Impact of Corporate Governance on Value Relevance: A Comparative Analysis using West African Stock Exchanges

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Abstract
This study investigates the impact of corporate governance on the quality of value relevance in the resolution of agency problems and investors’ confidence issues. We use empirical theories to test which econometrical model corporate governance mechanisms have the greatest positive impact on value relevance quality. Using 528 annual reports from Ghana and Nigeria stock exchange website databases, we choose three econometrical models to test our hypothesis and determine the best one. The first model investigates the direct impact of corporate governance on value relevance (Model 1); the second model investigates the effects of corporate governance under IFRS disclosure requirements compliance on value relevance (Model 2); and the final model investigates the impact of corporate governance associated with IFRS disclosure requirements compliance level on value relevance (Model 3). First, we discovered a positive effect of corporate governance across the three models. Model 3 is the best model, however, because corporate governance mechanisms are more effective and efficient at increasing value relevance when they are linked to IFRS compliance level. In model 3, we also find evidence that earnings are more positively impacted than book value. Furthermore, variables such as independence, expertise, and firm size all play a significant role in improving the quality of the value relevance determinants.

Keywords: corporate governance, IFRS, value relevance, agency problem, investors’ confidence.

1. Introduction
From the perspective of an enterprise, the concept of corporate governance embraces several methods of decision-making, planning, management, and control. According to this perspective, corporate governance is based on an articulation of decision-making centers (shareholders, managers, and so on) formalized by stakeholder interaction within the various boards (management board, board of directors, supervisory board, and so on). Corporate governance, which emerged from Anglo-Saxon economic and administrative sciences, established itself as an essential vector of a coherent and effective development policy during the 1990s, thanks to the World Bank. The separation of capital and control is frequently used to explain the governance problem (Berle, 1932) such as transparency problem and asymmetric informational problem. It describes the nature of the relationship existing between the firm's various stakeholders, particularly managers and shareholders, that determines the firm's ability to create value and thus serves as an important growth lever (Caby & Hirigoyen, 2005). His significance has grown as a result of the wave of corruption scandals and
corporate failures that has brought many businesses to their locked down. Similarly, has demonstrated the importance of good corporate governance monitoring (Bissoondoyal-Bheenick, 2004) in avoiding future crises.

Following these scandals, many countries around the world, including the United States, recognized the critical role of corporate governance and decided to establish various commissions to restore investor confidence in financial and accounting reporting (Committees, 1999; Treadway et al., 1987) with the main priority being the protection of investors through the improvement of the reliability of corporate governance made under the securities Sorbones and Oxley Acts. The United Kingdom followed the lead of the United States by establishing a new aspect in the continuation of the actions of the Treadway et al. (1987) whose role was to review the elements of corporate governance, financial reporting, and accountability. They advised staying informed about the market's and stakeholders' annual financial statements reports from listed companies. Due to the weakness of their corporate governance institutions, many African nations have also been affected. For instance, through the 1994 King Report, South Africa was the first country in Africa to create a corporate governance code of the best practice (Mangena & Chamisa, 2008; N. Waweru, 2014). Kenya did the same for more than 32 banks (Waweru & Ngugi, 2014).

Corporate governance mainly contains many mechanisms or determinants that contribute to increasing or decreasing the value relevance of accounting information quality, which appears to be very important in decision-making for users such as investors and shareholders, and which also helps to reduce agency cost problems. With successive enterprise failure scandals (Enron, for example) and financial crises, taking control of corporate governance mechanisms became increasingly important (such as the economic crisis in 2008). Since the 1990s, many theoretical and empirical studies have been conducted in the corporate governance area in general, as well as in the analysis of the relationship between corporate governance, IFRS, and value relevance using various numerical or econometrical models. These various numerical models have contributed to the discovery that corporate governance mechanisms may have a positive impact on value relevance (Bin Khidmat et al., 2018; Ibanichuka & Briggs, 2018; Krismiaji & Surifah, 2020; Pratiwi et al., 2019); a negative effects on value relevance (Windah & Andono, 2013); and a mitigate or neutral relationship between corporate governance and value relevance (Hassan et al., 2015; Soobaroyen & Mahadeo, 2012). However, any of these researches have focused their study on the investigation and the research of the optimal numerical model enhancing the most the impact of corporate governance on value relevance determinant.

However, this article not only continues to add to the literature on the impact of corporate governance on improving the relevance of value in African stock markets, but it also focuses its research on the investigation and search for the optimal econometrical model to increase the impact of corporate governance on the determinant of the relevance of value as much as possible. As a result, this study employs three econometric models to determine which model best captures the relationship between corporate governance and value relevance. The study's ultimate goal or objective is to demonstrate whether the corporate governance mechanism has a practical positive impact on value relevance through these three numerical models, in accordance with...
positive theory corporate governance. If so, which model is best suited to measuring and increase its effects in light of the determinants (stock price, book value and earnings) chosen for this study.

The first econometric model is based on the Ohlson modified model, and the other two model of the study are based on the Ohlson modified model associated to IFRS compliance index model. Prior research in corporate governance in Nigeria and Ghana demonstrated the impact of corporate governance mechanisms on the contribution of value relevance quality on both listed and non-listed companies, as well as financial and non-financial companies. This contribution of corporate governance mechanisms to value relevance quality yielded mixed results, but it did contribute to a better understanding of the corporate governance mechanism system. The literature review based on the corporate governance mechanisms of these two countries reveals several results that are consistent with previous research from around the world. Some of the findings indicate that corporate governance has a positive impact on the quality of accounting information (Bala & Kumai, 2015; Fanta et al., 2013; Juhmani, 2017; Kasum & Etudaiye-Muthar, 2014); some of them show a negative aspect (Abdellatif, 2009; Akpan & Amran, 2014; Bushee et al., 2014; Garanina & Kaikova, 2016) and the last of them show a neutral and mitigated influence of corporate governance mechanism on value relevance (Abdullah et al., 2015; Sellami & Fendri, 2017).

A sample of 528 firm-years non-financial listed firms' observations from Ghana and Nigeria stock exchanges from 2013 to 2020 is used in this study to achieve the purpose of this paper. The findings show that corporate governance mechanisms on the African stock exchange contribute positively to increasing the value relevance quality more quickly, and this positive contribution is more significant when it is associated with the IFRS compliance disclosure requirement. This study extends the literature on corporate governance, IFRS compliance, and value relevance providing additional empirical evidence on the optimal associate relationship between corporate governance, IFRS compliance, and value relevance in the African context. It also contributes to the debate on the role of IFRS in improving the quality of accounting information and corporate governance in a variety of ways:

This paper extends to the corporate governance, IFRS, and value relevance relationship African market literature by first investigating the impact of a good corporate governance system on value relevance enhancement in an understudied African context, both directly and indirectly (under IFRS). Second, through the influence that its transparent characteristic components have on Board management monitoring, this paper contributes to confirming the positive and beneficial impact of IFRS on the corporate governance system. Finally, this paper is unique in that it is the first to focus its research and proposal on the best optimal econometric model that more positively enhances the impact of corporate governance on the quality of value-relevant accounting information in the African stock market. This research may be useful to stockholders and investors by assisting in capital market management by reducing uncertainty and improving market transparency), as well as others as users and policymakers to assist and facilitate decision-making (investment decision, management policies decision, etc). It could help with the investigation of other
stock exchanges that are currently gaining traction in the industry.

This study examines the effects of corporate governance variables on their relationship with value relevance in a business environment using a review of the relevant literature. This section introduces a theoretical framework, which is followed by an overview of the African stock market study sample, focusing on various theories to highlight the corporate governance variables that optimize the relevance of accounting information and market value indicators in this study sample. Corporate governance variables, stock market variables, and the IFRS compliance environment emerge as the primary determinants of value relevance in this theoretical framework. The main dependent variable is stock price (SP), and the indicators attached to the main variable are book value per share (BVPS) and earnings per share (EPS).

Based on previous research, this study provides the nine variables influencing the value relevance variables (Figure 1). The numerous uncertainty hypothesis is examined through the use of three proxies: board structure, audit committee, and ownership structure. Each of these three indicators is divided into three sub-instruments: size, expertise, and independence. This study provides new evidence about the nature of the relationship between corporate governance and value relevance in the context of IFRS compliance for two non-financial companies listed on the African stock exchange from 2013 to 2020. Secondary data is gathered from annual reports, sample stock exchange publications, and the company's official website. This thesis examines the impact and nature of corporate governance over the course of eight (08) years. It then examines the impact of corporate governance variables on accounting information quality and market value indicators. The cumulative model of Ohlson (1995) and the IFRS compliance index model are two different methodologies for measuring the impact of corporate governance on value relevance. The other four sections of this study include a part 2 named literature review and hypothesis development where a theoretical literature review will be established followed by an empirical literature review allowing the hypotheses of the study to emerge, a part 3 entitled methodology and proposed model including the presentation of the data selection and sample sources, the estimation of the model and the definitions of the variables, a part 4 entitled results and discussion including a descriptive part of the results and discussions and a presentation of the results of the multivariate regressions tested and discussed in accordance with the three hypotheses and models of the study, and a last part 5 which is the conclusion.2.

2. Literature Review

This study selected three major theories to support the growth of the corporate governance field. There are three types of corporate governance theories: agency theory, stewardship theory, and value approach.

2.1. Agency theory and corporate governance

There is usually two main sub-theory of this agency theory: normative theory and positive agency theory. The normative theory or "principal-agent" theory proposes mechanisms that reduce the cost of conflicts. According to Mitnick (2019), the principal-
agent approach resulting from the combination between economics and institutional theories is based on the fact that the owner or manager can be opportunistic and take advantage of employees who work for them. The normative theory has grown with more and more accounting principles. Many questions emerged to this theory as to which one between market value or historical cost should be used during the preparation of financial reporting (Anyango, 2020). Conflict between the asset owner and the person in charge of managing and controlling the assets usually results in agency costs. Jensen and Eugene Fama discussed this problem in their book "Agency Problem and Residuals Claim" in 1976, and classified agency costs into three categories: monitoring costs, residual costs, and bonding costs.

2.2. Stewardship theory and corporate governance

Stewardship theory has its roots in the management school (Hung, 1998), the organization theory (Soulsby & Clark, 2007), sociology, and psychology school (Heslin & Donaldson, 1999). The central idea of this theory is that manager interests align with those of shareholders. As a result, managers make decisions that maximize profit and financial performance. According to this theory, the manager is inherently trustworthy and reliable (Nicholson & Kiel, 2007). The manager has autonomy and power because the owners trust him, and he has the same level of interest as the shareholders. This power is in the hands of the manager because he has more well-known business knowledge. To have a strong executive, these powers are supposed to combine chief executive officer (CEO) and chairman (Donaldson & Davis, 1991) to have a strong leadership structure in place in order to achieve maximum performance and profit.

2.3 The value approach of governance

Cognitive theories emphasize internal knowledge creation as a result of organizational learning. This approach analyzes the value creation process (Langlois & Foss, 1997) and takes into account the concept of information asymmetry and the conflicts of interest that it causes. As a result, the company is perceived as a repository of knowledge rather than solely as a nexus of contracts (Charreaux & Wirtz, 2007); for them, the problem is not centered on the accumulation of the interests of the leaders and resource providers, but on the qualitative coordination, alignment of cognitive schemas, and models of anticipation between the various stakeholders. Considers the concept of information as well This approach encourages all stakeholders to not only participate in value creation but also to be treated equally (Freeman & Reed, 1983; Harrison & Freeman, 1999) but must also be treated equally (Post et al., 2002). When viewed from the perspective of stakeholders and their knowledge in creating value, corporate governance actors become key actors in the standardization process resulting from IFRS because interpreting partnership information from IFRS is a complex, lengthy process that necessitates real learning (Aerts et al., 2008; Verrecchia, 1990).

2.4. Corporate governance and value relevance

This part is sustained by a theory based on the fact that corporate governance alone has a significant impact on the value relevance of financial and accounting information in companies listed on stock markets as well as on stock market indicators such as
share prices, earnings per share and book values of shares. According to this theory, corporate governance mechanisms alone would have a significant impact on improving the value relevance of accounting and financial information, which is a very important communication tool containing many indicators that are indispensable for investments and decision-making. This theory is also based on the fact that governance mechanisms would have a better direct influence on the determination and variation of the degree of relevance of stock prices, earnings per share and book value per share (Alfraih et al., 2015; Bin Khidmat et al., 2018; Habib & Azim, 2008; Ibanichuka & Briggs, 2018; Pratiwi et al., 2019).

Knowing that Corporate governance instruments are critical in producing quality accounting information within businesses, corporate governance instruments are most commonly associated with board structures, audit committees, and ownership structures. Several studies were conducted on these instruments and their sub-characteristics (age, gender, experience, non-executive; independence, size, and so on) of corporate governance, with the goal of determining their level of influence on the quality production of compatible information. The findings of these studies are diverse. Some demonstrated a positive relationship between corporate governance mechanisms and value relevance, while others demonstrated a negative relationship between corporate governance mechanisms and value relevance. Finally, the final group of researchers claims that corporate governance has no effect on value relevance.

There is a case with board structure variable linked with value relevance studies where some researchers found a positive relationship (Mungly et al., 2016; Teguh & Hatane, 2017; Tshipa et al., 2018) another group of researchers found a negative relationship (Abdellatif, 2009; Akpan & Amran, 2014; Bushee et al., 2014; Garanina & Kaikova, 2016) and some found inconclusive results (Hassan et al., 2015; Soobaroyen & Mahadeo, 2012; Tshipa et al., 2018). There is also the case of audit committee variables linked with value relevance studies, where several researchers found a positive impact of audit committee variables (independence; size; expertise; experience) on value relevance (Abbott et al., 2007; Almari, 2017; Beasley et al., 2000; Benkel et al., 2006; Klaí & Omri, 2011; Krismiájí & Surifah, 2020; Nadirsysah & Muharram, 2015) but in the same time, others researchers found a negative effect of the audit committee on value relevance (Ayadi & Boujellbene, 2015; Barako et al., 2006; Krismiájí & Surifah, 2020). The last group of researchers discovered that the audit committee plays a neutral role in terms of value relevance (Ibanichuka & Briggs, 2018; Wulandari et al., 2020).

Many studies have also discovered that ownership structure (foreign ownership, government ownership, and managerial ownership) influences value relevance. Some researchers believe that ownership structure influences the value relevance of accounting and financial information positively (Chima et al., 2018; Nadirsysah & Muharram, 2015; Warfield et al., 1995); others believe that ownership structure has a negative impact on value relevance over time (C. J. P. Chen & Jaggi, 2000; Haniffá & Cooke, 2002; Ho & Wong, 2001; Tehranian et al., 2006). One final group discovered that ownership structure had no effect on value relevance (Bouchareb, 2014; Gill & Mathur, 2011; Moscu, 2013; Yasser & Al Mamun, 2015). Unfortunately, research on the relationship between corporate governance mechanisms and value relevance is
conducted primarily in developed countries rather than emerging countries, particularly in African countries such as Ghana and Nigeria. As a result, the following is the study's hypothesis: \( H1: \) Corporate governance mechanisms have a positive and significant direct impact on value relevance and are the best econometric model for improving the value relevance of accounting information quality more quickly.

2.5 Corporate Governance under IFRS and Value Relevance

The theory supporting the idea that corporate governance has a better impact on financial information value relevance and the value of stock market ratios (stock price, BVPS, and EPS) when it is under the moderate role of IFRS compliance, which are based on fundamental principles like the principle of transparency, value relevance, reliability, comparability and fair value. According to this theory, when corporate governance is under the moderating and amplifying action of the IFRS, it has a greater impact on the relevance of information and market value (EPS and BVPS). To put it simply, the IFRS, through their principles and mechanisms, act on the variables of the enterprise governance mechanism, which, in turn, act on the relevance of accounting information by better improving its quality. Numerous researchers (Ball, 2006; Mbir et al., 2020), in their studies publications results in the analysis of the impact of corporate governance on the pertinence of the value, have not hesitated to incorporate, to emerge through the results of their studies and their econometric models the presence of IFRS and of the potential influence they could play on the variables of corporate governance.

The financial scandals of the early 2000s in Europe, the United States (Enron, WorldCom, etc.) and the crisis in 2008 have caused numerous business failures around the world. These failures have been amplified by the perverse effects of globalization increasing the levels of international activities, including but not limited to cross-country investments, trade, and global capital flows (Jacoby et al., 2019; Perraton et al., 1997; Samimi & Jenatabadi, 2014; Shin & Kim, 2018). From then on, public authorities and accounting standard-setters have worked to improve the quality of financial communication to restore the confidence of the public, savers, and investors. Thus, the IAS (International Accounting Standards), which had been in use since 2001, was replaced in 2005 by the International Financial Reporting Standards (IFRS), allowing for better international comparative accounting information, accounting information quality, and transparency (Yip and Young, 2012). International accounting standards, however, have not been adopted uniformly and simultaneously by all countries. The European Union and North American countries were the first to adopt the new IFRS, followed by some Asian and South American countries. Around 30 African countries have adopted these new international accounting standards (Framework, 2018), primarily because of all the better benefits that the new IFRS provide, such as a high level of corporate transparency, cross-border enhancement comparability of financial reports, and improvement of financial and accounting reporting quality (Mita et al., 2018), among others (Artikis & Nifora, 2012); Corporate governance mechanisms are another pillar that ensures high-quality accounting standards (Tweedie & Seidenstein, 2004). Previous compliance studies, such as those conducted by (Juhmani, 2017; Mbir et al., 2020; Pope & McLeay, 2011; Verriest et al., 2013) have demonstrated that IFRS adoption mandatory does not guarantee fully compliance with IFRS mandatory disclosure requirements and provide evidence that strong corporate governance structure and
mechanism (Board structure, ownership, and Audit committee) enhance financial reporting quality, transparency, and consistency (Byrne et al., 2002; Deakin & Konzelmann, 2004).

In Africa, on the other hand, the World Bank and the International Monetary Fund (IMF) demonstrated in their Reports on the Observance of Standards and Codes (ROSC) that compliance with IFRS requirement disclosures was problematic in many African countries; poor and lack of transparency pervaded the corporate reporting system, contributing to recent corporate failures and scandals (Initiative, 2012; Štreimikienė, 2012). This situation can be explained by its distinct socioeconomic, cultural, and business structure, which differs from that of developed countries (Gordon et al., 2012; Nnadi & Soobaroyen, 2015; Tawiah & Boolaky, 2019). The lack of evidence regarding the impact of Corporate Governance on the level of compliance with IFRS mandatory disclosure requirements (COMP) and the value relevance of accounting information quality motivates this research in this context. As a result, the following is the hypothesis: H2: Corporate governance mechanisms have a positive and significant impact on value relevance under IFRS and are the most optimal econometric model to improve accounting information quality's value relevance.

2.6 Corporate governance, IFRS and Value relevance

According to this theory, corporate governance has the greatest impact on financial information relevance when it is fully associated with a high level of IFRS compliance. According to this idea, when IFRS act on corporate governance and stock market variables, corporate governance has a greater impact on information relevance and market value (EPS and BVPS). To put it simply, the IFRS, through their principles and mechanisms, on the one hand, act on corporate governance variables, which in turn act on the relevance of accounting information by improving its quality, and, on the other hand, act to the same title as corporate governance variables directly on market value variables (Stock price, EPS and BVPS). Many studies on the analysis of the impact of corporate governance on the value relevance, have not abstained from amplifying the impact of corporate governance by including the impact of IFRS compliance level in the results of their studies and econometric models (Mazzi et al., 2017; Sellami and Fendri, 2017). For instance again, the studies conducted by Krismiaji and Surifah (2020) demonstrate the significance of corporate governance fully associated with IFRS adoption and compliance on value relevance accounting information and stock market metrics value. They discovered in their research that IFRS disclosure requirements have a greater impact on value relevance when they are followed by good board governance and when their impact are associated at the same time on corporate governance and together associated on value relevance.

Several studies have highlighted the importance of corporate governance structures associated with IFRS in ensuring a high level of reporting quality, and it is clear that corporate governance structures such as board size, board independence, audit committee independence, and board diversity affect the level of reporting quality of firms equally associated with IFRS (Abbott et al., 2000; Abdellatif, 2009; Ahmed et al., 2006; Aristotelous, 2001; J. J. Chen & Zhang, 2014; Fakhfakh Sakka & Jarboui, 2016; Kukah et al., 2016; Nelson & Devi, 2013; Tehranian et al., 2006; Vafeas, 2000). Khlif & Chalmers, (2015) carry out value relevance enhancement after IFRS adoption.
Furthermore, the use of IFRS information assists companies in improving their forecasts and thus attracting more investors. Companies that have strong corporate governance and make good use of the IFRS disclosure requirements produce better financial reporting (Verriest et al., 2013). According to Chang & Sun (2009), the Sarbanes-Oxley Act increased the effectiveness and efficiency of corporate governance (particularly the audit committee) in their process of producing higher financial and accounting reporting.

Several studies in different countries have found the compliance with IFRS increases the value relevance of accounting information (Akteş et al., 2013; Martinez-Ferrero & García-Sánchez, 2017). According to the findings of Iatridis’s (2010) studies in the United Kingdom, IFRS implementations generally improve accounting quality and aid in the valuation of relevant accounting measures. Adoption and compliance with IFRS, particularly the provision of quality accounting disclosures, contributes to increased stock market efficiency. Martínez-Ferrero and García-Sánchez (2017), agree that shifting from local accounting regulations to internationally recognized standards raises the value relevance of accounting information. The study conducted by Jacob & Madu (2004), revealed that the stock exchange regulation and informational environment in Ghana improved following the adoption and compliance level with IFRS, allowing investors to make the best investment decisions. The following hypothesis is tested when analyzing the effect of corporate governance associated with IFRS adoption disclosure requirement compliance level on value relevance quality: $H_3$: Corporate governance and IFRS compliance have a positive and significant impact on value relevance, and the most optimal econometric model to improve accounting information quality’s value relevance.

3. Research Method

This study employs three econometrics models to determine which is the best model for analyzing the impact of corporate governance on value relevance. To do so, it first determines whether it has a positive effect on the enhancement of the value relevance quality of accounting information, and then conducts a comparative analysis of the three numerical models used to select the most optimal numerical model based on certain criteria. The first numerical model focuses on the analysis of the direct relationship between corporate governance and value relevance; the second model focuses on the indirect effect of corporate governance under IFRS compliance on value relevance and finally, the last model examines the impact of corporate governance mechanisms and IFRS compliance on the value relevance of accounting information quality for firms listed on the Nigerian and Ghanaian stock exchanges between 2013 and 2020. From 2013 to 2020, the paper uses data from non-financial listed companies on the Nigeria and Ghana Stock Exchanges. The data was gathered from a variety of sources. Companies annual report sources on their website serve as the primary source; African association stock exchange and Big4 websites serve as secondary sources where data has been collected and compared. After removing companies with unavailable annual reports or missing data, the final sample contains 28 years of data (Table 1 and 2). To deal with possible errors or outliers that could lead to a significant impact on the regression line slopes and significant impact on the R-squared especially if the outliers are very large or very small, we firstly looked into each variable to find uncommon values errors for every variable and then, we used quantitative methods
under the normality assumption distribution (here the variables should not generate many outliers), winzorizing at three standard deviations the data (Arce and Mora, 2002) and, we grouped standards errors in two dimensions between firms and years (Cohen et al., 2004; Persons, 2009; Sellami and Fendri, 2017).

This study uses two major African stock exchanges that have adopted IFRS since 2013. These are the Nigerian Stock Exchange and the Ghana Stock Exchange. Listed non-financial companies are selected as the sample of choice because their corporate governance system and regulations are less complex than those of financial companies and also because there is not much literature related to the analysis of the relationship between the corporate governance mechanism of listed non-financial companies and value relevance in the context of IFRS compliance in Africa.

Furthermore, this sample categorisation is relevant to this study because it allows us to better understand the type of business sectors in which international investors are most present in African stock markets. Moreover, this categorization of business sectors is representative of the large market that Africa in general and these two countries (Nigeria and Ghana) in particular represent in terms of the consuming population and abundant natural resources present on this continent. In this light, the various local actors (government, local companies, market regulators, financial partners) operating in these markets need to better control and regulate this market by making greater use of international financial standards in order to produce more transparent, comparable and reliable financial statements that will be more attractive and competitive in the eyes of external and international investors and that will facilitate their investment decision-making in these markets.

This study examines the relationship between corporate governance mechanisms, IFRS, and value relevance using panel data and multiple regression analysis. The construction of the three econometric modified models in this study is based on two econometric models: the first is the compliance index model (Cooke, 1992) and the second is the modified (Liu & Ohlson, 2000) stock evaluation model.

Compliance Index: dichotomous model. In this case, a dichotomous model is used to calculate the compliance index (Abdelsalam et al., 2007; Abdullah et al., 2015; Al-Shammari & Al-Sultan, 2010; Appiah-Kubi et al., 2020; Haniffa & Cooke, 2002; Luan et al., 2018) where an item is scored one if disclosed, zero if not disclosed, and not (Abdelsalam et al., 2007). This method is currently in use because it is unweighted, which means that each item on the checklist is of equal importance (Cooke, 1992). According to the Big Four auditing firms, which work in the non-financial listed companies’ markets of two African countries, a checklist based on IFRS has been developed and can be used in Africa during the study period. Each item is equally weighted. As a result, the compliance disclosure index (CIFRSjt) for each standard is calculated by dividing the total items disclosed by the company by the maximum number of items applicable to that company.

Ohlson (1995) Model provides a model that connects market value to earnings and book value. Current earnings serve as a proxy for abnormal return in this model, while book value serves as a proxy for the cash value of expected normal future earnings. The Ohlson price model (PM) expresses a firm’s market value (stock price) as a linear
function of earnings, book value, and relevant value information. This model has a number of requirements and generates benchmarks that conceptualize how to link market values with accounting data and other pertinent information. This study employs the ordinary least square (OLS) model to run multivariate regressions such as the Hausman test to determine whether there is a random or fixed effect; the correlation and cointegration test to determine whether or not the variables are well correlated and cointegrated, and if so, in what percentage; and finally, a table summing multiple regression based on the study's three econometric models.

To assess the impact of corporate governance mechanisms on value relevance, earnings and book value are used as the primary metric of stock price. As a result, if the relationships between the share price (SP), earnings per share (EPS), book value per share (BVPS), IFRS, and corporate governance mechanisms are positive and significant, accounting information is relevant to investors. The independent variable in this case is corporate governance mechanism, which includes board size (BoSze), board expertise (BoExp), and board independence (BoInd); then there is audit size (AucSze), audit expertise (AucExp), and audit independence (AucInd); and finally, there is government ownership (GvOwn), foreign ownership (FrOwn), and management ownership (MaOwn). To assess the impact of corporate governance mechanisms on value relevance, earnings and book value are used as the primary metric of stock price. As a result, if the relationships between share price (SP), earnings per share (EPS), book value per share (BVPS), IFRS, and corporate governance mechanisms are positive and significant, then the disclosure compliance index is used to measure IFRS compliance. This study constructs his own index using items that must be disclosed, according to the self-construction index used by certain researchers (Al-Shammari & Al-Sultan, 2010). The dichotomous method is used here, and the disclosure score is calculated by each individual firm. In the study, another dependent variable is the IFRS compliance index. A firm's total score here equals the number of items disclosed in the annual report. Every annual report that is not available is considered non-disclosed. An index is calculated by dividing the actual score of each firm by the highest score. In this study, some control variables (CV) such as leverage (LEV), firm size (Frsze), and return on asset (ROA) were chosen. Table 3 summarizes the definitions and measurements of the various variables that comprise the various models. This paper employs multiple variate models to test hypothesis (1), which examines the direct effect of corporate governance mechanisms on value relevance (model 1); the econometric model of hypothesis (2) examines the indirect impact of corporate governance mechanisms under IFRS on value relevance. Furthermore, the econometric model (3) represents the last hypothesis, which shows the associated impact of corporate governance mechanisms and IFRS compliance disclosure requirements on value relevant accounting information.

The main dependent variables contain: share price (SP) also reflected through book value per share (BVPS), earning per share (EPS). The independent variables include: board size (BoSze), board expertise (BoExp), and board independence (BoInd); next, audit size (AucSze), audit expertise (AucExp), and audit independence (AucInd); and finally, government ownership (GvOwn), foreign ownership (FrOwn), and management ownership (MaOwn), compliance index with IFRS (CIFRS).
4. Findings and Discussions

This section's presentation will be divided into three parts: the first will show the results of preliminary tests we performed to validate the robustness of the study and to check the bias level. Following the validation of the study's robustness, we will present the multivariate regression results that demonstrate the nature of the impact of corporate governance mechanisms on value relevance. In that section, we will demonstrate whether corporate governance mechanisms have a positive and significant effect on the value relevance enhancement quality determinant. The final section will focus on the presentation of the multivariate regression results of the comparison between the three numerical models used, and we will identify which one is the optimal numerical model based on the adjust-$R^2$, $p$-value, and constant term criteria.

Figure 2 shows a histogram of residuals estimated by regression of all independent variables against the stock market. According to the descriptive results in table 3, the mean share price is 2.603 (USD Million) with a standard deviation of 2.478, the minimum price is 2.057, and the maximum price is 38. For both stock exchange countries, CIFRS has a mean of 78 percent disclosure IFRS with a standard deviation of 13.7 percent, with a minimum of 19 percent disclosure and a maximum of 86.2 percent disclosure. The average percentage of foreign ownership is 48.9 percent, with a minimum of 12.4 percent and a maximum of 77.6 percent. Management ownership averages 31.7 percent, with a minimum of 10.2 percent and a maximum of 87.9 percent ownership. The average board size is 8.825 members, with a minimum of 4 and a maximum of 13 members. The average audit size is 4.667 members, with a minimum of 3 and a maximum of 6.

The endogeneity test investigates the connection between the error term and one or more of the independent variables. It also examines the possible presence of endogeneity between the dependent variables and some explanatory variables, such as firm size, which could contribute to biasing the estimations. Hausman's test estimates augmented regression, the Durbin-Wu-Hausman is used here to do an endogeneity test. The results in table 6 show that the endogeneity test results have a higher significant $p$-value for Wu-Hausman than for Durbin (score); thus, the null hypothesis is rejected, and we can say that all of the independent variables are not endogenous.

Correlation analysis is used in this study to determine whether or not there is a strong relationship and direction between all of the dependent, independent, and control variables (Pallant, 2011). The correlation matrix variables are strongly correlated between them, according to the results of the correlation analysis in table 7. For example, foreign ownership is positively and strongly correlated with almost all other variables, including stock price and CIFRS compliance, implying that foreign variables help to improve stock price and CIFRS compliance quality. This is also true for book value per share and earnings per share, both of which are highly positively correlated with stock price and CIFRS. The correlations are significant, implying that they should be considered when determining the nature of the effect of corporate governance on the variables of value relevance.

According to the multicollinearity test results shown in table 8, the greatest value of the VIF is 4.85, which is less than 10 and is considered an acceptable value for not having a
problem with multicollinearity between variables. The VIF mean is 0.746, and the
tolerance coefficient has the lowest value of 0.206, confirming non-multicollinearity.
The histogram for the residuals estimated by regression of all independent variables
against stock price is shown in Figure 1. The density in the panel data is represented by
the histogram, and the trend line validates the data's normality. Table 9 presents a
normality test with a p-value less than 0.05 at 1.402, indicating that homoscedasticity
does not exist in this panel data. The final assumption, autocorrelation, was also tested in
STATA using the Wooldridge test to ensure that error terms are not correlated across
time periods. The F statistic for the test in table 8 was 2.481, with a p-value of 0.0000.
Since the p-value is 0.05, this indicates that there is autocorrelation between error terms.

We need to check for heteroskedasticity based on the multicollinearity, normality,
and autocorrelation problems. The breush-Pagan/Cook-weisberg test is used for this.
Table 9 test results show that the Breusch-Pagan test estimates are reported. The chi-
squared value is still greater than the threshold (p-value > 0.05). As a result,
homoscedasticity is assumed and heteroscedasticity is rejected, and the p-values in the
dependent variables and three models are significant, implying that the null hypothesis
is rejected.

In this study, the Hausman test (Bepari & Mollik, 2015) is used to determine whether
there is a random effect or a fixed effect on this panel regression because the fixed
effects estimator is more efficient than the random effect estimator. According to the
Hausman result test in table 9, the fixed effect is more appropriate for this panel
regression. The autocorrelation and homoskedasticity tests allow for the assumptions
to be validated, and the results show that homoscedasticity is assumed and
heteroscedasticity is rejected. A cluster standards error between firms and years is
performed to solve autocorrelation problems (Petersen, 2009). The data was estimated
using the fixed effect estimation method and the multivariate regression method.

In this section, we use a multivariate regression in table 10 to show whether the
corporate governance variables have a negative or positive impact on the quality
of value relevance enhancement. We will examine their effects in particular through
value relevance determinants such as stock price, book value per share, and earnings
per share. Furthermore, we will present the results of these multivariate regressions
using coefficient and p-value criteria. Table 9 displays the results of the various
regressions performed using the three numerical models. The impact of corporate
governance mechanisms on value relevance quality accounting information is represented
by model 1; the impact of corporate governance under IFRS on value relevance
quality is represented by model 2; and the impact of corporate governance mechanisms
and IFRS on value relevance quality is represented by model 3. The share price (SP)
and its determinants earning per share (EPS) and book value per share are used to assess
the value relevance (BVPS).

Table 9 shows the multivariate regression results of the various tests we ran based on
the three numerical models chosen for this study. The intercept's coefficient for all
three models is significant at the 0.01 level, with R2 values ranging from 0.241 to
0.261. The results of the multivariate regressions show that corporate governance
mechanisms have a positive impact on the enhancement of the value relevance of
accounting information quality. Furthermore, the corporate governance impact the
transparency of the financial communication (Kachouri Ben Saad and Jarboui, 2015). When corporate governance mechanisms are linked to IFRS, the results become more relevant (Schipper, 2007).

The results in table 10 show that when combined with IFRS, the board structure variables have a more significant influence on the value relevance determinant than the other two econometric models. According to the study's significance level of 1%, we can see that the p-value used to measure the significance of variable coefficients is less than 0.01 for all three board structure variables under model 3 (Bowerman & Sharma, 2016). That is, they have a positive and significant impact on value determinants (stock price, book value and earnings). Furthermore, board size is the variable that has the greatest influence on book value and earnings, followed by board expertise and board independence. This situation confirms the findings of studies on board size conducted by Chen and Jaggi (2000) and Pfeffer (1972) that highlight the importance of board size direction and expertise level in the management of information asymmetry and the management of corporate resources. Finally, we can say that the average coefficients and t-statistics for book value per share and earnings are positive and significant for all three models ($p<0.01$); we can also say that earnings have a higher relevant incidence under board structure than book value per share with a P-value of 0.000. In comparison, earnings data should contain more relevant information that can be more useful to investors in their decision-making than book value.

Through the three econometrical models, the results in table 10 show that audit committee structure has a positive and significant impact on value relevance determinants (share price, book value, and earnings) with a p-value less than 0.01. As a result, we can validate all three hypotheses and conclude that audit committees significantly improve the value relevance of accounting information. This means that the structure of the audit committee can ensure the quality of the company's earnings and book value. Our findings are consistent with those of Akeju and Babatunde (2017) and Daryaeei et al. (2020) who found that audit committee structures reduce temporary or accidental earnings reports, improve earnings quality and increase auditquality. Furthermore, with a p-value close to 0.000, the audit size variable and audit independence variables have the greatest influence on book value and earnings in model 3. That corroborate Bedard & Johnstone, (2004) findings that audit size, audit independence, and IFRS have a positive relationship in the enhancement of value relevance determinants because they positively influence financial report quality.

The results in table 10 show that the ownership committee structure is positively significant in all three models with p-values less than 0.05. Foreign ownership has the greatest impact, with a coefficient of 1.891 (0.121), followed by government ownership, which has a coefficient of 0.780 and a p-value less than 0.1. Unfortunately, management ownership has a negative impact on the value relevance of accounting, with a coefficient of -0.917 and p-value of -0.443, both of which are greater than 0.1 prior to IFRS implementation. This finding is consistent with the findings of Lee (2013), who found that foreign ownership is one of the most important predictors and contributors to financial report quality enhancement (Vo and Chu, 2019). Furthermore, He and Zhou (2011) find a positive relationship between the increase in foreign
ownership and the earning response coefficient over time, which is consistent with our findings.

Profitability the ROA ratio is commonly used to assess a company's efficiency and effectiveness in terms of net profits generated by asset management. ROA is an important control variable in value relevance studies because it is correlated with the value relevance of accounting earnings data, which can assist investors in making investment decisions. The results in table 10 of the tests show that ROA is generally insignificant at 0.01 but becomes more relevant and significant in model 3 with a coefficient of 0.072 and a p-value less than 0.1. That insignificant effect result corresponds to the findings of a study conducted by Alamsyah (2017). The findings of this study also show that profitability has an impact on the value relevance of firm information by increasing the relevance of accounting information, which positively contributes to the firm's accounting information quality level. These findings are consistent with those of Alamsyah (2017) and Azid and Alnode (2018).

The regression models 2 and 3 show in table 10 a positive and significant association between IFRS compliance and corporate governance mechanisms variables on value relevance determinants at the 0.01 level. Furthermore, when combined with good corporate governance practices, IFRS compliance has the greatest positive impact on value relevance. This finding is consistent with studies conducted by Yorke et al. (2016) and Alabullah et al. (2021), which concluded that IFRS compliance has a stronger positive relationship with financial report quality. IFRS compliance helps to increase the value relevance of earnings and book value through models 2 and 3, which correlate the study done by Umoren and Enang (2015). Overall, the variables in models 2 and 3, as well as the board committee and audit committee, have a positive effect on the relevant value of accounting information after IFRS application. The findings are consistent with the findings of Nugroho and Hatane (2017) who discovered that the size and independence of board directors and board committee audits associated with IFRS contribute to the enhancement of accounting value information.

This part compares the result of the multivariate regression models of the three econometrics model used in this paper. Their results are presented in the table 11. The first model illustrates the effects of corporate governance mechanism analysis on value relevance. On value relevance, the absolute error between the optimal model and the model analyzing corporate governance with IFRS is 7%. Corporate governance mechanism under IFRS compliance numerical model (2) is the more efficient second numerical model that allows to see the level of impact of corporate governance on value relevance that corresponds with studies done by Krismiah and Surifah (2020). The model (3) depicts the outcome of the associated relationship between corporate governance mechanisms and IFRS in terms of value relevance. According to Collins and al. (1997), the model (3) results show a positive and significant associated impact on value relevance (Adj.R2=0.261), which is greater than the direct impact of corporate governance mechanisms on value relevance numerical model (Adj.R2=0.241) and the indirect impact of corporate governance mechanisms under IFRS on value relevance numerical model (Adj.R2=0.256). Furthermore, the first model (1) results show that corporate governance mechanisms contribute to an increase in stock price quality to 0.240. In the model (1), the Audit committee structure (independence, size,
and expertise) contributes to a positive impact on the stock price's relevance value. This situation backs up the findings of Abbott et al. (2000), Beasley et al. (2000) and Nadirsyah and Muharram (2015) who found that the audit committee structure has a positive impact on the value relevance of accounting information. Board structure, as measured by board size 0.274 (0.000), and board expertise, have a positive impact on value relevance. The audit committee variables contribute to improving earnings per share (EPS) quality by 1% and then to improving value relevance by 0.303 (0.000). In the model (1), corporate governance mechanisms have little impact on book value per share, with the exception of board structure variables, which have a 1% impact on value relevance. Model (2) demonstrates that the outcomes of corporate governance mechanisms under IFRS have a positive and significant greater impact than model (1). This value relevance is significantly higher at 1% for certain variables such as board expertise and audit committee size. Furthermore, in model (2), Book value per share is generally more significant at 1% than Earnings per share. Under IFRS, the book value per share and earnings per share are more relevant and significant at 1%, and they significantly contribute to the increase in stock price (SP). Corporate governance mechanisms associated with IFRS compliance are more effective in terms of value relevance and correspond to studies conducted by Krismiaji and Surifah (2020). The model (3) presents the result of the associate relationship of corporate governance mechanisms and IFRS on value relevance. According to Collins et al. (1997), the model (3) results show a positive and significant associated impact on value relevance (Adj.R2=0.261) greater than the direct impact of corporate governance mechanisms on value relevance (Adj.R2=0.241) and the indirect impact of corporate governance mechanisms under IFRS on value relevance (Adj.R2=0.256).

5. Conclusion

The purpose of this study was to first analyze the impact of corporate governance mechanisms on value relevance using three econometric models, and then to determine which model was the best to quickly and fully enhance the value relevance quality of accounting information. The first model shows the direct impact of corporate governance on value relevance; the second model depicts the indirect impact of corporate governance on value relevance under IFRS compliance disclosure requirements; and the third model illustrates the associated impact of corporate governance mechanism and IFRS compliance disclosure requirement on value relevance. For that, data from the firm's annual report was manually collected via the firm's direct website and other websites such as the African stock market association. The findings show that corporate governance mechanisms, as revealed by the three econometric model analyses, play a positive and significant role in increasing the value relevance of emerging African stock exchanges. According to this tridimensional analysis, the associate relationship between corporate governance and IFRS is the best model of the three because it has the most positive and significant impact on value relevance. The indirect impact of IFRS corporate governance also helps to improve the quality of value relevance (Yosra Mnif and Hela Borgi., 2020; Salah Ahmed ORABY., 2017). The direct impact of corporate governance mechanisms also plays a positive and significant role in improving the quality of value relevance (Hesham I. A
lmujamed, Mishari M. Alfraih.,2020). More specifically, the findings show that when corporate governance and IFRS are combined, earnings and book value per share are more positively significant (Krismija, K., & Surifah, S., 2020) that confirm the hypothesis (H3). Furthermore, the results show that the model analyzing the association between corporate governance and IFRS on value relevance is the best model because the absolute error between this model and the model analyzing the direct impact of corporate governance on value relevance is 8% and the absolute error between the best model and the model analyzing corporate governance under IFRS on value relevance is 2%.

The results of this study are consistent with the studies of researchers such as: Iatridis and Rouvolis (2010) and Tolulope et al. (2018) that showed in their studies the importance to associate a good corporate governance system and with IFRS standards compliance disclosure requirement, which are known for their high standards in terms of transparency, comparability, and improvement of financial information quality and specific market measures (Ahmed et al., 2013; Barth et al., 2008; Bova and Pereira, 2012). Additionally, Choi (2011) study shows that IFRS standards have the potential to improve market efficiency, promote liquidity, cut information costs, eliminate information asymmetry, facilitate cross-border comparability, and boost market competition. Therefore, the findings of the present study show that the improvement in the usefulness of the quality of financial information produce through IFRS standards depends also on the establishment of a competent and independent governance system with in mind the public interest rather than personal interests.

This study extends to the corporate governance, IFRS, and value relevance relationship African market literature by first investigating the impact of a good corporate governance system, both directly and indirectly (under IFRS), on value relevance enhancement in an understudied African context. Second, this paper contributes to confirming the positive and beneficial impact of IFRS on the corporate governance system through the influence that its transparent characteristic components have on Board management monitoring. Finally, this paper is unique in that, it is the first to focus its research and proposal on the best optimal econometric model that more positively enhances the impact of corporate governance on the value relevance accounting information quality in the African stock market.

This study can help investors in their decision-making in any stock exchange market in general and in African stock exchange market in particular. The management of African firms through this study could be more alert and concern about the importance of the implementation of a good corporate governance system follow by a good IFRS compliance disclosure requirement system. The findings of this paper should be a signal for African policymakers to contribute by putting some new regulations and policies to encourage a good corporate governance system and a good IFRS compliance disclosure requirement monitoring. The limitations of this study are focus on the fact that the study did not examine every single impact of corporate governance mechanism variable on value relevance as the age, the gender and also, by the fact that the access of data was not easy to get mostly on African countries context. Further researches could be focus on a comparative countries-level analyze with more countries or may be could analyze in details the contribution of every single corporate governance mechanism variable on
value relevance accounting information quality in Africa listed companies.

References


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