance

1. Introduction

As the world becomes increasingly interconnected through trade and global financial markets, the adoption of International Financial Reporting Standards (IFRS) has become a pertinent discussion, presenting both challenges and opportunities at large. In 2005, EU Regulation 1606/2002 made “*compliance with IFRS mandatory for the consolidated accounts of publicly-traded companies*” (European Communities, 2002). This regulation created great pressure for nations to adapt their respected Generally Accepted Accounting Principles (GAAP). Song and Trimble (2022) describe this as a “monumental event in the history of IFRS” that prompted more notable moments in the following years, such as “convergence efforts between IFRS and U.S GAAP”.

As of today, more than 140 jurisdictions have implemented IFRS (IFRS_c, 2023) to varying degrees, making IFRS the de facto global standard for financial reporting. Africa, as a continent, stands out in this context being the most populated IFRS continent outside Europe (Tawiah and Boolaky, 2020) - 37 out of the 54 jurisdictions require IFRS for all or most domestic publicly accountable entities (IFRS_b, 2023). IFRS compliance in Africa is a compelling and nuanced topic particularly considering the unique accounting and finance challenges the continent faces. Across the continent there are significant disparities in corruption levels, governance structures, cultural values as well as macroeconomic variables like GDP and inflation (Obeng-Odoom, 2015). These factors have significant influence in determining whether countries will adopt IFRS and to what extent.

Research specifically dedicated to Africa regarding the driving factors and consequences of IFRS adoption is very limited. This study aims to address this gap by using regression analysis to i) investigate the driving factors behind IFRS adoption in Africa and ii) the equity market implications of IFRS adoption. The analysis considers different approaches and extents of implementation, by categorising countries to determine the best accounting practices for the continent. The research aims to identify the most dominant factors associated with IFRS adoption in Africa by taking into account national governance indicators such as corruption and rule of law, as well as FDI. Secondly, the objective is to present and analyse the impact of IFRS adoption on market capitalisation, taking into account the varying implementation approaches across the continent, over the years.

The research will contribute to the growing research into IFRS convergence around the world and creates value by providing empirical evidence on the financial effects of reporting standards on African stock markets. Furthermore, this exploration contributes to existing literature by providing evidence of a correlation between national governance factors, and FDI, with the extent of IFRS adoption. There is limited literature within accountancy, that specifically studies the dynamics of the African continent; especially compared to other parts of the world (Tawiah and Boolaky, 2020). Similar research topics have previously been conducted, but at large they are focused on European nations. Additional research specific to Africa is warranted as “the journey of IFRS in Africa can be different from the global trend” (Tawiah, 2019) and the benefits of IFRS adoption in more developed Western countries might be less beneficial elsewhere (De George, Li, and Shivakumar, 2016). Contributions to this research area are valuable for policymakers, regulators, and investors helping them make more informed decisions and encouraging sustainable economic development throughout the continent.

The paper proceeds as follows. Section 2 provides a background understanding of IFRS. Section 3 provides a general discussion of some theoretical grounds that explain IFRS adoption in Africa. Section 4 discusses empirical literature and develops the hypotheses. Section 5 provides a description of the research methods employed and introduces the variables. Section 6 presents the quantitative results obtained, including regression results. Finally, Section 7 concludes the study by summarising the key findings and limitations of the study.

2. Research context and background

2.1 Background of IFRS

Accounting standards can be described as “the language by which companies communicate their performance in the financial statements” (EY, 2023). This would make IFRS, as set by the International Accounting Standards Board (IASB), the commanding language of business around the world. The term “accounting standards” is defined as the “implicit or explicit rules or conventions which define (1) the allowable data transformations used in the preparation of the financial statements, (2) the formats of the statements, and (3) the ex post facto tests of the statements used by auditors in arriving at an opinion” (Benston, 1975). The level of disclosure, quantity of accounting information, and methods of accounting differ between several accounting standards (Ding et al., 2007).

In 1973, professional accounting bodies of Australia, Canada, France, Germany, Japan, Mexico, Netherlands, United Kingdom/Ireland and the United States formed the International Accounting Standards Committee (IASC). In 1989, the IASC published “the first international conceptual framework” (IFRSc). Since then, the IASC has gone through restructuring, and evolved into the International Accounting Standards Board (IASB), operating under the oversight of the IFRS Foundation. The IFRS Foundation is an independent, not-for-profit organisation working in the public interest on the belief that better information supports better economic and investment decisions (ACCA, no date). Just 20 years ago very few jurisdictions even permitted IFRS Standards (IFRS, 2016). However today, more than 140 jurisdictions have implemented IFRS, including 15 of the G20 jurisdictions mandating the standards for all or most public companies (IFRSb, 2023) - evidence of its growing omnipresence across finance.

The remarkable growth in IFRS adoption stemmed from mandatory adoption across the EU. In 2005, EU Regulation 1606/2002 made “compliance with IFRS mandatory for the consolidated accounts of publicly-traded companies” (European Communities, 2002). This was a “monumental event in the history of IFRS” (Song and Trimble, 2022) motivated by encouraging cross-border trading and ensuring reliable, transparent, and comparable company accounts (IAS Plus, 2002). Before the mandatory adoption of IFRS, European organisations prepared reports according to local standards, i.e. GAAP, which were less consistent and comparable (Chen et al., 2010).

The vast majority of literature about IFRS adoption is centred around this event as it was so significant for the progress towards global standards. European nations took the lead in the adoption of IFRS, and others seemingly followed as global acceptance made significant progress in the subsequent years. By 2007, more than 100 countries required or permitted use of IFRS including Hong Kong, New Zealand and South Africa (IFRSc, 2023).

The mission of IFRS is to “bring transparency, accountability and efficiency to financial markets around the world” (IFRS Foundation, 2018). Disclosure, when applying the standards, is more comprehensive than most local/national accounting regulations (Ding et al., 2007). For example, IFRS “reflect economic substance rather than legal form; reflect economic gains and losses in a more timely manner, announce more about the earnings; and provide more useful balance sheets” (Duarte, Saur-Amaral, and Azevedo, 2015). Overall, the objective is to enhance the quality of financial reporting, many prior researchers have examined their effectiveness in doing so.

Barth, Landsman, and Lang (2008) found strong positive consequences when comparing pre and post adoption periods of IAS, stating that compliance leads to lower earnings management, more timely loss recognition, and more value relevance of accounting amounts. Several other studies corroborate these findings and emphasise the positive consequences of IFRS adoption to capital markets

efficiency (Leventis, Dimitropoulos, and Anandarajan, 2011) (Houqe et al., 2012) (Salewski, Teuteberg, and Zulch, 2016). Furthermore, such attributable benefits have even been found regardless of enforcement levels, management incentives, and institutional characteristics of the capital market (Abad et al., 2017) (Chen et al., 2010). Studies like these have added the pressure for all nations to converge towards IFRS as they provide a deep understanding of the benefits to financial reporting quality. It is generally accepted the primary benefits are “financial statement comparability, investor protection through increased accounting transparency and disclosure, and higher capital market liquidity” (El-Helaly, Ntim and Soliman, 2020) (De George, Li, and Shivakumar, 2016) (Soderstrom and Sun, 2007). As a result, creating a more efficient market, and thereby stimulating economic growth and development.

The above literature explores different perspectives to this paper, in their focus on reporting quality. They provide explanations for the post-adoption capital market benefits, as addressed later in the research findings, as well as provide valuable insights into the expected impacts when IFRS is implemented in an African context. When considering what strong benefits are associated with adoption, it raises the question: “Why has every country not fully embraced IFRS?”

2.2 Accounting and finance in Africa

2.2.1 African stock markets

By far the largest and most sophisticated market in Africa is the Johannesburg Stock Exchange (JSE); established in 1887, it is amongst the oldest stock exchanges in the world. Other exchanges include the Cairo and Alexandria Stock Exchanges (CASE), founded 1883, and the Zimbabwe Exchange, founded 1896 (Afego, 2015). Although these nations were early introducers of public exchanges, it took around another 100 years for other African nations to catch up. In the late 20th century, economic shifts towards more market-based economies incentivised the creation of public stock exchanges. Agreements like “The Africa Growth and Opportunity Act 2000” (AGOA) was a turning point for many African economies for their globalisation efforts as access to African exports to the USA improved greatly. However, to meet AGOA’s rigorous eligibility requirements, countries must have established or made continual progress towards establishing a market-based economy (Section 104, Eligibility Requirements, Paragraph A) (Bookey, 2004). Examples like this illustrate the expanding influence of globalism and FDI, prompting countries to form their own stock exchanges. Some of the most prominent African stock exchanges were created at this time, such as the Ghana Stock Exchange and the Abuja Securities and Commodities Exchange, that enabled companies to list and issue shares in their company, accommodating to both domestic and foreign investors.

The opportunities and challenges faced by African stock markets are unique to the continent. With the exception of the Johannesburg Stock Exchange (JSE) “markets are characterised by illiquidity, weak investor base, low market capitalisation, poor regulatory framework, and poor accounting and reporting standards” (Afego, 2015) (Mlambo and Biekpe, 2005). Broader developmental challenges exacerbate these issues, such as the low literacy rates across the continent (Afego, 2015), culminating in many misinformed investors. The information inefficiencies and gaps, hinder the efficient allocation of resources. Nevertheless, these markets have shown consistent growth in recent years.

2.2.2 Accounting practices across Africa

The rise of globalisation became a driving force for accounting standards. Since the early 1990s, the construction of economic unions and trade agreements have created demand for standardised financial information. The advent of trade agreements within communities like the East African Community and Southern African Development Community naturally created incentives to agree on

the reporting standards used to monitor contracts and hence avoid agency costs. This led to revisions of accounting practices across the continent (Boolakya, 2004).

A number of standards are used across Africa. Tawiah (2019) discusses ‘accounting and auditing organization for Islamic financial institutions’. These standards are specifically designed for Islamic finance and are practised in Libya, Mauritius, Nigeria and Sudan (AAOIFI, 2023). Islamic culture where interest cannot be charged in lending, automatically creates problems for certain IFRS regulation such as revenue recognition IFRS 15. The impact of religion on IFRS adoption has many converging views, however it is outside the scope of this paper.

West-African Franc-zone countries have been revolutionary in their accounting standards. In the mid-1990s, several West African countries developed SYSCOA based on the ‘*French Plan Comptable*’ (IAS Plus, 2012) (IFRSb, 2023) aiming to harmonise accounting practices in the West African Economic and Monetary Union (WAEMU) member states. Furthermore, in 1998 a new business framework called the ‘*OHADA*’ was created, the purpose of which was to create a free trade area and establish new accounting practices (Boolakya, 2004).

Despite this, in recent years there has been a global trend towards IFRS convergence which African countries have also embraced. Today, 37 out of the 54 African jurisdictions require IFRS for all or most domestic publicly accountable entities. In addition, the OHADA Uniform Act on Accounting Law and Financial Reporting 2017 was adopted requiring “IFRS Standards in the consolidated financial statements of all listed companies and companies seeking financing in a public capital market in an OHADA jurisdiction” from 2019 onwards (IFRSb, 2023). This makes IFRS the most dominant accounting standard in the continent.

3. Theory

3.1 Neo-institutional theory

The neo-institutionalist framework, as developed by DiMaggio and Powell (1983), is used to understand the forces that push organisational structures to become homogeneous (Dufour, Teller, and Luu, 2014). It can be directly applied when explaining the diffusion of accounting standards, such as IFRS. The theory explores the wider social forces that have an influence on shaping organisational practices which influence institutional isomorphism. Isomorphism occurs as firms, or in this case nations, modify their characteristics in a direction of increasing compatibility with the competitive environment (Aldrich, 1979). For this reason, several studies have drawn on neo-institutional theory in the study of IFRS adoption (Osinubi, 2020). Many researchers argue that changes in reporting quality are determined by the type of isomorphic pressure in the institutional environment (Agana, Zamore, and Domeher, 2023). It must be noted that in these studies organisations are interpreted as countries. Boolakya et al. (2020) described nation-states as social actors subject to international, and national pressures.

Coercive isomorphism results from both direct and indirect pressures exerted on firms by other organisations upon which firms are dependent (DiMaggio and Powell, 1983). It is “primarily related to the political influence exerted by institutions on which organisations depend for critical resources and long-term survival” (Kholeif, 2010). Osinubi (2020) found “coercive isomorphism” as a significant driving force behind the mandatory adoption of IFRS in Nigeria, stating that international organisations such as the IMF likely demand accounting reform is enacted and that the “IMF aid is tied to demands that IFRS accounting standards be adopted” (Osinubi, 2020). Similar cases have been investigated in Pakistan, Egypt, Jordan and Bangladesh with the IMF, IASB and World Bank (Ashraf and Ghani, 2005) (Hassan, 2008) (Al-Akra, Ali, and Marashdeh, 2009) (Nurunnabi, 2015). When nations are faced with

demands from very powerful actors in the global economy, they may face little choice but to acquiesce to these demands. The endorsement of IFRS by the IMF, World Bank, and other international donor agencies has legitimised IFRS across the African continent (Elad, 2015), and growth in IFRS adoption has partly been to avoid legal or regulatory consequences that emanate from asymmetric power relationships (Nurunnabi, 2015). The existence of coercive isomorphism in the real world, would suggest that countries that receive a significant amount of foreign aid/investment, are more likely to have adopted IFRS, due to the pressures faced from foreign actors.

Normative isomorphism is a consequence of what DiMaggio and Powell describe as “professionalisation” (Mir and Rahaman, 2005). Hassan (2008) stated that “normative pressure resulting from the norms and values of the profession also influences the degree to which a nation will adopt international best practice”. It stems from a desire for legitimacy, seen when countries adopt IFRS and conform to international standards to enhance their credibility and acceptance, rather than to experience the true capital market and economic benefits. Countries with weak legal systems and high corruption levels are likely to feel pressure to conform to international best practices for financial reporting as they want to be perceived as legitimate and credible jurisdictions. Judge, Li and Pinsker (2010) propose that countries “adopting IFRS do so, not necessarily for the perceived FDI growth but rather to be reckoned as a socially acceptable and legitimate environment for international business”. This resonates with African nations, given that many of them “still rely on foreign aids from their former imperial rulers” (Nnandi and Soobaroyen, 2015). The capability to entice FDI is a common downfall across Africa and adoption of IFRS is viewed as a means to nullify this problem (Ajibade et al., 2019) by enhancing the reputation and bringing a sense of professionalism to institutional infrastructures like accounting bodies and regulatory agencies.

3.2 Contingency theory

Contingency theory compliments neo-institutionalism, to provide a holistic understanding of organisational behaviour and decision-making. It posits that the impact of IFRS adoption is contingent on a variety of factors that vary between countries and organisations. Contingency theory was employed by Othman and Kossentini (2015) to explain how partial adoption of IFRS can affect the development of emerging stock markets. They recognised the influence of environmental factors on IFRS implementation leading to variations in accounting practices even under uniform accounting systems. Factors such as the judicial system, rule of law and corruption index will impact the post-IFRS-adoption experience. “Contingency theory argues that environmental conditions are salient and interact with the development and requirements of a country's-specific accounting system” (Othman and Kossentini, 2015) (Larson and Kenny, 1996). Therefore, the contingency theory framework supports the idea that partial/modified IFRS adoption would be positively associated with stock market development. It posits that changes must be made to the standards to reflect each country's specific environmental needs because post-adoption consequences depend on a variety of factors.

In the African context, nations typically base their regulations on long-established colonial traditions that do not consider the unique circumstances of each nation (Elad, 2015). As Othman and Kossentini (2015) argue, the environmental circumstances of each African country will shape their post-IFRS-adoption experience.

4. Empirical literature and hypotheses development

4.1 Corruption and IFRS adoption

The term “corruption” refers to the opportunistic utilisation of a public position to obtain an illegitimate private gain (Shleifer and Vishny, 1993). Typically, it requires illegal practices including “cash payments, the misallocation of assets, and other inappropriate economically driven transactions” (Malagueno et al., 2010). The majority of extant literature recognises corruption as a significant factor affecting a nation's accounting and reporting environment, however there is a dearth of research focused on corruption levels as a determinant of IFRS adoption. Primarily, previous studies focus on the effectiveness of IFRS adoption in reducing corruption through improved accountability and transparency (e.g., Houqe and Monem, 2016). However, this does not address if corruption levels can be used as indicators to predict the extent of IFRS adoption.

Jain (2001) discusses the phenomenon of corruption as a driving force of IFRS adoption and argues that the accountability and transparency implications of IFRS prevent adoption in countries with high corruption levels. The author discusses that whenever powerful officials can gain private benefit from weak accounting standards, IFRS adoption is less likely as the authorised persons will not want their corrupt activities exposed (Jain, 2001). El-Helaly, Ntim and Al-Gazzar (2020) developed this and found evidence of corruption negatively affecting the (i) speed and (ii) extent of IFRS adoption. The authors found empirical evidence that countries with higher corruption levels are more likely to be partial adopters than mandatory. The results of El-Helaly, Ntim and Al-Gazzar (2020), are extremely insightful as they establish a connection between national corruption and the extent of IFRS adoption. However, the study lacks complete and thorough investigation into African countries, only 19 of the 54 African countries are included in the sample. This limits the direct applicability to the African continent as a whole.

The role of corruption in Africa sets it apart from other continents. Corruption levels in Africa are far above other parts of the world. Appendix 1 (Chart A) presents corruption by continent measured with the Corruption Perception Index, where 0 indicates a highly corrupt society, while 100 indicates a corruption clean society. From the graph, it is evident that Africa has a problem with corruption.

Nevertheless, using the aforementioned studies as a basis, one would conclude that Africa's high corruption levels has delayed full IFRS dissemination across the continent. This is the foundation of the first hypothesis:

H1: There is a negative link between level of corruption and the extent of IFRS adoption in Africa.

4.2 Rule of law and IFRS adoption

A strong rule of law indicates a durable system of laws, institutions, norms, and community commitment that delivers accountability, just law, open government, and accessible and impartial justice (World Justice Project, 2023). In the African context many governments and authorities have not been successful in enforcing the regulations governing the securities industry (Afego, 2011). Appendix 2 (Chart B) displays the rule of law according to the World Governance Indicators, by continent in 2022. It shows Africa is significantly behind other areas of the world.

Similarly to the section above discussing corruption, a lot of research has gone into the post-adoption consequences of IFRS adoption in relation to rule of law (e.g., Afego, 2015; Ageyei et al., 2020) to find that those countries with worse adherence to the rule of law consequently reap less benefits

to IFRS adoption. However, this paper investigates if rule of law can be used as a determinant of the extent of IFRS adoption.

Soderstrom and Sun (2007) posit that a robust regulatory setting, indicative of a stronger rule of law, enhances reporting quality. Furthermore, Seligson (2002) argues that maintaining a strong financial system and political stability necessitates better accounting standards. These two viewpoints emphasise the association between a stronger rule of law and the likelihood of IFRS adoption. In summary, the authors argue that a robust legal system is not only a catalyst for improving the financial accounting information environment, but also a decisive factor in the adoption of internationally accepted accounting standards.

On the opposing perspective, El-Helaly, Ntim and Al-Gazzar (2020) discuss how nations with weak rule of law are more likely to resist IFRS adoption due to the more comprehensive disclosure and strong enforcement and regulations. This establishes the foundation of my second hypothesis:

H2: There is a positive relationship between rule of law and the extent of IFRS adoption.

4.3 Foreign direct investment and IFRS adoption

As explained in section 3 – theoretical framework – foreign direct investment (FDI) can influence IFRS adoption. In theory, a mutually reinforcing relationship exists between the two. Firstly, increased FDI stimulates IFRS adoption as the foreign investors demand the implementation of quality reporting standards. This explains FDI as a determinant of IFRS adoption. Conversely, stronger IFRS adoption can be used as a tool by nations to stimulate their FDI as it boosts the credibility of organisations, as posited by the neo institutionalist framework. This reciprocal relationship is fascinating given that enhancements in one, contributes to enhancements in the other. This section develops on from the neo-institutionalist framework to discuss empirical evidence of this relationship.

In reviewing the empirical research, it seems IFRS adoption encourages the flow of FDI.

Studies contest that adoption of IFRS has a positive influence on FDI (e.g., DeFond, Li, and Shivakumar, 2011; Hessayri and Saihi, 2018; Gordon, Loeb and Zhu, 2012). They find that the benefits of IFRS such as comparability, transparency and accountability “can be regarded as a strategy to reduce the perceived risks of investing abroad and to foster trade and FDI” (Gordon, Loeb and Zhu, 2012).

However, not all researchers are in agreement with this argument as varying results have been found (e.g., Nnadi and Soobaroyen, 2015; Agyei-Boapeah et al., 2020, Ajibade et al., 2019). For example, Nnadi and Soobaroyen (2015) reported that full IFRS adoption is negatively associated with net FDI. They argue that “a country’s basic legal and socio-economic factors including the rule of law, legal system, and level of corruption are more critical in attracting FDI in Africa than merely adopting IFRS” (Agyei-Boapeah et al., 2020). This is congruent with Okpala (2012), Adetula, Nwobu, and Owolabi (2014) and Ajibade et al., (2019) who found a negative but insignificant association between IFRS adoption and FDI in Nigeria. These conflicting findings suggest a complex relationship between the two variables that warrants further investigation incorporating the rest of the African continent. The findings suggest that IFRS adoption alone would not lead to FDI inflows and FDI is affected by other factors such as exchange rate, inflation and political instability (Ajibade et al., 2019). Overall, there has not been sufficient exploration into the interaction between accounting standards and macroeconomic factors, such as FDI.

All this literature, combined with neo-institutional theory establishes my third and fourth hypothesis:

H3: There is a positive relationship between FDI and the extent IFRS adoption.

4.4 Market capitalisation and IFRS adoption

In reviewing the empirical research, it seems the consequences of IFRS adoption on capital markets is widely dependent on many different factors. Armstrong et al. (2010) stated that one single set of accounting standards cannot reflect the differences in national business practices arising from differences in institutions and cultures, similar to contingency theory. Consequently, Othman and Kossentini's (2015) hypothesis was that partial adoption is better for stock market development. This is because nations would be able to take into account their individual economic situation and environment. This enables them to adopt IFRS as they wish to fit their situation, rather than full adoption. In full adoption, one size fits all approach is used, and treating countries as homogenous without respect to their individual reporting challenges. Perhaps a more nuanced approach to IFRS convergence is required "supplemented by specific exemptions that cater to local economic and financial realities" (Van Wyk, 2023). However, Othman and Kossentini's (2015) hypothesis was proven wrong. They found that partial adoption can be detrimental and even reduce comparability due to potential conflation of accounting practices in a national context.

Larson and Kenny (1996) reported that full adoption of IFRS may actually be counterproductive. For instance, audit fees and compliance costs such as investing in training, education, hiring professionals, and technological costs to implement and maintain accounting systems may outweigh the benefits of IFRS adoption. There is significant concern among accounting scholars and policymakers that "harmonised standards do not necessarily lead to harmonised accounting practices and comparable financial reporting" (Osinubi, 2020). This suggests that IFRS will not produce capital market benefits because of high transition costs disincentivizing proper enforcement.

On the other hand, Agyei-Boapea et al. (2020) found the adoption of IFRS to significantly positively impact firm value of African companies, and the increases in firm value are most prominent in countries with a higher commitment to rule of law and in countries that implement IFRS to a stronger extent. Daske et al. (2008) and Li (2010) agree with these findings and argue that at the national level, post-IFRS liquidity benefits are dependent on enforcement levels.

Despite the lack of empirical evidence specific to Africa, the number of other countries adopting IFRS offers a considerable amount of evidence relating to the economic consequences of this adoption. This establishes my final hypothesis:

H4: The adoption of IFRS is associated with changes in market capitalisation in the post-adoption period.

5. Methodology

5.1 Data sources and sample selection

This research employs quantitative methods, specifically multiple regression analysis, to examine secondary data. Secondary data sets provide the quantitative data necessary for quantitative analysis (Ghauri and Chidlow, 2017), by saving costs and time compared to gathering primary data (Cowton, 1998).

To assess progress towards the goal of a single set of global accounting standards, the IFRS Foundation has developed and posted profiles about the use of IFRS Standards across individual jurisdictions (2023). The official website is used as the primary data source to determine the extent of IFRS adoption per country. Other data resources are also used as supplements to this: Deloitte

IASplus.com website (2015), IFRS adoption country guides by PriceWaterhouseCoopers (2015) and previous literature (Tawiah, 2019; Nnadi and Soobaroyen 2015; El-Helaly, Ntim, and Al-Gazzar, 2020). All this information was aggregated to collect data on the extent of IFRS adoption across Africa, however we primarily rely on the IFRS website as it is the most comprehensive database of different countries and is regularly updated.

To investigate the determinants of IFRS adoption, the secondary data used comes from various sources. Firstly, the World Bank Control of Corruption index is used as a measurement for corruption. It “captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests” (World Bank, 2024). A perception-based corruption index is used instead of an actual corruption measure. El-Helaly, Ntim, and Al-Gazzar (2020) state that prior corruption literature suggests perception-based measures are more valid (Treisman, 2007; Wilhelm, 2002). Secondly, the World Bank Rule of Law Index is used as the measurement for rule of law per country and the World Bank database is employed to obtain the FDI per country, as well as the control variables which are GDP and inflation levels.

To investigate the second part of the study into the consequences of IFRS adoption, the World Federation of Exchanges statistics portal is employed. This database was used to measure the market capitalisation over time of the chosen stock markets.

To maximise the number of data points for the analysis and to achieve a greater representation of the African continent, sample 1 comprising all 54 African countries will be used. This provides a comprehensive understanding of accounting practices across the continent. However, not every African nation has a public stock exchange therefore for the second part, only the countries with a public stock exchange are part of the sample looking into the consequences of IFRS on capital markets. Overall, this results in a final sample consisting of 12 stock markets spanning across 19 countries (sample 2). Only countries with stock exchanges and sufficient data will be in sample 2. Table 1 presents sample 2.

Before the results were analysed, a data cleaning process was used to identify and remove errors and inconsistencies and improve the quality of results (Rahm and Do, 2000) (Osborne, 2013). For instance, missing values for corruption or rule of law would be replaced by the next closest year which is justified as such values do not fluctuate too much year on year. Furthermore, winsorizing was done to replace extreme values and preserve the overall distribution of the data. These processes were done to ensure integrity and reliability of the dataset, by identifying outlier figures that could distort the relationships between variables and mitigating their effect on the regression results.

Table 1: Sample countries

Sample 2.

Jurisdiction(s)	Exchange	Abbreviation	Number of Listed Companies
Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, Togo	Bourse Régionale des Valeurs Mobilières	BRVM	46
Egypt	The Egyptian Exchange	EGX	218
Ghana	Ghana Stock Exchange	GSE	36
Kenya	Nairobi Securities Exchange	NSE	61
Mauritius	Stock Exchange of Mauritius	SEM	99
Morocco	Bourse de Casablanca	BC	76
Namibia	Namibian Stock Exchange	NSX	40
Nigeria	Nigerian Exchange	NGX	171
Seychelles	MERJ Exchange	MERJ	51
South Africa	Johannesburg stock exchange	JSE	302
Zambia	Lusaka Securities Exchange	LuSE	22
Tunisia	Bourse de Tunis	BVMT	68

5.2 Variables and Measures

5.2.1 Dependent Variables

The extent of IFRS adoption describes “how” a chosen country adopts IFRS. This variable categorises countries into their latest extent of IFRS adoption. The variable (Adoption Score) is a categorical, ordinal, variable with five distinct categories. Countries who have not adopted IFRS at all are categorised as non-adopters and are in group zero. Countries permitting IFRS for domestic public firms are group one. Countries requiring IFRS for some domestic public firms are group two. Countries requiring IFRS for all domestic public firms but not requiring/permitting it for SMEs are group three. Finally, countries requiring IFRS for all domestically listed firms and requiring/permitting for SMEs are group four. For the countries without a domestic stock exchange their category of IFRS adoption depends on their accounting requirements for banks and other financial institutions. Table 2 presents sample 1 for the first part of the research, it identifies all African countries by their latest level of IFRS adoption and the year.

From Table 2, only 9 countries are classed as non-adopters of IFRS as the regulations are not permitted, in group 0. While 21 countries are classed as strong adopters, who fully adopt IFRS for all domestic public companies and SMEs, group 4. IFRS adoption in some African countries, such as South Africa, is the purest form of adoption (Nobes, 2011). Other large economies, such as Nigeria, South Africa, Ghana and Tanzania are adopting IFRS, but small economies with a weak accounting environment, such as Djibouti and Somalia are not (Tawiah, 2019).

Table 2

Country Classification.

0	1	2	3	4
Algeria	Cabo Verde	Angola	Benin	Botswana
Burundi	South Sudan	Eritrea	Burkina Faso	Eswatini
Djibouti	Sudan	Morocco	Cameroon	Ethiopia
Egypt		Mozambique	Central African Republic	Gambia
Libya			Chad	Ghana
Mauritania			Comoros	Kenya
Sao Tome and Principe			Côte d'Ivoire	Lesotho
Somalia			D.R. Congo	Liberia
Tunisia			Equatorial Guinea	Madagascar
			Gabon	Malawi
			Guinea	Mauritius
			Guinea-Bissau	Namibia
			Mali	Nigeria
			Niger	Rwanda
			Republic of the Congo	Seychelles
			Senegal	Sierra Leone
			Togo	South Africa
				Tanzania
				Uganda
				Zambia
				Zimbabwe

The second dependent variable under examination for this research is market capitalisation. Market capitalisation is a fundamental value in finance, assessing the overall value of a public company in the stock market. It is calculated by multiplying the total number of a company's outstanding shares by the current market price of one share. It provides a fast and simple method to evaluate a company's value. A high market capitalisation post IFRS-adoption indicates that the implementation of IFRS accounting practices has improved the value of the firms. As a dependent variable, the market capitalisation of each African stock market will be examined in relation to the various independent variables.

5.2.2 Independent Variables

The independent variables are corruption levels, rule of law, FDI and the extent of IFRS adoption. The impact of these variables on the dependent variables will be observed to establish predictors and explanatory factors. The independent variables are presented in the variable definition summary table (Appendix 3) Corruption, rule of law and FDI are continuous variables.

5.2.3 Control Variables

The control variables for the regression model are included to account for external factors that could influence the relationship between the independent and dependent variables. The control variables are GDP and inflation. Previous research indicates that the adoption of IFRS

is associated with economic development (Hope, Jin, and Kang, 2006; Ramanna and Sletten, 2014) therefore this must be accounted for in the regression model. GDP and inflation are continuous variables.

Appendix 3 (Table I) provides a description and definition of all variables.

5.3 Regression Model

Following categorising the African nations based on their accounting standards, regression is used to establish whether there is a statistical correlation between the variables. All the data points will be put in SPSS to find a correlation using multiple regression analysis. Regression analysis is a suitable statistical technique enabling investigation into the strength of a relationship between two or more variables (Swift and Piff, 2010).

The regression equations are as follows:

$$\text{IFRS adoption score} = \text{determinants (corruption + rule of law + FDI)} + \text{control variables (GDP + inflation rate)} \text{ (Model 1 - determinants)}$$

$$\text{Market capitalisation} = \text{IFRS adoption score} + \text{control variables (corruption + rule of law + FDI + GDP + inflation rate)} \text{ (Model 2 - consequences)}$$

5.4 Limitations

There are limitations that have arisen in conducting this research. Firstly, the COVID-19 pandemic had influence on results for the OHADA countries that adopted IFRS as a group in 2019. As COVID-19 was just one year after, the post adoption results are not as predictable. Secondly, the reliance of the study on secondary data sources instead of primary data could mean the information is limited or biased due to those datasets. The final limitation is the sample size as not as many countries have active stock exchanges. A lot of the African stock exchanges do not have sufficient data to use in this research. If more stock exchanges could be used in the regression it would increase the data points and reliability. Overall, these constraints have been minimised, but they should be taken into account when evaluating the study's findings.

6. Empirical Results and Discussion

6.1 Descriptive Statistics

The descriptive statistics of all variables used in model 1 are presented in table 3.

Table 3

Descriptive Statistics Model 1.

Variables	N	Mean	SD	Min	Max
Adoption Score	1896	2.6377	1.43571	0.00	4.00
Corruption	1896	-0.5895	0.62912	-1.94	1.70
Rule of Law	1896	-0.6761	0.66835	-2.59	1.04
FDI (%GDP)	1896	3.4708	7.84199	-17.29	161.82
\$GDP million	1896	33225	74413	75	574000
Inflation%	1896	33.5370	571.26070	-16.86	23773.13

As presented in table 3, there are 1896 observed values for this model. The mean adoption score is 2.6377 with a standard deviation of 1.43571. This indicates a moderate level of variation between countries in the extent of their IFRS adoption, with some countries adopting IFRS to a greater extent than others. On average, the countries in the sample exhibit a moderate level of IFRS adoption. The maximum values for corruption, rule of law and FDI are 1.70, 1.04 and 161.82 respectively. And the minimum values for corruption, rule of law and FDI are -1.94, -2.59, -17.29 respectively. All three of these variables have large standard deviations demonstrating the diversity across the continent. The dispersion of data points for corruption levels, rule of law, and FDI can make it more challenging to identify and interpret correlations between variables (Bouchaud, J.P., 2002). Some countries are perceived to have extremely low control over corruption and rule of law, such as Somalia and South Sudan with very weak scores for both. Whereas other countries like Seychelles and Cabo Verde perform well for these measures showing that this is not necessarily a cross-continental issue.

GDP and inflation, as control variables, significantly vary. The mean GDP is \$33,225,539,865 with a standard deviation of \$74,413,127,230 indicating significant dispersion of GDP values around the mean. The mean inflation is 33.5370%, well above the western inflation target of 2-3% (European Central Bank, 2024). The standard deviation of inflation is 571.26070%. This highlights the significant heterogeneity in economic development across the continent, as well as the volatility in price levels.

The descriptive statistics of all variables used in model 2 are presented in table 4. As presented in table 4, there are 429 observed values for model 2. For this sample, the mean adoption score is 3, with a standard deviation of 1.46931. On average, the countries within this sample exhibit a relatively strong level of IFRS adoption. Corruption levels have a mean value of -0.2268, and rule of law has a mean value of -0.1732. Furthermore, both variables have lower standard deviations than the model 1 sample: 0.59953 and 0.57635 respectively. The lower standard deviations indicate a more uniform sample with greater consistency. The mean market capitalisation across the stock markets is bn\$108,101 with a standard deviation of bn\$252510, providing further insight into the financial landscape.

Table 4

Descriptive Statistics Model 2.

Variables	(1) N	(2) Mean	(3) SD	(4) Min	(5) Max
Market Cap. bn\$	429	108101.9490	252510.23142	0.28	1230977.00
Adoption Score	429	3.0000	1.46931	0.00	4.00
Corruption	429	-0.2268	0.59953	-1.50	1.70
Rule of Law	429	-0.1732	0.57635	-1.54	1.02
\$GDP million	429	94738	130124	392	574000
Inflation	429	10.1488	16.10542	-2.40	183.31

The descriptive statistics from model 1 and model 2 are expected. Nnadi and Soobaroyen (2015) also found corruption and rule of law in Africa to be negative indicating “the low rating of rules and regulations in the society”. The authors also noted similar standard deviations for the variables indicating there is diversity across the continent. As of the date of this paper, there have been no papers investigating market capitalisation in Africa to compare the results of model 2.

6.2 Correlation Analysis

Correlation analysis is used to address any multicollinearity concerns between variables. If there is a multicollinearity problem, the regression will not be as accurate as there is a relationship between the independent variables (Waters, 2008). It is possible that variables, rather than being independent, are in fact correlated and the change of one independent variable creates change in the other. Multiple collinearity issues are likely to occur when the coefficient is larger than 0.8, and multiple collinearity issues may occur when the coefficient is greater than 0.5 (Gujarati, 1995).

The Pearson pairwise correlation results of model 1 are presented in table 5. Control of corruption and strength of rule of law have a positive correlation with the adoption score. They have correlations of 0.11 and 0.172 respectively. This indicates that countries with higher control of corruption and stronger rule of law are more likely to adopt IFRS to a stronger extent. This demonstrates the role of governance quality in accounting practices.

On the other hand, the observed correlations between FDI and IFRS adoption are comparatively weaker at 0.016. This indicates a minimal relationship between FDI in driving IFRS adoption within the sampled countries.

Table 5

Correlation Analysis Model 1.

	Adoption Score	Corruption	Rule of Law	FDI	GDP	Inflation	Tolerance	VIF
Adoption Score	1.000							
Corruption	0.110	1.000					0.282	3.551
Rule of Law	0.172	0.847	1.000				0.279	3.590
FDI	0.016	0.016	-0.003	1.000			0.992	1.008
GDP	-0.064	0.068	0.122	-0.086	1.000		0.974	1.027
Inflation	0.004	-0.067	-0.075	-0.012	-0.015	1.000	0.994	1.006

Despite their status as control variables, GDP and inflation have a weak relationship with IFRS adoption, with Pearson correlation coefficients of -0.064 and 0.004. Within the context of this study, GDP has a slight negative correlation with IFRS adoption suggesting that differences in GDP between countries does not have a strong influence in their embracement of IFRS. The Pearson correlation coefficient between IFRS and inflation is even weaker, at 0.004. This indicates there is almost no relationship between the two variables across the sample countries.

As displayed in Table 5, there is a multicollinearity problem for the relationship between corruption and rule of law. The two independent variables have a correlation of 0.847. This demonstrates a strong positive correlation and suggests that countries with weak rule of law are more likely to exhibit strong corruption. This shows the challenges in addressing corruption in environments with weak institutional frameworks and indicates that as one variable increases, the other tends to increase as well. There are no other multicollinearity issues with the other variables.

Table 6 shows the correlation analysis results of model 2. As presented in Table 6, there is a negative relationship between market capitalisation and IFRS adoption of -0.51. This relationship is

moderately strong and implies that a degree of influence of one variable over the other exists between the two variables. As the extent of IFRS adoption increases, market capitalisation tends to decrease.

The control variables, control of corruption, rule of law, GDP and inflation have coefficients with market capitalisation of 0.143, 0.110, 0.675 and -0.113. Control of corruption, rule of law and GDP have a positive relationship with market capitalisation with corruption to the greatest extent. Conversely, the rule of law has a negative relationship.

Finally, in the same way as in model 1, there is a strong positive correlation between rule of law and control of corruption. For this sample 2, the correlation coefficient is 0.817. There are no other multicollinearity concerns between the other variables.

Table 6

Correlation Analysis Model 2.

	Market Cap.	Adoption Score	Corruption	Rule of Law	GDP	Inflation	Tolerance	VIF
Market Cap.	1.000							
Adoption Score	-0.051	1.000					0.918	1.089
Corruption	0.143	0.103	1.000				0.312	3.202
Rule of Law	0.110	0.008	0.817	1.000			0.323	3.097
GDP	0.675	-0.136	-0.161	-0.185	1.000		0.938	1.066
Inflation	-0.113	0.170	-0.251	-0.202	-0.079	1.000	0.888	1.126

The results for correlation analysis findings of model 1 and model 2 are consistent with the findings of Nnanndi et al. They saw a positive correlation between IFRS adoption and the independent variables, rule of law and GDP. The Pearson correlation coefficient can provide valuable initial insight into the strength and direction of linear relationships. Despite this, correlation does not always indicate a causal relationship; therefore, further investigation is warranted (Bouchaud, 2002). This will ensure my research is robust and the results are reliable.

6.3 Collinearity

Pearson correlation suggested there could be some collinearity because the independent variables, rule of law and corruption, have a correlation coefficient greater than 0.8. This sparks further tests looking into the VIF scores and tolerance scores for the variables. It is common practice for a VIF score greater than 5, or a tolerance score below 0.25 to indicate significant multicollinearity that must be investigated (Kim, 2019). Therefore, the variables do not need to be corrected since, as shown in table 5 and 6 the VIF scores and tolerance are at suitable levels. The assumption of no multicollinearity has been met for both regression models.

6.4 Regression

The output of the regression tests for Model 1 and Model 2 are presented in Table 7 and Table 8 respectively. The R-squared and adjusted R-squared represent the proportion of variance in the

outcome variable which is explained by the predictor variables in the sample (R-squared) and an estimate in the population (adjusted R-squared) (Miles, 2005). By convention, a regression model is considered to have a high predictive power if the model has a high R-squared or adjusted R-squared (Gujarati, Porter, and Gunasekar, 2012). The adjusted R squared for model 1 is 0.04. This statistic is considered very low (Ozili, 2022) as it means the model only explained 4% of variance in the dependent variable. The adjusted R squared for model 2 is 0.519; a much better statistic indicating the model explained 51.9% of the variance in the dependent variable. At initial glance this might seem problematic for the results of model 1, however many researchers consider the R-square to be of limited importance in the social sciences, especially for comparing models utilising different datasets such as in this study (Ozili, 2022). R-squared “cannot help us to make causal claims about the relationship between the independent variables and the dependent variable” and does not assist us regarding omitted variable bias (Ozili, 2022).

The Durbin-Watson statistic is a test for autocorrelation in a regression model's output. “Autocorrelation refers to the degree of correlation of the same variables between two successive time intervals” (Taylor, 2020). The Durbin-Watson statistic for model 1 variables is 0.058. The Durbin-Watson statistic for model 2 variables is 0.327.

6.5 Discussion of Results

6.5.1 Corruption and IFRS Adoption

Control of Corruption and IFRS adoption have a negative relationship and a coefficient of -0.137. The findings suggest that countries with weaker control of corruption adopt a stronger IFRS policy, holding all other variables constant. These findings contradict the research of Jain (2001) and El-Helaly, Ntim and Al-Gazzar (2020), who found corruption to drive IFRS adoption. Furthermore, these findings suggest the dynamics of IFRS in Africa are different and more complex than the rest of the world. The findings could indicate that in Africa, mandatory IFRS adoption has been used by policymakers and regulatory authorities as a corruption control measure. And less corrupt countries do not feel as much pressure to abandon their domestic standards that are already sufficient. This viewpoint is consistent with the neo-institutional framework, in which the term “normative isomorphism” (DiMaggio and Powell, 1983) describes nations’ desire for legitimacy. Perhaps, more corrupt jurisdictions have felt more pressure to conform and hence bring credibility to their institutions. The results of the regression have likely been impacted by the 2019 adoption of IFRS from the OHADA countries. They adopted a strong IFRS policy and show some of the highest corruption levels across the continent, in countries like DR Congo and Chad. This viewpoint provides guidance for further investigation.

The results enable the author to reject hypothesis 1.

6.5.2 Rule of Law and IFRS Adoption

Rule of Law and IFRS adoption have a positive relationship and a coefficient of 0.300. The coefficient suggests that countries with more robust legal frameworks are more likely to adopt IFRS to a greater degree, holding all other variables constant. These findings are consistent with El-Helaly, Ntim and Al-Gazzar (2020) and Soderstrom and Sun (2007) who propose a significant relationship between IFRS and rule of law. Rule of Law has the highest standardised coefficient with IFRS adoption out of the independent variables, making it the strongest determinant of IFRS adoption amongst the independent variables. This demonstrates the significant role that legal context plays in shaping accounting practices. Policymakers and regulatory authorities should prioritise efforts to strengthen rule of law.

The results enable the author to accept hypothesis 2.

6.5.3 FDI and IFRS Adoption

FDI and IFRS adoption have a positive relationship and a coefficient of 0.012. This relationship is very weak but indicates that countries that receive more FDI are more likely to adopt IFRS, holding all other variables constant. This finding is consistent with neo-institutionalist theory, the phenomenon of “coercive isomorphism” (DiMaggio and Powell, 1983), and the findings of Osinubi (2020) Nurunnabi, (2015) and Elad (2015) who investigated the pressures exerted on African nations by the international institutions they’re financially dependent on.

Despite this, the relationship is very weak, and has a p value of 0.597, suggesting only a minimal increase in IFRS adoption following increases in FDI. These findings demonstrate the complex relationship between the two variables warranting further investigation. This is a similar conclusion to the findings of Nnadi and Soobaroyen (2019), Okpala (2012), Fisseha (2023) Adetula, Nwobu and Owolabi (2014) and Ajibade et al. (2019) who found a negative but insignificant association between IFRS adoption and FDI in Nigeria.

Furthermore, FDI has the lowest coefficient with IFRS adoption compared to the other independent variables. This is consistent with the findings of Agyei-Boapeah et al. (2020) who argues that a country’s basic legal and socio-economic factors including the rule of law, legal system, and level of corruption contribute more than FDI to IFRS adoption.

The results enable the author to accept hypothesis 3.

6.5.4 Market Capitalisation and IFRS Adoption

The market capitalisation of African stock markets is positively associated with IFRS adoption, with a coefficient of 0.029. This indicates that stronger IFRS adoption increases market liquidity, holding all other variables constant. These results contradict contingency theory which advocates a more nuanced approach to accounting across the continent taking into account individual economic context (Armstrong et al., 2010). On the other hand, the positive relationship is consistent with Othman and Kossentini (2015) who found partial adoption to be detrimental. This is the study that formed the basis of my hypothesis. These results demonstrate how IFRS adoption has a positive impact on African stock markets, and those public organisations within Africa must prioritise IFRS reporting practices.

The results enable the author to accept hypothesis 4.

Table 7

Regression Model 1.

Variable	Coefficient unstandardised	Standard Error	t-statistic	p-value
(Constant)		0.052	56.268	<0.001
Corruption	-0.137	0.097	-3.241	0.001
Rule of Law	0.300	0.092	7.045	<0.001
FDI	0.012	0.004	0.529	0.597
GDP	0.090	0.001	-3.928	<0.001
Inflation	0.016	0.001	0.726	0.468
R-squared	0.042			
Adjusted R-squared	0.04			
Sum squared resid	3740.100			
Durbin-Watson	0.058			
F-statistic	16.774			
prob F-stat	<0.001			

Table 8

Regression Model 2.

Variable	Coefficient unstandardised	Standard Error	t-statistic	p-value
(Constant)		21763.447	-0.752	0.453
Adoption Score	0.029	6013.024	0.822	0.412
Corruption	0.176	25270.654	2.932	0.004
Rule of Law	0.101	25851.595	1.709	0.088
GDP	0.726	0.001	20.972	<0.001
Inflation	0.004	557.934	0.108	0.914
R-squared	0.524			
Adjusted R-squared	0.519			
Sum squared resid	1.298E+13			
Durbin-Watson	0.327			
F-statistic	93.279			
prob F-stat	<0.001			

7. Summary and Conclusion

In conclusion, this research has provided valuable insights into the dynamics of IFRS adoption in Africa. The research objective of this study was to investigate the driving factors behind IFRS adoption in Africa, looking at FDI and national governance indicators such as corruption and rule of law. Secondly, the research objective was to investigate the capital market consequences of IFRS adoption, particularly examining the impact on market capitalisation. This study analysed second-hand

data from the World Federation of Exchanges, the World Bank, and IFRS website, and used regression analysis with SPSS to draw conclusions about the variables.

The findings reveal a complex accounting and finance dynamic within Africa. Firstly, this study found that countries perceived as more corrupt implement higher adoptions of IFRS. This finding somewhat contradicts previous research, suggesting a complex situation and warranting further investigation. The regression models also found a positive relationship between rule of law and IFRS adoption, and a positive but weak relationship between FDI and IFRS adoption, consistent with neo-institutional frameworks. Finally, the study found a positive relationship between market capitalisation and IFRS adoption, demonstrating the positive effect IFRS adoption has on African stock markets and underscoring the importance of accounting harmonisation for Africa's integration into the global economy.

Previous research in this field is primarily focused on IFRS in Europe and other developed countries, making this study unique. Furthermore, the adoption of IFRS across OHADA countries in 2019 is a recent, and significant event which has not been sufficiently investigated at the point of writing this paper. As aforementioned, both the driving factors and consequences of adoption are investigated therefore increasing the scope of this study by providing a comprehensive understanding of IFRS across the continent. As well as, containing research on all African countries rather than choosing a specific one, therefore enriching literature for the entire continent.

Despite the valuable contributions this study makes to accounting literature, there are some limitations. Firstly, there was limited suitable and reliable data on African stock markets, therefore when investigating the post-adoption consequences of IFRS adoption, a sample size of just 12 markets was used. A larger sample size would be more representative of the entire continent and hence more accurate results. Secondly, the COVID-19 pandemic would have influenced the results of the regression, especially for the OHADA as they adopted IFRS in 2019. There are 17 OHADA countries therefore they occupy a significant proportion of the 54 African countries. When investigating the post-adoption consequences of IFRS, it is likely their post-adoption figures were influenced by the pandemic.

Overall, this study investigates the determinants and consequences of the implementation of IFRS in Africa. The results of this research spark further investigation. For instance, future research should investigate the idea of IFRS as a corruption control technique. This study found more corrupt countries to adopt a stronger version of IFRS, perhaps suggesting that government regulators and officials attempt to control their corruption using IFRS. Exploring this situation further will enrich understanding of the relationship between accounting standards and national governance practices in Africa.

References

- Abad, D., Cutillas-Gomariz, M. F., Sanchez-Ballesta, J. P., & Yague, J. (2017). Does IFRS mandatory adoption affect information asymmetry in the stock market? *Australian Accounting Review*, 28(1), 61–78. <https://doi.org/10.1111/auar.12165>
- AAOIFI. (2023). Adoption of AAOIFI standards. Available at <https://aaofi.com/adoption-of-aaofi-standards/?lang=en> (Accessed 9 Dec 2023).
- ACCA. (n.d.). Financial reporting and corporate governance - international standards. Available at <https://www.accaglobal.com/gb/en/member/regulation/auditing-standards/reporting-international-standards.html> (Accessed 9 Dec 2023).
- Adetula, D. T., Nwobu, O., & Owolabi, F. (2014). International financial reporting standards and foreign direct investment in Nigeria. *International Journal of Commerce, Business and Management*, 3(3), 446–449.
- Afego, P. N. (2015). Market efficiency in developing African stock markets: What do we know? *The Journal of Developing Areas*, 49(1), 243–266. <https://doi.org/10.1353/jda.2015.0022>
- Agana, J. A., Zamore, S., & Domeher, D. (2023). IFRS adoption: A systematic review of the underlying theories. *Journal of Financial Reporting and Accounting* (Preprint). <https://doi.org/10.1108/JFRA-08-2022-0317>
- Agyei-Boapeah, H., Machokoto, M., Amankwah-Amoah, J., Tunyi, A., & Fosu, S. (2020). IFRS adoption and firm value: African evidence. *Accounting Forum*, 44(3), 238–261. <https://doi.org/10.1080/01559982.2020.1766755>
- Ahsan, A., Bose, S., & Ali, M. J. (2024). Does Islamic religiosity influence professional accountants' judgments? Evidence from global convergence of IFRS. *Advances in Accounting*, 64(4). <https://doi.org/10.1016/j.adiac.2023.100723>
- Ajibade, A., Okere, W., Isiaka, M., & Mabinuori, O. T. (2019). International financial reporting standard (IFRS) adoption and foreign direct investments (FDI): A comparative analysis of Nigeria and Ghana. *Asian Journal of Economics, Business and Accounting*, 11(2), 1–10. <https://doi.org/10.9734/ajeba/2019/v11i230122>
- Aldrich, H. E. (1979). *Organizations and environments*. Englewood Cliffs, NJ: Prentice-Hall.
- Al-Akra, M., Ali, M. J., & Marashdeh, O. (2009). Development of accounting regulation in Jordan. *The International Journal of Accounting*, 44(2), 163–186. <https://doi.org/10.1016/j.intacc.2009.03.003>
- Amiram, D. (2012). Financial information globalization and foreign investment decisions. *Journal of International Accounting Research*, 11, 57–81. <https://doi.org/10.2308/jiar-50282>
- Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The Accounting Review*, 85(1), 31–61. <https://doi.org/10.2308/accr.2010.85.1.31>
- Ashraf, J., & Ghani, I. (2005). Accounting development in Pakistan. *The International Journal of Accounting*, 40(2), 175–201. <https://doi.org/10.1016/j.intacc.2005.01.010>
- Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research*, 46(3), 467–498. <https://doi.org/10.1111/j.1475-679X.2008.00287.x>
- Benston, G. J. (1975). Accounting standards in the United States and the United Kingdom: Their nature, causes and consequences. *Vanderbilt Law Review*, 28(1), 235–270. <https://scholarship.law.vanderbilt.edu/vlr/vol28/iss1/7>
- Beuren, I. M., Hein, N., & Carlos Klann, R. (2008). Impact of the IFRS and US-GAAP on economic-financial indicators. *Managerial Auditing Journal*, 23(7), 632–649. <https://doi.org/10.1108/02686900810890616>

- Boolakay, P. (2004). Accounting developments in Africa: A study of the impact of colonisation and the legal systems on accounting standards in sub-Saharan African countries. *Delhi Business Review*, 5(1), 123.
- Boolakay, P., Tawiah, V., & Soobaroyen, T. (2020). Why do African countries adopt IFRS? An institutional perspective. *The International Journal of Accounting*, 55(1). <https://doi.org/10.1142/S1094406020500055>
- Bouchaud, J. P. (2002). An introduction to statistical finance. *Physica A: Statistical Mechanics and its Applications*, 313(1-2), 238–251. [https://doi.org/10.1016/S0378-4371\(02\)01039-7](https://doi.org/10.1016/S0378-4371(02)01039-7)
- Brown, P. R., Preiato, J. P., & Tarca, A. (2013). Measuring country differences in enforcement of accounting standards: An audit and enforcement proxy. *Journal of Business Finance & Accounting*, 41(1-2), 1–52. <http://dx.doi.org/10.2139/ssrn.2286029>
- Capkun, V., Collins, D., & Jeanjean, T. (2016). The effect of IAS/IFRS adoption on earnings management (smoothing): A closer look at competing explanations. *Journal of Accounting and Public Policy*, 35(4), 352–394. <https://doi.org/10.1016/j.jaccpubpol.2016.04.002>
- Cheng-Wen, L., & Azis, M. I. (2022). The effect of adopting international accounting standards on corruption under financial reporting basis. *Review of Integrative Business and Economics Research*, 12(1), 40–55.
- Chen, H., Tang, Q., Jiang, Y., & Lin, Z. (2010). The role of international financial reporting standards in accounting quality: Evidence from the European Union. *Journal of International Financial Management & Accounting*, 21(3), 220–278. <https://doi.org/10.1111/j.1467-646X.2010.01041.x>
- Cowton, C. J. (1998). The use of secondary data in business ethics research. *Journal of Business Ethics*, 17, 423–434. <https://doi.org/10.1023/A:1005730825103>
- Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research*, 46(5), 1085–1142. <https://doi.org/10.1111/j.1475-679X.2008.00306.x>
- DeFond, M., Hu, X., Hung, M., & Li, S. (2010). The impact of mandatory IFRS adoption on foreign mutual fund ownership: The role of comparability. *Journal of Accounting and Economics*, 51, 240–258. <https://doi.org/10.1016/j.jacceco.2011.02.001>
- De George, E., Li, X., & Shivakumar, L. (2016). A review of the IFRS adoption literature. *Review of Accounting Studies*, 21(3), 898–1004. <https://doi.org/10.1007/s1142-016-9363-1>
- Dima, S. M., Dima, B., Megan, O., & Paiusan, L. (2014). A discussion over IFRS' adoption in Islamic countries. *Journal of Accounting and Management Information Systems*, 13(1), 35–49.
- DiMaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147–160. <https://doi.org/10.17323/1726-3247-2010-1-34-56>
- Ding, Y., Hope, O., Jeanjean, T., & Stolowy, H. (2007). Differences between domestic accounting standards and IAS: Measurement, determinants and implications. *Journal of Accounting and Public Policy*, 26, 1–38. <https://doi.org/10.1016/j.jaccpubpol.2006.11.001>
- Duarte, A., Saur-Amaral, I., & Azevedo, G. (2015). IFRS adoption and accounting quality: A review. *Journal of Business & Economic Policy*, 2(2), 104–123.
- Dufour, D., Teller, P., & Luu, P. (2014). A neo-institutionalist model of the diffusion of IFRS accounting standards. *Computational Economics*, 44(1), 27–44. <https://doi.org/10.1007/s10614-013-9384-9>
- Efobi, U., & Nnadi, M. (2015). How does foreign aid affect the relationship between IFRS adoption and foreign direct investment? *African Governance and Development Institute Working Paper Series*. <https://doi.org/10.2139/ssrn.2613810> (Accessed 23 March 2024).
- Elad, C. (2015). The development of accounting in the Franc Zone countries in Africa. *The*

- International Journal of Accounting*, 50(1), 75–100.
<https://doi.org/10.1016/j.intacc.2014.12.006>
- El-Helaly, M., Ntim, C. G., & Al-Gazzar, M. (2020). Diffusion theory, national corruption and IFRS adoption around the world. *Journal of International Accounting, Auditing and Taxation*, 38(4).
<https://doi.org/10.1016/j.intaccudtax.2020.100305>
- El-Helaly, M., Ntim, C. G., & Soliman, M. (2020). The role of national culture in International Financial Reporting Standards adoption. *Research in International Business and Finance*, 54.
<https://doi.org/10.1016/j.ribaf.2020.101241>
- European Central Bank. (2024). Two per cent inflation target.
<https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html>
 (Accessed 22 March 2024).
- European Communities. (2002). Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards. *Official Journal of the European Communities*, L243, 1–4.
- EY. (2023). IFRS. https://www.ey.com/en_gl/ifrs (Accessed 9 December 2023).
- Ezenwoke, O., & Tion, W. (2020). International financial reporting standards (IFRSs) adoption in Africa: A bibliometric analysis. *Cogent Social Sciences*, 6(1).
<https://doi.org/10.1080/23311886.2020.1801370>
- Fisseha, F. L. (2023). IFRS adoption and foreign direct investment in Sub-Saharan African countries: Does the level of adoption matter? *Cogent Business & Management*, 10(1).
<https://doi.org/10.1080/23311975.2023.2175441>
- Ghauri, P. N., & Chidlow, A. (2017). Data collection procedure equivalence in emerging economy market research. In *Research handbook of marketing in emerging economies* (pp. 9–29).
<https://doi.org/10.4337/9781784713171.00008>
- Glaum, M., Peter, S., Street, D. L., & 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(2), 163–204.
<https://doi.org/10.1080/00014788.2012.711131>
- Gordon, L. A., Loeb, M. P., & Zhu, W. (2012). The impact of IFRS adoption on foreign direct investment. *Journal of Accounting and Public Policy*, 31(4), 374–398.
<https://doi.org/10.1016/j.jaccpubpol.2012.06.001>
- Gugliola, G. (2010). IFRS adoption in the E.U., accounting harmonization and markets efficiency: A review. *International Business & Economics Research Journal*, 9(12), 99–112.
<https://doi.org/10.19030/iber.v9i12.350>
- Gujarati, D. N. (1995). *Basic econometrics* (3rd ed.). New York: McGraw-Hill Education.
- Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic econometrics* (5th ed.). New York: McGraw-Hill Education.
- Hassan, K. M. (2008). The development of accounting regulations in Egypt: Legitimizing the international accounting standards. *Managerial Auditing Journal*, 23(5), 467–484.
<https://doi.org/10.1108/02686900810875299>
- Hessayri, M., & Saihi, M. (2018). Ownership dynamics around IFRS adoption: Emerging markets context. *Journal of Accounting in Emerging Economies*, 8(1), 2–28.
<https://doi.org/10.1108/JAEE-01-2016-0002>
- Hofstede, G. (1991). *Cultures and organisations: Software of the mind*. London: McGraw-Hill.
- Hope, O., Jin, J., & Kang, T. (2006). Empirical evidence on jurisdictions that adopt IFRS. *Journal of International Accounting Research*, 5(2). <https://doi.org/10.2139/ssrn.751264>
- Houqe, M. N., & Monem, R. M. (2016). IFRS adoption, extent of disclosure, and perceived corruption:

- A cross-country study. *The International Journal of Accounting*, 51(3), 363–378. <https://doi.org/10.1016/j.intacc.2016.07.002>
- Houqe, M. N., Van Zijl, T., Dunstan, K., & Karim, W. (2012). The effect of IFRS adoption and investor protection on earnings quality around the world. *The International Journal of Accounting*, 47(3), 333–355. <https://doi.org/10.1016/j.intacc.2012.07.003>
- IAS Plus. (2002). Europe adopts regulation requiring IAS by 2005. Available at: <https://www.iasplus.com/en/news/2002/June/news504> (Accessed 9 December 2023).
- IAS Plus. (2012). Senegal. Available at: <https://www.iasplus.com/en/jurisdictions/africa/senegal> (Accessed 9 December 2023).
- IAS Plus. (2015). Use of IFRS by jurisdiction. Available at: <https://www.iasplus.com/en-gb/resources/ifrs-topics/use-of-ifrs> (Accessed 22 March 2024).
- IFRS. (2016). The global financial reporting language. Available at: <https://www.ifrs.org/content/dam/ifrs/around-the-world/adoption/the-global-financial-reporting-language-may-2016.pdf?la=en> (Accessed 9 December 2023).
- IFRSa. (2023). ISSB issues inaugural global sustainability disclosure standards. Available at: <https://www.ifrs.org/news-and-events/news/2023/06/issb-issues-ifrs-s1-ifrs-s2/> (Accessed: 09 December 2023).
- IFRSb. (2023). Analysis of the IFRS accounting jurisdiction profiles: Who uses IFRS accounting standards? Available at: <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/#analysis-of-the-168-profiles> (Accessed: 09 December 2023).
- IFRSc. (2023). Who we are. Available at: <https://www.ifrs.org/about-us/who-we-are/#history> (Accessed: 09 December 2023).
- IFRS Foundation. (2018). Who we are and what we do. Available at: <https://www.ifrs.org/content/dam/ifrs/about-us/who-we-are/who-we-are-english-2018-final.pdf> (Accessed: 09 December 2023).
- Jain, A. (2001). Corruption: A review. *Journal of Economic Surveys*, 15(1), 71–121. <https://doi.org/10.1111/1467-6419.00133>
- Joshi, P. L., Bremser, W. G., & Al-Ajmi, J. (2008). Perceptions of accounting professionals in the adoption and implementation of a single set of global accounting standards: Evidence from Bahrain. *Advances in Accounting, Incorporating Advances in International Accounting*, 24, 41–48. <https://doi.org/10.1016/j.adiac.2008.05.007>
- Judge, W., Li, S., & Pinsker, R. (2010). National adoption of international accounting standards: An institutional perspective. *Corporate Governance: An International Review*, 18(3), 161–174. <https://doi.org/10.1111/j.1467-8683.2010.00798.x>
- Kholeif, A. (2010). A new institutional analysis of IFRS. *Research in Accounting in Emerging Economies*, 10, 29–55. [https://doi.org/10.1108/S1479-3563\(2010\)0000010007](https://doi.org/10.1108/S1479-3563(2010)0000010007)
- Kim, J. H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*, 72(6), 558–569. <https://doi.org/10.4097/kja.19087>
- Klish, A. A., Shubita, M., & Wu, J. (2021). IFRS adoption and financial reporting quality in the MENA region. *Journal of Applied Accounting Research*. <https://doi.org/10.1108/JAAR-08-2020-0155> (Accessed: 23 March 2024).
- Larson, R. K., & Kenny, S. Y. (1996). Accounting standard-setting strategies and theories of economic development: Implications for the adoption of international accounting standards. *Advances in International Accounting*, 9, 1–20.
- Laupe, S. (2018). Role of culture and law enforcement in determining the level of IFRS adoption. *European Research Studies Journal*, 21(1), 56–64. <https://doi.org/10.35808/ersj/929>
- Leventis, S., Dimitropoulos, P. E., & Anandarajan, A. (2010). Loan loss provisions, earnings

- management and capital management under IFRS: The case of EU commercial banks. *Journal of Financial Services Research*, 40(1–2), 103–122. <https://doi.org/10.1007/s10693-010-0096-1>
- Li, S. (2010). Does mandatory adoption of international financial reporting standards in the European Union reduce the cost of equity capital? *The Accounting Review*, 85(2), 607–636. <https://doi.org/10.2308/accr.2010.85.2.607>
- Liu, C., Yip Yuen, C., Yao, L. J., & Chan, S. H. (2014). Differences in earnings management between firms using US GAAP and IAS/IFRS. *Review of Accounting and Finance*, 13(2), 134–155. <https://doi.org/10.1108/RAF-10-2012-0098>
- Malagueno, R., Albrecht, C., Ainge, C., & Stephens, N. (2010). Accounting and corruption: A cross-country analysis. *Journal of Money Laundering Control*, 13(4), 372–393. <https://doi.org/10.1108/13685201011083885>
- Maradona, A. F., & Chand, P. (2018). The pathway of transition to International Financial Reporting Standards (IFRS) in developing countries: Evidence from Indonesia. *Journal of International Accounting, Auditing and Taxation*, 30, 57–68. <https://doi.org/10.1016/j.intaccaudtax.2017.12.005>
- Miles, J. (2005). R-squared, adjusted R-squared. *Encyclopedia of statistics in behavioral science*. <https://doi.org/10.1002/9781118445112.stat06627>
- Mir, M., & Rahaman, A. (2005). The adoption of international accounting standards in Bangladesh: An exploration of rationale and process. *Accounting, Auditing & Accountability Journal*, 18(6), 816–841. <https://doi.org/10.1108/09513570510627720>
- Mlambo, C., & Biekpe, N. (2005). Thin-trading on African stock markets: Implications on market efficiency testing. *The Investment Analyst Journal*, 34(61), 29–40. <https://doi.org/10.1080/10293523.2005.11082466>
- Nguyen, H., Nguyen, H., & Nguyen, C. (2023). Analysis of factors affecting the adoption of IFRS in an emerging economy. *Heliyon*, 9(6). <https://doi.org/10.1016/j.heliyon.2023.e17331>
- Nnadi, M., & Soobaroyen, T. (2015). International financial reporting standards and foreign direct investment: The case of Africa. *Advances in Accounting*, 31(2). <https://doi.org/10.1016/j.adiac.2015.09.007>
- Nobes, C. (2011). IFRS practices and the persistence of accounting system classification. *Abacus*, 47(3), 267–283. <https://doi.org/10.1111/j.1467-6281.2011.00341.x>
- Nurunnabi, M. (2015). The impact of cultural factors on the implementation of global accounting standards (IFRS) in a developing country. *Advances in Accounting*, 31(1), 136–149. <https://doi.org/10.1016/j.adiac.2015.03.015>
- Obeng-Odoom, F. (2015). Africa: On the rise, but to where? *Forum for Social Economics*, 44(3), 234–250. <https://doi.org/10.1080/07360932.2014.955040>
- Okpala, K. E. (2012). Adoption of IFRS and financial statements effects: The perceived implications on FDI and Nigeria economy. *Australian Journal of Business and Management Research*, 2(5), 76–83. <https://doi.org/10.52283/NSWRCA.AJBMR.20120205A10>
- Onyutha, C. (2020). From R-squared to coefficient of model accuracy for assessing goodness-of-fits. *Geoscientific Model Development Discussions* (Preprint). Available at: <https://doi.org/10.5194/gmd-2020-51> (Accessed: 23 March 2024)
- Osborne, J. (2013). *Best practices in data cleaning: A complete guide to everything you need*

- to do before and after collecting your data. Available at:
<https://doi.org/10.4135/9781452269948> (Accessed: 23 March 2024)
- Osinubi, I. (2020). The three pillars of institutional theory and IFRS implementation in Nigeria *Journal of Accounting in Emerging Economies*, 10(4), 575–599.
<https://doi.org/10.1108/JAEE-07-2019-0139>
- Othman, H., & Kossentini, A. (2015). IFRS adoption strategies and theories of economic development. *Journal of Accounting in Emerging Economies*, 5(1), 70–121.
<https://doi.org/10.1108/JAEE-02-2012-0006>
- Owolabi, A., & Iyoha, F. O. (2012). Adopting International Financial Reporting Standards (IFRS) in Africa: Benefits, prospects and challenges. *African Journal of Accounting, Auditing and Finance*, 1(1), 77–86. <https://doi.org/10.1504/AJAAF.2012.046127>
- Oyerinde, A. A. (2019). Institutional structure, IFRS adoption and foreign portfolio investment in Africa. *Acta Universitatis Danubius: Oeconomica*, 15(4), 83–96.
- Ozili, P. (2022). The acceptable R-square in empirical modelling for social science research. *Social Research Methodology and Publishing Results*. Available at:
<https://dx.doi.org/10.2139/ssrn.4128165> (Accessed: 23 March 2024)
- Pope, P., & McLeay, S. (2011). The European IFRS experiment: Objectives, research challenges and some early evidence. *Accounting and Business Research*, 41(3), 233–266. <https://doi.org/10.1080/00014788.2011.575002>
- Preiato, J., Brown, P., & Tarca, A. (2015). A comparison of between-country measures of legal setting and enforcement of accounting standards. *Journal of Business Finance & Accounting*, 42(1–2), 1–50. <https://doi.org/10.1111/jbfa.12112>
- PWC. (2015). IFRS adoption by country. Available at:
<https://www.pwc.com/gr/en/publications/pwc-ifrs-by-country-2015.pdf> (Accessed: 09 December 2023)
- Rahm, E., & Do, H. (2000). Data cleaning: Problems and current approaches. *IEEE Data Eng. Bull*, 23(4), 3–13.
- Ramanna, K., & Sletten, E. (2014). Network effects in countries' adoption of IFRS. *The Accounting Review*, 89(4), 1517–1543. <https://doi.org/10.2308/accr-50717>
- Rotberg, B. (2016). The effect of culture on IFRS implementation and financial reporting quality (Master's thesis, Radboud University). Available at:
<http://etheses.dur.ac.uk/846> (Accessed: 23 March 2024)
- Salem, R. B., Damak, S., & Saihi, M. (2017). Determinants of full IFRS adoption. *International Journal of Managerial and Financial Accounting*, 9(2), 105–123.
<https://doi.org/10.1504/IJMFA.2017.084776>
- Salewski, M., Teuteberg, T., & Zulch, H. (2016). Short-term and long-term effects of IFRS adoption on disclosure quality and earnings management. *Corporate Ownership and Control*, 13(2), 556–578. <https://doi.org/10.22495/cocv13i2c3p6>
- Scott, W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). Los Angeles: Sage Publications.
- Seligson, M. (2002). The impact of corruption on regime legitimacy: A comparative study of four Latin American countries. *The Journal of Politics*, 64(2), 408–433.
<https://doi.org/10.1111/1468-2508.00132>
- Shleifer, A., & Vishny, R. (1993). Corruption. *The Quarterly Journal of Economics*, 108(3),

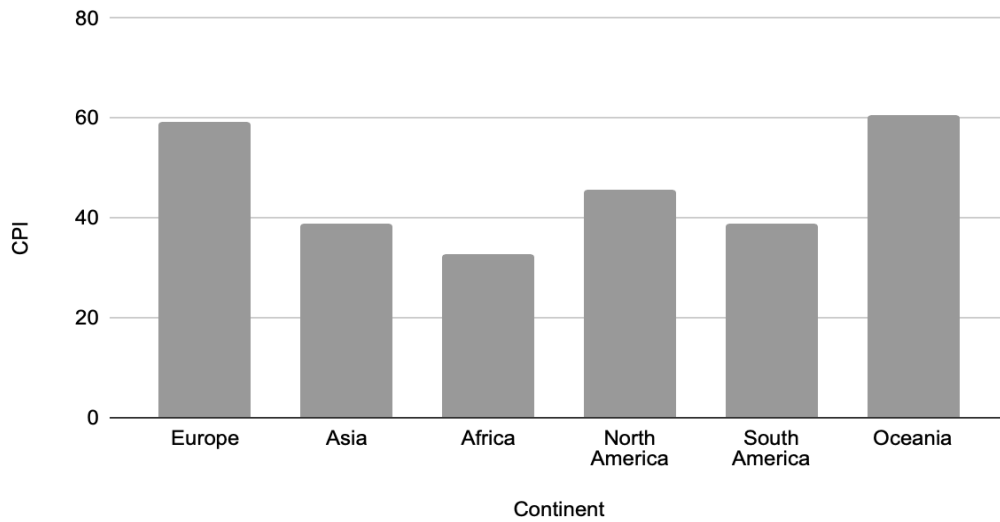
- 599–617. <https://doi.org/10.2307/2118402>
- Singleton-Green, B. (2015). The effects of mandatory IFRS adoption in the EU: A review of empirical research. *Information for Better Markets*, Forthcoming. Available at: <https://ssrn.com/abstract=2515391> (Accessed: 23 March 2024)
- Soderstrom, N. S., & Sun, K. J. (2007). IFRS adoption and accounting quality: A review. *European Accounting Review*, 16(4), 605–702. <https://doi.org/10.1080/09638180701706732>
- Song, X., & Trimble, M. (2022). The historical and current status of global IFRS adoption: Obstacles and opportunities for researchers. *The International Journal of Accounting*, 57(2), 1–37. <https://doi.org/10.1142/S1094406022500019>
- Swift, L., & Piff, S. (2010). *Quantitative methods for business, management and finance* (3rd ed.). Basingstoke: Palgrave Macmillan.
- Tawiah, V. (2019). The state of IFRS in Africa. *Journal of Financial Reporting and Accounting*, 17(4), 635–649. <https://doi.org/10.1108/JFRA-08-2018-0067>
- Tawiah, V., & Boolaky, P. (2020). A review of literature on IFRS in Africa. *Journal of Accounting & Organizational Change*, 16(1), 47–70. <https://doi.org/10.1108/JAOC-09-2018-0090>
- Tayeb, M. (1994). Organizations and national culture: Methodology considered. *Organization Studies*, 15(3), 429–445. <https://doi.org/10.1177/017084069401500306>
- Taylor, S. (2020). Autocorrelation. Available at: <https://corporatefinanceinstitute.com/resources/data-science/autocorrelation/#:~:text=Autocorrelation%20refers%20to%20the%20degree,its%20in%20a%20time%20series> (Accessed: 22 March 2024)
- Tenkorang, K. K., Shuibin, G., & Kesse Somuah, M. K. (2020). Can IFRS adoption help curb corruption? A spillover effect perspective. *International Journal of Management Sciences and Business Research*, 9(11), 188–204. <https://doi.org/doi:10.5281/zenodo.5036322>
- Treisman, D. (2007). What have we learned about the causes of corruption from ten years of cross-national empirical research? *Annual Review of Political Science*, 10(1). <https://doi.org/10.1146/annurev.polisci.10.081205.095418>
- Van Wyk, N. (2023). Rethinking IFRS adoption in Africa: A case for convergence with exemptions. Available at: <https://www.linkedin.com/pulse/rethinking-ifrs-adoption-africa-case-convergence-nicolaas-van-wyk> (Accessed: 23 March 2023)
- Waters, D. (2008). *Quantitative methods for business* (4th ed.). Harlow: Prentice Hall.
- Wilhelm, P. G. (2002). International validation of the corruption perceptions index: Implications for business ethics and entrepreneurship education. *Journal of Business Ethics*, 35(3), 177–189. <https://doi.org/10.1023/A:1013882225402>
- World Bank. (2024). Glossary. Available at: <https://databank.worldbank.org/metadataglossary/worldwide-governance-indicators/series/CC.EST#:~:text=Control%20of%20Corruption%20captures%20percentions,by%20elites%20and%20private%20interests> (Accessed: 23 March 2023)
- World Justice Project. (2023). What is rule of law? Available at: <https://worldjusticeproject.org/about-us/overview/what-rule-law> (Accessed: 23 March 2023)

- Yallapragada, R. R., Roe, C. W., & Toma, A. G. (2012). The prospects of replacing GAAP with IFRS in the United States. *International Business & Economics Research Journal*, 12(1), 25–30. <https://doi.org/10.19030/iber.v12i1.7509>
- Yamani, A., & Almasarwah, A. K. (2019). Resistive factors of delaying IFRS adoption in Saudi Arabia listed firms. *Journal of Financial Reporting and Accounting*, 17(3), 468–497. <https://doi.org/10.1108/JFRA-08-2018-0063>

Appendices

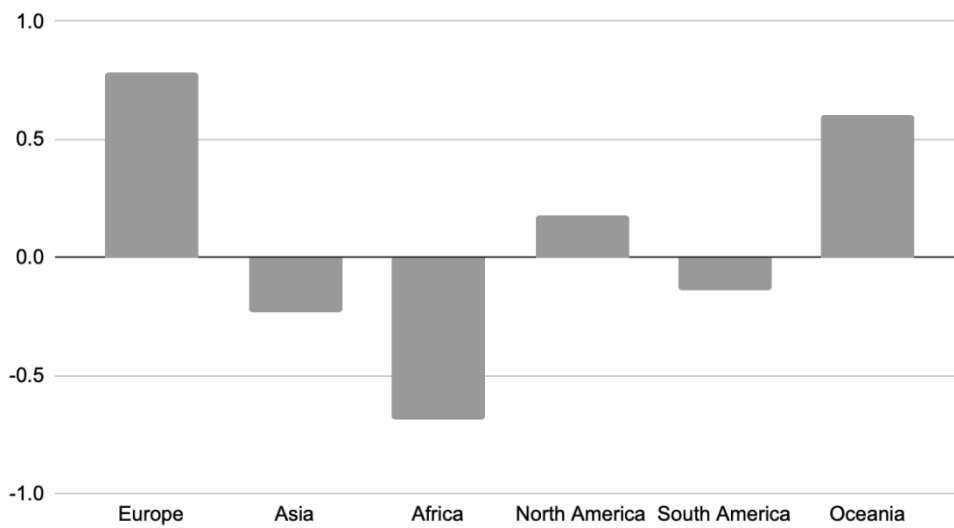
c 1: Chart A

CPI 2023 per Continent



Appendix 2: Chart B

Rule of Law 2022 per Continent



Appendix 3: Table I - Summary of variable definitions

Types of variables		Definition
Dependant variables	Adoption Score	Describes “how” a country adopts IFRS. Measured on a scale 1-5, and based on how strongly IFRS standards are adopted
	Market Capitalisation	Multiplication of the total number of a company’s outstanding shares by the current market price of one share
Independent variables	Corruption	The opportunistic utilisation of a public position to obtain an illegitimate private gain
	Rule of Law	A durable system of laws, institutions, norms, and community commitment that delivers accountability, just law, open government, and accessible and impartial justice
	FDI	Purchase of an asset in another country, such that it gives direct control to the purchaser over the asset
	Adoption Score	Describes “how” a country adopts IFRS. Measured on a scale 1-5, and based on how strongly IFRS standards are adopted
Control variables	GDP	Market value of all the final goods and services produced in a specific time period by a country
	Inflation	Measures how much more expensive a set of goods and services has become over a certain period

Assessment of budget compliance: Evidence from the Nigerian public sector

Tajudeen Lawal

Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete, Kwara State Nigeria.
e-mail: tajudeen.lawal@kwasu.edu.ng, Ltajudeen@yahoo.com
(Corresponding Author)

Adeoye Amuda Afolabi

Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University Malete, Nigeria.
e-mail: adeoye.afolabi@yahoo.co.uk

Abstract

Purpose: Evidence suggests that the federal government annually budgets and appropriates amounts for both capital and recurrent expenditure to various ministries, departments, and agencies, yet there is no impact on the ordinary citizen on the street. The question is whether it is a result of non-compliance with budgets or other factors hindering budget compliance. In addition, the federal government introduced different policies to fast-track the process of budgeting and public expenditure; several factors have prolonged the period of the current economic recession. From the fiscal policy side, delays in budget approval and implementation are major challenges. Against this background, this study examines factors that influence budget compliance and in relationship with variance in Nigeria.

Methodology: The data was gathered from secondary sources and analysed using the Engle-Granger co-integration test and the augmented Dickey-Fuller (ADF) test (Units root test).

Findings: The findings revealed that corruption, political stability, and type of government have a significant negative relationship with variance. Additionally, corruption and crude oil prices show a negative effect on actual total expenditure. However, Gross Domestic Product (GDP) and revenue are positively significant with budget variance and actual total expenditure.

Limitations/Implications: This study illustrates evidence relevance to the public and academic debates about how government should use all the institutions at their disposal to minimise corruption since corruption reduces the variance and actual total expenditure. In addition, since crude oil price hinder government expenditure, the federal government should focus more on other source of revenue for budget apart from crude oil.

Originality: This study provides the effect of corruption, crude oil price, political stability and the type of government, as indicators for budget compliance on the variance and total actual expenditure. As a result, this study contributes to the literature in the area of budgeting system for the public sector in developing countries with specific focus on Nigeria.

Keywords: GDP, Expenditure, Variance, Revenue, Budget
JEL: M41 M49

1. Introduction

Experiences from advanced economies offer valuable insights into budget compliance practices that can be adapted and implemented in other contexts. These economies often emphasize transparency, accountability, and citizen participation in the budgeting process. They employ tools and mechanisms to enhance accountability, such as performance-based budgeting, outcome-oriented budgeting, and results-based management (Kuntadi & Velayati, 2022). Similarly, advanced economies make investments in technology-based financial reporting and management solutions, which allow for real-time budget execution and spending tracking. In addition, previous studies such as Onyiah et al. (2016), Ajibolade and Oboh (2017), Scott (2019), and Ermawati (2020) opined that increasing responsibility, fostering openness, and matching resource allocation to desired results are techniques that help to increase budget compliance.

Well-established legal and administrative frameworks governing budgetary processes are commonly found in advanced economies (Mattei et al., 2022). These frameworks specify roles, duties, and protocols for developing, approving, implementing, and overseeing budgets. Strong institutional frameworks and well-defined standards offer a disciplined foundation for financial management and responsibility, which enhances budget compliance. Similarly, advanced economies provide insightful information about strategies and best practices for accomplishing budget compliance. For example, performance-based budgeting is frequently used to improve accountability and match resource allocation with intended results. Advanced economies also place a strong emphasis on technology-enabled financial management, effective internal controls, and ongoing assessment and improvement (Kuntadi & Velayati, 2022). To increase budget compliance, these procedures can be modified and customized for the Nigerian environment. Furthermore, Kuntadi et al. (2022) stated that when it comes to budget compliance, advanced economies place a strong emphasis on accountability and openness. The author goes on to say that these economies place a high value on information accessibility, public involvement, and impartial oversight. Budget compliance can be fostered by the implementation of measures such as performance audits, open budget initiatives, and public expenditure tracking surveys, which can improve accountability and openness.

Drury (2021) enumerated the roles of budgeting to include planning annual operations, coordinating the organization's activities, communicating plans, motivating managers, controlling activities, and evaluating managers' performance. However, in most developing countries, including Nigeria, accounting practices and budget implementation have not always been followed exactly as stated (Ejumudo & Ejumudo, 2020). As a result, their Public Expenditure Management (PEM) systems have had detrimental effects that are usually underestimated (Ajibolade & Oboh, 2017). It has been observed that the absence of timely and accurate revenue and spending data necessary for budget planning, monitoring, control, and reporting has negatively impacted budget management and compliance. Because of this, there has been little control over the use of government resources, which frequently results in resource misallocation and jeopardizes the effectiveness and efficiency of service delivery. Furthermore, revenue generation is a major factor in budget compliance in the Nigerian setting. Previous studies such as Ejumudo et al. (2020) opined that budget compliance may be impacted by the trend in revenue received, changes in oil prices (which act as a baseline for the budget), and the nation's political stability. Additionally, as found by Ekhaton and Chima (2015), corruption levels have a direct impact on budget compliance. Excessive levels of corruption might make it more difficult to use financial resources wisely and to follow rules and regulations.

According to Jipa and Kusumastuti (2024), Gross Domestic Product (GDP) represents the monetary value of all finished goods and services produced within a country's borders over a specified time period, typically measured annually. It reflects the final value of production within the country's geographical boundaries during the given period. The crude oil price refers to the spot price of a barrel of benchmark crude oil, which serves as a reference for transactions between buyers and sellers. Common benchmarks include Brent crude and the OPEC reference basket. Revenue, on the other hand, is the total income generated from the sale of goods and services during a specific time period. These variables, along with others, form the key components of the study.

A budget is a crucial management tool for every kind of organization. Abdulai (2020) concluded that in order to accomplish organizational goals, it is a technique for organizing and managing the use of limited financial resources. Every organization's management control approach is built on budgeting. Ejumudo et al. (2020) opined that budgeting is typically thought of as a typical accounting instrument that businesses employ to carry out their plans. Similarly, Kazeem et al. (2019) asserted that budgeting serves the dual purposes of giving aims and plans a financial value, facilitating easy measurement of success, and converting abstract strategic concepts into comprehensible operational activities. Budgeting and budgetary control systems have been discovered to be a panacea to the challenges of poor performance of public sectors in Nigeria, Ariyo-Edu and Woli-Jimoh (2024). The authors further stated that government needs to improve with overspending, inefficient use of resources, and opaque financial reporting, even after many reforms and measures to strengthen fiscal discipline and transparency. Ajibola et al. (2024) opined that Nigeria has had tremendous difficulties in the past few years in handling its public finances due to inefficiency, corruption, and insufficient budgetary constraints. The authors further stated that these concerns have made it more difficult to carry out development initiatives and have worsened socioeconomic problems in the nation, such as poverty, inadequate infrastructure, and unstable economic conditions.

The way politicians handle public financial management (PFM) determines whether a budget goal is met. Nandelenga and Ellyne (2020) opined that PFM is the body of laws, regulations, procedures, and systems that sovereign states (as well as subnational governments) employ to raise money, distribute it, carry out public spending, account for it, and conduct audits. An effective state's institutional framework must include a robust PFM system. Growth and the efficient provision of public services are directly linked to each other. Nations possessing robust, transparent, and accountable PFM systems typically have more equitable and efficient PFM systems as well as more efficient and fair market regulation. As opined by Drury (2021), all budget systems include processes for management, control, and planning. Thus, for a budget to be fully implemented in a public organization, three main goals must be met, which are: overall fiscal discipline that is accurate revenue projections and successful revenue collection; revenue instruments that comply with governmental policies; and effective revenue administration. In addition, Ayapere and Orueze (2015) concurred that reporting revenue and other government financial operations to Parliament is another efficient method of keeping an eye on budget implementation activities. This implies that the legislative branch of government is tasked with examining and endorsing the executive's draft budget and examining the reports and accounts at the end of the fiscal year. Furthermore, Parliament might carry out its oversight functions at different phases of the PFM cycle.

The way politicians handle public financial management (PFM) determines whether a budget goal is met. Nandelenga and Ellyne (2020) opined that PFM is the body of laws, regulations, procedures, and systems that sovereign states (as well as subnational governments) employ to raise money, distribute it, carry out public spending, account for it, and conduct audits. An effective state's institutional framework

must include a robust PFM system. Growth and the efficient provision of public services are directly linked to each other. Nations possessing robust, transparent, and accountable PFM systems typically have more equitable and efficient PFM systems as well as more efficient and fair market regulation. As opined by Drury (2021), all budget systems include processes for management, control, and planning. Thus, for a budget to be fully implemented in a public organization, three main goals must be met, which are: overall fiscal discipline that is accurate revenue projections and successful revenue collection; revenue instruments that comply with governmental policies; and effective revenue administration. In addition, Ayapere and Orueze (2015) concurred that reporting revenue and other government financial operations to Parliament is another efficient method of keeping an eye on budget implementation activities. This implies that the legislative branch of government is tasked with examining and endorsing the executive's draft budget and examining the reports and accounts at the end of the fiscal year. Furthermore, Parliament might carry out its oversight functions at different phases of the PFM cycle.

Based on the researchers' review of the literature, there is no study on budget compliance and budget variance in developing nations such as Nigeria; however, in the UK, Lapsley, (2010) explained the phenomenon of budget setting in political coalitions and minority governments by drawing on ideas of negotiated order (Strauss) and circuits of power (Clegg) and focusing on the activities of the Scottish parliament.

This current study differs from other studies because it examines the difference between the total amount budgeted expenditure and the total amount of actual expenditure, which is known as the variance, the political stability, crude oil price, the type of government, and the year of election. These are the gaps for this study. It also used the principal-agent theory, emphasizing that incomplete contracts and agent opportunism are common challenges in PFM. Martin, cited in Khan and Hildreth (2004), raised the issues of incomplete contracts and agent opportunism. There are weaknesses of prior studies, particularly in developing countries such as Nigeria. For example, Ejumudo and Ejumudo (2020) focus mainly on the problematic issue concerning budget implementation without looking at the variance and other determinants such as corruption, political stability, crude oil price and type of government.

Consequently, this current paper seeks to make the following contributions to the existing literature: firstly, corruption, political stability, and type of government hinder the difference between total amount of budgeted expenditure and the total amount of actual expenditure (variance); these three variables reduce the variance; however, Gross Domestic Product (GDP), which is a control variable, has a positive significant relationship with variance and increases variance. Secondly, this paper indicates that corruption and crude oil prices show a negative effect on actual total expenditure. This report suggests that corruption and crude oil prices reduce the total expenditure.

The motivation for this study is that, although the federal government budgets and allocates a certain amount for capital and recurrent expenditure to different Ministries, Departments, and Agencies each year, this does not have any impact in the daily lives of average citizen. Is this because the budget compliance does not followed? In light of the above, we examine budget compliance in the Federal public sector in Nigeria. the following objectives are derived: to examine the trend in revenue generated, the oil price from the international market, which is the benchmark for the budget each year, the political stability, the type of government (military or civilian), corruption, the year of election, and the Gross Domestic Product (GDP) on difference between the total amount budgeted expenditure and the total amount of actual expenditure which is known as the variance. We focus on Nigeria because is one of the countries in the Sub-Saharan Africa with strong economy and largest market.

The remainder of the study is as follows: Section two outlines reform in the budgeting system of the public sector, while section three presents the theoretical framework. Section four discusses the empirical review and development of hypotheses. Section five details the research design. Section six reports the empirical findings and discussion, whilst section seven presents a brief conclusion, including the implications, limitation and future research avenue for this study.

2. Reforms in budgeting system of the public sector

In Nigeria, budget reforms have been one of the cardinal areas of public service that have been pursued since the return of democracy in 1999. These include the introduction of the Medium-Term Expenditure Framework (MTEF) in 2005, the Fiscal Responsibility Act of 2007, and the introduction of the Integrated Payroll and Personnel Information System (IPPIS) (BOF, 2023). These reforms were introduced principally to identify and eliminate wasteful spending and thus improve resource management with the aim of optimizing the government's budget efficiencies.

These reforms focused attention on five major areas, which include administrative procedures, budget preparation, management of government spending, budget implementation, and budget monitoring and evaluation. The purpose of these reforms is to reduce the cost of governance, enhance the management of resources through drastic reductions in extravagances, increase the level of productivity and efficiency, and ensure budget discipline (Ben-Caleb et al., 2014). The Medium-Term Expenditure Framework (MTEF) entails an annual budgeting system in which budget decisions in relation to new projects and programs are made at every budget preparation session based on three-year fiscal scenarios. The aim is to ensure that projects financed for the next three years will be approved under the annual budget system, consistent with the baseline budgeting approach. Each annual budget thus aligns with the MTEF and provides Ministries, Departments, and Agencies (MDAs) with a hard budget constraint for them to manipulate (BOF, 2023). The Fiscal Responsibility Act (FRA) was designed to ensure prudent management of national resources, which is consistent with Section 16 of the 1999 Constitution (Ben-Caleb et al., 2014).

In order to function effectively, the FRA set up the Fiscal Responsibility Commission, which is empowered to follow the guidelines stipulated in the FRA. The FRA provides guidelines with respect to the MTEF, the basis of the annual budget, budgetary planning of corporations and other related agencies, budgetary execution and achievement of targets, public revenue and expenditure, framework for debt management, conditions of borrowing, issues of transparency and accountability, and enforcement of the act (Ministry of Finance 2023). Notable features of the FRA show that the MTEF shall contain macroeconomic projections for the next three years, an expenditure and revenue framework, and a federal strategy paper that includes the federal government's medium-term financial objectives and policies relating to taxation, recurrent expenditure, debt expenditure, borrowings, and capital expenditure. Part of it reads that "aggregate expenditure and the aggregate amount appropriated by the National Assembly for each financial year shall not be more than the estimated aggregate revenue plus a deficit, not exceeding three percent of the estimated gross domestic product or any sustainable percentage as may be determined by the National Assembly for each financial year." Also, the annual budget must be derived from the MTEF (Ministry of Finance, 2023; BOF, 2023).

In addition, the Integrated Payroll and Personnel Information System (IPPIS), which was conceptualized as one of its reform programs, was rolled out in 2006 and aimed at improving the effectiveness and efficiency of the storage of personnel records and the administration of monthly payroll. It is a centralized platform that houses the monthly payment plan of every federal government

worker (Folorunso & Simeon, 2021). Seven pilot MDAs were used to study its effectiveness, and 23,000 ghost workers were discovered in 2006. As of 2009, eleven additional MDAs were brought on board, while as of 2018, 490 MDAs have been enrolled, with a total staff strength of over 700,000 employees (Folorunso & Simeon, 2021).

Furthermore, the Government Integrated Financial Management Information System (GIFMIS) was introduced in 2012 during the tenure of President Goodluck Jonathan to enhance the effectiveness of government financial activities. The GIFMIS sought to implement a computerized financial management information system that is efficient, effective, and helps to increase the ability of the government to execute internal control, monitor expenditures and receipts in the MDAs, and access information on its financial and operational performance. The GIFMIS kicked off with 93 pilot MDAs, which increased to 105 in 2020 (BOF, 2023).

Under the Muhammadu Buhari administration between 2015 and 2023, the Treasury Single Account (TSA), a strategic budget implementation reform that was introduced by the Jonathan administration in 2012, was implemented. The TSA is programmed to ensure that the federal government has only one central account domiciled with the Central Bank of Nigeria (CBN), where all payments are made from the single account by MDAs and revenues from them and the people at large are remitted. The TSA ensures that no other government agency operates bank accounts outside the oversight of the Treasury, and it thus ensures effective aggregate control over government cash balances (BOF, 2023).

Moreover, one of the most prominent reforms in 2023 was the increased emphasis on performance-based budgeting (PBB). This approach ties government expenditures to measurable outcomes and performance indicators. Under PBB, ministries, departments, and agencies (MDAs) are required to set clear targets and provide justification for their budget allocations based on the expected outcomes of their programs. The Nigerian government introduced more stringent monitoring frameworks in 2023 to ensure that expenditures were aligned with the achievement of these performance targets. The Ministry of Finance worked closely with the National Assembly and the Budget Office of the Federation to ensure that these performance indicators were reviewed and tracked regularly (Ministry of Finance, 2023). According to reports from the Budget Office, PBB helped improve resource allocation in sectors like health, education, and infrastructure, although challenges in data collection and analysis hampered its full implementation. Other reforms include continuing implementation of the Medium-Term Expenditure Framework (MTEF) and Open Government Partnership (OGP). This initiative aims to promote citizen participation and transparency in government budgeting by providing open access to budget data and allowing public input. In addition, civil society organizations and technology-driven platforms, such as BudgIT and Tracka, played significant roles in tracking government spending and raising awareness about budgetary allocations and projects. Reforms to the Public Procurement Act continued in 2023, and alongside procurement reforms, the Fiscal Responsibility Act (FRA) continued to guide government borrowing and expenditure, ensuring fiscal prudence (BOF, 2023, BudgIT 2023 & Bureau of Public Procurement 2023).

Furthermore, sustainability-focused budgeting, which is in line with global trends, was also introduced in 2023 in order to integrate sustainability into the budget process; the government began incorporating climate-sensitive budgeting, particularly in sectors such as agriculture, energy, and infrastructure; this aimed to address Nigeria's vulnerability to climate change, ensuring that public investments contribute to environmental resilience (BOF, 2023). The adoption of digitalization and the Integrated Financial Management Information System (IFMIS), a continuous process of using digital tools to manage public finances, was further strengthened in 2023 (BOF, 2023).

3. Theoretical framework

The theoretical framework of this study is based on several prior studies that concern budget compliance, implementation, and evaluation of budgets. Public expenditure management theories explain the behavior of the budget process. Transaction cost theory, in view of North (1990), clarifies that policy is fundamentally an agreement on expenditures made by elected politicians, the organization tasked with directing budgetary procedures, and the spending agency. This implies that the process of determining spending policy involves transaction costs. To guarantee the efficient and effective use of public funds, it is crucial to reduce transaction costs in the management of public expenditures. The principal-agent theory emphasizes that incomplete contracts and agent opportunism are common challenges in PFM. Martin, cited in Khan and Hildreth (2004), raised the issues of incomplete contracts and agent opportunism. Incomplete contracts refer to contracts that lack sufficient precision and specificity to cover all service delivery contingencies. Agent opportunism occurs when contractors pursue their interests rather than the interests of the government. These challenges can lead to lower-quality services, reduced efficiency, and increased transaction costs. Similarly, Ariyo-Edu et al. (2024) revealed that the public sector budgeting occurred as a contract between the principal and the agents, where the minister or any political appointee in the executive arm of government is known as the principal, and they are responsible for driving the civil servants who are the agents of government. Thus, the argument of this theory is in line with this study, where the principal is the executive arm of government and the agents are civil servants who perform the tasks on behalf of the government.

In another study, Ajibola et al. (2024) claimed that Keynesian theory of fiscal policy posited by Keynes (1936), zero-based budgetary (ZBB) theory introduced by Pyhrr (1970), and performance-based budget theory by Robbin (1998). The authors found that Keynes theory of fiscal policy recommended that the government should use fiscal policy, particularly taxation and spending, to ensure the economy is stable. In addition, the authors also believed that during times of economic challenges, the government could introduce more spending to stimulate demand. Furthermore, Keynesian economic theory also believed that government intervention through fiscal policy, such as deficit spending, can increase economic growth during a period of economic challenges. Similarly, zero-based budgetary theory ensures that each budget item is from the beginning of the year, and this theory is also based on the advantage that they can derive from it. It also needs to involve all government programs and activities to support their budget from the early stage and also focus on the need and the cost. The authors also opined that performance-based budget control must have a relationship with budget allocation to a particular program outcome and their performance. The aim of these theories is to ensure improvement in accountability and transparency.

Other theories that supported this study are the ones reviewed by Khor et al. (2024). The study was based on a cultural dimension that was propounded by Hofstede in 1980. The theory explains that there is a relationship between cultural and business environments by introducing four cultural dimensions such as power distance, uncertainty avoidance, individualism, and masculinity and indulgence. The two new dimensions, such as long-term orientation and indulgence, are an addition to provide a more understanding of different cultures. The budget reforms that took place in Nigeria at different times in Nigeria make this theory related to this study. In addition, Khor (2024) explained that pyramid theory ascertains that the idea of differences in organizational environment and motivation can affect the performance of the budget and compliance. The measurement through the evaluation of horizontally as well as vertically across the pyramid level, which is more complicated in the public sector organization

due to bureaucracy, may hide budget compliance. While the bottom level of the pyramid is to enhance the delivery and performance at a short time period and reduce waste.

4. Empirical Literature review and hypotheses development

4.1 Budget compliance and variance

Variance refers to the difference between the budgeted or planned amount of a certain expense or revenue and the actual amount incurred or earned. It can be favorable or unfavorable. While budget compliance refers to the degree to which spending or revenue generation aligns with the pre-approved budget. It's about sticking to the budgeted figures and adhering to financial plans without exceeding limits. A distinction between the two is necessary for conceptual clarification. Moreover, quite a number of scholars have studied the area of budgeting systems, for instance. Jipa and Kusumastuti (2024) explored the influence of budgetary planning, budget clarity, reporting structures, and internal control systems on performance accountability in public organizations. Their study emphasized the significance of clear budgeting processes and efficient reporting systems in reducing budget variance and ensuring compliance. Strong internal controls were found to minimize discrepancies between planned and actual expenditure, which leads to improved accountability. Their findings indicate that proper budget clarity and well-defined reporting structures enhance transparency, making it easier for organizations to identify and rectify variances. Additionally, internal control systems act as safeguards against financial mismanagement and ensure that performance goals align with the budget.

The study also highlighted that poor budget clarity and weak reporting structures often lead to non-compliance with fiscal rules, resulting in significant variances. By strengthening these elements, organizations can achieve greater performance accountability, which ultimately leads to more efficient budget execution and reduces the likelihood of unplanned variances.

Susilawati, Sari, Wahyudi, and Hayati (2023) discussed the budget performance in Indonesian universities within a performance-based budgeting framework. Their research examined budget variance caused by a lack of clarity in budget implementation, especially during the COVID-19 pandemic, which impacted service expenditure. The findings suggest that budget performance is tied to how well the budget aligns with the organization's goals, and a lack of transparency or poor planning leads to significant variances.

In their study on non-tax state revenues (NTSRs), Halim, Sari, and Sofyani (2024) addressed how non-compliance and dysfunctional behavior contribute to budget variance in Indonesian ministries and agencies. The research found that compliance with fiscal rules and budgeting clarity play a key role in reducing variance. However, political factors, poor supervision, and inadequate capacity to implement clear budget guidelines exacerbate variance issues. The study emphasizes the need for stricter adherence to budget planning processes and increased supervision to improve compliance and reduce unplanned budgetary outcomes.

Jipa and Kusumastuti (2024) particularly stress that enhancing budget clarity and improving internal controls contribute significantly to reducing budget variance and improving performance accountability. Other studies reinforce this by showing how non-compliance and weak fiscal monitoring can exacerbate budget discrepancies. Together, these insights suggest that effective fiscal management requires both stringent compliance with fiscal rules and the implementation of clear, transparent budgeting processes.

In addition, Ejumudo et al. (2020) posited that there is a significant relationship between the politics of accommodation, poor commitment, compromised budget monitoring, the culture of corruption, and budget implementation in Delta State. Also, Nandelenga et al. (2020) revealed that the average budget compliance rate is around 54 percent and that there is significant heterogeneity among both individual rules and national compliance rates in twenty sub-Saharan African countries. Moreover, Adejumo et al. (2021) analyzed the budget variance in Nigeria and concluded that revenue generation had a significant effect on the variance; however, the study did not investigate the relationship between revenue trends and the variance. Similarly, Ajibola et al. (2024) found that government revenue budget variance analysis has a positive and significant effect on public funds in Nigeria.

H1: There is a positive significant relationship between the budget compliance and variance.

4.2 Budget compliance and expenditure

Across these studies, budget variance and expenditure patterns emerge as critical indicators of financial management efficiency in both public and private institutions. The research collectively points to common themes such as the impact of external factors (e.g., pandemics, political influences) and internal inefficiencies (e.g., budgeting practices, dysfunctional behavior) on budget variance Susilawati, Sari, Wahyudi, and Hayati (2023). The studies underscore the importance of strategic and transparent budget planning and suggest that addressing variance requires both a top-down and bottom-up approach in organizations and government agencies alike. Understanding the interplay between revenue instability, expenditure control, and compliance with fiscal rules can help mitigate the negative consequences of budget variances on overall financial health. The many authors that studied the budgeting system in the public sector globally, including Susilawati, Sari, Wahyudi, and Hayati (2023), explored budget variance and expenditure patterns within the context of a performance-based budgeting system in Indonesian universities. The study highlighted that budget performance serves as a critical benchmark for organizational success. Specifically, the research examined the variance, harmony, and growth of service spending at the University of Surabaya (UNESA) and found that the budget performance had deteriorated due to the impact of the COVID-19 pandemic between 2019 and 2020. The study emphasized the importance of evaluating budgeting strategies to ensure alignment with organizational goals, particularly in ensuring efficiency, fairness, and transparency in budget allocations. Their findings suggest that addressing variances through strategic budgeting improvements can help institutions better achieve their missions.

Moreover, Halim, Sari, and Sofyani (2024) investigated the budget variances in the context of non-tax state revenues (NTSRs) within Indonesian ministries and agencies. Their research discovered that budget variance often arises from both controlled and uncontrolled factors. Uncontrolled factors include externalities, political factors, and unexpected demands, while controlled factors include budgeting inefficiencies, such as budgetary slack, cherry-picking, and myopia. Their study also identified regulatory changes and a lack of capacity as contributing factors. These findings reveal the complexity of managing NTSR budgets, particularly in the context of dysfunctional behaviors that exacerbate budget variance. The study contributes to the literature by addressing how government agencies in developing nations face agency problems and budget control issues, adding a critical perspective on revenue management and expenditure dilemmas.

In addition, Muhammad, Chaudhry, Syed, and Saeed (2023) revealed the implications of instability in government revenues and expenditures for Pakistan's budget deficit. Using the Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model, the authors found that volatility in government revenues and expenditures had a significant effect on the budget deficit. In particular,

factors like a lack of government oversight on public expenditure, debt servicing, and inflation contribute to the budget deficit. Meanwhile, increased government revenues and GDP growth mitigate the deficit. This study underscores the importance of managing both revenue and expenditure stability to control fiscal deficits, providing insights into how government spending patterns influence fiscal health.

In a broader study on fiscal rules and budget compliance, Ulloa-Suárez (2023) explored the determinants of compliance with fiscal rules and their effect on budget variance and expenditure. The study identified misplaced efforts, such as inefficient monitoring and hidden motivations like political interests, as significant barriers to fiscal compliance. The research highlighted the importance of transparency and accountability in budgetary processes, which can help in controlling variance and ensuring proper expenditure management. Ulloa-Suárez's analysis reflects on how fiscal policies and institutional mechanisms shape budgetary outcomes in the public sector. Moreover, Ajibola et.al (2024) examined the relationship between budgetary control and government financial management in Nigeria using empirical analysis the authors revealed that government revenue budget variance analysis has a positive significant relationship on government funds, while government revenue budgets also have a positive significant effect with financial health of the government.

Khoo (2024) evaluated the effect of budgeting processes such as budget participation, preparation, implementation, and evaluation on the budget performance of the government using a cross-sectional survey administered to the budget officers from different Ministries, Departments, and Agencies (MDAs) in Malaysia. The findings show that budget participation, budget implementation, and budget evaluation are having a strong and significant influence on budget performance. Masu-Gombe and Alkali (2024) studied the impact of revenue on budget implementation in Nigeria with particular reference to the Federal Capital Territory Administration and found that actual recurrent revenue receipt has a positive and significant impact on actual total expenditure.

Udoh et al. (2023) examined the effect of budgeting on economic development in Nigeria. The study made use of an ex post facto research design, and secondary data were obtained from the CBN statistical bulletin, and multiple regression and correlation analysis were adopted to analyze the data. The findings of the study revealed a low positive and statistically significant effect of public capital expenditure (CAXP) on per capita income. Furthermore, Ikilidih et al. (2024) investigated the effect of budget implementation on Nigeria's economic development using annual time-series data from 2010 to 2023 and found that all the budget implementation variables have positive and statistically significant effects on Nigeria's economic development.

H2: There is a positive significant relationship between budget compliance and actual total expenditure.

5. Research design

This research is a form of epistemological and deductive research that is subject to empirical investigation. This study used an ex post facto research design because the data was already available and beyond the researchers' control. The data was gathered from secondary sources which include the following variables: revenue, the corruption index, the GDP, the year of the election, the type of government (military or civilian), political stability, and variance—the difference between budgeted and actual amount of total expenditure. The Data were secondary data from the National Bureau of Statistics (NBS) in Abuja and the Central Bank of Nigeria (CBN), and the World Bank.

Quantitative data was used to ascertain the research objectives and test the hypothesis. The study has both dependent and independent variables. The dependent variables are the difference between budgeted expenditure and actual amount of total expenditure (variance) this is expressed in percentage and the total expenditure. The independent variables include trends in revenue, GDP, political stability, the type of government (military or civilian), corruption, and the year of the election. The regression model was formulated in order to answer the research questions and test the hypothesis.

Table 1: Definition and measurement of budget compliance variables

Variables	Definition of Variables
Dependent variables:	
Variance	This is measured by the difference between the Total amount Budgeted expenditure and the Total amount actual expenditure
Actual Total Expenditure	This include the sum of recurrent plus capital expenditure
The Independent variables:	
GDP	Gross Domestic Product
Corruption	Corruption index
Crude oil Price	Crude oil price at the world market
Revenue	Revenue from Non-Oil and Oil sources
Political stability	World data indices concerning political stability
Type of government	Dummy variable = 1 or zero
Year of Election	Dummy variable =1 or zero

Model Specification

$$\text{Model 1: } \text{Variance}_t = \beta_0 + \beta_2 \text{Corruption}_t + \beta_3 \text{Crude Oil price}_t + \beta_4 \text{Revenue}_t + \beta_5 \text{Political stability}_t + \beta_6 \text{Type of government}_t + \beta_7 \text{Year of Election}_t + \beta_1 \text{GDP}_t + e_{ut} \dots \dots \dots (1)$$

$$\text{Model 2: } \text{Actual Total Expenditure}_t = \beta_0 + \beta_1 \text{GDP}_t + \beta_2 \text{Corruption}_t + \beta_3 \text{Crude Oil price}_t + \beta_4 \text{Revenue}_t + \beta_5 \text{Political stability}_t + \beta_6 \text{Type of government}_t + \beta_7 \text{Year of Election}_t + \beta_1 \text{GDP}_t + e_{ut} \dots \dots \dots (2)$$

6. Empirical findings and discussion

This section provides the analysis and interpretation of data on assessment of budget compliance in the public sector in Nigeria.

6.1 Descriptive statistic

The descriptive statistics showed the distribution pattern of the data used for the study and this is presented in Table 2.

Table 2: Descriptive statistic of the variables

Variable	Mean	Std. Dev.	Jarque-Bera	Kurtosis
Variance	384732.9	6065540.1	3.06	2.86
GDP	3.24E	1.22E	2.70	1.43
Corruption	1.32	0.56	176.60	14.19
Crude Oil Price	57.82	32.04	1.66	2.01
Type of Govt.	0.88	0.33	40.74	6.80
Revenue	5923.11	3635.12	2.02	1.66
Political Stability	-1.73	0.43	8.23	3.84
Year of Election	0.23	0.43	7.22	2.63

Source: Authors' computation 2024

6.2 Empirical findings

Units Root Co-integration

This test is conducted in order to establish if there is a correlation between several times series in the long term.

Table 3 ADF test (Units root Test) of the variables

Variables	Level	First Difference	Order of Integration
Variance	-4.28**	-5.00***	I(0)
Gross Domestic Product (GDP)	-3.70**	-3.35**	I(1)
Corruption	-3.66	-0.394	I(0)
Crude oil Price	3.67***	-5.07***	I(0)
Revenue	-3.67***	-5.49***	I(1)
Political Stability	-3.77***	-4.62***	I(0)
Type of government	-3.67***	-5.47***	I(0)
Year of Election	-3.74***	-3.59***	I(1)

Source: Authors computation using E-view

The result of the co-integration test for all the series and models is presented in table 4.

Table 4: Result of Engle-Granger co-integration test

Variables	Variance Dependent variables (Model 1)	Actual Total Expenditure Dependent variable (Model 2)
Constant (C)	-7.30** 348269.8 (2.10)	1470455 932695.6 (1.58)
GDP	4.60E** 1.61E (2.86)	7.60E* 4.32E (1.76)
Corruption	-426779.5** 151105.0 (-2.82)	-1059574** 404671.8 (-2.62)
Crude Oil Price	-4793.03 5630.91 (-0.85)	-67893.67*** 15080.04 (-4.50)
Political stability	-884444.8** 450607.6 (-1.96)	-486678.7 1206765 (-0.40)
Type of govt.	-822915.3** 429029.2 (-1.92)	-1664303 1148976 (-145)
Revenue	-48.11 77.63 (-0.62)	917.41*** 207.91 (4.41)
Yr. of Election	-256448.7 159589.2 (-1.61)	-48749.99 427393.3 (-11)
R-Squared	0.81	0.93
Number of yrs	33	33

*** and *** imply significant levels at 5% and 1%, respectively. The numbers with significant levels are coefficient values, and the middle numbers are the standard errors. The numbers in parentheses refer to T-statistics.*

In Table 4, Model 1, Column 1, we estimated the effect of corruption, GDP, crude oil price, revenue, political stability, type of government, and year of election on variance (the difference between the total amount of budgeted expenditure and the total amount of actual expenditure). The results of the estimate show that GDP has a significant positive relationship with variance. This finding suggests that the gross domestic product (GDP) increases the variance (the difference between the total amount of budgeted expenditure and the total amount of actual expenditure). The positive and significant relationship between GDP and variance can be economically interpreted as follows: as the GDP increases, it generally indicates higher economic activity and a larger tax base or income base, which in turn leads to an increase in government revenue through non-oil revenue sources such as taxes and oil sources of revenue. As a result, the government may have a greater capacity to undertake projects and spend on public services, resulting in higher government actual expenditure. However, due to factors such as inefficiencies, unforeseen circumstances, or inaccuracies in budgeting, the actual expenditure may

deviate from the budgeted amount of expenditure, leading to a higher variance. However, corruption, political stability, and type of government indicate a significant negative relationship with variance; this report implied that these three variables reduce the difference between the total amount of budgeted expenditure and the total amount of actual expenditure, and this may likely affect the implementation of budget processes. In model 2, column 2, we regressed corruption, GDP, crude oil price, revenue, political stability, type of government, and year of election on actual total expenditure. The result is interned with studies of Halim, et al, (2024). However, this study adopted more indicators such as crude oil price, corruption, GDP and political stability, which made the study more comprehensive than the previous studies.

The results provided that GDP and revenue have a positive effect on actual total expenditure. This is the fulfillment of the much-known Wagner's Law (as public expenditure increases, national income increases), which posited a positive effect of income on the size of government expenditure. Also, revenue has a positive effect on actual expenditure, which is the normal expectation, as revenue provides the wherewithal for financing government expenditure needs, with the only other sources of financing government expenditure being fiscal deficits. We also provide evidence of higher revenue that suggests increases in sources of revenue from non-oil sources such as taxes and from oil sectors. As a result, the government becomes more ambitious in its spending plans, but the execution of those plans may not always align perfectly with initial budget estimates. Moreover, in column 2 of Table 4, corruption and crude oil prices show a negative effect on actual total expenditure. This report suggests that corruption and crude oil prices are reducing the total expenditure. This finding suggests that the oil price is not stable, resulting in a weak economy; however, corruption practices result in higher government spending. This goes in line with Susilawati et al (2023) emphasizes the need for stricter adherence to budget planning processes and increased supervision to improve compliance and reduce unplanned budgetary outcomes.

7. Summary and conclusion

The study provides important insights into how various economic and political factors influence government spending and budget compliance in Nigeria. One of the key conclusions is the positive relationship between GDP and budget variance, actual total expenditure, and recurrent expenditure. As the economy grows, generating more revenue from both oil and non-oil sectors like taxes, the government's ability to spend increases. This, in turn, leads to a higher budget variance, reflecting the difference between what was initially budgeted and what is actually spent. In essence, when the economy is doing well, the government tends to spend more, driven by increased income.

However, the study also highlights the damaging role of corruption. Corruption was found to reduce budget variance and actual expenditure. When corrupt practices are prevalent, government funds are often misused or siphoned off, which leads to lower actual spending than what was budgeted. Corruption distorts fiscal responsibility and reduces the effectiveness of government spending, often resulting in inflated costs and inefficient use of public resources. Another significant finding is the negative impact of fluctuating crude oil prices on government expenditure. Since Nigeria relies heavily on oil revenue, unstable or falling oil prices can severely weaken the economy, restricting the government's ability to spend as planned. This volatility makes it difficult for the government to maintain consistent spending levels, as revenue shortfalls occur when oil prices drop. The study also explores the relationship between political stability and budget management. Interestingly, it concludes that political stability, whether under civilian or military rule, tends to reduce budget variance. When the political environment is stable, there is more fiscal discipline, and the government exercises greater

control over spending. In contrast, political instability can lead to erratic or excessive government spending, increasing the gap between budgeted and actual expenditures. The study reveals that economic growth enhances the government's capacity to spend, but this can be undermined by corruption and the volatility of oil prices. Additionally, political stability contributes to more disciplined and predictable government spending. These findings suggest that Nigeria needs to focus on reducing its dependence on oil, combating corruption, and promoting political stability to improve budget compliance and achieve more effective fiscal management.

The policy implication for this study is that the government should use all the institutions at their disposal to minimize corruption since corruption reduces the variance, actual total expenditure, and total recurrent expenditure. This indicates that corruption practices lead to larger government spending. Also, there is a need for proper enforcement and compliance with rules and laws that will reduce or eliminate corrupt practices in Nigeria. Moreover, there is a need for political stability and the type of government that can promote the budgeting process and the implementation of budgets that can enhance variance in government expenditure through a proper democratic process. The stakeholders in the budget processing should ensure that there is proper budget approval and implementation. The limitation of this study is that the kind of data we used was secondary; there was no data for the moderating effect of public sector governance structures, such as the role of the Federal government's Public Accounts Committee on the link between budgeting and compliance, moderating or mediating variables. Our future research for this study will be an evaluation of the effect of public sector governance structures on budget compliance.

Conflict of Interest: The authors declared that there is no conflict of interest.

Funding: This research work was supported by Tertiary Education Trust Fund (TETFUND) Institution Based Research (IBR) Grant [KWASUIBR/CSP/090919/VOL6/TETF/0085]

References

- Abdulai, M.S. (2020). Government of Ghana's Budget: An Assessment of Its Compliance with Fundamental Budgeting Principles. *International Journal of Economics and Management Engineering*, 14 (10), 1018-1036.
- Ajibola, I, Ojeme, S S. & Olusegun, A. A. (2024). Budgetary control and public sector financial management in Nigeria *International Journal of Advanced Multidisciplinary Research and Studies*, 4(4), 603-608
- Ajibolade, O. S. & Oboh, C.S. (2017). A critical examination of government budgeting and public funds management in Nigeria. *International Journal of Public Leadership*. <https://doi.org/10.1108/IJPL-11-2016-0045>
- Ariyo-Edu, A. A., & Woli-Jimoh, I. A. (2024). Budgeting and budgetary control and public sector performance: A study of public sector in Kwara State, Nigeria. *Fuoye Journal of Finance and Contemporary Issues*, 6(1), 15-30.
- Ayapere, P. & Orueze, O. (2015). "Functional Impact of Public Accounts Committee on Public Accountability over Financial Crimes in Nigeria" *Journal of Poverty, Investment and Development*, 8 (1), 53-83
- Budget Office of the Federation (2023). "2023 Budget Performance Report
- BudgetIT (2023). "Tracking Government Expenditure in Nigeria: A Citizen's Guide."
- Bureau of Public Procurement (2023). "Public Procurement Reform and E-Procurement Implementation
- Drury, C. (2021), *Management and Cost Accounting*, 11th ed., Cengage Learning, Hampshire
- Ejumudo, K.B.O. & Ejumudo, T. B. (2020). The problematic of budget implementation in Nigeria: a study of Delta state government. *RSC*, 12 (1) 38-56.
- Ekhator, V. E. & Chima, P. (2015). Budget and Implementation of Public Policy in Nigeria. *British Journal of Economics, Management & Trade*, 10 (3) 1-8.
- Ezeoha, A. E., Ifelunini, I. A., & Ezeoha, S. L. (2020). Budget implementation and economic growth in Nigeria: An empirical analysis. *Economic and Social Development: Book of Proceedings*, 369-379.
- Folorunso, O., & Simeon, A. (2021). The Gains and the Pains of Integrated Payroll and Personnel Information Systems (IPPIS) Policy Implementation in Nigeria. *Journal of Human Resource and Sustainability Studies*. <https://doi.org/10.4236/jhrss.2021.94035>.
- Halim, A., Sari, P. D., & Sofyani, H. (2024). Why are the Other Non-Tax State Revenue Budget Variances in Ministries and Agencies in Indonesia Large? Any Dysfunctional Behaviour?. *The Indonesian Journal of Accounting Research*, 27(1), 39-64.
- Ikilidih, J. N., Dibua, E. C., & Bainamai, J. N. (2024). Effect of Budget Implementation on Nigeria's Economic Development. *African Journal of Business and Economic Development*. 4 (6), 1-12. DOI: 10.5281/zenodo.12007752
- Jipa, E. S., & Kusumastuti, R. (2024). The Influence of Budgetary Planning, Budget Clarity, Reporting Structures, and Internal Control Systems on Performance Accountability. *Jurnal Ekonomi dan Bisnis*, 2(8), 1058-1075
- Kazeem, N. Bwala, J. N. & Dunga, S.Y (2019). Constraints to budget implementation in Nigeria. *World Journal of Innovative Research*, 7 (4) 74-80. doi.org/10.31871/WJIR.7.4.31.
- Khoor, S. V., A.Rahman, N.H. & M.Kamil, N. L.. (2024). An evaluation of the influence of budgeting processes on budget performance in Malaysia. *Public Administration and Policy*, 27 (1), 31-44.
- Kuntadi, C., & Velayati, E. (2022). Factors Affecting the Implementation of Performance-Based Budget. *Eduvest-Journal of Universal Studies*, 2 (9), 1931-1942.
- Lapsley, I. Midwinter, A. Nambiar, T. & Steccolini, I. (2010). Government Budgeting, Power and Negotiated Order. *Management Accounting Research*, 22 16-25.

- Martin L. L. (2004). Bridging the gap between contact service delivery and public financial management: Applying theory to practice. In, Khan A. & Hildreth W. B. (Eds.) *Financial management theory in the public sector* (pp.55-70). Westport, CT: Praeger Publishers.
- Masu-Gombe, B. & Alkali, A. M. (2024) Impact of revenue on budget implementation in Nigeria: An Appraisal of FCTA. *Lapai Journal of Economics*, 8 (1), 153-164. DOI: <https://dx.doi.org/10.4314/lje.v8i1.10>
- Mattei, A., Santolamazza, F., & Grandis, L. (2022). Budget management in advanced economies: Evidence from a comparative study. *International Journal of Public Administration*, 45(1), 32-50.
- Mattei, G., Santolamazza, V., & Grandis, F. G. (2022). Design of the participatory budget: how to turn citizens into process protagonists. *International Journal of Public Sector Management*, 35 (3), 294-316.
- Ministry of Finance (2023). "Fiscal Responsibility and Debt Management in Nigeria: 2023 Update."
- Muhammad, M., Chaudhry, M. A., Syed, S. H., & Saeed, M. (2023). Instability of government revenues and expenditures: implications for budget deficit in Pakistan. *Quality & Quantity*, 57(6), 4971-4983.
- Nandelenga, M. W. & Ellyne, M. J. (2020). Fiscal rules and the compliance debate: Why do Countries adopt Rules and fail to comply?“, *Economic Research Southern Africa working paper 815*
- North, D. C. (1990). A transaction cost theory of politics. *Journal of Theoretical Politics*, 2 (4), 355-367. <https://doi.org/10.1177/0951692890002004001>.
- Ogunbayo, B. F., Ohis Aigbavboa, C., Thwala, W. D., & Akinradewo, O. I. (2022). Assessing maintenance budget elements for building maintenance management in Nigerian built environment: A Delphi study. *Built Environment Project and Asset Management*, 12 (4), 649-666.
- Ogundipe, A. A., Alege, P. O., & Ogundipe, O. M. (2018). Budget implementation in Nigeria: challenges and way forward. *Covenant University Public Lecture Series*, 14 (1), 16-31.
- Onyiah, I.A. Ezeamama, N.C. Ugwu, J. N. & Mgbodile, C. C (2016). Nigerian budget mplementation and control reforms: Tool for macro-economic growth. *British Journal of Economics, Management & Trade*, (2) 1-13.
- Scott, G. K. (2019). Influence of public financial management practices on service delivery: a case of District Assemblies of Ghana. *Journal of public Administration and Governance*, 9 (2), 71-92.
- Su, Tsai-tsu (2018). Public budgeting system in Taiwan: Does it lead to better value for money in Value for Money by Podger, Andrew, Wanna, John Chan Hon and Niu Meili.
- Susilawati, N., Sari, T. D., Wahyudi, T., & Hayati, M. N. (2023). The Description of University Budget Variance, Equality, and Expenditure Matter Toward Services. In *International Joint Conference on Arts and Humanities 2022 (IJCAH 2022)* (pp. 1566-1575). Atlantis Press.
- Udoh, I. I., Chegwe, C. P., Nyema, C. G. & Ndaburoma, G. O. (2023). Empirical analysis of budgeting and economic development in Nigeria. *International Journal of Business*,
- Ulloa-Suárez, C. (2023). Determinants of compliance with fiscal rules: Misplaced efforts or hidden motivations?. *European Journal of Political Economy*, 78, 102399.