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PHD THESIS

**CORPORATE GOVERNANCE AND THE LEVEL OF FINANCIAL  
REPORTING QUALITY: THE MEDIATING ROLE OF INTERNAL  
CONTROL, FINANCIAL LEVERAGE AND EXTERNAL AUDIT QUALITY**

072 Finance, Banking, Insurance and Stock Market  
07 Management and Administration

Submitted for the degree of Doctor of Philosophy

The dissertation contains the results of own research. The utilization of ideas, results and texts of another author has been referenced to the relevant source

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## SUMMARY

Amanamah Baaba R. Corporate governance and the level of financial reporting quality: the mediating role of internal control, financial leverage and external audit quality. – Manuscript .

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This dissertation addresses a critical scientific problem concerning CG and FRQ. Corporate governance (CG) and quality financial reporting (FRQ) are the pillars upon which the trustworthiness and efficiency of the financial markets are built. To ensure ethical business behaviour and align stakeholder interests, CG, which includes policies and procedures that regulate firm management, is very important. Despite the importance of FRQ on investors’ decisions and the financial market with its ripple effect on the global market, an in-depth understanding of the complicated relationships between CG, financial leverage, external audit quality, and FRQ within the context of sub-Saharan Africa remains scarce. This gap in the literature is particularly notable given the potential impact these relationships can have on the credibility of financial reports from companies in Ghana, South Africa, and Nigeria. The existing literature fails to address the complex and interconnected nature of these variables adequately. Therefore, it is imperative to carry out a comprehensive analysis that brings these elements together, examines their interaction effects, and clarifies their collective influence on FRQ. CG and FRQ issues have become relevant and even controversial in the context of numerous corporate and accounting scandals, information manipulation, and asymmetry incidents. These problems have not only caused concern among regulators, investors, and the public but have also undermined trust in financial reports, audit service quality, and governance systems. The economic significance of the selected countries in the study, exceeds national boundaries, and making a significant contribution to global economic dynamics.

The purpose of this study is to assess CG and the level of FRQ in both listed and non-listed companies in Ghana, Nigeria and South Africa considering the variables that are impacted by effective CG to provide quality financial information. This will provide policymakers with useful findings on variables that impact CG and the quality of financial reporting.

The objectives of the study are as follows: to evaluate the theoretical foundations of CG and FRQ; to assess the impact of CG on the quality of financial reporting; to assess the moderating role of internal controls, financial leverage and external audit quality on the relationship between CG and FRQ; to conduct a comparative study between the selected countries; to develop models for assessing the relationship between CG and internal control, earning management, financial leverage, International Financial Reporting Standards (IFRS) compliance, disclosure, external audit and FRQ; and to propose practical recommendations for improving CG and FRQ in Sub-Saharan Africa.

To address the identified research gap and achieve the aim of the study, the study draws on established theories such as agency theory, stakeholder theory, stewardship theory, transaction cost economics theory, resource dependence theory and managerial hegemony theory.

The study begins with an analysis of the theoretical foundations of CG and FRQ to distinguish the study from existing studies. The study used a comprehensive method of dynamic and structural bibliometric and trend analysis based on Scopus, Scival, Google Trends tools, Publish or Perish and VOSViewer software, which allowed for the identification and description of: 1) research dynamics in CG and FRQ topics; 2) geographic and institutional diversity; 3) multidisciplinary nature and prominent topics; 4) structural patterns in CG research subfields.

The study includes three variables: independent variables that indicate CG practices, a mediating variable that is internal control, financial leverage, external audit quality, and the dependent variable of FRQ. CG procedures include the size of the board, the diversity of gender on the board, the variety of skills and experience on the board, and

the existence of an independent audit committee. Internal control is measured with a specific emphasis on risk assessment. Financial leverage is associated with debt and equity. External audit quality is analysed on the basis of firm size, audit fee, audit rotation and significant error detection. FRQ has four essential components (IFRS Compliance (twelve disclosure issues), Real Earnings Management, Accrual-Base Earnings Management and voluntary disclosure). The mathematical expressions based on the Roychowdhury model for detecting Real Earnings Management were utilised in measuring real earnings management. The Jones model was used in measuring the Accrual-based earnings management.

To achieve the objective of this research, the study adopted a quantitative research strategy and a deductive approach. Data was collected from the annual reports and financial statements of listed and unlisted companies, and complete and readily available financial data from 2009 to 2021 was sourced from the annual reports of companies in Ghana, Nigeria, and South Africa. Regression analysis was used to assess the relationships between the dependent, independent, and moderating variables. To ensure the validity and reliability of the results, the Durbin-Wu-Hausman test was applied to ensure that the regression estimates were unbiased and consistent. Additionally, the variance inflation factor (VIF) was calculated to check for multicollinearity among the independent variables.

The dissertation is the first to study the combined moderating effect of internal control, financial leverage and external audit on CG and FRQ improving on the current scientific basis of the relevant studies.

The result of the research indicates a statistically significant positive relationship between the presence of an Independent Audit Committee and the level of compliance with IFRS and Voluntary disclosure. These results highlight the crucial role that independent audit in enhancing the quality of financial reporting by overseeing compliance with accounting standards and ensuring transparency.

The regression models indicate that Board Size, Independent Audit Committee, and Board Gender Diversity are linked to lower levels of real earnings management. The Accrual-Based Earnings Management model indicates that the analyses of CG variables have little impact on earnings indicating why effective governance has not been able to eliminate corporate fraud in sub-Saharan Africa.

The regression analysis revealed a statistically significant and positive relationship between audit fees and voluntary disclosure and IFRS compliance. This implies that higher audit fees, which may indicate more thorough auditing methods, are linked to more voluntary disclosure, high compliance with IFRS hence enhanced FRQ. The study again showed that increasing the frequency of changing auditors may lead to more manipulation of financial results. This is an important finding for regulators in sub-Saharan Africa when setting minimum audit fees and the minimum years to change external auditors. The study helps investors see the importance of spending more money to acquire highly qualified auditors.

The regression model for Real Earnings Management indicates that the predictors do not collectively impact that variable. The findings suggest that the manipulation of earnings using accrual-based methods is impacted by variables beyond standard governance procedures. The correlation shows a significant positive relationship between Audit Rotation and Accrual-Based Earnings Management at a value of 0.061. This suggests that companies that rotate their audits more frequently may have greater levels of accrual-based earnings management.

The study further reveals that diverse skills and expertise on corporate boards and audit committees' independence significantly impact FRQ, supporting existing literature and echoing findings from Cole and Schneider (2020) and Musa et al. (2022). However, contrary to existing theories, this study found no significant relationship between the measured CG proxies and the effectiveness of internal controls. Low model R-value and R Square indicate a lack of a significant mediating effect of internal controls in the relationship between CG and FRQ.

The results of the study confirmed that specific variables of CG, positively impact IFRS compliance. However, the level of impact varies from country to country. The dissertation findings underscore the significance of robust regulatory frameworks and the configuration of corporate boards in attaining exceptionally efficient IFRS.

The comparative regression analysis shows that in Nigeria, board size and board skills and experience diversity positively influence financial leverage, while in Ghana and in South Africa, CG factors do not significantly influence financial leverage. These findings show the importance of context-specific governance practices and their effectiveness in different sub-Saharan Africa countries.

In Ghana, the coefficients revealed that board skills and experience diversity, independent audit committee, firm size, and audit fees are significant predictors of IFRS compliance. In Nigeria, the model summary shows different strengths of relationships with board skills negatively impacting IFRS compliance, while firm size and audit fees positively impact it. In South Africa, the model is significant with board skills positively impacting IFRS compliance, while audit committee negatively impacts it.

Given the result of the study, the study recommends that 1) regulators develop stricter and more detailed guidelines for CG and internal control in sub-Saharan Africa towards more comprehensive, clear, and consistent disclosure across the region; 2) firms in sub-Saharan Africa reassess and potentially overhaul their existing internal control frameworks to achieve more integrated, robust systems supported the high-quality financial reporting; 3) firms should adopt governance strategies that consider their specific size and resources; 4) larger firms, in particular, should focus on managing the complexities in boards composition, integrating them into decision-making processes; 5) policymakers and regulators should enforce frameworks that support board diversity while providing guidelines for managing potential conflicts and enhancing transparency; 6) firms should implement mechanisms for ongoing monitoring and evaluation of board composition and its impact on disclosure practices.

The findings of the study offer significant insights for many stakeholders, such as regulatory bodies, policymakers, corporate executives, and investors, since they provide insights into the determinants impacting the integrity of financial reporting. The empirical evidence presented in this study supports existing correlations and enhances the understanding of the complex relationships within the contexts of CG and FRQ.

When analysing the findings of this study, it is essential to take into account the limitations of it. The scope of the study was focused mainly on three sub-Saharan African countries. Additionally, the measure of board experience diversity does not capture all dimensions of diversity, such as cognitive diversity or personality traits, which could also impact disclosure practices.

Keywords: Corporate Governance, Financial Reporting Quality, Internal Control, Financial Leverage, System of Financial Indicators, Financial Condition of Enterprises, IFRS Compliance, Audit, Financial Management, Voluntary Disclosure Sub-Saharan Africa.

## АНОТАЦІЯ

Аманамах Бааба Р. Корпоративне управління та рівень якості фінансової звітності: медіативна роль внутрішнього контролю, фінансового левериджу та якості зовнішнього аудиту. – Рукопис.

Дисертація на здобуття наукового ступеня доктора філософії за спеціальністю 072 – Фінанси, банківська справа, страхування та фондовий ринок (07 – Управління та адміністрування), Сумський державний університет Міністерства освіти і науки України, Суми, 2024.

Дисертація присвячена вирішенню важливої наукової проблеми, пов'язаної з корпоративним управлінням (КУ) та якістю фінансової звітності (ЯФЗ). Вони є стовпами, на яких будується надійність та ефективність фінансових ринків. Для забезпечення етичної ділової поведінки та узгодження інтересів зацікавлених сторін дуже важливим є КУ, яке включає політики та процедури, що регулюють управління компанією. Незважаючи на важливість ЯФЗ для рішень інвесторів і фінансового ринку з його хвильовим впливом на глобальний ринок, глибоке розуміння складних взаємозв'язків між КУ, фінансовим важелем, якістю зовнішнього аудиту та ЯФЗ в контексті країн Африки на південь від Сахари залишається недостатнім. Цей розрив в літературі особливо помітний з огляду на потенційний вплив цих взаємозв'язків на довіру до фінансової звітності компаній з Гани, Південної Африки та Нігерії. Існуюча література не в змозі адекватно висвітлити складний та взаємопов'язаний характер цих змінних. Тому необхідно провести комплексний аналіз, який об'єднає ці елементи разом, вивчить ефекти їхньої взаємодії та з'ясує їхній сукупний вплив на ФРК. Питання КУ та ФРК стали актуальними і навіть суперечливими в контексті численних корпоративних та бухгалтерських скандалів, маніпуляцій з інформацією та інцидентів з асиметрією.

Ці проблеми не лише викликали занепокоєння регуляторів, інвесторів та громадськості, але й підірвали довіру до фінансових звітів, якості аудиторських послуг і систем управління. Економічне значення обраних у дослідженні країн



виходить за межі національних кордонів і робить значний внесок у глобальну економічну динаміку.

Метою дослідження є оцінка КУ та рівня ЯФЗ в компаніях, що котируються та не котируються на біржі з Гани, Нігерії та Південної Африки, з огляду на змінні, на які впливає ефективно КУ для надання якісної фінансової інформації.

Завдання дослідження: узагальнити теоретичні засади КУ та ЯФЗ; оцінити вплив КУ на ЯФЗ через медіативну роль внутрішнього контролю, фінансового левериджу та якості зовнішнього аудиту; провести порівняльне дослідження між обраними країнами; розробити моделі для оцінки взаємозв'язку між КУ та внутрішнім контролем, управлінням доходами, фінансовим левериджем, дотриманням Міжнародних стандартів фінансової звітності (МСФЗ), розкриттям інформації, зовнішнім аудитом та ЯФЗ; запропонувати практичні рекомендації щодо покращення КУ та ЯФЗ у країнах Африки, що знаходяться на південь від Сахари.

Для подолання дослідницького розриву в дослідженнях і досягнення поставленої мети, дослідження спирається на відомі теорії, такі як агентська теорія, теорія стейкхолдерів, теорія управління, теорія економіки трансакційних витрат, теорія ресурсної залежності та теорія управлінської гегемонії.

Дослідження починається з аналізу теоретичних основ КУ та ЯФЗ, що дозволяє відрізнити його від існуючих досліджень. З цією метою використано комплексний метод динамічного та структурного бібліометричного і трендового аналізу на основі інструментів Scopus, Scival, Google Trends, Publish or Perish та програмного забезпечення VOSViewer, що дозволило виявити та описати 1) динаміку досліджень з тематики КУ та ЯФЗ; 2) географічне та інституційне розмаїття наукового доробку за цією тематикою; 3) мультидисциплінарний характер, провідні теми і кластери у предметній області; 4) структурні патерни в підгалузях досліджень КУ.

Дослідження включає три змінні: незалежні змінні, які вказують на практики КУ, проміжні змінні – внутрішній контроль, фінансовий леверидж, якість зовнішнього аудиту та залежну змінну ЯФЗ. Процедури КУ включають розмір правління, гендерне різноманіття у складі правління, різноманітність навичок та досвіду членів правління, а також наявність незалежного аудиторського комітету. Внутрішній контроль оцінюється з особливим акцентом ризиках. Фінансовий леверидж пов'язаний з борговими зобов'язаннями та власним капіталом. Якість зовнішнього аудиту аналізується на основі розміру фірми, аудиторського гонорару, ротації аудиторів та виявлення суттєвих помилок. ЯФЗ має чотири основні компоненти (комплаєнс з МСФЗ (дванадцять напрямів розкриття інформації), управління реальними доходами, управління доходами за методом нарахування та добровільне розкриття інформації). Для оцінки управління реальними доходами використовувалися математичні вирази, засновані на моделі Ройчовдхурі. Модель Джонса була використана для оцінки управління прибутком на основі методу нарахувань.

Для досягнення мети дослідження було обрано стратегію кількісного аналізу та дедуктивний підхід. Дані були зібрані з річних звітів та фінансової звітності компаній за період з 2009 по 2021 рік щодо компаній, що котируються та не котируються на біржі, у Гані, Нігерії та Південній Африці. Для оцінки взаємозв'язків між залежними, незалежними та проміжними змінними було використано регресійний аналіз. Для забезпечення достовірності та надійності результатів було застосовано тест Дурбіна-Ву-Хаусмана, який гарантує, що регресійні оцінки є незміщеними та узгодженими. Крім того, для перевірки наявності мультиколінеарності між незалежними змінними було розраховано коефіцієнт інфляції дисперсії (VIF).

Дисертація є першою спробою дослідити комбінованого медіативного впливу внутрішнього контролю, фінансового левериджу та зовнішнього аудиту на КУ та

ЯФЗ, що вдосконалює сучасну наукову базу відповідних досліджень у цьому напрямі.

Результати дослідження свідчать про статистично значущий позитивний зв'язок між наявністю незалежного аудиторського комітету та рівнем дотримання МСФЗ і добровільного розкриття інформації. Ці результати підкреслюють важливу роль незалежного аудиту в підвищенні ЯФЗ шляхом нагляду за дотриманням стандартів бухгалтерського обліку та забезпеченням прозорості.

Регресійні моделі вказують на те, що розмір ради директорів, наявність незалежного аудиторського комітету та гендерне різноманіття у складі ради директорів пов'язані з нижчим рівнем управління реальними доходами. Модель управління доходами за методом нарахування вказує на те, що аналіз змінних КУ має незначний вплив на дохід, що пояснює, чому ефективне управління не змогло викоринити корпоративне шахрайство в країнах Африки на південь від Сахари.

Регресійний аналіз виявив статистично значущий і позитивний зв'язок між оплатою аудиту, добровільним розкриттям інформації та дотриманням МСФЗ. Це означає, що вищі гонорари за аудит, які можуть вказувати на більш ретельні методи аудиту, більше пов'язані добровільним розкриттям інформації, вищим комплаєнсом з МСФЗ, а отже вищою ЯФЗ. Дослідження знову показало, що збільшення частоти зміни аудиторів може призвести до більшого маніпулювання фінансовими результатами. Це важливий висновок для регуляторів у країнах Африки на південь від Сахари при встановленні мінімальних зборів за аудит і мінімальних років для ротації зовнішніх аудиторів. Дослідження допомагає інвесторам зрозуміти важливість оплати залучення висококваліфікованих аудиторів до перевірки фінансової звітності.

Регресійна модель управління реальним доходами вказує на те, що предиктори не мають спільного впливу на цю змінну. Отримані результати свідчать про те, що на маніпулювання доходами за методом нарахування впливають змінні, які виходять за рамки стандартних процедур управління. Кореляція показує

значний позитивний зв'язок між ротацією аудиторів та управлінням доходами за методом нарахування на рівні 0,061. Це свідчить про те, що компанії, які частіше проводять ротацію аудиторів, можуть мати вищий рівень управління доходами за методом нарахування.

Дослідження також показує, що різноманітні навички та досвід у корпоративних радах та незалежність аудиторських комітетів суттєво впливають на ЯФЗ, що підтверджує існуючі літературні джерела та перегукується з висновками Cole and Schneider (2020) та Musa et al. (2022). Однак, всупереч існуючим теоріям, це дослідження не виявило значущого зв'язку між вимірними проксі-показниками КУ та ефективністю внутрішнього контролю. Низькі значення R-value та R-квадрат моделі вказують на відсутність значущого медіативного ефекту внутрішнього контролю у зв'язку між КУ та ЯФЗ.

Результати дослідження підтвердили, що певні змінні КУ позитивно впливають на дотримання МСФЗ. Однак рівень впливу варіюється від країни до країни. Висновки дисертації підкреслюють важливість надійної регуляторної бази та конфігурації корпоративних рад для досягнення винятково ефективного МСФЗ-комплаєнсу.

Порівняльний регресійний аналіз показує, що в Нігерії розмір ради директорів та різноманітність навичок і досвіду правління компаній позитивно впливають на фінансовий леверидж, тоді як у Гані та Південній Африці фактори КУ не мають суттєвого впливу на фінансовий леверидж. Ці результати свідчать про важливість контекстно-специфічних практик корпоративного управління та їхню ефективність у різних країнах Африки на південь від Сахари.

У моделі щодо Гани коефіцієнти показали, що навички та різноманітність досвіду членів ради директорів, незалежний аудиторський комітет, розмір фірми та аудиторські гонорари є важливими предикторами МСФЗ-комплаєнсу. У Нігерії побудована модель показує різну силу взаємозв'язків: кваліфікація членів ради директорів негативно впливає на дотримання МСФЗ, тоді як розмір фірми та розмір

аудиторських гонорарів позитивно впливають на нього. У Південній Африці модель є значущою: кваліфікація членів ради директорів позитивно впливає на дотримання МСФЗ, тоді як наявність аудиторського комітету – негативно.

Отримані результати дослідження дозволили розробити наступні рекомендації: 1) регуляторам необхідно розробити більш суворі та детальні керівництва щодо КУ та внутрішнього контролю в країнах Африки на південь від Сахари з метою забезпечення більш повного, чіткого та послідовного розкриття інформації в регіоні; 2) компаніям у досліджуваних країнах провести переоцінку та потенційно переглядати існуючі підходи до внутрішнього контролю з метою створення більш інтегрованих, надійних систем, що підтримують високоякісну фінансову звітність; 3) компаніям впровадити стратегії управління, що враховують їх конкретний розмір та ресурси; 4) великі компанії, зокрема, повинні зосередитися на управлінні розривами, пов'язаними зі складом рад директорів, інтегруючи їх у процеси прийняття рішень; 5) політики та регулятори повинні впроваджувати механізми, які підтримують різноманітність складу рад директорів, одночасно надаючи рекомендації щодо управління потенційними конфліктами та підвищення прозорості; 6) компанії повинні впровадити механізми постійного моніторингу та оцінки складу рад директорів та його впливу на практику розкриття інформації.

Результати дослідження є важливими для багатьох зацікавлених сторін, таких як регуляторні органи, керівники компаній та інвестори, оскільки вони дають уявлення про детермінанти, що впливають на ЯФЗ та її надійність. Емпіричні дані, представлені в цьому дослідженні, підтверджують існуючі кореляції та поглиблюють розуміння складних взаємозв'язків у контексті КУ та ФРК.

Аналізуючи результати цього дослідження, важливо враховувати його обмеження. Масштаб дослідження був зосереджений переважно на трьох країнах Африки на південь від Сахари. Крім того, показник різноманітності досвіду роботи в наглядових радах не охоплює всі виміри різноманітності, такі як когнітивне

різноманіття або особистісні риси, які також можуть впливати на практику розкриття інформації.

Ключові слова: корпоративне управління, якість фінансової звітності, внутрішній контроль, фінансовий левередж, система фінансових показників, фінансовий стан підприємств, відповідність МСФЗ, аудит, фінансовий менеджмент, добровільне розкриття інформації в країнах Африки на південь від Сахари.

### LIST OF PUBLICATIONS

Below are articles published on the objectives and results of the study.

#### **Publications in Ukrainian scientific specialized journals:**

1. Amanamah, R. B. (2024). Exploring the impact of board experience diversity on voluntary disclosure: The moderating role of firm size. *Corporate Board: Role, Duties and Composition*, 20(3), 91–104. <https://doi.org/10.22495/cbv20i3art9>.
2. Amanamah, R. B. (2024). Corporate Governance and Financial Reporting Quality: Mediating function of Internal Control from Emerging Markets. *Corporate Governance and Sustainability Review (ABDC listing)*, 8(3), 36–50. <https://doi.org/10.22495/cgsrv8i3p3>.
3. Amanamah, R. B. (2024). Corporate Governance, Financial Leverage, External Audit Quality, and Financial Reporting Quality in Ghanaian Companies. *Financial Markets, Institutions and Risks*, (category B), 8 (1), ISSN (online) – 2521-1242; ISSN (print) – 2521-1250. [http://doi.org/10.61093/fmir.8\(1\).43-62.2023](http://doi.org/10.61093/fmir.8(1).43-62.2023)
4. Amanamah, R.B. (2024). Examining the Moderating Role of Firm Characteristics in the Corporate Governance-Financial Reporting Quality Nexus: Evidence from a Developing Country. *Business Ethics and Leadership*, (category B), 8 (1), ISSN (online) – 2520-6311; ISSN (print) – 2520-6761. [http://doi.org/10.61093/bel.8\(1\).28-44.2024](http://doi.org/10.61093/bel.8(1).28-44.2024).

**Publications in non-Ukrainian scientific specialized journals**

5. Amanamah, R.B. (2025). The Impact of Firm Age on Independent Audit Committee and Voluntary Disclosure Quality. African Journal of Applied Research (Scopus) Vol. 11, No. 1 pp. 228-256. DOI: <https://doi.org/10.26437/ajar.v11i1.847>.

6. Amanamah, R.B. (2024). International Financial Reporting Standard Compliance in Sub-Saharan Africa: The Influence of the Board and Firm Characteristics. International Journal of Auditing and Accounting Studies, 6(3), 263-297. ISSN: 2582-3272 <https://DOI:10.47509/IJAAS.2024.v06i03.01>.

**Conference Proceedings:**

7. World Finance & Banking Symposium, December, 13th-15th, 2023 Vilnius, Lithuania. Paper presented: Examining the moderating role of firms' characteristics in the corporate governance-financial reporting quality nexus: evidence from developing country. Discussant: Thanuja Gunadeera - Queensland University of Technology (Australia), Speaker Henri Servaes, Professor of Corporate Governance and Finance at the London Business School

8. World Finance Conference - Norway (August 2nd to 4th, 2023). Paper presented: Corporate Governance Research in Ghana: Bibliometric Analysis. Discussant: Mutian Sun - Coventry University (United Kingdom)

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## INTRODUCTION

**Relevance of the research topic.** The relevance of research in corporate governance and the level of financial reporting quality: the mediating role of internal control, financial leverage and external audit quality among companies in Ghana, Nigeria and South Africa cannot be overemphasised.

Corporate governance is of vital importance for the integrity and efficiency of financial markets. Poor corporate governance can lead to the collapse of companies, inappropriate functioning of companies, financial problems and fraud. Well-governed companies typically outperform their competitors and attract investors who can help finance future expansion.

For emerging market countries like Ghana, Nigeria and South Africa, improving corporate governance can serve several important public policy objectives. Good corporate governance reduces emerging market vulnerability to financial crises, reinforces property rights, reduces transaction costs and the cost of capital, and leads to capital market development. Weak corporate governance frameworks reduce investor confidence and can discourage outside investment. Also, as pension funds continue to invest more in equity markets, good corporate governance is crucial for preserving retirement savings. Over the past several years, the importance of corporate governance has been highlighted by an increasing body of academic research. Studies have shown that good corporate governance practices have led to significant increases in the economic value added (EVA) of firms, higher productivity, and lower risk of systemic financial failures for countries.

The purpose of corporate governance (CG) is to ensure organizations are governed with responsibility, accountability, integrity, transparency, efficiency and effectiveness. Studies have shown that good corporate governance establishes appropriate corporate structures, that create an environment for effective and efficient leadership, accountability and high corporate performance. This in turn strengthens the confidence of investors both

locally and globally which leads to an efficient financial market hence a stable source of financing for companies.

The study of the theoretical foundations of the corporate governance concept has allowed for the formation of a conceptual framework of interconnections between corporate governance elements and financial reporting quality, taking into account the mediating role of internal control, financial leverage, and external audit quality. This framework serves as the critical model for the research.

Corporate governance has become a topic of interest in Africa. This interest keeps growing due to the collapse of companies. Over 16 seemingly profitable banks collapse between 2017 and 2019 to the dismay of Ghanaians. These include Unibank Ghana Ltd, the Royal Bank Ltd, Beige Bank Ltd, Sovereign Bank Ltd and Construction Bank Ltd. In South Africa, African Bank and VBS Mutual Bank and in Nigeria African International Bank, and Skye Bank just to mention but a few. The collapse of these Banks was as due to poor corporate governance, lack of controls and inadequate supervision. The reason for the collapse of these banks was not different from what led to the collapse of Barings Bank, Enron and Parmalat. These scandals also have raised concerns regarding the role of an effective board of directors in the monitoring process to prevent these scandals from occurring. This financial fraud has been witnessed by a number of countries. USA has also witnessed similar financial collapses mainly because of audit and corporate governance failures.

The corporate failure cases lead to raising questions about the audit service quality and governance system. As a result, corporate governance has received greater attention from academics, financial regulators, and professionals, in both developing and developed countries. Weaknesses in internal controls is attributed to inadequate supervision, lack of directors with integrity and honesty, as well as the compromise of the independence of the external auditor of the company as major reasons to the fall of Barings Bank and Enron's collapse.

These corporate failures have impact on shareholders and society as a whole with it ripple effect on the economy both nationally and internationally. The collapse of the Lehman Brothers in 2008 and its contribution to the 2008 recession is a typical example.

The conceptual framework for financial reporting, sets out the fundamental concepts for financial reporting. The framework state that financial information is useful when it is relevant and represents faithfully what it purports to represent and that the usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable. According to the framework, present and potential investors, lenders and other creditors, are primary users of general-purpose financial reporting and they use the information in the financial statement to make decisions about buying, selling or holding equity or debt instruments, providing or settling loans or other forms of credit, or exercising rights to vote on, or otherwise influence, management's actions that affect the use of the entity's economic resources. The primary users need information about the resources of the entity not only to assess an entity's prospects for future net cash inflows but also how effectively and efficiently management has discharged their responsibilities to use the entity's existing resources. This explains the importance of quality financial reporting and the damaging impact of poor financial reporting quality. Unfortunately, financial misreporting practices is becoming a canker globally.

Corporate governance is significantly linked to good corporate financial performance. As a result, greater demand is placed on how companies are governed. Dr Richmond Atuahene, is of the view that major issues harming the banking industry are a lack of board independence, incompetent board members and a lack of duty of care.

It is asserted that accountability mechanisms adopted in Sub-Saharan Africa Ghana, such as independent audit committees, are ineffective. Effective Corporate Governance practices reduce information asymmetry, control insiders' opportunism and mitigate managerial incentives aimed at manipulating reported earnings hence the mitigation of the agency problems. An effective system of Corporate Governance is imperative to financial reporting quality

Developing market like the Sub-Saharan African market plays a vital role in the world's economy. Unfortunately, researchers are asserting that the quality of accounting information reported by companies in these developing markets is inaccurate and unreliable. Researchers are of the view that due to the high information asymmetry in emerging markets such as Africa, assessing the quality and the extent of corporate reporting practices is difficult.

Good corporate governance also influences the level of returns in the form of dividends received by shareholders as it mitigates the negative effect of financial leverage and agency problems. Corporate governance attributes such as board expertise, board independence, audit committee, and internal audit quality to financial reporting quality are scarce in developing countries.

An extensive review of the literature, suggests that poor corporate governance breeds poor internal control systems, and this poor internal control gives birth to earnings management, inherent and detection risk hence poor financial reporting quality. Therefore, this research fills the gap in the literature regarding corporate governance and financial reporting quality, the mediating role of internal control, financial leverage and external audit and their impact on financial reporting quality. A lot of research has been conducted on corporate governance but little research on this subject has been carried out in Sub-Saharan Africa, and few have focused on the variables of this dissertation. This study is therefore relevant and significant to Sub-Saharan African countries and since the world is now a global village to the global market.

Furthermore, the correlation between corporate governance and the quality of financial reporting has gained significant attention in academic and professional circles, especially in emerging markets where regulatory frameworks and governance structures are still evolving. Companies in emerging economies, such as Ghana, Nigeria, and South Africa, face unique challenges in implementing effective corporate governance mechanisms due to a variety of institutional, economic, and regulatory factors. Understanding how these governance mechanisms impact financial reporting quality in

such contexts is crucial for improving the transparency and accountability of firms in these regions.

**Relation of the work to scientific theories, regulations and framework.** This dissertation is based on the Cadbury report (1992); the Turnbull report (1997); the Organisation for Economic Co-operation and Development framework (OECD, 2004); the Report on the Observance of Standards and Codes, (ROSC, 2010); the Conceptual Framework for Financial Reporting (2018); the Committee of Sponsoring Organizations framework (COSO framework, 1992), the agency theory; stakeholder theory; stewardship theory; transaction cost economics (Mallin, 2010), resource dependence theory and managerial hegemony theory, Anglo-Saxon Model; Continental European Model; Japanese Model. The Regulatory Framework for Ghana: Companies Act No. 992, 2019 (Act 992); Securities Industry Act, 2016 (Act 929) and its Regulations; Public Financial Management Act, 2016 (Act 921); State Interest and Governance Authority Act, 2019 (Act 990); Corporate Governance Guidelines on Best Practices (2009); SEC Code for Listed Companies (2020); Corporate Governance Directive (2018); Corporate Governance Manual for Governing Boards/Council of the Ghana Public Services; Mandatory Disclosure items for public companies in Ghana; ESG Disclosures Guidance Manual. The Regulatory Framework for Nigeria: Companies and Allied Matters Act 3 (CAMA) (2020); Investment and Securities Act (ISA), No 29 (2007); Financial Reporting Council (FRC) of Nigeria Act 6 (2011); Banks and Other Financial Institutions (BOFIA) Act 5 (2020) Nigerian Code of Corporate Governance (2018); Code of Corporate Governance for Licensed Pension Operators (2008); Code of Corporate Governance for Banks and Discount Houses (2014); Not-for-profit organisations: Governance Code (2016); Corporate Governance Guidelines for Insurance and Reinsurance Companies in Nigeria (2021); Sustainability Disclosure Guidelines (2018). The Regulatory Framework for South Africa: Companies Act (2008); King IV Report on Corporate Governance (2016); Code for Responsible Investment in South Africa (CRISA), (2011); Governance

in SMEs: A Guide to the Application of Corporate Governance in Small and Medium Enterprises (2017)

**Aim and tasks of research.** Existing research on corporate governance and the quality of financial reporting has focused more on developed countries with an emphasis on a few variables. This provides little insight into the sub-Saharan African markets necessitating this research. The **aim of this dissertation** is to fill a gap in the literature by examining variables that impact corporate Governance and financial reporting quality in Sub-Saharan Africa and make valuable suggestions to policymakers, regulators, practitioners, and academics to help improve corporate governance systems and financial reporting quality and reduce corporate fraud and scandals in sub-Saharan Africa. The purpose of the study is to assess the correlation between corporate governance and the quality of financial statements, moderated by internal control and external audit.

To achieve the aim of the dissertation, the **below activities** were performed:

1. Developed a multi-faceted approach that made it possible to form a conceptual framework of interconnections between corporate governance elements and financial reporting quality based on: 1) conceptual theories and frameworks that have shaped the CG research area; 2) corporate governance foundational principles, synthesized using text analysis techniques with word clouds; and 3) a set of relevant models aimed to enhance the understanding and implementation of effective corporate governance practices

2. Developed the scientific foundations for justifying trends and patterns in corporate governance and financial reporting quality research, distinguished from existing studies by the use of comprehensive methods of dynamic and structural bibliometric and trend analysis based on Scopus, Scival, Google Trends tools, Publish or Perish and Voswier software, that allowed for the identification and description of: 1) research dynamics in corporate governance and financial reporting quality topics; 2) geographic and institutional diversity; 3) multidisciplinary nature and prominent topics; 4) structural patterns in corporate governance research subfields.

3. Mapping the legal and regulatory framework of corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa that allowed for the identification of their evolutionary development, the ratio of mandatory and voluntary instruments, key legal and regulatory frameworks, and the distribution of relationships among primary external and internal corporate governance actors.

4. Developed methodological basics for determining the role and position of corporate governance in ensuring transparency in financial reporting in both listed and non-listed companies, which are different from the existing ones by using regression and correlation analysis and formalising the impact of the composite indicator of corporate governance and its components (board size, board gender diversity, board skills and experience in diversity, independent audit committee) on the parameters of financial reporting quality, financial leverage, external reporting quality, and internal financial control. This allowed to identify the factors that are most sensitive to changes in corporate governance and its components, which forms the basis for adjusting the areas of corporate governance improvement;

5. Developed methodological basis of cross-country comparisons to assess the relationship between corporate governance structures, financial reporting quality and mediating variables (internal control, financial leverage and external audit quality) based on the aggregate ANOVA models. This made it possible to determine variability in corporate governance and financial reporting practices in Ghana, Nigeria, and South Africa and provide insights to improve corporate governance frameworks and financial reporting standards based on country-specific findings.

6. Developed methodological tools for evaluation mediating role of internal control, financial leverage and external audit quality to relationship between corporate governance and financial reporting quality using analysis of variance. This allowed to explore how these mediators influence the pathway between governance and reporting, identify significant indirect effects, and provide actionable insights for improving corporate governance, financial transparency and accountability.



**The object of this study** is to the trustworthiness and efficiency of the financial markets in Sub-Saharan Africa, corporate sustainability, ethical business behaviour and stakeholder interests and confidence in the financial market and regulators through quality financial reporting, facilitated by effective corporate governance.

**The subject of the study** is the scientific and methodical approaches, practices and principles of corporate governance and financial reporting quality in Sub-Saharan African companies.

**Methods of research.** To achieve the objective of this dissertation, the research employed both quantitative and qualitative approaches. Quantitative data is gathered and analysed, and then based on findings, a qualitative approach is designed to answer the whys of the result. The study analyzes data of private and public companies listed in the Ghana, Nigeria and South African Stock Exchanges for the period 2009-2021. Data on Corporate Governance were manually collected from annual reports and financial data were collected from audited financial statements that are available at the Ghana, Nigeria and South African Stock Exchanges, the company's website and the office of the registrar.

The study used accounting and auditing indicators to construct a comprehensive index to measure the level of financial reporting quality, corporate governance index to measure corporate governance level, Standard Jones, Modified Jones, Modified Jones with return on assets (ROA), and Modified Jones using Cash Flows and Accruals Reversals, Voluntary disclosure index on the Botosan index, The discretionary accruals (DA) model of Raman, Roychowdhury model for detecting Real Earnings Management (REM), and regression models.

The study employed MS Excel, and SPSS (Statistical Package for the Social Sciences) software PROCESS version 4.2 by Andrew F. Hayes. SPSS is a widely recognized statistical tool for conducting various types of data analysis, including descriptive statistics, regression analysis, and hypothesis testing. It enabled the assessment of relationships between variables and the evaluation of the overall model fit. A multiple regression equation and econometric models, was used to ascertain the effect of the

independent variables on the dependent variable. Using SPSS, the PROCESS macro developed by Andrew F. Hayes was used to determine the mediating effects of internal control, financial leverage and external audit quality on the relationship between the independent and dependent variables.

The study's model was organized into three parts: the construction of the Corporate Governance Indicator, the instrumental variable approach and the regression analysis of the relationship between corporate governance and internal control, internal control and earnings management, financial leverage, compliance, disclosure, external audit and financial reporting quality.

The selection of the research indicators was based on the Agency Theory Model; the COSO Internal Control Framework; the Debt Monitoring Hypothesis; the audit quality model and the International Financial Reporting Standards framework.

To ensure the regression model is valid and produces reliable results, the assumptions underlying the regression analysis was tested. The Durbin-Wu-Hausman Test was used to evaluate the presence of endogeneity in the regression models. A multicollinearity Check using Variance Inflation Factor (VIF) was performed to evaluate the extent of multicollinearity among the independent variables in the regression model.

Descriptive Statistics, correlation analysis, single-factor and multifactor regression modelling were utilized in the assessment of corporate governance and the level of financial reporting quality: the mediating role of internal control, financial leverage and external audit quality among companies in Ghana, Nigeria and South Africa.

A bibliometric approach was utilised to quantitatively assess publication trends, citation patterns, and co-authorship networks to identify the intellectual structure and anticipate future directions in corporate governance research and investigate the relationship between corporate governance, financial reporting quality and several key subfields, including, earnings management, financial leverage, internal control, IFRS compliance, and voluntary disclosure. The search focused on scientific articles in Scopus,

SciVal, and Google Scholar databases between the period 1990 to 2022. Publish or Perish, WordCloud and Voswier software were utilized in the bibliometric and trend analysis.

**The information and factual basis of the dissertation** is based on the annual published financial statements of companies from different industries and of varying sizes to ensure a diverse representation of the population. The final sample size depended on the availability and quality of the data obtained. Industries included the financial, petroleum and manufacturing. International Financial Reporting Standard framework, COSO framework, Sarbanes–Oxley Act, and relevant laws and regulations were used. Analytical and reporting data from a number of international organizations, including the Cadbury, Turnbull report, OECD, KPMG and ROSC of the World Bank; Analytical reviews, scientific publications and results of scientific and analytical research on corporate governance and financial reporting quality all formed the factual basis of the research.

**The scientific novelty of the research results** lies in the identification of variables that impact corporate governance and financial reporting quality issues in Ghana, Nigeria, and South Africa. This will enhance the effectiveness of corporate governance and financial reporting quality through an informed regulation and framework for corporate governance in Sub-Saharan African Countries.

This dissertation is the first to study corporate governance and financial reporting quality, that combines the moderating variables of internal control, financial leverage, and external audit quality in Sub-Saharan African Countries.

The most significant scientific findings of the study are as follows:

The research enabled the formation and schematic mapping of relationships among primary external and internal corporate governance actors and identified the main issues regulated in Ghana, Nigeria, and South Africa.

The study of the theoretical foundations of the development of the corporate governance concept revealed that corporate governance in Sub-Saharan Africa has formed and evolved under the influence of numerous economic theories, among which agency

theory, stakeholder theory, stewardship theory, and transaction cost economics theory stand out as primary, with resource dependence theory and managerial hegemony theory as supplementary emphasising to policymakers the importance of these theories as the basis for policy formulation.

Based on the proposed approach, it was possible to highlight the foundational principles of CG emphasized by the studied organisations. They include responsibility, accountability, transparency and disclosure, effectiveness, sustainability, shareholders' rights, stakeholder engagement, and risk management.

The study showed that the practical implementation of corporate governance's theoretical foundations and principles has taken shape in various models that differ depending on their geographic spread, calling for country-specific corporate governance practices.

The results of the correlation analysis showed that corporations with stronger audit committees are more likely to participate in voluntary disclosure, boards with more gender diversity may have a lower likelihood of engaging in real earnings management, a board with a wider range of abilities and experiences may marginally decrease the likelihood of engaging in accrual-based earnings management.

The relationship between audit fees and voluntary disclosure is statistically significant and positive. This implies that higher audit fees, which may indicate more thorough auditing methods, are linked to more voluntary disclosure. These findings are vital for corporate governance in sub-Saharan Africa as the models developed by the research clearly reveal variables that impact financial reporting quality which is an important indication for regulators and policymakers for corporate governance in Africa.

The regression analysis shows the substantial yet diverse impact of governance variables such as board size, board gender diversity, board skills, and experience diversity, and the inclusion of an independent audit committee on several components of financial reporting quality. The study's findings on voluntary disclosure indicate that the negative impact of increased gender diversity on voluntary disclosure by the board is highly

significant. The strong positive relationship between the independent audit committee and voluntary disclosure supports the argument that having independent oversight is crucial for maintaining openness.

The real earnings management model indicates that there is a negative relationship between board size and aggressive earnings management methods. This suggests that larger boards are more effective in reducing these actions.

The findings of the accrual-based earnings management model indicate that the analysed corporate governance variables have little impact on earnings providing valuable insight into the reason companies with effective corporate governance are still experiencing fraud and corporate scandals.

The results of the estimates showed a weak relationship between corporate governance and internal control. The model's low R-value and R Square value indicate that the selected corporate governance variables - board size, board gender diversity, board skills and experience diversity, and independent audit committee - have low effects on the effectiveness of internal control systems.

The study on the relationship between corporate governance and financial leverage produces findings that both confirm and question existing theories and empirical evidence in the field of corporate finance and governance. The research reveals an insignificant overall relationship but sheds light on how governance structures might impact an organization's decisions about financial leverage. The model's R Square value of 0.006 indicates the very little capacity of the selected corporate governance variables, and independent audit committee to explain the variations in financial leverage.

The comparative analysis highlights that corporate governance factors impact financial leverage differently across the three countries. In Ghana, there is no significant relationship between the predictors and financial leverage. In Nigeria, board size and board skills and experience diversity positively influence financial leverage, while board gender diversity shows a marginally negative impact. In South Africa, corporate governance factors do not significantly influence financial leverage. These findings

suggest that the effectiveness and influence of corporate governance practices on financial leverage are context-specific and vary significantly across different national settings.

The comparative analysis further reveals that corporate governance factors have different impacts on external audit quality across the three countries. In Ghana, corporate governance significantly influences firm size but not audit fees or audit rotation. In Nigeria, board size negatively impacts firm size, while board skills and experience diversity and independent audit committees positively influence firm size and audit fees. In South Africa, there is a strong relationship between corporate governance and firm size, with significant impacts also observed on audit fees. However, in all three countries, the predictors do not significantly influence audit rotation. These findings underscore the importance of context-specific governance practices and their varying effectiveness in different national settings.

Again, the results of the comparative analysis highlight that the impact of corporate governance, internal control, financial leverage, and external audit quality on financial reporting quality varies significantly across Ghana, Nigeria, and South Africa. In Ghana, significant predictors for IFRS compliance include BSED, IAC, FS, and AF. In Nigeria, BSED negatively impacts IFRS compliance, while FS and AF have positive impacts. South Africa shows that BSED positively impacts IFRS compliance, while IAC has a negative impact. The predictors have a stronger and more consistent impact on voluntary disclosure across all three countries. However, their impact on real earnings management and accrual-based earnings management is less consistent and varies across the countries. These findings show the importance of understanding context-specific governance practices and their effectiveness in different national settings.

The regression analysis reveals that the inclusion of Board Skills and Experience Diversity (BSED) and Financial Leverage in the model results in a significant negative coefficient for BSED. This indicates a strong influence on Real Earnings Management (REM). Nevertheless, the presence of REM in the model does not substantially modify this association, as evidenced by the continuous negative coefficient for BSED.

The model evaluating the Independent Audit Committee (IAC) and Financial Leverage reveals that the coefficient for IAC is statistically insignificant, suggesting that it has a negligible effect on REM. Nevertheless, the inclusion of REM in this model results in a notable adverse coefficient for IAC, indicating a robust inverse correlation between the existence of an Independent Audit Committee and REM when analysed alongside Financial Leverage.

**The practical significance of the findings** is that the empirical evidence presented in this study supports existing correlations and enhances the understanding of the complex relationships within the contexts of corporate governance and financial reporting quality.

The findings of the study offer significant insights for many stakeholders, such as regulatory bodies, corporate executives, and investors, since they provide insights into the determinants impacting the integrity of financial reporting.

The findings highlight the crucial role that independent audit committees play in enhancing the quality of financial reporting by overseeing compliance with accounting standards and ensuring transparency. The result of this study will help governments, leaders of organisations and investors appreciate the need to invest more resources to establish a competent and strong Independent Audit Committee

Again, the study supports the assertion that the attainment of high-quality financial reporting is contingent upon the implementation of strong corporate governance. The results of the study call on governments, organisations and institutions to put in resources and training to ensure robust corporate governance to enhance the dependability of financial reporting which is crucial for the survival of organisations and the protection of stakeholders' interest.

Also, the study emphasises the importance of external auditors in adding credibility to the financial statement. The findings of this study indicate that organisations that are prepared to invest money in obtaining high quality external audits are more likely to demonstrate enhanced financial reporting quality. The study helps investors see the importance of spending more money to acquire highly qualified auditors.

Additionally, the study provides valuable insights that can be applied in practice to improve the effectiveness and reliability of corporate governance mechanisms and financial reporting practices.

The study highlights the complex connection among corporate governance, firm characteristics, and the quality of financial reporting. The accuracy of financial reporting is heavily influenced by such factors as Board Gender Diversity and the Independence of the Audit Committee. These factors become more important when considering the moderating effects of internal control, financial leverage and external audit. The findings of this study have several implications, indicating that regulatory agencies should customise their governance principles according to the unique features of each organisation.

The study further suggests that, to enhance the calibre and reliability of reporting, it is imperative for organisations to aggressively promote gender diversity within their board of directors and guarantee that their audit committees operate with the highest degree of independence.

Moreover, it is advisable for stakeholders, particularly investors, to approach the business environment with a discerning perspective, considering these complex dynamics to make more knowledgeable choices.

The findings of this study have significant implications for those who formulate policy, for practitioners, and for academics. For practitioners and investors, the study sheds light on the critical areas of governance that require attention to enhance transparency and accountability in financial reporting. In emerging markets, this study contributes to the existing body of knowledge regarding corporate governance and compliance issues.

For policy, tailored governance frameworks need to be developed. This study emphasises the part that robust regulatory frameworks play in enhancing IFRS compliance, which is important for policymakers to know. It is important for regulatory bodies to consistently enforce regulations and strengthen oversight mechanisms to uphold



the most stringent standards of financial reporting. This involves strengthening regulatory frameworks, modernizing regulations to match global standards, and maintaining consistent enforcement.

Moreover, as the study showed that gender diversity has a positive impact on the standard of financial reporting, encouraging gender diversity on corporate boards should be taken into consideration. Having policies that promote or require gender diversity can result in improved board oversight and enhanced compliance outcomes.

For practitioners, especially board members and corporate executives, the study emphasizes the role of board composition in achieving compliance. Firms must prioritize diversity and inclusion, particularly when it comes to women on boards. Additionally, it is important to carefully consider the optimal board size to ensure effective oversight. Improving board composition requires proactively seeking out female directors and cultivating a diverse range of skills and expertise to enhance the effectiveness of oversight and decision-making.

The models of the study indicate that internal controls did not significantly mediate the relationship between corporate governance and financial reporting quality within the context of the selected sub-Saharan African markets. This result prompts an assessment of the internal control systems effectiveness of these economies and suggests that internal controls do not uniformly enhance the influence of corporate governance on the quality of financial reporting as previously thought. The findings of the study indicate the importance of considering local contexts when implementing and evaluating governance and control mechanisms. For policymakers and regulators, the results emphasize the need to tailor governance frameworks and internal control systems to fit the unique economic, cultural, and regulatory landscapes of each country. Furthermore, Practitioners are urged to reassess internal control systems and enhance board training and diversity. Policymakers should strengthen regulations surrounding internal control systems and their reporting to ensure more consistent and reliable financial disclosures across markets.

Firms should prioritise the enhancement of their internal controls and risk management strategies, including the potential implementation of targeted training programmes for the board members to ensure their comprehensive understanding and effective handling of firm-specific difficulties

Similarly, the findings indicate a need for specifically tailored governance frameworks that consider the distinct economic and regulatory environments of each country. This adaptation can enhance the positive impact of corporate governance on the quality of financial reporting in Sub-Saharan African companies.

In addition, companies must make substantial investments in strong compliance systems and ongoing training programs to guarantee strict adherence to IFRS in Sub-Saharan African companies.

The result of this research reveals the importance of board diversity in skills and expertise, suggesting that corporate leaders should prioritize this aspect to enhance governance outcomes.

Given the limited impact of internal controls on financial reporting quality identified, firms may need to reassess and potentially overhaul their existing internal control frameworks to achieve more integrated and effective outcomes.

The study recommends that regulators develop stricter and more detailed guidelines for corporate governance and internal control disclosures. These guidelines should ensure that disclosures are comprehensive, clear, and consistent across jurisdictions within the region. Moreover, fostering cooperation between regulatory bodies across sub-Saharan Africa could help standardise governance practices and enhance financial reporting transparency.

Also, the study suggests that companies in Sub-Saharan African should focus on enhancing continuous professional development programmes for board members to enrich their governance skills. Additionally, firms should implement rigorous internal auditing processes that ensure their internal control systems are robust and supportive of high-quality financial reporting.

The study revealed that the relationship between Board Size, Board Gender Diversity, and IFRS Compliance may be contingent upon certain contexts and conditions. Again, the study showed lack of a substantial and direct correlation between Financial Leverage (FL) and IFRS Compliance which suggests that the influence of financial leverage on the quality of financial reporting may depend on several factors, including industry context and governance mechanisms. These findings lay the groundwork for further studies in emerging markets and highlight the necessity of localized investigations that reflect the unique characteristics of these environments.

**Personal contribution of the applicant.** The dissertation is a completed scientific research. The scientific provisions, conclusions, recommendations and developments submitted for defence were obtained independently, they reflect the main content of the study and are set out in published works.

**Approbation of research results.** The dissertation was presented at 2 international conference proceedings: World Finance & Banking Symposium, (December, 13th-15th, 2023) in Vilnius, Lithuania; and World Finance Conference - Norway (August 2nd to 4th, 2023).

**Publications.** The key findings and conclusions of the dissertation have been published in 6 scientific journals with a total volume of 101 printed pages, including 2 article in Elsevier, a comprehensive, multidisciplinary, trusted abstract and citation database indexed by Scopus, 1 article in Australian Business Deans Council (ABDC) Journal Quality, 2 articles in specialized scientific journals of Ukraine of the “B” category, 2 conference proceedings. Among these works, the author has solely authored all the printed pages.

**Structure and scope of the dissertation.** The dissertation consists of an introduction, three main chapters, conclusions, a list of references and appendices. The total volume of the dissertation is 243 pages, including 189 pages of the main text, 70 tables, and 18 figures. There are 3 appendices: Appendix A has 2 tables, Appendix B has 5 figures, and Appendix C has 26 tables. The list of references contains 208 references and is located on 20 pages.

## **CHAPTER ONE. FOUNDATIONAL INSIGHTS INTO CORPORATE GOVERNANCE AND FINANCIAL REPORTING QUALITY: CONCEPTUAL, BIBLIOMETRIC, AND REGULATORY PERSPECTIVES**

### 1.1 Conceptual Frameworks in Corporate Governance and Financial Reporting Quality

Corporate governance (CG) and financial reporting quality (FRQ) issues have become particularly relevant and even controversial in the context of numerous corporate and accounting scandals, information manipulation, and asymmetry incidents. These problems have not only caused concern among regulators, investors, and the public but have also undermined trust in financial reports, audit service quality, and governance systems [1], [2].

According to (PwC, 2018) [3] Global Economic Crime and Fraud Survey, 49% of financial reports submitted by firms fail to meet quality standards. Ironically, in 2018, the Securities and Exchange Board of India (SEBI) banned all firms in the PwC Indian network from practicing as chartered accountants in India for two years. They were also fined an amount of INR 130.9 million (US\$2.1 million) for not following the code of conduct and auditing standards in performing their duties related to Satyam Computer Services Ltd auditing. PwC certified that Satyam had US\$1.1 billion in cash when it only had US\$78 million, but the founder and chairman admitted that the company had manipulated accounts by US\$1.47 billion for several years. Satyam's sales revenue was inflated by accounting for 7,561 fake invoices [4].

In the same vein, KPMG was fined 14.4 million pounds (\$17.27 million) for providing false and misleading information to its regulator during spot checks on audits of construction firm Carillion. The company used aggressive accounting strategies to window-dress financial statements, overriding a loss of 12.7%, with an expected profit margin of 4.9%.

The Securities and Exchange Commission (SEC) in 2015 alleged that Miller Energy Resources Inc. inflated the values of oil and gas properties by more than \$400 million, boosting the company's net income and total assets, which resulted in fraudulent financial reports. The auditors were also charged in the matter. This manipulation influenced the value of the company share from a penny stock to nearly \$9 per share. Financial statement information is the cornerstone of investment decisions, and poor-quality financial reporting significantly impacts the financial market with its ripple effect on the global economy [5].

In 2019, Hertz Global Holdings Inc. was fined \$16 million by the SEC for inaccurate financial statements and disclosures. The company materially misstated pre-tax income by US\$235 million and used improper methodologies to determine allowances and write-offs for aged receivables. Their financial statement was not prepared in accordance with generally accepted accounting principles [6].

Lehman Brothers, the fourth largest investment banking firm in the United States, filed for bankruptcy in 2008. This process resulted in a 93% plunge in Lehman's stock. This bankruptcy fueled the financial crisis and led to the erosion of almost \$10 trillion in market capitalization from the global capital markets in 2008. The company's executives misrepresented Lehman's financial position, resulting in a falsely inflated market price for the firm's securities. Lehman Brothers took advantage of a loophole in the accounting standard and hid over \$50 billion in loans disguised as sales [7], [8], [9].

For years, Madoff deceived investors out of over \$64.8 billion by providing consistent annual returns through elaborate, fabricated account statements and other documentation that were provided to investors to convince them that their money had been placed in actual investments [10].

Enron used off-balance-sheet special purpose vehicles, also known as special purpose entities (SPEs), to hide debts and toxic assets from investors and creditors. As a result of this scandal, the company's shares fell from \$90.7 to \$0.26, shareholders lost \$74

billion, thousands of employees and investors lost their retirement accounts and many employees lost their jobs.

In 2002, the SEC found that WorldCom had overstated assets by \$11 billion. The company's top management falsified financial reports to achieve market growth expectations. This was achieved through basic fraudulent methods, including changes to financial estimates, early revenue recognition, account receivable manipulation, erroneous capitalization of the long-term assets, and alteration of the reserves to improve the earnings picture. In 2020, Wirecard was found to have overstated its financial position by €1.9 billion. The company engaged in fraudulent business practices and financial reporting.

In 2017 and 2018, the Bank of Ghana revoked the licenses of seven banks for breaching aspects of the Banks and Specialised Deposit-Taking Act (BSDI), including falsifying their audited accounts. In 2019, ICAG, the accounting and auditing watchdog, fined Pannell Kerr Forster (PKF) Chartered Accountant, J. Mills Lamptey & Co., Morrison & Associates, and Deloitte & Touche for various infractions they committed while exercising due assurances on the financial position of six collapsed banks.

– The Capital Bank license was withdrawn in 2017. The bank inappropriately used the going concern assumptions in preparing the financial statement. They failed to write off impairment to the tune of GHC 905 million to profit and loss. PKF was fined for its work because it did not obtain sufficient appropriate audit evidence about the appropriateness of management's use of the going concern assumption in the preparation of financial statement;

– UniBank, UT Bank, and the Royal Bank licenses were withdrawn in 2018. They wrongfully defined liquid assets. Deloitte & Touche failed to recognize weak quality control over-reporting and were sanctioned by ICAG;

– The BEIGE Bank licence was also withdrawn in 2018. The bank's disclosure of related parties and their transactions in the financial statements was inadequate. Morrison & Associates failed to highlight that;

– Construction Bank licence was withdrawn in 2018. The bank failed to follow GAAP and regulations when preparing the financial statement. J. Mills Lamptey & Co. was fined for failing to obtain sufficient appropriate audit evidence on bank balances before issuing the audit opinion. The bank received GH¢34 million from a shareholder as consideration for shares. This transaction was treated as a post-balance sheet adjusting event, which is incorrect and inconsistent with the basis of recognizing stated capital by Section 66 of the Companies Act, 1963 (Act 179).

All the examples mentioned above underscore that corporate governance and financial reporting quality are vital for the integrity and efficiency of financial markets. Poor CG can lead to collapse, inappropriate functioning of companies, financial problems, and fraud. On the other hand, well-governed companies typically outperform their competitors and attract investors who can help finance future expansion [11].

A substantial amount of research and analysis has been dedicated to understanding corporate governance and its scope [11], [12], [13]. According to the Report on the Observance of Standards and Codes [14] by the World Bank, corporate governance is defined as the structures and processes for the direction and control of companies.

Studies have shown that good corporate governance establishes appropriate corporate structures that create an environment for effective and efficient leadership, accountability, and high corporate performance. This, in turn, strengthens the confidence of investors locally and globally, leading to an efficient financial market and, hence, a stable source of financing for companies [15], [16], [17], [18].

Adam Smith (1776) [19], in 'The Wealth of Nations,' provided the concept of division of labor and division of control and ownership in corporations. [20] theorized this divisional relationship between agent and their principles on the premise that the numerousness of shareholders for a particular organization makes it imperative for them to run the organization, hence the employment of professionals to manage the organization on their behalf. The concept of corporate governance is associated more with publicly listed companies, as the separation of ownership from management and, consequently,

emerging agency conflicts are apparent [21]. Accordingly, other stakeholders, such as creditors, government agencies, communities, and employees, are also impacted by the level of corporate governance.

Corporate governance is, therefore, a broad umbrella concept, a deep understanding of which requires an exploration of the key theories that have shaped its development (figure 1.1). Central to this exploration are four dominant theories:

- *agency theory*;
- *stakeholder theory*;
- *stewardship theory*;
- *transaction cost economics* [22].

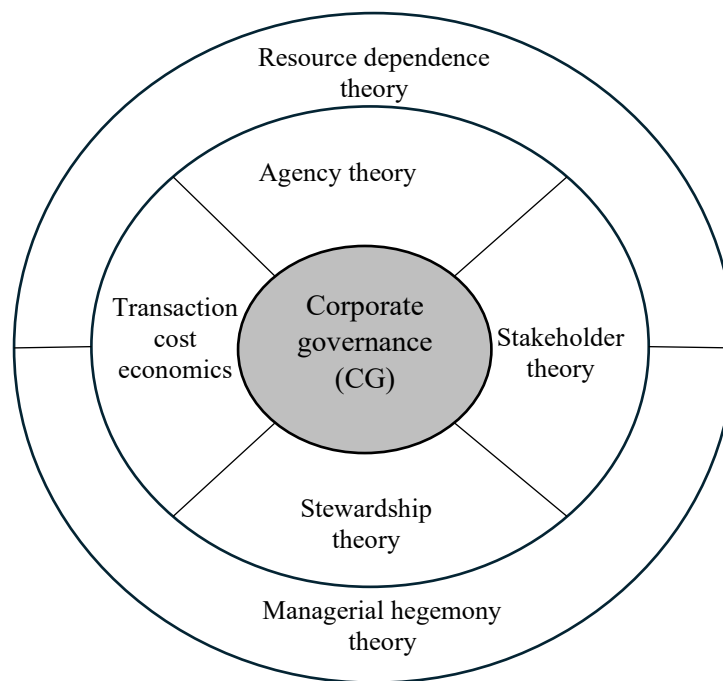


Figure 1.1. Major Theories Shaping Corporate Governance Practices

Source: author's elaboration.

Additional theories include *resource dependence theory* and *managerial hegemony theory*, which broaden the understanding of the corporate governance concept by considering external factors and resources, as well as power dynamics.



*Agency theory*, one of the most influential frameworks in corporate governance [23], focuses on the relationship between principals (shareholders or owners) and agents (managers or directors). It addresses the conflicts of interest that arise when managers entrusted with operating the company may prioritize their personal goals over the interests of the shareholders [24], [25]. According to [25], this leads to information asymmetry, goal conflicts, adverse selection, and opportunistic behavior by the agent.

[20] established the relationship between the agent and the principal by concluding that the amount of care, commitment, and attention that people give to the funds contributed by others and in their custody is different from how they behave if they have contributed these funds. Such a situation can lead to the so-called agency conflict, which begins from the point where there is the need for separation between ownership and control.

As a result, corporate governance is concerned with the measures put in place to ensure that managers act in the best interest of investors [20], [25]. According to [26], agency theory provides a theoretical foundation for corporate entities' direction and control through different governance mechanisms (e.g., board structure, board function, auditing, and remuneration committees) to deal with agency problems [27], [28].

The theory has gained popularity over the years concerning how organizations' boards of directors are viewed [29], and it is now a "dominant paradigm" [30] in relation to corporate governance research.

Contrary to agency theory, which focuses primarily on the relationship between shareholders and management, *stakeholder theory*, as proposed by [31], broadens the scope of corporate governance to include all stakeholders. Although the concept of stakeholder relationships was discussed earlier by [32], Freeman's work significantly expanded its application.

The stakeholder theory factoring the interests of all the stakeholders in a company's management will sustain it over time [31]. Stakeholders have been defined as all those who can affect or are affected by, the achievement of organizational objectives [33] or who are interested in and can cause some level of damage/failure to a business if their needs are not

met [34]. Companies that prioritize and manage the needs of their specific stakeholders are likely to achieve their strategies, gain a competitive advantage, and survive.

Research indicates that effective stakeholder management is a governance process that can profoundly impact the organization's ability to sustain itself. Achievement of equilibrium among stakeholders' expectations is identified as the necessary condition for the survival and success of organizations [35], [36], [37]. According to [38], stakeholders' and shareholders' satisfaction mutually benefit the organization. Studies have revealed that stakeholders' management improves decision-making in an organization [39], [40], [41] as well as accountability [42], [43], [44].

The company's profitability and shareholder wealth are vital concerns in the next - the *stewardship theory*. This perspective believes that directors do not always aim to maximize their interests as agency theory holds, but they can act responsibly with independence and integrity [45], [46] and "do the right thing" [47].

The stewardship theory posits that corporate executives are stewards of their companies and that managers, left on their own, will act as responsible stewards of the assets they control [30], [48]. Given this, they are expected to put their stockholders' interests above their own [49], [50], [51] and balance their aims with that of their principal [52]. In meeting the organizational mission, the personal needs of directors are fulfilled [49], [53].

Stewardship theory is marked by the idea of service for others and not self-interest [54]. In this vein, directors act professionally by making personal sacrifices and acting honestly and diligently [55]. The theory asserts that directors seek intrinsic rewards, and so they take satisfaction when their organization is able to achieve its mission. According to [56], the stewardship theory is applied in most Japanese companies, where managers are loyal to their companies and emphasize their interests.

*Transaction cost theory* is one of the predominant economic-based theories of corporate governance. According to this theory, a number of cost savings can be made by internalizing the transactions of a company [57], [58]. The transaction cost theory suggests that conducting transactions is a costly endeavor (e.g., negotiating contracts, monitoring

performance, and resolving disputes), and different modes of organizing transactions (e.g., within a market or a firm) entail different costs [58] therefore, transaction cost includes the costs of information, search, negotiation in addition to contracting and enforcement. However, pursuing such a strategy makes the company more significant and, therefore, more likely to be inefficient. Transaction costs will occur through significant activities of an organization, through the purchasing process, policy formulation, implementation, and control, and the like. The way in which a company is directed can determine its control over transactions and hence costs. Corporate governance procedures and accountability mechanisms are therefore necessary to manage this risk.

Table 1.1 compares the four main theories, highlighting their key focus areas, primary concerns, views of managers, and main mechanisms.

Table 1.1. Comparison of Four Main Theories in Corporate Governance

Aspect	<i>Agency Theory</i>	<i>Stakeholder Theory</i>	<i>Stewardship Theory</i>	<i>Transaction Cost Theory</i>
Key Focus	Conflict of interest between managers and shareholders	Balancing interests of all stakeholders	Alignment of managers' and shareholders' interests	Minimizing transaction costs within and between organizations
Primary Concern	Mitigating agency problems, reducing agency costs	Maximizing value for all stakeholders	Promoting trust and empowerment	Reducing costs of economic exchanges
View of Managers	Self-interested agents	Considerate of broader stakeholder impacts	Trustworthy stewards	Rational actors aiming to minimize costs
Mechanisms Emphasized	Monitoring, performance-based compensation, control mechanisms	Engagement with and accountability to a broad range of stakeholders	Trust, ethical leadership, collaborative corporate culture	Efficient organizational structures, governance frameworks

Source: author's elaboration based on [59], [60].

As for additional theories, *the resource dependence theory* considers that a firm is an open system that interacts with its environment, and so it must engage in transactions with other actors and other firms in its environment in order to acquire resources. Resources that the organization needs may be scarce, only sometimes readily obtainable. Firms with good

CG formulate strategies to secure control over resource supply. Such strategies include increasing the organization's production scale, diversifying, and developing links to other organizations. This theory suggests that firms function within a network constrained by other organizations' actions and decisions [46], [61]. Corporate governance ensures that companies allocate resources according to their objectives and inter-corporate relationships. It is based on the role managers play in allocating the firm's resources, given their external environment.

The *managerial hegemony theory* is built on the premise that because shareholders are dispersed, they become passive as such, management has high control. The Managerial hegemony theory argues that boards are a legal fiction dominated by management [62]. Authors believe that boards have failed to “control” management at the expense of shareholders and stakeholders [63], [64], and strong corporate governance is needed to balance this anomaly.

The above theories form the conceptual theoretical foundation for corporate governance, which became the basis for the development of principles, standards, and policies at both the international and country levels. In 1999, the Organization for Economic Cooperation and Development (OECD) first released the Principles of Corporate Governance, which have set the global standard for policymakers, investors, companies, and other stakeholders. The same aim had the Commonwealth Association of Corporate Governance (CACG), established in 1998. Those events have not only become a significant regulatory intervention at the international level but have also influenced corporate governance frameworks across various countries. They served as voluntary reference examples or starting points that individual countries could use for national codes, laws, and other forms of legal regulations.

Examination of the substantive aspects of corporate governance principles proposed by the OECD and the CACG (Appendix A) became a basis for identifying the most common characteristics and words depicted through such text analysis techniques as word clouds. These visualizations, shown in Figures 1.2 and 1.3, were created using the WordCloud tool to highlight the frequency and prominence of key terms within the principles.



Figure 1.2. Visualizing the OECD Principles of Corporate Governance

Source: author’s elaboration with WordCloud tool based on [65].



Figure 1.3. Visualizing the CACG Principles of Corporate Governance

Source: author’s elaboration based on [66].

Based on the proposed approach, it was possible to highlight the foundational principles of CG emphasized by both organizations, as described in Table 1.2. They include responsibility, accountability, transparency and disclosure, effectiveness, sustainability, shareholders' rights, stakeholder engagement, and risk management.

Table 1.2. Corporate Governance Foundational Principles

Principles	Guidance		General characteristics
	OECD	CACG	
Responsibility	●	●	The obligation to act in the best interests of the company and its stakeholders, ensuring law and ethical conduct in all business practices and other foundational principles
Accountability	●	●	The requirement to be answerable for company's actions and decisions, ensuring they are transparent and responsible to shareholders and other stakeholders
Transparency and Disclosure	●	●	The obligation to provide full, accurate, reliable and timely information about all significant issues related to the corporation's activities in particular regarding financial performance, governance practices, ownership, ensuring stakeholders can make informed decisions and hold the company accountable.
Effectiveness	●	●	The responsibility to utilize resources optimally and implement a clear strategic direction for the corporation that aligns with its mission, vision, and values.
Sustainability	●	●	The commitment to operate in an environmentally and socially responsible manner, ensuring long-term value creation and considering the impact on future generations.
Shareholders' Rights	●	●	The protection and facilitation of shareholders' rights, legitimate interests, actions and ability to participate in key corporate decisions, access relevant information, and receive fair treatment and returns on their investments.
Stakeholder Engagement	●	●	The active communication and collaboration with all parties affected by the company's operations, including employees, customers, suppliers, and the community, to ensure their interests and concerns are considered in decision-making.
Risk Management		●	The identification, assessment, and mitigation of potential risks to the company, ensuring that strategic, operational, financial, and compliance risks are effectively managed to protect the company's assets and reputation.

Source: author's elaboration

While these principles provide a foundational understanding of corporate governance, their practical application varies significantly across countries shaped by legal, cultural, economic, and political factors. As a result, it transformed into different

corporate governance models, among which the following three basic ones can be distinguished (table 1.3). It should be noted that despite such a conditional division, corporate governance systems may differ in individual countries, especially in connection with the legislative regulation of this issue. Ghana, Nigeria, and South Africa primarily follow the Anglo-Saxon corporate governance model.

Table 1.3. Comparison of Corporate Governance Models

Alternative names	Key Features	Geographical Distribution
<b><i>Anglo-Saxon Model</i></b>		
Shareholder model, Anglo-American model, market-centric model, equity-based model	<ul style="list-style-type: none"> <li>- Shareholder-oriented;</li> <li>- Emphasizes strong investor protections;</li> <li>- Markets-driven approach;</li> <li>- Dispersed corporate ownership among a great number of stakeholders;</li> <li>- One-tier structure consisting of board of directors</li> </ul>	United Kingdom, Canada, United States of America, Australia and Common Wealth Countries
<b><i>Continental European Model</i></b>		
German Model	<ul style="list-style-type: none"> <li>- Stakeholder-oriented;</li> <li>- Emphasizes long-term stability;</li> <li>- Balances interests of shareholders and other stakeholders;</li> <li>- Employee representation on boards;</li> <li>- Concentrated ownership with significant family and state participation;</li> <li>- Two-tier board structure (Management Board and Supervisory Board)</li> </ul>	Continental Europe (e.g., France, Italy)
<b><i>Japanese Model</i></b>		
Bank-based model, Keiretsu Model, business network model	<ul style="list-style-type: none"> <li>- Stakeholder-oriented;</li> <li>- Keiretsu system (interlinked business groups);</li> <li>- Emphasis on consensus and long-term relationships;</li> <li>- Main bank system (banks have significant influence);</li> <li>- Concentrated ownership with cross-shareholding among companies;</li> <li>- Lifetime employment practices</li> </ul>	Japan

Source: author's elaboration from [67], [68], [69]

The above research allows for the formation of the theoretical foundation of the CG concept, which includes a multi-faceted approach based on: 1) conceptual theories and frameworks that have shaped the CG research area; 2) corporate governance foundational principles, synthesized using text analysis techniques with word clouds; and 3) a set of

relevant models aimed to enhance the understanding and implementation of effective corporate governance practices (figure 1.4).

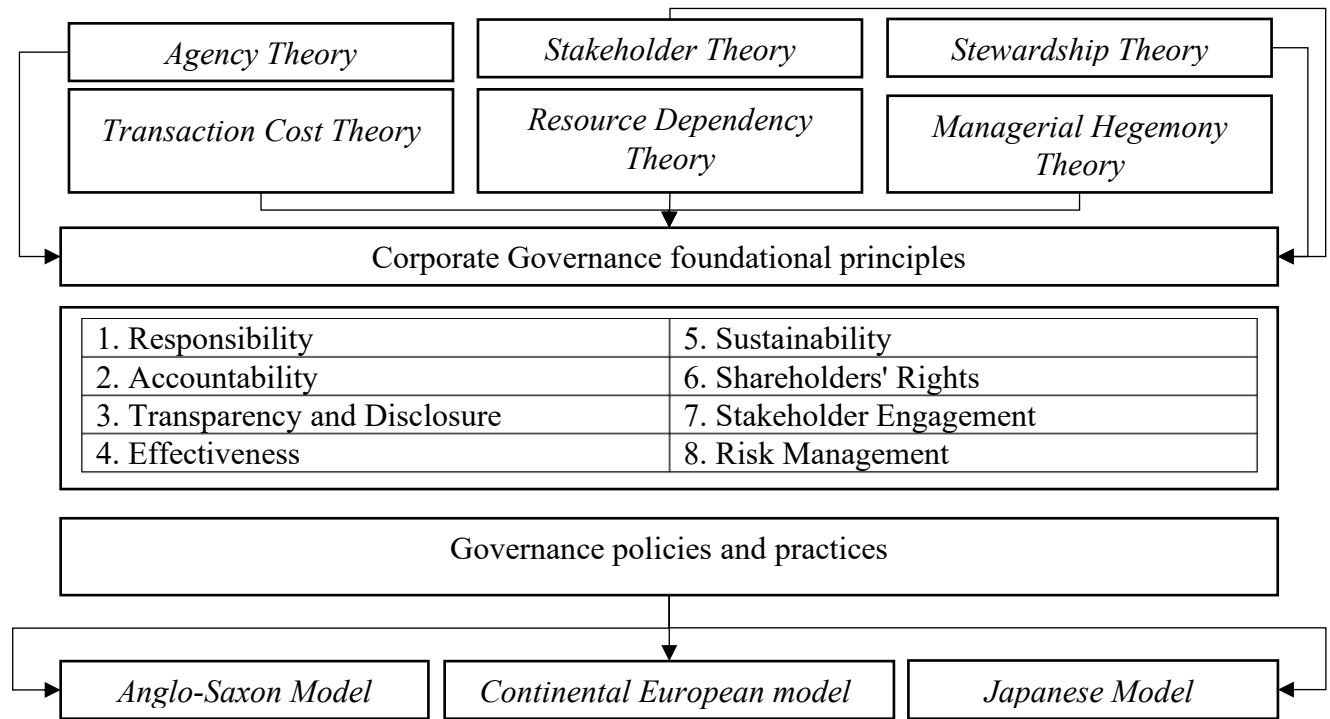


Figure 1.4 Theoretical Foundation of Corporate Government Concept: a Multi-Faceted Approach

Source: author's elaboration

Despite certain differences among countries, all models share common key elements of corporate governance, which, according to the research of [70], include ownership structure, board composition, and audit committee. [71] support this by asserting that these mechanisms enhance the relevance and reliability of financial statements, which investors use to make their economic decisions. A suitable corporate governance mechanism sets the direction of the firm's development and the achievement process of the corporate objectives [72], [73]. An adequate system of CG is imperative to financial reporting quality [74], [75], [76], [77]. [78] also assert that the appropriate oversight of all processes by internal auditors leads to better financial reporting quality.



[79] state that good corporate governance is significantly linked to good corporate financial performance. As a result, greater demand is placed on how companies are governed. Dr Richmond Atuahene believes that significant issues harming the banking industry are a lack of board independence, incompetent board members, and a lack of duty of care [80].

The board of directors is one of the internal control mechanisms to minimize these agency issues and provide oversight, monitoring, and control of management to ensure the alignment of interests between management and investors [24], [81]. Board composition influences the effectiveness of the oversight function and sets the direction of a firm [82], [83], [84]. According to [85], board size positively impacts financial reporting quality.

FRQ is the extent to which financial information is free of manipulation and accurately represents all the economic transactions that transpire within an accounting year [86]. Quality financial information should provide users of financial statements with trustworthy, unbiased, reliable, and accurate information on a firm's financial position and operations. According to [87], FRQ is the precision with which financial reports convey information about the firm's operations, particularly its cash flows, to inform equity investors. The quality of financial reports has become the concern of investor [88], [89]. This reflects the importance of disclosing high-quality financial reports by managers.

An organization's board of directors and management should establish policies and practices that align roles and responsibilities with the financial reporting objective. The COSO framework component, which relates to risk assessment, provides management with the information necessary for identifying and assessing risks concerning the reliability of financial reporting [90].

[91] assert that corporate governance confirms transparency and trustworthy relations between a corporation and its stakeholders. Effective corporate governance practices reduce information asymmetry, control insiders' opportunism, and mitigate managerial incentives aimed at manipulating reported earnings [76], [92], [93], [94]; hence the mitigation of the agency problems. Authors are of the view that an effective corporate governance system plays a crucial role in deterring earnings management behaviour [95], [96], [97].

Studies have revealed that earnings management strongly motivates managers to window-dress financial reporting [98], which may harm a firm's long-term performance and value creation [99]. Managers also inflate reported earnings via favorable accounting choices and reverse the earnings in later years [100], an approach known as accrual-based earnings management. They can use real earnings management to adjust reported accounting numbers through operational decisions, including manipulating sales revenue and cutting valuable investments [101]. As a result, accrual-based and real earnings management leads to unreliable financial reporting [102].

A healthy internal control system can reduce the intentional manipulation of reporting [103], making accounting records more accurate. According to [104], high-quality internal control plays an important role in proper internal capital allocation, making real earnings management harder. Literature has documented that high-quality financial information is associated with high-quality internal controls [105], [106], and some stakeholders rely on internal control reports to measure financial reporting quality [107].

In addition, both external and internal audits play crucial roles in mitigating agency problems and enhancing corporate governance [108]; at the same time, they are seen as mechanisms of monitoring process in the financial reporting system [109], [110]. For example, owners do not trust managers to deliver trustworthy financial data; therefore, they need external auditors, independent of these managers, to discover and prevent fraud [111]. The audit literature employs agency theory to describe the value of external audit work [112], [113], highlighting a positive relationship between institutional ownership and audit quality [114], [115]. Independent auditor serves as a link and scrutiny instrument between the shareholders and managers [1]. Their assurance role involves providing an audit report on the reliability of the financial report and indicating whether the financial reports capture all the economic transactions and activities that took place within the accounting year and, as such, reflect the company's actual position.

The audit committee's main aim is to ensure the integrity and transparency of the company's financial reporting process [116], [117]. Additionally, audit committees are part

of corporate governance and assist the board in their governance role in different aspects of risk management [72], [118]. There is a lot of research that finds interconnections between audit committee size and earnings quality [117], financial reporting quality [119], [120], the quality of accounting information [121] which only enrich the corporate governance structure.

In different scientific works, it is stated that for unbiased judgment, the corporate board should include independent directors [122], [123], which can also improve financial reporting quality [73], [85], [124], [125]. Similarly, in developing countries like Kenya [126] or Nigeria [116], the share of independent directors influences higher levels of resolving agency conflicts and, as a result, the quality of financial information.

Regarding corporate financial disclosure, board independence is considered also as a mechanism that can influence disclosure practices [127], [128] and encourage compliance with IFRS (Tauringana & Chithambo, 2016). Different research states that compliance level is positively influenced by audit committee independence and accounting expertise [129] by the accounting and finance backgrounds of audit committee members [130].

[131] state that the audit committee is the primary mechanism for providing shareholders with the most excellent protection in maintaining the quality of a company's financial reporting and enhancing compliance with mandatory disclosures. The Sarbanes–Oxley Act (2002) [132] emphasises the need for independent audit committees monitoring financial reporting. [133] suggest that an independent committee enforce compliance with disclosure requirements.

According to [134], CG mechanisms influence preparers' incentives to comply with IFRS, particularly in countries with relatively weak country-level enforcement. [135] also argued that achieving IFRS benefits depends on many factors, including the legal or regulatory support for the standards and the degree of compliance monitoring and enforcement. [136] opined that the stronger the corporate governance, the more transparent the IFRS restatements.

[137] assert that the level of mandatory disclosure in Ghana has improved due to the improvements in some CG mechanisms. Similarly, [138] found a significant effect of some corporate governance mechanisms (i.e., board size, board expertise, board meetings, and board diversity) on the disclosure quality. [139] found that external and internal corporate governance mechanisms contribute to the high-quality level of voluntary disclosure. [140] revealed that adopters of IFRS have higher disclosure.

At the same time, organizations with higher leverage ratios will disclose more information for better FRQ [20], [141]. [142] found that leverage has no significant impact on financial reporting quality, while [143] found that leverage has a positive and significant impact on financial reporting quality.

High indebtedness may lead to significant financial limitations, which negatively influences firm performance. As a result, management may adopt a window-dressing approach to financial reporting [95], [144]. According to [98], earnings management is using the judgment and estimates in economic transactions that will affect the reported financial statements for two reasons: to mislead some stakeholders about the actual performance of the company or to influence contractual outcomes that depend on the performance reported in the financial statements [98].

Effective CG practices in terms of board characteristics reduce information asymmetry, control insiders' opportunism, and mitigate managerial incentives aimed at manipulating reported earnings this reduces earning management and increases financial reporting quality [76], [85], [92], [94]. Prior studies have suggested that a comprehensive CG system is crucial in deterring earnings management behavior [95], [97]. Therefore, to ensure that managers apply accounting choices responsibly and report high-quality financial information, establishing effective CG mechanisms is imperative [70], [76], [77], [135].

After extensive review of literature, it is stated that poor corporate governance breeds poor internal control systems, and this poor internal control gives birth to earnings management, inherent and detection risk hence poor financial reporting quality. Therefore, this research fills the gap in the literature regarding corporate governance and financial

reporting quality, the mediating role of internal control, financial leverage and external audit quality and their impact on financial reporting quality. Based on the conducted research, it has been possible to organize the conceptual and categorical landscape of corporate regulation and to formulate the conceptual foundations of the interconnections between corporate governance elements and financial reporting quality (figure 1.5).

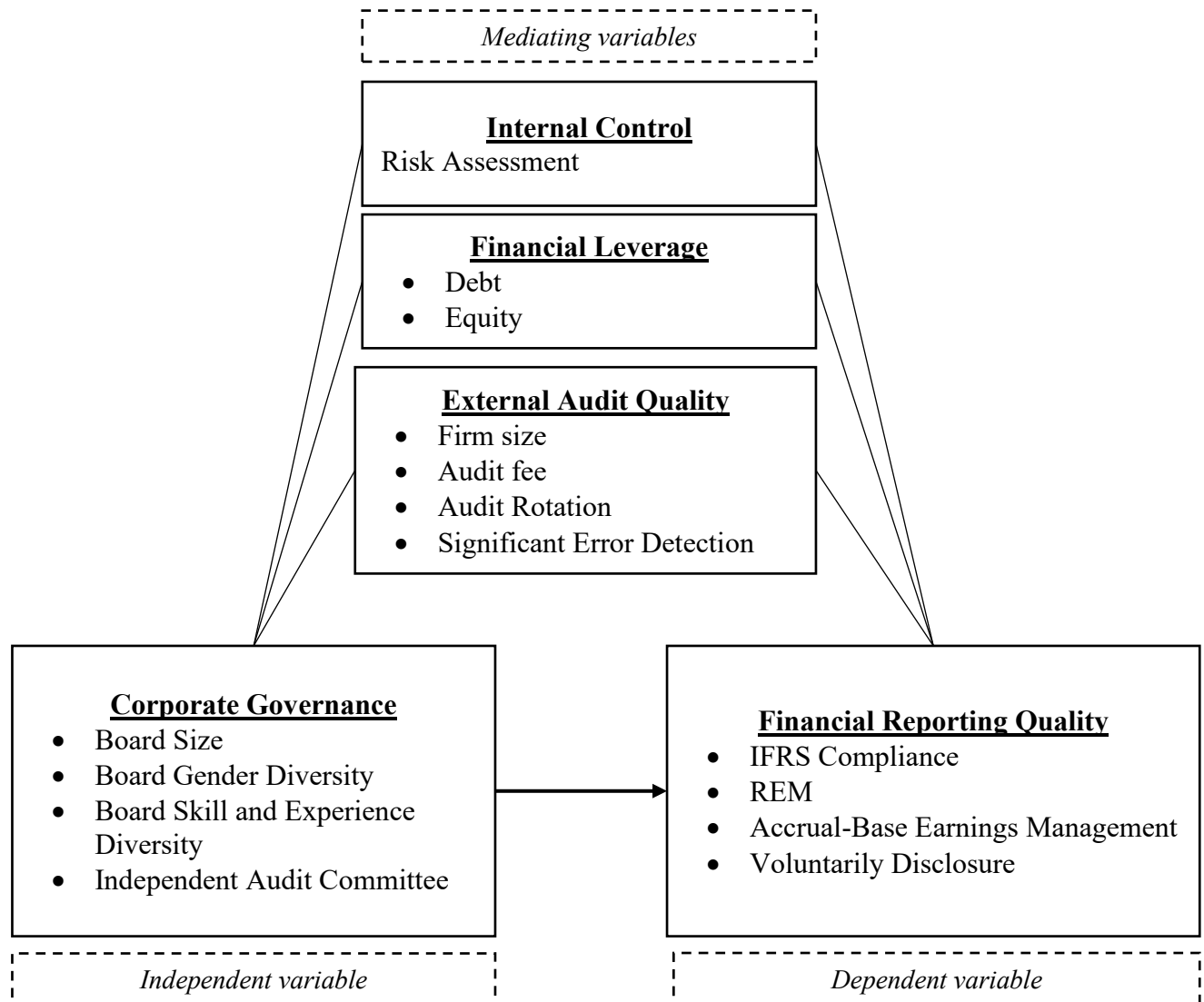


Figure 1.5. Conceptual Framework of Interconnections between Corporate Governance Elements and Financial Reporting Quality

Source: author's elaboration

## 1.2 Trends and Patterns in Corporate Governance and Financial Reporting Quality Literature: A Bibliometric Analysis

In recent decades, the importance of corporate governance and financial reporting quality has been highlighted by increasing academic research and discussions in the business community and society. Different studies have shown that good corporate governance practices have significantly increased firms' performance indicators, higher productivity, and lower risk of systemic financial failures in other countries. It also influences the level of returns in the form of dividends received by shareholders as it mitigates the negative effect of financial leverage and agency problems.

A bibliometric approach to analyzing this body of work enables a comprehensive understanding of its development by quantitatively assessing publication trends [145], citation patterns [146], and co-authorship networks field [147]. According to [148], bibliometric analysis is conducted to identify a field's intellectual structure and anticipate future directions in corporate governance research.

This section employs a bibliometric analysis method to examine the global and regional trends and patterns in corporate governance research. By analyzing scholarly publications, this study investigates the relationship between corporate governance, financial reporting quality and several key subfields, including, earnings management, financial leverage, internal control, IFRS compliance, and voluntary disclosure. This comprehensive approach enables understanding how these variables interact within the corporate governance framework and identifying the predominant themes and research trajectories in global contexts.

Based on the objective of this section, the search focused on scientific articles in Scopus, SciVal, and Google Scholar databases between the period 1990 to 2022. To systematically examine the dynamic trends and structural patterns in corporate governance research, this study utilizes specific search queries to identify relevant literature across various subfields (table 1.4).

Table 1.4. Search Queries and Limitations for Corporate Governance Research Subfields

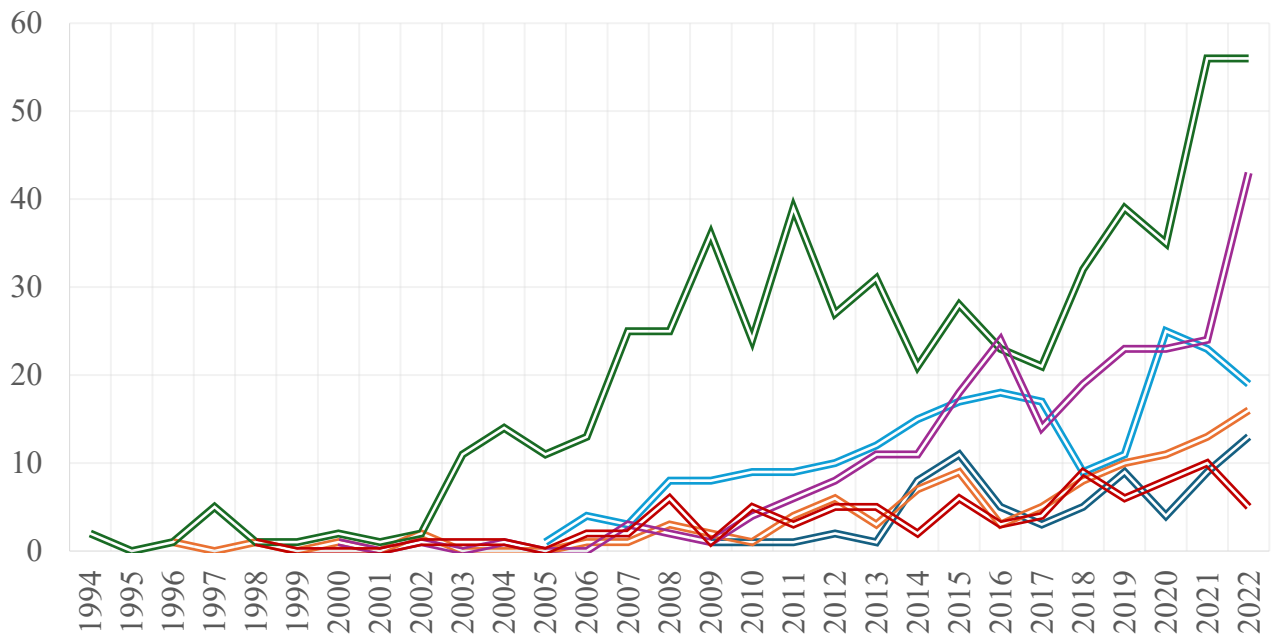
No.	CG research subfields	Abbreviation	Search query	Limitations	
				Document type	Language
1	Financial Reporting Quality	FRQ	corporate governance AND financial reporting quality	Article	English
2	Earning Management	EM	corporate governance AND earning management	Article	English
3	Financial Leverage	FL	corporate governance AND financial leverage	Article	English
4	Internal Control	IC	corporate governance AND internal control	Article	English
5	IFRS	IFRS	corporate governance AND IFRS	Article	English
6	Voluntarily Disclosure	VD	corporate governance AND voluntarily disclosure	Article	English

Source: author's elaboration.

The search was limited to articles written in English to ensure consistency and accessibility of the analyzed literature. The search queries were constructed using precise syntax, field codes, boolean, and proximity operators to optimize the retrieval of relevant articles. The result generated from the first search of each variable from analyzed databases was screened to exclude all irrelevant documents.

The first step in understanding the dynamics of corporate governance research is to analyze the trends within the field. The information gathered from the Scopus database helps to identify the general direction of research interest in analyzed CG subfields (figure 1.6). It shows that most works are dedicated to issues related to internal control (totaling 582 works), with publications starting in 1994 and showing fluctuating trends. The average number of published articles per year during this period is 34.20.

A substantial number of works address the relationship between corporate governance and financial reporting quality (237 works), with publications starting in 2002. Research interest in this area increased from 2011 to 2016 and picked up again in 2019. The average number of published articles per year during this period is 18.90.



	Overall result		Overall result
Financial Reporting Quality	237	Internal Control	582
Earning Management	73	IFRS	218
Financial Leverage	108	Voluntarily Disclosure	86

Figure 1.6. Yearly Distribution of Publications Across Key Corporate Governance Research Subfields

Source: author's elaboration based on Scopus data.

Interest in corporate governance and IFRS compliance emerged in 2003 due to convergence processes between the FASB and IASB, expressing their commitment in the Norwalk agreement. As a result, the convergence of accounting standards has occurred globally, and many countries have adopted IFRS. The yearly analysis revealed that publication in this subfield has been fluctuating. The greatest number of articles was in 2020, and then interest declined. The average number of published articles within the period is 12.6.

Research on corporate governance and financial leverage started in 1996 and has fluctuated over the years. Research in this field first peaked in 2015 and reached another peak in 2022. The average for the period is 6.7. The focus of corporate governance and voluntary disclosure research has constantly increased, with an average of 24.23 over the



23 years. The average number of published articles within the period is 24.23. Interest in corporate governance and earning management research peaked in 2015 -2016 and 2019-2021.

To further delve into the dynamic trends within CG research subfields, an additional analysis was conducted using the Publish or Perish (PoP) software with data gathered from the Google Scholar database (table 1.5). Contrary to the Scopus results, earning management emerges as the most prolific subfield, with a total of 867 papers published between 1998 and 2022. This subfield also boasts the highest total number of citations (20,331) and the highest average citations per year (847.13). The h-index of 59 further underscores its influence in the academic community. Notably, the average number of authors per paper in this subfield is 1.99, indicating a collaborative research effort.

Internal control, with 249 papers, has a substantial presence and a steady citation rate (101.31 citations per year) since 1987. It has an h-index of 21, indicating a moderate level of influence. The subfield also shows the lowest number of authors per paper (1.61), suggesting more individualized research efforts.

Financial reporting quality, with 137 papers and 2,439 citations, has an average of 93.81 citations per year and an h-index of 18. The citations per paper average at 17.8, indicating a moderate impact per publication. The average authors per paper in this subfield is 2.03, similar to IFRS, highlighting collaborative research practices.

Voluntary disclosure shows a notable research impact with 204 papers and 8,975 citations. This subfield has the highest average citations per paper (44) and a significant h-index of 28. It also shows a relatively high average citations per year (345.19) and a considerable collaborative effort with an average of 1.88 authors per paper.

In contrast, financial leverage has the fewest papers (81) and citations (616), with an average of 30.8 citations per year. Its h-index is 9, which is considerably lower than the other subfields, reflecting a smaller research community and less impact. This subfield also has a relatively low average of citations per paper (7.6).

Table 1.5. Comparative Analysis of Key Metrics Across Corporate Governance Research Subfields

Key Metrics	CG research subfields					
	FRQ	EM	FL	IC	IFRS	VD
Publication Years	1996-2022	1998 - 2022	2002 - 2022	1987-2022	2004 - 2022	1996-2022
Citation Years	26	24	20	35	18	26
Total number of Papers	137	867	81	249	98	204
Total number of citations	2439	20331	616	3546	939	8975
Cites per year	93.81	847.13	30.8	101.31	52.17	345.19
Cites per paper	17.8	23.45	7.6	14.24	9.58	44
Authors per paper	2.03	1.99	1.98	1.61	2.04	1.88
h-index	18	59	9	21	17	28
g-index	48	136	24	58	28	94

Source: author's elaboration based on PoP data.

A comprehensive analysis using Google Trends was conducted from January 2004 to December 2022 (figure 1.7) to analyze CG research subfields to gain a deeper understanding of the evolving societal interests within corporate governance.

The search query related to corporate governance shows a downward trend. The highest peak is observed around 2004-2005, attributed to increased awareness and regulatory changes in the wake of high-profile corporate scandals such as Enron and WorldCom. After that, there is a more or less stable trend among searches, with a slight increase in 2022. This is evidence of integrating and establishing corporate governance practices into standard business operations.

Despite annual fluctuations, the International Financial Reporting Standards (IFRS) is a stable leader among the analyzed search queries. Peak values were observed in 2009-2010, which are key milestones in various countries and companies globally adopting

IFRS, driven by the need for standardized financial reporting in an increasingly interconnected global economy. The slight decline in interest post-2012 could be due to the widespread adoption and normalization of IFRS practices, reducing the urgency of search inquiries.

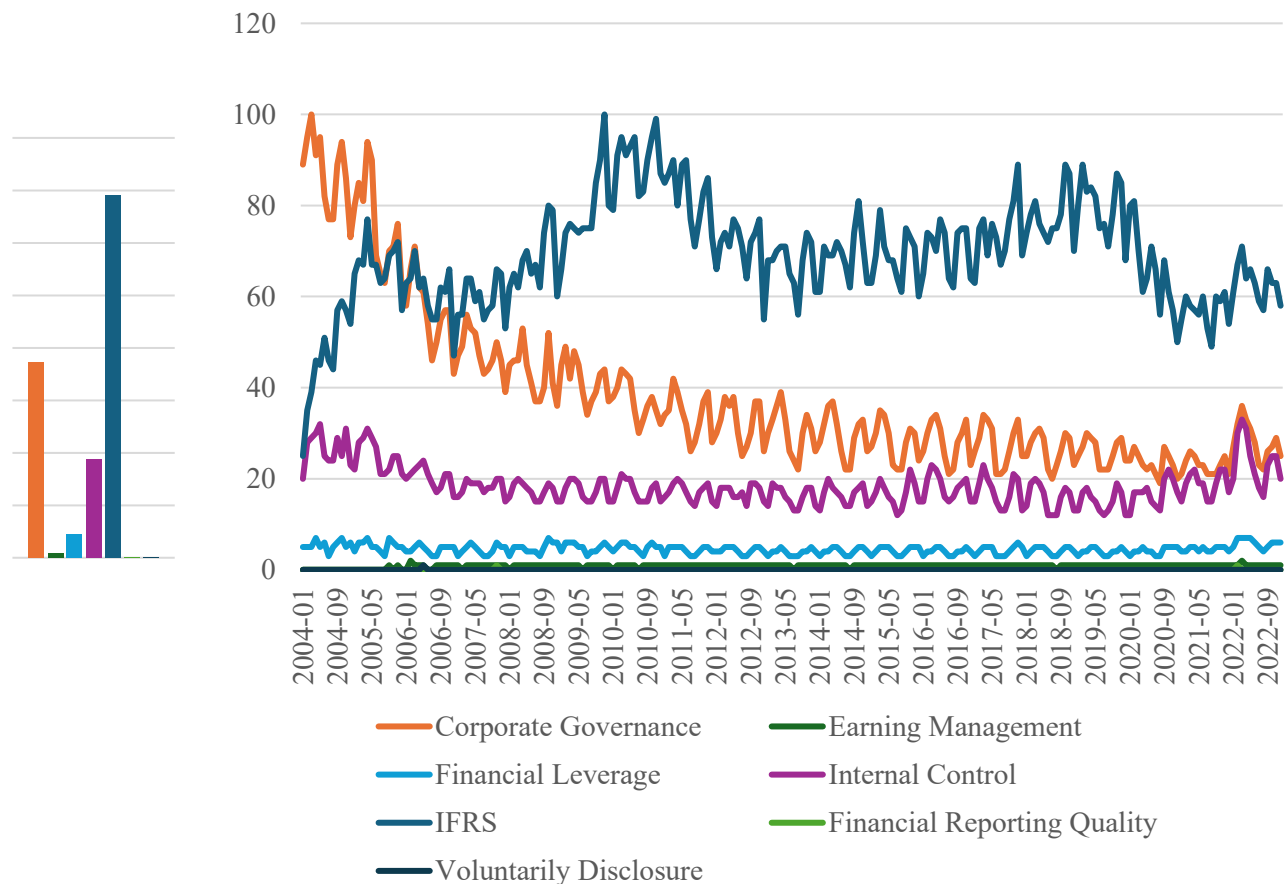


Figure 1.7. Google Trends Analysis of Corporate Governance Research Subfields

Source: author's elaboration based on Google data with Google Trends tool.

Internal control exhibits a consistent level of search interest with minor fluctuations throughout the period. This steady interest reflects the ongoing importance of internal control mechanisms in ensuring the accuracy and reliability of financial reporting.

Search interest for financial reporting quality, earning management, financial leverage, and voluntary disclosure show the lowest search interest levels, remaining relatively flat and consistent over the years. The low search interest in these areas may be

due to their more specialized nature, attracting attention primarily from academic researchers and industry professionals rather than the general public.

Figure 1.8 illustrates the geography of search queries and the top 5 countries with the highest interest in the three leading search queries – corporate governance, internal control, and IFRS.

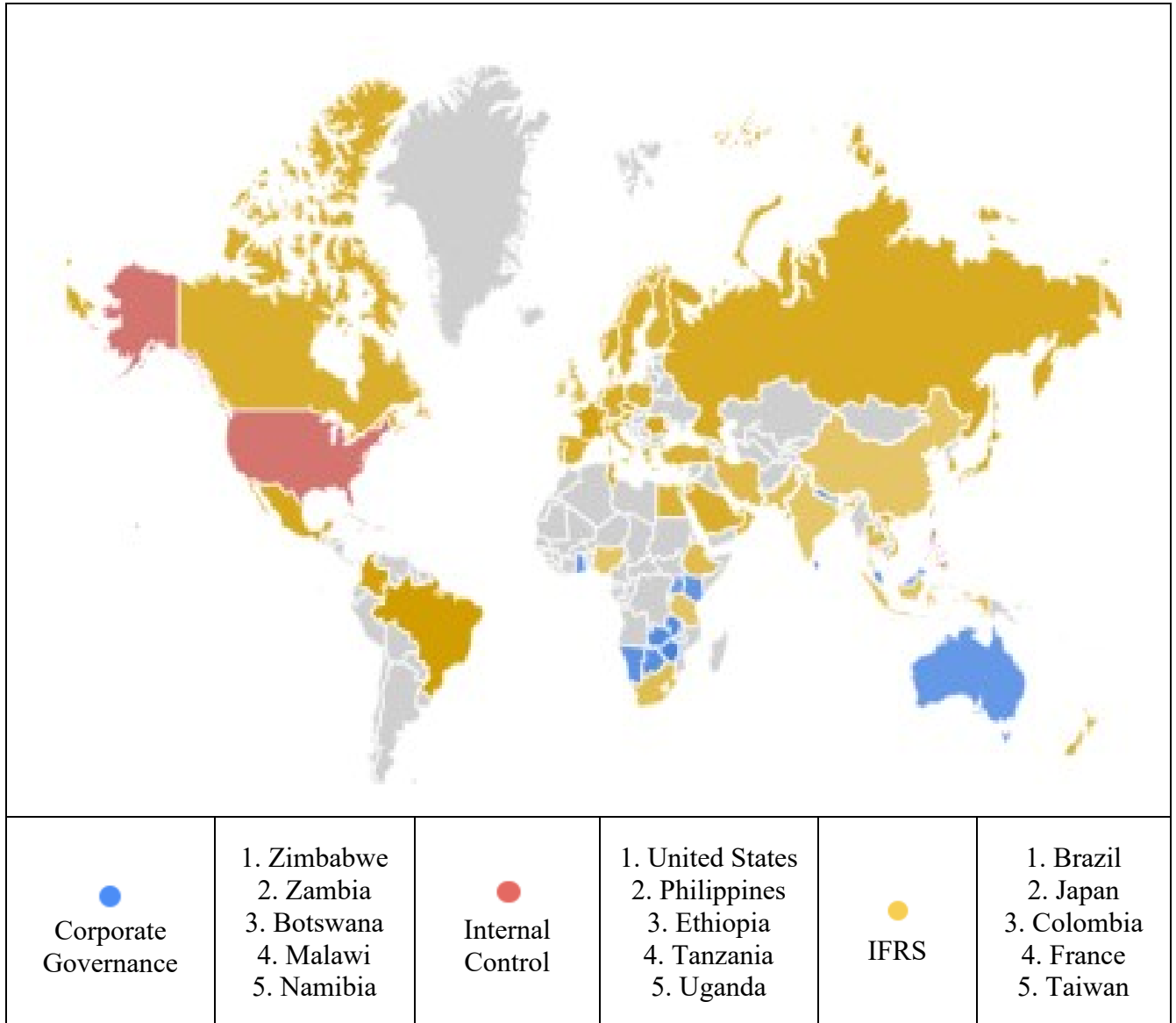


Figure 1.8. Geographical Distribution of Google Trends Search Interest in Corporate Governance Research Subfields

Source: author’s elaboration based on Google data with Google Trends tool.

Zimbabwe, Zambia, Botswana, Malawi, and Namibia show the highest search interest in corporate governance topics, which can be attributed to the growing emphasis on improving such practices in these countries to enhance economic stability and attract foreign investment.

In contrast, the questions about internal control are of the most interest in the United States, the Philippines, Ethiopia, Tanzania, and Uganda, likely due to heightened awareness of the importance of internal controls in mitigating risks and ensuring compliance with regulations.

Compliance with IFRS garners significant interest in Brazil, Japan, Colombia, France, and Taiwan, reflecting these countries' strong commitment to adopting and harmonizing financial reporting systems.

Table 1.6 identifies the leading countries and institutions contributing to corporate governance research across key research subfields such as earning management, financial leverage, internal control, IFRS, financial reporting quality, and voluntary disclosure. The United States, Indonesia, and Australia emerge as significant contributors across multiple topics, with institutions like the University of Western Macedonia, Victoria University, and Universiti Teknologi MARA etc. frequently appearing as top research centers. Additionally, countries such as Malaysia, China, and the United Kingdom also play prominent roles, indicating a diverse and global engagement in corporate governance research. This distribution underscores the importance of international collaboration and the widespread relevance of corporate governance issues across different economic and regulatory environments.

Furthermore, it is noteworthy that countries such as Ghana, Nigeria, and South Africa fell outside the scope of significant contribution, with only 1-2 articles each in the Scopus database. This limited representation suggests that corporate governance research in these regions is still developing and may benefit from increased academic and institutional focus to address local governance challenges effectively.

Table 1.6. Leading Countries and Institutions in Corporate Governance Research Across Key Subfields

No	Earning Management		Financial Leverage		Internal Control	
	Country (Publication %)	Institution	Country (Publication %)	Institution	Country (Publication %)	Institution
1	Indonesia (14.4%)	Victoria University	United States (13.6%)	University of Western Macedonia	United States (18.5%)	Universiti Teknologi MARA
2	Malaysia (11.5%)	Brawijaya University	China (9.3%)	Ferdowsi University of Mashhad	China (14.1%)	University of Memphis
3	Australia (9.6%)	Universiti Utara Malaysia	United Kingdom (5.0%)	Ahlia University	United Kingdom (8.1%)	Tilburg University
4	China (6/7%)	Universiti Putra Malaysia	Viet Nam (4.3%)	Hanoi University of Industry	Malaysia (4.6%)	Xi'an Jiaotong University
5	Pakistan (4.8%)	University of Bahrain	Greece (3.6%)	Arab Academy for Science, Technology and Maritime Transport	Australia (4.0%)	University of South Africa
No	IFRS		Financial Reporting Quality		Voluntarily Disclosure	
	Country (Publication %)	Institution	Country (Publication %)	Institution	Country (Publication %)	Institution
1	United States (8.8%)	Gulf University for Science and Technology Kuwait	United States (15.5%)	Universiti Utara Malaysia	Australia (19.3%)	Griffith Business School
2	United Kingdom (7.5%)	Universidad de Concepcion	Malaysia (10.2%)	Massey University Auckland	United Kingdom (12.6%)	RMIT University
3	Malaysia (5.1%)	University of Glasgow	Australia (6.7%)	College of Business, Universiti Utara Malaysia	United States (11.8%)	Universidad de Castilla-La Mancha
4	Australia (4.8%)	Universiti Utara Malaysia	China (6.1%)	Universiti Teknologi MARA	China (7.6%)	Al-Imam Muhammad Ibn Saud Islamic University
5	Indonesia (4.1%)	Universiti Teknologi MARA	United Kingdom (4.1%)	Ferdowsi University of Mashhad	India (4.2%)	The University of Adelaide

Source: author's elaboration based on Scopus data with in-build Scopus tools.

The analysis of subject areas for corporate governance research across various subfields reveals distinct patterns of scholarly focus and interdisciplinary engagement, as

detailed in Table 1.7.

Table 1.7. Distribution of Corporate Governance Research Across Subject Areas

Subject area	CG research subfields					
	FRQ	EM	FL	IC	IFRS	VD
Business, Management and Accounting	45.85%	37.68%	41.03%	40.62%	47.38%	48.94%
Economics, Econometrics and Finance	30.88%	21.01%	29.74%	24.37%	33.03%	24.11%
Social Sciences	7.14%	6.52%	10.26%	11.51%	8.20%	12.06%
Decision Sciences	4.84%	8.70%	5.13%	4.84%	3.42%	2.84%
Computer Science	2.30%	6.52%	4.10%	6.29%	1.59%	2.84%
Engineering	1.61%	3.62%	0.51%	2.80%	1.59%	0.71%
Environmental Science	1.38%	3.62%	3.08%	2.42%	1.37%	4.26%

Source: author's elaboration based on Scopus data with in-build Scopus tools.

Analysis indicates that the majority of corporate governance research is concentrated in the fields of Business, Management, and Accounting (between 37.68% to 48.94% of all studies) and Economics, Econometrics, and Finance (between 21.01% to 33.03% of all studies). Specifically, a high concentration of topics such as IFRS, voluntary disclosure, and financial reporting highlight the strong relevance of these areas to business practices and financial management. Conversely, subject areas like Computer Science and Engineering have significantly lower representation, indicating a less pronounced focus on corporate governance within these technical disciplines. This distribution underscores the interdisciplinary nature of corporate governance research, with substantial contributions from social sciences, decision sciences, and even environmental science, reflecting the broad impact and multifaceted considerations of corporate governance in different academic fields.

The subsequent analysis with SciVal tools delves into the top topics within the corporate governance research, providing a comprehensive overview of their prominence. Figure 1.9 shows a wheel diagram for the top 5% of topics by prominence regarding research on corporate governance and financial reporting quality. The figure confirms the primary focus of publications, which lies within the economic and social sciences.

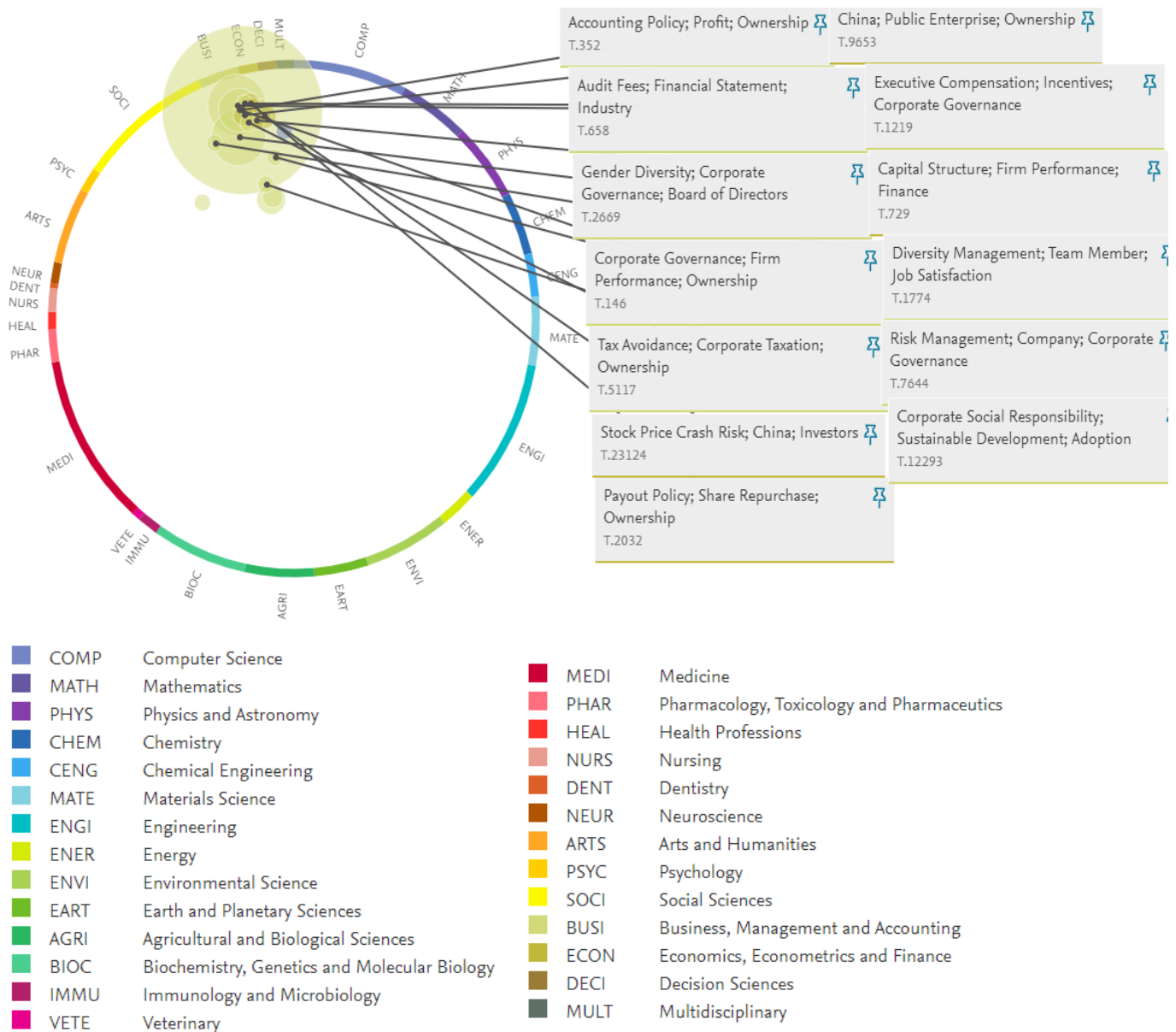


Figure 1.9. Top 5% topics by prominence in Corporate Governance and Financial Reporting Quality Research

Source: author’s elaboration based on Scopus data with SciVal tools.

Accounting policies, audit processes, corporate taxation, firm performance indicators and ownership, investors, and stock markets are considered the most influential and most cited topics in corporate governance and financial reporting quality research. These topics underscore the multidisciplinary and dynamic nature of corporate governance research, emphasizing the critical role of effective governance practices in



enhancing organizational transparency and accountability.

A distinct focus is placed on studies that reveal the correlation between high standards of corporate governance and improved company sustainability metrics and the achievement of sustainable development goals in general [149], [150]. Numerous studies [151], [152] demonstrate that high corporate governance standards positively influence a company's performance in ESG criteria and disclosing such information.

One important contemporary topic is gender diversity, which merits additional attention. Studies have shown that women exhibit a high level of independent decision-making, high ethical conduct, and less risk-taking [153]. As such, gender diversity will improve governance effectiveness. [154] assert that board gender diversity limits earnings management and strengthens financial reporting quality. [120] assert that female directors are less likely to engage in discretionary accounting practices. [155] finds a positive relationship between board gender diversity and earnings quality. [82] state that female directors are more active in obtaining voluntary information hence reduction in information asymmetry leading to quality of firm disclosures.

The interconnection among the six corporate governance research subfields is quite evident through the analysis of keywords used in the studies, as shown in Figure 1.10. Corporate governance remains a central theme in each word cloud; however, other topics are also significantly interlinked, particularly regarding accounting policies, capital structure, disclosure, financial reporting, etc. They summarize previous findings regarding the primary vectors, current topics, and issues in corporate governance research. The study also delves into ownership structures, board of directors' roles, and capital structure, considering the effects of information asymmetry and agency theory.



Based on the identification of the most influential and cited topics and key terms in corporate governance and financial reporting quality research, the formation of major bibliometric clusters has been proposed. These clusters accumulate similar studies and provide a more specific understanding of their directions and structural patterns. To this end, bibliometric maps have been constructed for each analyzed research subfield using data integrated from the Scopus database and VOSviewer software. These maps are based on the co-occurrence network of terms and keywords (Appendix B) and visualize the relationships and interconnections between corporate governance research subfields, highlighting the most frequently occurring terms and their associations.

In Figure 1.11, a bibliometric map is presented, accumulating research from 307 articles imported from the Scopus database concerning corporate governance and financial reporting quality. Of the identified 773 keywords, only 178 meet the minimum number of occurrences. The total number of connections formed is 909, with a strength of 1397 units. All of this forms the basis for the creation of 3 clusters of scientific research, which can be conditionally grouped as follows:

- accounting practices and financial performance, which includes research on regulatory aspects of accounting, management practices, and financial performance of firms. The cluster also covers concepts of earnings management, compliance, and disclosure quality.

- audit practices and mechanisms focus on the various aspects of auditing, including the effectiveness and quality of internal and external audits, the role of audit committees, and the mechanisms in place to ensure the accuracy and reliability of financial reporting.

- governance quality and financial reporting research related to government regulation, dissemination, and adaptation of financial reporting standards, corporate social responsibility, and sustainable development.

At the same time, it is noted that research topics are quite closely intertwined between clusters, particularly issues related to internal control, earnings management, voluntary disclosure, and IFRS compliance have been identified.



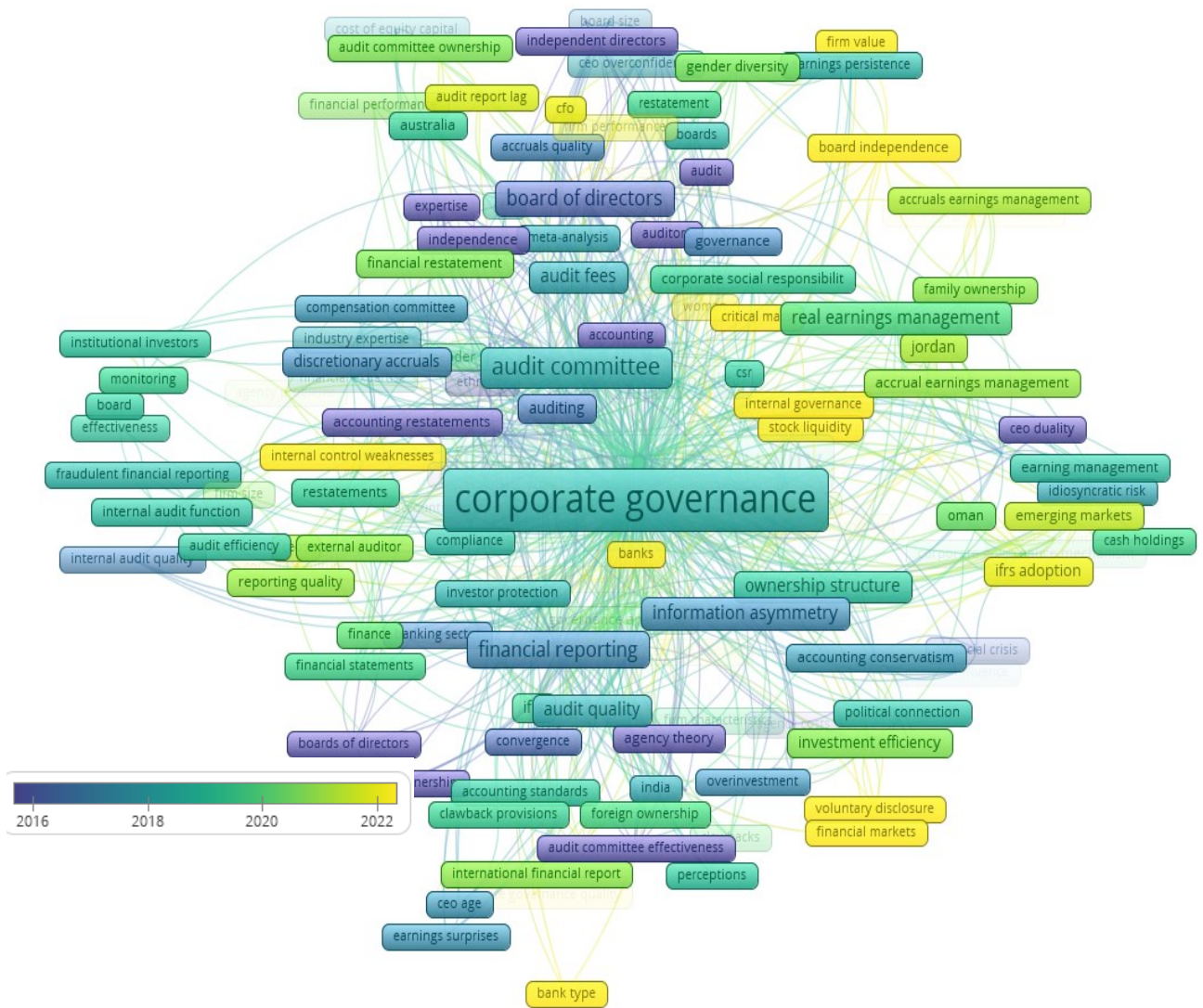


Figure 1.12. Bibliometric Map of Research Evolution in Clusters Related to Corporate Governance and Financial Reporting Quality:

Source: author's elaboration based on Scopus data with VOSviewer tools.

Similar bibliometric maps were also constructed for other corporate governance research subfields, including earning management, financial leverage, internal control, IFRS, and voluntary disclosure (Appendix B). They exhibit a significant number of similar interlinked research directions, which have been systematized in Table 1.8. This confirms the earlier conclusions in the study about the close interrelationship of the analyzed research subfields within the overall corporate governance framework.

Table 1.8. Structural patterns in Corporate Governance Research Subfields

Structural patterns	Brief description	Example Keywords	CG research subfields					
			FRQ	EM	FL	IC	IFRS	VD
A	B	C	1	2	3	4	5	6
Corporate Governance Regulation and Strategic Management	Focus on corporate governance regulation mechanisms, managerial roles, ownership, board characteristics, strategic management and corporate outcomes	corporate governance approach, corporate performance, regulation, corporate strategy, enterprise risk management, board attributes board independence, board size, CEO duality, CEO power, creditor rights, decision making, dividend policy, firm performance, firm value, agency theory	•	•	•	•	•	•
Audit Quality and Financial Performance	Emphasis on audit quality, accounting practices, earnings management, financial performance indicators, and corporate social responsibility	audit committee, audit quality, audit fees, accounting, agency problem, bankruptcy, banks, corporate characteristics, disclosure, earnings management, family firms, financial indicators, financial performance, financial reporting quality, firm characteristics, firm size, high growth, return on assets fraud, internal control effectiveness, external audit, information asymmetry, stakeholders	•	•	•	•	•	
Market Dynamics and Digital Transformation	Relation between market behavior, digital transformation, corporate strategy, and organizational culture	market, financial market, capital market, economic development, digital transformation, financial crisis, innovation, economic aspect, corporate strategy, financial leverage, financial market, financial services, financial system, accountability, control system, corruption, IT governance, laws and legislation			•	•		
Financial Reporting and Disclosure	Emphasis on financial reporting and international accounting standards, regulation, and investor protection	annual reports, standards, financial statements, finance, capital structure, corporate governance quality, IFRS, transparency, accounting compliance, convergence, financial reporting quality, transparency, integrated reporting, compliance	•			•	•	•
Diversification and Ownership	Diversification, gender diversity, and ownership issues	CEO gender, gender diversity, corporate governance code, institutional ownership, board independence	•				•	

Continuation of table 1.8

A	B	C	1	2	3	4	5	6
Sustainability and Carbon Emissions	Focus on sustainability, carbon emissions, and ESG reporting	carbon, carbon disclosure, climate change, sustainability, sustainable development, greenhouse gas emissions, environmental, social, voluntary approach, ESG, corporate social responsibility,						•

Source: author's elaboration based on Scopus data and VOSviewer tools.

Thus, among the key structural patterns in corporate governance literature throughout the analyzed period, research related to corporate governance regulation and strategic management, audit quality and financial performance, market dynamics and digital transformation, financial reporting and disclosure, diversification and ownership, and sustainability and carbon emissions can be identified. It is noteworthy that these patterns are structurally interrelated, as their issues are often explored in the context of one another. The evolution of these studies remains quite stable over time, despite minor changes, indicating the importance of corporate governance issues in both societal and academic circles.

### 1.3 Legal and Regulatory Framework of Corporate Governance and Financial Reporting Quality in Ghana, Nigeria and South Africa

The formation and establishment of a normative landscape in the field of corporate governance and financial reporting quality is an essential step for the development and prosperity of any country. The [14] asserted that for countries like Ghana, Nigeria, and South Africa, representing emerging market countries, the implementation of corporate governance practices should become one of the foremost public policy objectives. Specifically, successful corporate governance practices have the potential to reduce vulnerability to financial crises for such markets, promote the formation of a favorable business environment, support capital market development, and stimulate the country's innovative potential by

reinforcing property rights, among other benefits. Conversely, negative corporate governance practices can risk deterring investors and causing capital outflow from the country, which is critically important for such countries.

[156] believe that developing markets play a vital role in the world's economy. Unfortunately, researchers assert that the quality of accounting information in companies reports in these markets could be more accurate and reliable [157]. This assertion is supported by [158], who state that due to high information asymmetry, assessing the quality and extent of corporate reporting practices in emerging markets is difficult. [79] indicates that weak corporate governance practices are one of the reasons for challenges in attracting investors.

This is not surprising, as numerous fraud scandals related to corporate governance, not only in African countries but also in Europe and America, have led to the collapse of many companies and significant losses for their investors in past years [159], [160]. As a result, efforts have been made worldwide to raise corporate governance standards, and Ghana, Nigeria, and South Africa are no exceptions [161].

The development of the normative landscape in African countries, particularly in Ghana, Nigeria, and South Africa, is noted as positive. Specifically, according to the analytical platform [162], as of 2022, there are approximately 161 corporate sustainability policy initiatives and disclosure requirements across African countries (Figure 1.13). Among these, South Africa ranks first with 21.7% of policy initiatives, Nigeria is second with 13.7%, and Ghana is fourth with 9.3%. These figures indicate a growing recognition of the importance of corporate sustainability across the continent, reflecting a trend towards more responsible and sustainable business practices. Ethiopia, Kenya, and Tanzania are also among the leading countries regarding corporate sustainability policy initiatives and disclosure requirements.



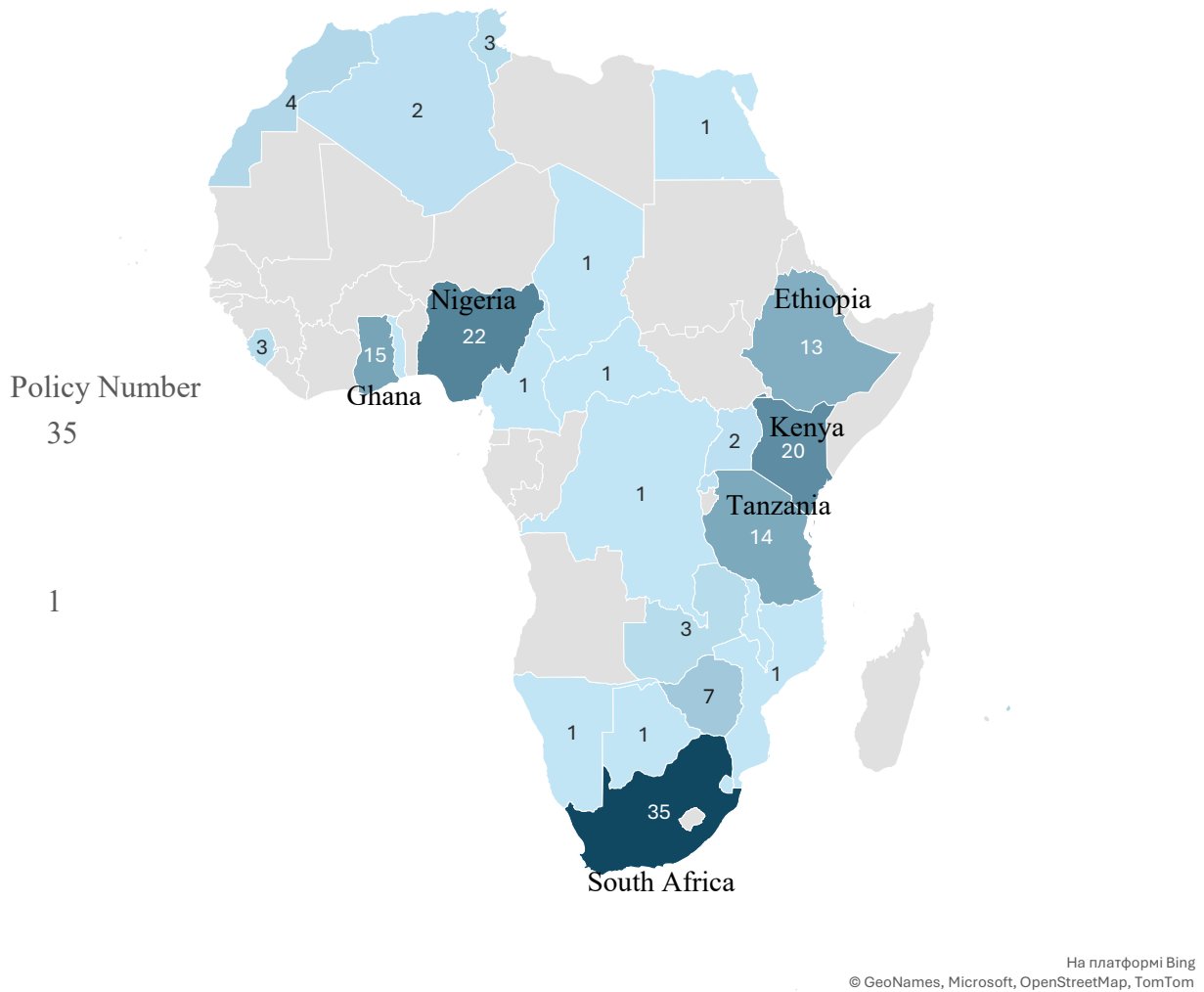


Figure 1.13. Corporate Sustainability Policy Initiatives in African Countries, 2022  
Source: author’s elaboration based on Carrots & Sticks data.

Among the above corporate sustainability policy initiatives and disclosure requirements, only documents related to corporate governance and financial reporting quality were selected for further analysis, which slightly reduced the sample. Figure 1.14 analyzes the evolution of the regulatory landscape's development in corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa according to the Carrots & Sticks analytical platform.

The analysis indicates that the initial steps towards developing the normative landscape in the field of corporate governance and financial reporting quality began in 1990 in Nigeria (Companies and Allied Matters Act), 1994 in South Africa (The Code of Corporate Practices & Conduct), and 2009 in Ghana (Corporate Governance Guidelines on Best Practices). These acts have been foundational for forming and

further developing the legal and regulatory framework of corporate governance and financial reporting quality and the corresponding business practices.

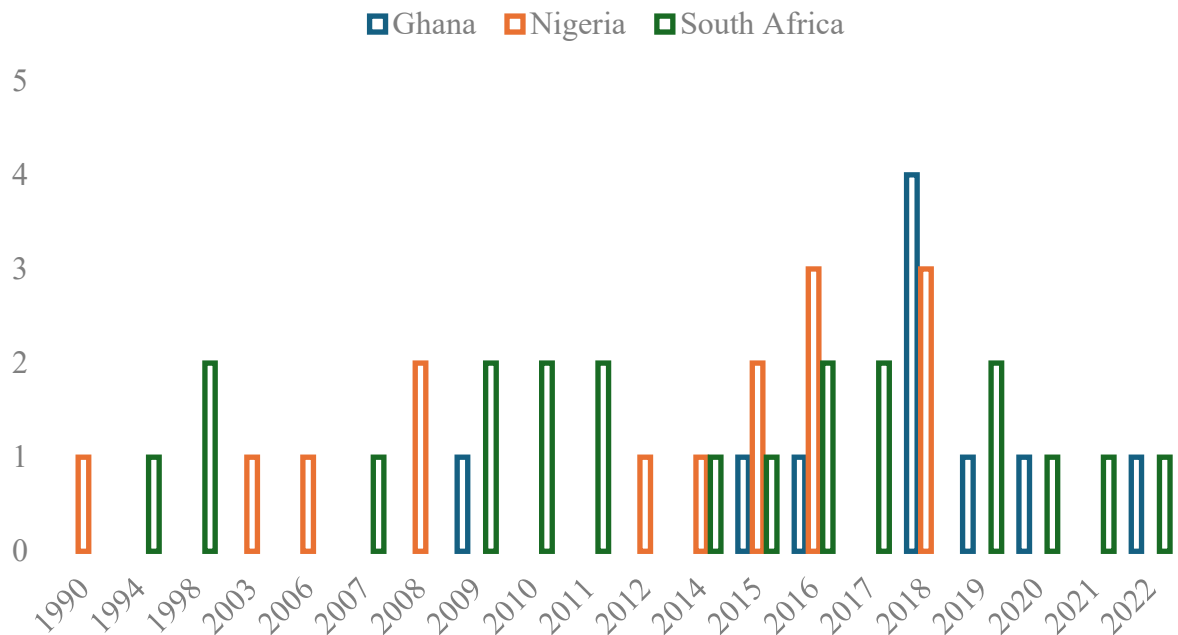


Figure 1.14. Evolution of the Regulatory Landscape Development in the Corporate Governance and Financial Reporting Quality in Ghana, Nigeria and South Africa for 1979-2022

Source: author's elaboration based on Carrots & Sticks data.

The period after 2015 is considered the most active, which is significant due to the rise in global awareness and concern about sustainability and climate change, which was manifested in the adoption of the Paris Agreement (2015), the 2030 Agenda for Sustainable Development and their adaptation or implementation at the national levels. Cumulatively, over 27 regulatory and advisory acts were adopted in the three countries during this period, 9 in Ghana, 8 in Nigeria and 10 in South Africa.

In analyzing the structure of the regulatory landscape in corporate governance and financial reporting quality, two forms of regulatory instruments can be distinguished – principle-based or rule-based [163]. A principle-based approach or soft law involves regulation based on voluntary principles and recommendations,

allowing companies to gently adapt these principles in their activities [164]. A typical example is the Cadbury Report, the UK government's response to numerous corporate governance scandals in the past few years [165]. On its basis, a separate corporate governance model was formed – "comply or explain," which stipulates that companies must either adhere to the established principles or explain why they deviate from them. This approach allows companies to flexibly adapt management principles to their specifics while ensuring transparency and accountability for investors and other stakeholders.

A rule-based approach or hard law is based on clear and specific rules, norms, and laws that companies are obliged to follow. This approach ensures apparent compliance with norms and standards, reducing the risks of ambiguous interpretation and abuse [164]. For example, the Sarbanes-Oxley Act was adopted in the United States of America, establishing strict requirements for financial reporting, auditing, and internal control of companies.

According to [166], the principle-based approach has more advantages for companies because it allows for the finer adaptation of rules and more efficient adjustment of activities; this approach is considered more result-oriented [167]. At the same time, the lack of clear rules creates opportunities for subjective interpretation of individual provisions. In addition, this approach can create legal uncertainty since, in disputes, it is more difficult to determine whether companies have followed the principles properly.

Instead, the rule-based approach has the characteristics of predictability and explicit adherence to rules, which provides a more precise order of dispute resolution, establishing subordination and accountability [168]. However, all these qualities create a corresponding bureaucracy and limit companies' decision-making flexibility [169].

Many scientists [170], [171]s claim that in developing countries with a weak legal environment, it becomes extremely difficult to implement corporate governance standards without appropriate regulatory incentives or sanctions from the state. On the other hand, an approach can be distinguished, according to which a

hybrid format combining hard and soft laws with a multi-stakeholder co-regulation strategy is proposed for such countries [169].

Figure 1.15 shows the ratio of mandatory or rule-based and voluntary or principle-based approaches in the regulatory landscape in corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa, according to Carrots & Sticks data.

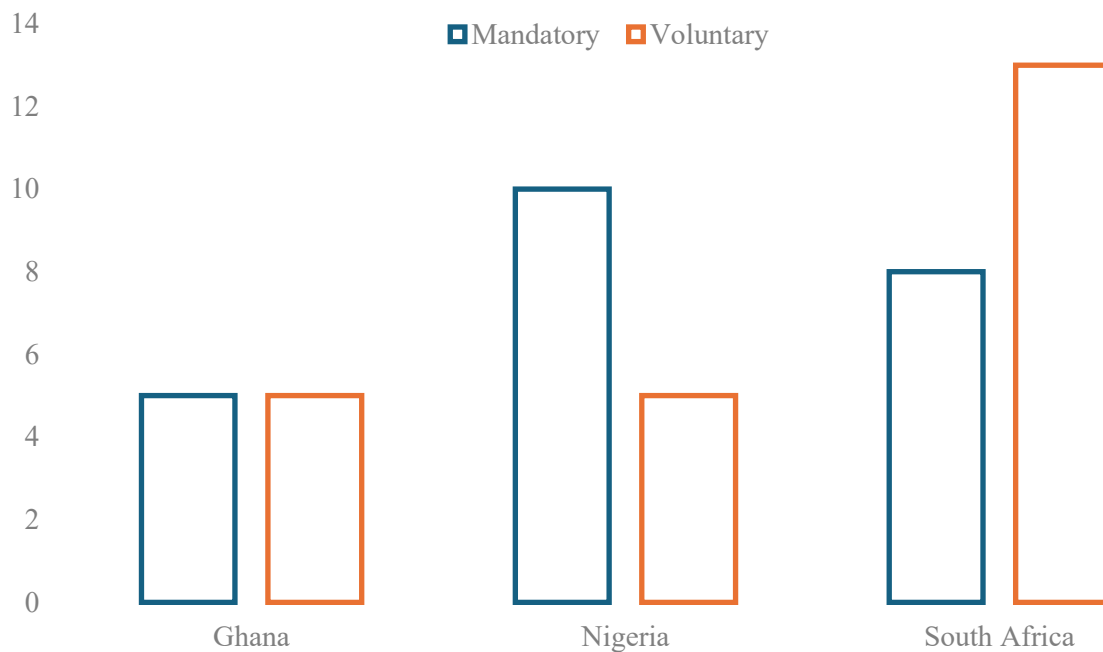


Figure 1.15. The Ratio of Mandatory and Voluntary Instruments in Corporate Governance and Financial Reporting Quality in Ghana, Nigeria and South Africa for 1979-2022

Source: author's elaboration based on Carrots & Sticks data.

In the cumulative summary, there is an equal ratio between mandatory and voluntary instruments – 23 to 23. However, when looking at individual countries, it is observed that Nigeria clearly predominates with a rule-based approach, while South Africa predominantly follows a principle-based approach. In Ghana, the number of mandatory and voluntary instruments is equal. This situation reflects the general aspiration to integrate best practices in corporate governance not only through regulatory requirements but also through voluntary commitments by

companies. When comparing the ratio of mandatory and voluntary instruments in corporate governance and financial reporting quality before and after 2015, the situation appears as follows (Table 1.9).

Table 1.9. Ratio of Mandatory and Voluntary Instruments in Corporate Governance and Financial Reporting Quality in Ghana, Nigeria, and South Africa Before and After 2015

Instruments	Ghana	Nigeria	South Africa	Cumulative number
Mandatory				
Pre-2015	0	5	6	11
Post2015	5	5	2	12
Change	50%	0%	-19%	2%
Voluntary				
Pre-2015	1	2	5	8
Post2015	3	2	8	13
Change	20%	0%	14%	11%

Source: author's elaboration based on Carrots & Sticks data.

The obtained data indicate that, except for Ghana, there was an equal or smaller number of mandatory normative instruments issued in corporate governance and financial reporting quality and an increase in voluntary initiatives. This trend suggests that the normative and regulatory landscape governing corporate governance and financial reporting quality comprises a combination of mandatory and voluntary policies, including laws and subsidiary legislation, directives and regulatory acts, codes and guidelines, recommendations, and principles. Table 1.10 summarizes the main legal and regulatory frameworks governing corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa. It should be noted that this is not an exhaustive list, as there are numerous additional regulatory acts (directives, guidelines, recommendations etc.) and sectoral provisions, as shown by the previous analysis.

Table 1.10. Key Legal and Regulatory Frameworks Governing Corporate Governance and Financial Reporting Quality y in Ghana, Nigeria, and South Africa

Country	Regulatory Framework	Principle-based	Rule-based	Enforcement Authority	Relevant industry
A	B	1	2	3	4
Ghana	Companies Act No. 992, 2019 (Act 992)		X	Government the Office of the Registrar of Companies	All industries
	Additional acts: – Securities Industry Act, 2016 (Act 929) and its Regulations; – Public Financial Management Act, 2016 (Act 921); – State Interest and Governance Authority Act, 2019 (Act 990)		X	SEC, Government, State Interest and Governance Authority	Securities markets, Public sector, State-owned enterprises
	Corporate Governance Guidelines on Best Practices (2009)	X		SEC	Listed companies
	SEC Code for Listed Companies (2020)	X		SEC	Listed companies
	Corporate Governance Directive (2018)		X	Bank of Ghana	Banking sector
	Corporate Governance Manual for Governing Boards/Council of the Ghana Public Services	X		Public Services Commission	Public Services
	Additional disclosure requirements: - Mandatory Disclosure items for public companies in Ghana; - ESG Disclosures Guidance Manual	X		X	
Nigeria	Companies and Allied Matters Act 3 (CAMA) (2020)		X	Corporate Affairs Commission	All industries
	Additional acts: – Investment and Securities Act (ISA), No 29 (2007); – Financial Reporting Council (FRC) of Nigeria Act 6 (2011); – Banks and Other Financial Institutions (BOFIA) Act 5 (2020)		X	SEC, Financial Reporting Council, Central Bank of Nigeria	Securities markets, Financial reporting entities, Banking sector
	Nigerian Code of Corporate Governance (2018)	X		Financial Reporting Council	All industries

Continuation of table 1.10

A	B	1	2	3	4
Nigeria	Code of Corporate Governance for Licensed Pension Operators (2008)	X		National Pension Commission	Pension sector
	Code of Corporate Governance for Banks and Discount Houses (2014)	X		Central Bank of Nigeria (	Banking sector
	Not-for-profit organisations: Governance Code (2016)	X		Financial Reporting Council	Non-profit sector
	Corporate Governance Guidelines for Insurance and Reinsurance Companies in Nigeria (2021)	X		National Insurance Commission	Insurance sector
	Additional disclosure requirements: – Sustainability Disclosure Guidelines (2018)	X		Financial Reporting Council	All industries
South Africa	Companies Act (2008)		X	Companies and Intellectual Property Commission	All industries
	King IV Report on Corporate Governance (2016)	X		Johannesburg Stock Exchange	Listed companies
	Code for Responsible Investment in South Africa (CRISA), (2011)	X		Financial Sector Conduct Authority	Investment sector
	Governance in SMEs: A Guide to the Application of Corporate Governance in Small and Medium Enterprises (2017)	X		The Institute of Directors in Southern Africa	Small and Medium Enterprises

Source: author's elaboration based on Carrots & Sticks and ECGI data.

The main regulatory framework governing corporate governance in Ghana is the Companies Act, 2019 (Act 992), which not only establishes general provisions for the management of companies (both public and private) listed on the stock exchange but also regulates the rights and obligations of directors, shareholders and other stakeholders, but also sets new requirements for the professionalism of company management, strengthens control over information disclosure and implements the use of digital technologies. Following this regulatory act, a new regulatory body was also created in Ghana – the Office of the Registrar of

Companies, which is responsible for directly registering and regulating various types of business in the country. In addition, Ghana has additional mandatory acts that partially regulate corporate governance practices in the securities market (Act 929), public finance, and governance (Act 921, 990), contributing to the stability and development of various sectors of the economy.

Among the voluntary instruments, it is worth highlighting the SEC Corporate Governance Guidelines on Best Practices (2009) and the Corporate Governance Code for Listed Companies (2020), which provide general principles, guidelines, and recommendations for ensuring the effective governance of listed companies. It does not have the force of law and is merely used as a benchmark for assessing the governance practices of listed companies and companies that operate within the securities industry. The Corporate Governance Manual for Governing Boards, which outlines the roles, responsibilities, and best practices for the governance of public service institutions in Ghana, has a similar orientation.

Another sector that has seen steady development in corporate governance practices is the banking sector. The Bank of Ghana (BoG) issues notices and directives on governance structures and control systems for banks and specialized deposit-taking institutions in line with the corporate governance principles of the Basel Committee on Banking Supervision. Following the collapse of a number of banks, in December 2018 the BoG released a Comprehensive Corporate Governance Code (BoG Directive) for the banking industry, specifically banks, savings and loans companies, finance houses and financial holding companies licensed or registered under the Banks and Specialized Deposit Taking Institutions Act, 2016 (regulated financial institutions). Unlike the Corporate Governance Code, compliance with the BoG Directive is mandatory, and in some cases it provides deadlines and options for its implementation.

It is worth noting the regulatory acts that ensure increased transparency and responsibility of companies by establishing information disclosure requirements. These include Mandatory Disclosure items for public companies in Ghana and the ESG Disclosures Guidance Manual.



The next country of this analysis is Nigeria, where the primary legislation that regulates corporate governance is The Companies and Allied Matters Act (CAMA) 2020. It establishes guidelines for forming and overseeing corporations in the country, encompassing their corporate governance frameworks and procedures. The Act mandates specific criteria for the composition of boards, the responsibilities of directors, the rights of shareholders, and the standards for financial reporting.

Additionally, in various sectors of the Nigerian economy, there are both mandatory and voluntary regulatory norms aimed at achieving higher standards of corporate governance, in particular in the area of the securities market (Investment and Securities Act – ISA), the banking sector (Banks and Other Financial Institutions Act – BOFIA), the insurance market (Corporate Governance Guidelines for Insurance and Reinsurance Companies) and accounting and financial reporting (Financial Reporting Council of Nigeria Act – FRC), etc.

As for corporate governance codes, in Nigeria, they are differentiated between sectors. One of the most basic is the Code of Corporate Governance, the last edition of which was published in 2018 and offers all public companies principles and suggestions to listed firms to improve transparency, accountability, and ethical behavior. In addition, similar codes are allocated in the pension, banking, insurance and non-profit sectors.

An additional voluntary disclosure tool in Nigeria is the Sustainability Disclosure Guidelines, which encourage companies to disclose information related to their environmental, social, and governance (ESG) impacts more transparently and responsibly. Using these guidelines allows companies not only to improve their reputation among stakeholders, but also helps to increase the confidence of investors, who are increasingly focused on sustainable investments.

South Africa, as a member of the G20, adheres to globally recognized standards of corporate governance. The main document in this field of governing legislation is The Companies Act of 2008, which establishes a complete structure for the management of corporations, encompassing both publicly traded and privately held entities. The regulations encompass director obligations, shareholder

rights, and transparency requirements. In addition, by this law, all public companies must create social and ethical committees, which monitor and report on the environmental and social orientation of companies' activities, corruption and compliance with labour legislation, etc.

This country is one of the leading nations in the world that has normatively regulated the issue of corporate governance by implementing the King Code of Corporate Governance, a comprehensive framework of principles and procedures that provide guidance for corporate governance within the country. Its first edition was adopted in 1994, after which it underwent corrections and additions, and today, the latest version of 2016 is valid. The King Code does not have legal enforceability, but it is regarded as the most effective approach, and organizations are urged to embrace its suggestions. Moreover, within the limits of this code, the classical principle of "apply or explain" has evolved into the "apply and explain" approach. This means that instead of simply applying the principles or explaining why they have not been applied, companies are now required to apply them and explain exactly how they apply them.

In addition, the Code for Responsible Investment in South Africa (CRISA) has been in force since 2011 to provide guidelines for institutional investors on integrating environmental, social, and governance (ESG) factors into their investment decisions and ownership practices. They were formed under the influence of the UN Principles of Responsible Investment and contained similar emphases on responsible investment and long-term sustainability.

Given that Small and Medium Enterprises are key players in the South African economy, the country has developed a Guide to the Application of Corporate Governance in SMEs, which helps them to develop by adhering to high standards of governance, which facilitates their access to finance and increases the confidence of stakeholders parties.

The study of key legal and regulatory frameworks governing corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa allows to identify the main external and internal actors that determine or fall under

the corporate governance process at different levels. Schematically, it can have the following form (Figure 1.16).

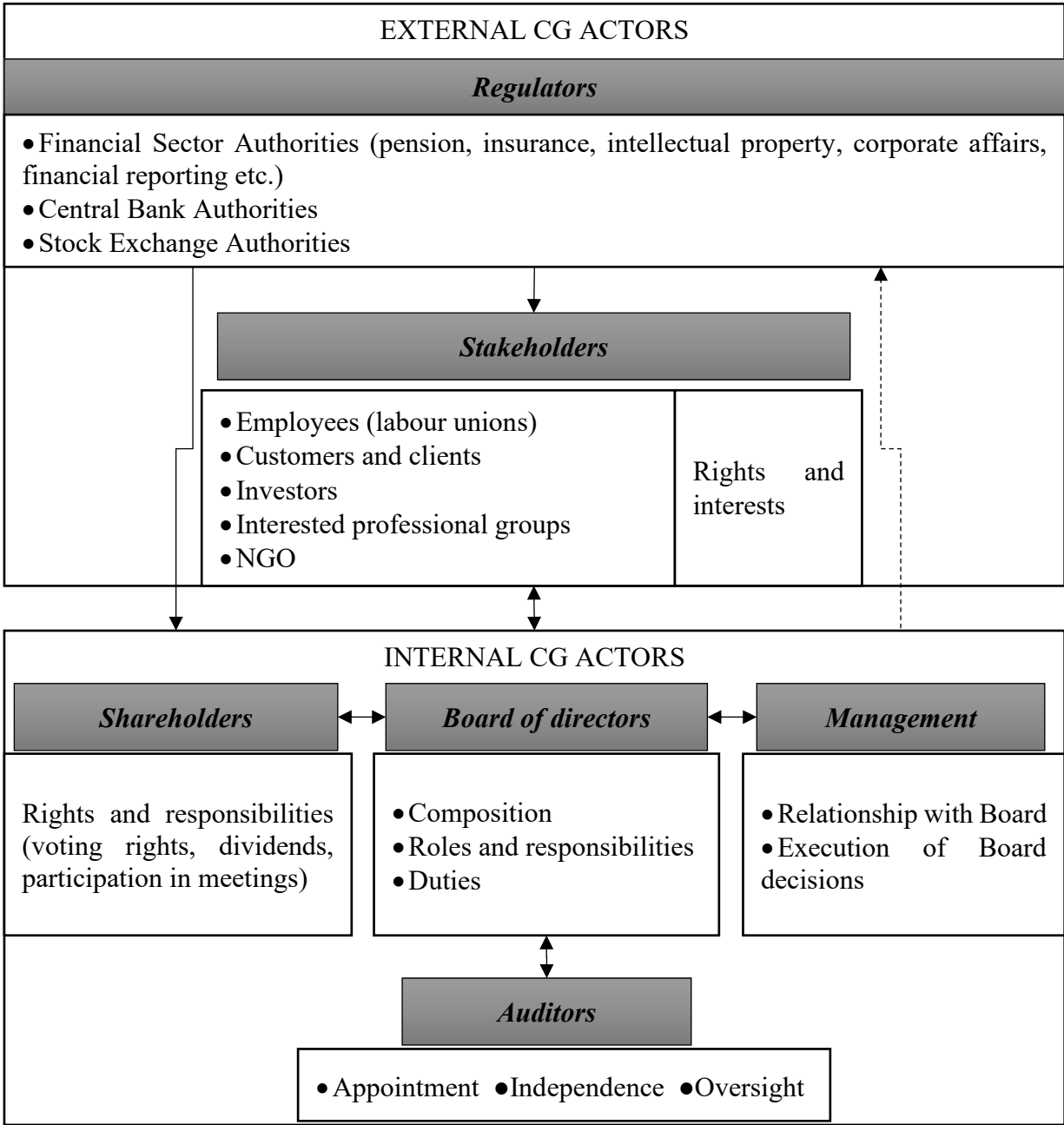


Figure 1.16. Mapping of Relationships among Primary External and Internal Corporate Governance Actors: Examples from Ghana, Nigeria, and South Africa  
Source: author’s elaboration

Various state regulatory bodies are the primary external actors that shape and regulate legal frameworks. Among them, it is worth highlighting the Financial Sector Authorities, which include commissions regulating pension funds and

pension schemes, insurance companies and insurance products, intellectual property rights management, setting financial reporting standards, and ensuring their compliance. An essential participant in each country's corporate regulation system is its Central Bank and Stock Exchange Authority, which regulates relevant issues for the banking sector and the stock market. It is worth noting that these participants not only create the general rules of the game but also, in some cases, establish measures of punishment in case of non-compliance with specific requirements. Instead, individual companies and other corporate governance actors can interact with regulators and influence specific issues related to the regulatory landscape of corporate regulation.

A special place among external CG actors is occupied by stakeholders, whose rights and interests are defined in the legal and regulatory frameworks governing corporate governance and financial reporting quality. In addition, the formats of their involvement and regulation of interaction can be established. This includes mechanisms for stakeholder engagement, such as consultations, feedback processes, and participatory decision-making.

Among the internal actors of corporate governance, it is important to highlight shareholders, the board, management, and auditors.

Traditionally, in any business model, it is accepted that the board of directors oversees the affairs of a company. According to the [11], this body is responsible for strategic guidance by monitoring executive management, ensuring effective accountability to shareholders, and protecting the interests of other company stakeholders. Its tasks also include leading and controlling the company and fostering its long-term, sustainable business in accordance with laws and the securities and exchange commission corporate governance code for listed companies.

Usually, directors are appointed by shareholders and represent the company's shareholders. The board of directors should consist of a diverse group of individuals with the requisite business skills and knowledge who can bring a fresh perspective from outside the company and industry. Typically, boards are made up of both inside

and independent members. Table 1.11 summarizes the key features of corporate governance structures in Ghana, Nigeria, and South Africa.

Table 1.11. Comparison of Corporate Governance Structures of Ghana, Nigeria, and South Africa

Criteria	Ghana	Nigeria	South Africa
Board Structure	Two-tier structure	Unitary board structure	Unitary board structure.
Board Composition	<ul style="list-style-type: none"> <li>- Majority of directors are non-executive;</li> <li>- Majority of non-executive directors are independent;</li> <li>- Minimum of two independent non-executive directors</li> </ul>	<ul style="list-style-type: none"> <li>- Well-rounded composition of executive and non-executive directors;</li> <li>- Significant proportion of non-executive directors;</li> <li>- One-third of non-executive directors should be independent.</li> </ul>	<ul style="list-style-type: none"> <li>- Majority of directors are not involved in day-to-day operations.</li> <li>- Recommended that 50% of the board are independent non-executive directors.</li> </ul>
Board Size	<ul style="list-style-type: none"> <li>- Not smaller than 5 members or larger than 13 members;</li> <li>- Must explain if outside this range.</li> </ul>	<ul style="list-style-type: none"> <li>- Usually ranges from 5 to 15 members;</li> <li>- Size can vary based on the organization's size and complexity.</li> </ul>	<ul style="list-style-type: none"> <li>- Generally recommended to have 8 to 20 members.;</li> <li>- Size depends on company's size and complexity.</li> </ul>
Role of CEO and Chairman	CEO and board chairman are different individuals.	Often combined roles, but some organizations segregate these roles to strengthen governance.	Division of responsibilities between CEO and board chair is common.

Source: author's elaboration based on [172], [173]

In Ghana, Nigeria, and South Africa, the primary focus is to ensure that the board possesses a diverse range of expertise, extensive experience, and autonomy to successfully steer the firm and protect the interests of all stakeholders. The precise makeup may vary depending on the company's scale, sector, and additional variables.

Corporate governance in these countries emphasizes equal treatment for all shareholders and high ethical standards. It requires the board of directors to act in good faith and in the company's best interest. The three pillars of corporate governance are transparency, accountability, and security. Governance ensures that everyone in an organization follows appropriate and transparent decision-making processes and that the interests of all stakeholders (shareholders, managers,

employees, suppliers, customers, among others) are protected. Good corporate governance improves investors' trust in the market, positively impacting share prices, minimizes wastages, corruption, risks, and mismanagement, and helps to create a strong brand reputation, making companies more resilient.

According to [174], there are four stages to board accountability:

- in the first stage, the board is required to provide accurate information concerning its decisions and actions so that shareholders are informed of what transpired within a particular period. Providing information to stakeholders involves disclosure and reporting on all economic transactions within a certain period;

- the second stage requires the board to explain and justify its actions, which is seen as a predominant aspect of accountability. This leads to transparency, which is an important part of corporate governance;

- the third stage is constituted by the questioning and evaluating of the reasons provided for what has been done by the board

- the fourth and final stage is feedback.

Most boards achieve this process by providing financial reports at the annual general meeting (AGM). In governance systems that have one-tier boards, the board is accountable to the shareholders as a whole, while in governance systems that have two-tier boards, a management board and a supervisory board, the management board is accountable to the supervisory board, which is, in turn, accountable to the shareholders [174].

The corporate governance framework emphasizes the board of directors' primary role in supervising and ensuring the effectiveness of risk management methods. In Ghana, according to the Companies Act, 2019 (Act 992), those obligations are placed on directors. The Nigerian Code of Corporate Governance requires the board to identify significant areas of risk and performance indicators proactively and to guarantee the installation of efficient monitoring systems. Nigerian firms commonly establish a Risk Management Committee responsible for ensuring that senior management has effective procedures in place to handle and

reduce risks while aligning risk management with the company's strategic objectives.

The board's role in risk management is of utmost importance in South Africa, as outlined by the King Report on Corporate Governance. The board is responsible for establishing an environment and course for risk management and guaranteeing the implementation of a complete risk management framework. This entails the periodic evaluation of risk management policies and their effectiveness. Corporate governance principles promote the creation of a specialized Risk Committee that is separate from the Audit Committee. Its main mission is to ensure that the company's risk management strategies are strong, autonomous, and in line with its overall goals. The emphasis is placed on a proactive strategy for managing risk, which involves consistently evaluating and adjusting to the changing risk environment.

Corporate governance has internal and external mechanisms, the formation of which is the responsibility of the Board. The foremost sets of controls for a corporation come from its internal mechanisms. These controls monitor the progress and activities of the organization and maintain the internal control fabric. Internal mechanisms include management oversight, independent internal audits, the board of directors' structure into levels of responsibility, segregation of control, and policy development. Those outside an organization control external control mechanisms and ensure legal compliance and best practices.

In summary, positive progress has been noted in developing legal and regulatory frameworks governing corporate governance and financial reporting quality in Ghana, Nigeria, and South Africa. It involves numerous external and internal actors, which, in their interaction, form an appropriate corporate governance model.

### **Conclusions to the chapter 1**

Based on the results of the section, the following conclusions were made:

1. Based on the study of the theoretical foundations of the development of the corporate governance concept, it was found that it has formed and evolved under the

influence of numerous economic theories, among which agency theory, stakeholder theory, stewardship theory, and transaction cost economics theory stand out as primary, with resource dependence theory and managerial hegemony theory as supplementary. The summarization of fundamental principles of corporate governance in work was carried out through text analysis, which, based on the construction of word clouds from the OECD and CACG Principles of Corporate Governance, were generalized into eight principles: responsibility, accountability, transparency and disclosure, effectiveness, sustainability, shareholders' rights, stakeholder engagement, and risk management.

2. The practical implementation of corporate governance's theoretical foundations and principles has taken shape in various models that differ depending on their geographic spread. Among the most prevalent worldwide are the Anglo-Saxon, Continental European, and Japanese models, which are partially adopted by developing countries seeking to implement best practices in corporate governance. The study of the theoretical foundations of the corporate governance concept has allowed for the formation of a conceptual framework of interconnections between corporate governance elements and financial reporting quality, taking into account the mediating role of internal control, financial leverage, and external audit quality. This framework serves as the critical model for the research.

3. The analysis of dynamic trends in corporate governance research using bibliometric analysis based on Scopus, Scival, Publish or Perish and Google Trends data has revealed a rapid increase in scientific and public interest in this area, particularly concerning internal control, financial reporting quality, earnings management, and International Financial Reporting Standards (IFRS). These topics have been most actively researched by the academic community in the United States, Indonesia, and Australia, with the most active institutional contributors being the University of Western Macedonia, Victoria University, Universiti Utara Malaysia and Universiti Teknologi MARA. It was found that corporate governance research is characterized by a multidisciplinary nature with a focus on socio-economic disciplines. The most prominent topics include not only macro-level issues



(accounting policies, audit processes, corporate taxation) but also micro-level ones, such as firm performance indicators and ownership, investors, company sustainability metrics, and gender diversity. All of this has laid the foundation for identifying structural patterns in corporate governance research subfields through cluster bibliometric analysis using VOSviewer software, which includes five clusters: 1) corporate governance regulation and strategic management; 2) audit quality and financial performance; 3) market dynamics and digital transformation; 4) financial reporting and disclosure; and 5) diversification and ownership.

4. Based on the study of the state and development of the legal and regulatory framework of corporate governance and financial reporting quality, it was found that Ghana, Nigeria, and South Africa are among the leading countries on the African continent, having initiated steps in this direction as early as the 1990s. It was observed that the most active process of developing the regulatory landscape began after 2015, when over 27 regulatory and advisory acts were adopted across the three analyzed countries. The analysis indicated a balance between mandatory and voluntary instruments in corporate governance and financial reporting quality, with a shift in focus towards principle-based approaches. The research enabled the formation and schematic mapping of relationships among primary external and internal corporate governance actors and identified the main issues regulated in Ghana, Nigeria, and South Africa.

## **CHAPTER 2. CONCEPTUAL FRAMEWORK FOR IDENTIFYING THE FACTORS INFLUENCING CORPORATE GOVERNANCE AND TRANSPARENCY IN FINANCIAL REPORTING**

### **2.1 Methodological framework for assessing the relationship between corporate governance structures and financial reporting quality**

In today's globalized financial markets, the quality of financial reporting is essential for maintaining investor confidence, enhancing transparency, and promoting corporate accountability. Accurate and reliable financial statements are the cornerstone of effective decision-making for stakeholders, from investors and regulators to creditors and management. Corporate governance, as a system of rules, practices, and processes by which companies are directed and controlled, plays a critical role in ensuring the accuracy and quality of these financial reports. Strong corporate governance frameworks not only enhance firm performance and mitigate agency problems but also improve the credibility and reliability of financial statements.

The correlation between corporate governance and the quality of financial reporting has gained significant attention in academic and professional circles, especially in emerging markets where regulatory frameworks and governance structures are still evolving. Companies in emerging economies, such as Ghana, Nigeria, and South Africa, face unique challenges in implementing effective corporate governance mechanisms due to a variety of institutional, economic, and regulatory factors. Understanding how these governance mechanisms impact financial reporting quality in such contexts is crucial for improving the transparency and accountability of firms in these regions.

The purpose of the study is to assess the correlation between corporate governance and the quality of financial statement, moderated by internal control and external audit. After reviewing literature that relates to the research focus and building a conceptual framework, the next focus of the study is to describe and

develop the research methodology. This chapter aims at explicitly laying down the research approaches, philosophical assumptions, research design and the steps that was used to conduct the empirical part of this study. [175] and [176] described research methodology as a structure of procedures and rules of actions to assist in collecting reliable and valid empirical evidence. According to [177], research methodology is “the strategy or plan of action which lies behind the choice and use of particular methods”. It is research process for seeking new knowledge [178]. Furthermore, [179] define research methodology as an “organised, systematic, data-base, critical, objective, scientific inquiry or investigation into a specific problem undertaken with the purpose of finding answers or solutions to it”. Thus, the first step for conducting research empirically is to identify the best ways to collect data and information to accomplish research objectives and answer research questions [180]. The methods for collecting data should be appropriate for addressing research aims and objectives. According to literature, there are three key approaches of collecting data; quantitative approach, qualitative approach and mixed methods. The quantitative approach is asserted to be suitable for investigating the relationship between variables, while the qualitative approach is asserted to provide a deep understanding of a social problem and offers the researcher significant flexibility in constructing the structure of the research process. Mixed approaches on the other hand are conducting research that adopts both the qualitative and quantitative methods [181]. This chapter therefore discusses and describes the research process. It looks at the research paradigm, research design, methods for collecting and analysing the research data.

The research employed both quantitative and qualitative approaches. Quantitative data is gathered and analysed, and then based on findings, a qualitative approach is designed to answer the whys of the result. The study analyzes data of private and public companies listed in the Ghana, Nigeria and South African Stock Exchanges for the period 2009-2021. Data on Corporate Governance were manually collected from annual reports and financial data were collected from audited financial statements that are available at the Ghana, Nigeria and South African Stock

Exchanges, the company's website and the office of the registrar. Data was analysed with SPSS to confirm or reject the research hypothesis. Figure 2.1 below gives a pictorial view of the research design.

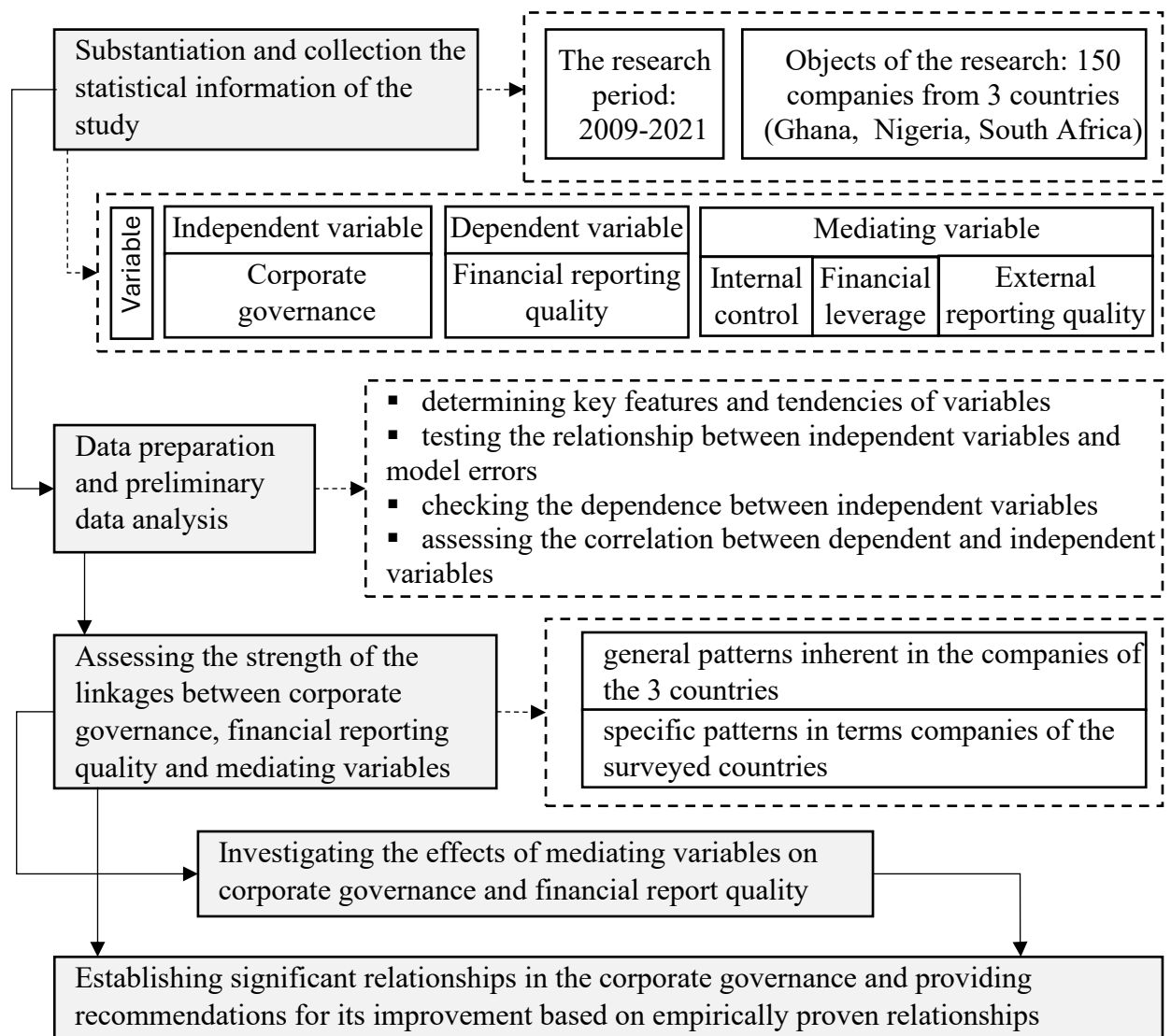


Figure 2.1. Conceptual framework for identifying the factors influencing on corporate governance and transparency in financial reporting

Source: author's elaboration

This study used accounting and auditing indicators to construct a comprehensive index to measure the level of financial reporting quality, corporate governance index to measure corporate governance level, Standard Jones, Modified Jones, Modified Jones with return on assets (ROA), and Modified Jones using Cash Flows and Accruals Reversals, Voluntary disclosure index on the [182] index, The

discretionary accruals (DA) model of [183], [184] model for detecting Real Earnings Management (REM), [185] regression for accounting conservatism and other relevant ratios.

The study employed SPSS to analyse the data collected. A multiple regression equation is used to ascertain the effect of the independent variables on the dependent variable. Using SPSS, the PROCESS macro developed by Andrew F. Hayes was used to determine the mediating effects of internal control, financial leverage and external audit quality on the relationship between the independent and dependent variables.

The objective of this study was to investigate the relationship between corporate governance and the standard of financial reporting. The research initially had a primary emphasis on Ghana but later broadened its scope to include firms from Nigeria and South Africa. The initial target group in Ghana consisted of all firms that were listed on the Ghana Stock Exchange, as well as the extensive range of over 90,000 private enterprises, primarily consisting of single proprietorships. Nevertheless, the study focus was narrowed down to only encompass organisations that are registered on the Ghana Stock Exchange and those who are acknowledged in the Ghana Club 100, an annual rating of the top 100 companies in Ghana. A total of 50 Ghanaian enterprises were carefully selected, with 30 being selected from the stock exchange and 20 from the private sector. The selection process was systematic and based on the criteria of data availability. Subsequently, the research expanded its range to include firms from Nigeria and South Africa, specifically choosing 50 companies from each country. The selection criteria included the business's longevity and the presence of comprehensive yearly reports, which were crucial for the effective gathering of data. This methodology guaranteed a thorough examination of various business settings, focusing on organisations that not only had a substantial market presence but also offered ample data to support the aims of the research.

The study's model is organized into three parts: the construction of the Corporate Governance Indicator, the instrumental variable approach and the

regression analysis of the relationship between corporate governance and internal control, internal control and earning management, financial leverage, compliance, disclosure, external audit and financial reporting quality.

Corporate governance is a function of multiple factors. In the construction of the corporate governance indicator, four variables were measured to ascertain its impact on the quality of corporate governance: 1) board size: number of board members squared; 2) board gender diversity: proportion of women directors out of total board size; 3) board skills and experience in diversity: the proportion of directors with international experience, or the proportion of directors with experience in the company's industry; 4) independent audit committee: the proportion of independent directors on the audit committee.

The selection of the following indicators was based on the above models:

– Agency Theory Model: This model explains the conflicts of interest that arise between shareholders (principals) and management (agents). It posits that corporate governance mechanisms are put in place to reduce these conflicts and ensure that the interests of the agents are aligned with those of the principals. Therefore, under this theory, effective corporate governance should lead to higher-quality financial reporting because managers will be more likely to act in shareholders' best interests. This justifies the objective of examining the relationship between corporate governance and financial reporting quality.

– COSO Internal Control Framework: This model could be used to justify the research objectives related to internal control. The COSO framework emphasizes that effective internal control systems are necessary for reliable financial reporting. Therefore, by this model, one would expect companies with stronger internal control systems to have higher-quality financial reporting.

– Debt Monitoring Hypothesis (from Financial Leverage Models): The debt monitoring hypothesis suggests that companies with higher financial leverage are more closely monitored by debt holders, which could lead to more reliable financial reporting. This can be used to justify the objective of examining the role of financial leverage in financial reporting quality.

– audit quality model: The relationship between audit quality and financial reporting quality has been examined extensively in the audit literature. Higher-quality audits are often associated with more accurate and reliable financial reporting, which justifies the objective of examining the role of external audit quality in financial reporting quality.

A quantitative assessment of corporate governance (independent variable), financial reporting quality (dependent variable) and mediating variables (internal control, financial leverage, external reporting quality) is proposed on the basis of certain indicators, which are presented in the table 2.1.

Table 2.1. Information base of the research

	Variable	Proxies	References
Dependent Variable	Financial Reporting Quality (FRQ)	IFRS Compliance (IFRS.Comp) Real Earnings Management (REM) Accrual-Base Earnings Management (ABEM) Voluntarily Disclosure (VD)	[186], [187], [188], [119]
Independent Variable	Corporate governance (CG)	Board Size (BS) Board Gender Diversity (BGD) Board Skills and Experience in Diversity (BSED) Independent Audit Committee (IAC)	[193], [194], [195], [196]
Mediating variables	Internal control (IC)  Financial leverage (FL)  External audit quality (ERQ)	<u>Internal Control</u> Ethics (ET) Information and Communication (InC) Risk Assessment (RA) <u>Financial Leverage</u> Debt (DE) Equity (EQ) <u>External Audit Quality</u> Firm size (FS) Audit fee (AF) Audit Rotation (AR) Significant Error Detection (SED)	COSO Framework [197], [198], [199]  [200], [201], [202]  [203], [204], [205], [206]

Each of the proposed indicators will be discussed in more detail.

1. Financial reporting quality (FRQ) refers to the degree to which financial statements accurately reflect the true financial performance and position of a

company. High-quality financial reporting provides reliable, relevant, and comparable information that stakeholders, such as investors, creditors, regulators, and management, can use to make informed decisions. It ensures transparency, accountability, and trust in a company's financial disclosures. Within the scope of this study, Financial reporting quality is determined on the basis of 4 components:

1.1. **IFRS Compliance:** there are twelve disclosure issues here. Thus, the researcher will find the ones disclosed in the financial statements and divide them by the expected number of disclosures (12). IFRS (International Financial Reporting Standards) includes many presentation and disclosure requirements across various standards. The company must present these:

- Statement of Financial Position (Balance Sheet): Companies must present assets, liabilities, and equity in accordance with the definitions and recognition criteria for those elements (IFRS Framework, IAS 1).

- Statement of Comprehensive Income: This can be presented in one statement (a combined statement of profit or loss and other comprehensive income) or two separate ones (a separate profit or loss statement and a second statement beginning with profit or loss and displaying components of other comprehensive income). This includes displaying line items such as revenue, finance costs, tax expenses, profit or loss, etc (IAS 1).

- Statement of Changes in Equity: This should include information about profit or loss for the period, each item of income and expense for the period that, as required by other IFRSs, is recognized directly in equity, and the total income and expense for the period (IAS 1).

- Statement of Cash Flows: This must be presented, showing operating, investing, and financing activities (IAS 7).

- Summary of Significant Accounting Policies and Other Explanatory Notes: Information about the basis of preparation of the financial statements, specific accounting policies selected and applied for significant transactions and events, judgments made by management in the process of applying the entity's



accounting policies that have a significant effect on the amounts recognized in the financial statements, etc (IAS 1, IAS 8).

– Disclosure About Judgements and Estimations: Disclosure about critical judgements that management has made in the process of applying the entity's accounting policies and that have the most significant effect on the amounts recognized in the financial statements, and information about assumptions and estimation uncertainties that could result in a material adjustment to the carrying amounts of assets and liabilities (IAS 1).

– Earnings Per Share: Companies must present basic and diluted earnings per share for entities with complex capital structures (IAS 33).

– Segment Reporting: Companies have to disclose information about operating segments, products and services, geographical areas, and major customers (IFRS 8).

– Disclosure of Interests in Other Entities: Information about the nature, extent and financial effects of its interests in subsidiaries, associates, joint arrangements and unconsolidated structured entities (IFRS 12).

– Financial Instruments: Disclosure about the significance of financial instruments for financial position and performance, nature and extent of risks arising from financial instruments, etc (IFRS 7).

– Fair Value Measurement: Disclosure about fair value measurements and liquidity risk (IFRS 13).

– Employee Benefits: Disclosure about the nature and amount of costs related to employee benefit programs (IAS 19).

**1.2. Real earnings management.** The mathematical expressions based on the Roychowdhury (2006) model for detecting Real Earnings Management (REM):

– sales manipulation or abnormal cash flows: this is identified when a company's cash flow from operations deviates from its predicted normal level. The expected cash flow from operations (CFO) is modelled as a function of sales and change in sales.

$$\frac{CFO_{i,t}}{Sales_{i,t-1}} = \alpha_1 + \beta_1 * \left( \frac{Sales_{i,t}}{Sales_{i,t-1}} \right) + \beta_2 * \left( \frac{\Delta Sales_{i,t}}{Sales_{i,t-1}} \right) + \varepsilon_{i,t} \quad (2.1)$$

where  $CFO_{i,t}$  – cash flow from operations for firm i at time t,

$Sales_{i,t-1}$  – sales for firm i at time t,

$\Delta Sales_{i,t}$  – change in sales for firm i from time t-1 to t,

$\alpha_1, \beta_1, \beta_2$  – parameters to be estimated,

$\varepsilon_{i,t}$  – error term for firm i at time t.

Abnormal cash flow from operations is the residual from this model.

– overproduction or abnormal production Costs: this occurs when a company's production costs deviate from their predicted normal level. The expected production cost is modelled as a function of sales and changes in inventory.

$$\frac{COGS_{i,t} + \Delta Inventory_{i,t}}{Sales_{i,t-1}} = \alpha_2 + \beta_3 * \left( \frac{Sales_{i,t}}{Sales_{i,t-1}} \right) + \beta_4 * \left( \frac{\Delta Sales_{i,t}}{Sales_{i,t-1}} \right) + \varepsilon_{i,t} \quad (2.2)$$

where  $COGS_{i,t}$  – cost of goods sold for firm i at time t,

$\Delta Inventory_{i,t}$  – change in inventory for firm i from time t-1 to t,

$\alpha_2, \beta_3, \beta_4$  – parameters to be estimated.

Abnormal production costs are the residuals from this model.

– reduction of discretionary expenses or abnormal discretionary expenses: this is identified when a company's discretionary expenses deviate from their predicted normal level. The expected discretionary expense is modelled as a function of sales.

$$\frac{Discretionary\ Expenses_{i,t}}{Sales_{i,t-1}} = \alpha_3 + \beta_5 * \left( \frac{Sales_{i,t}}{Sales_{i,t-1}} \right) + \varepsilon_{i,t} \quad (2.3)$$

where  $Discretionary\ Expenses_{i,t}$  – discretionary expenses (like advertising or R&D) for firm i at time t,

$\alpha_3, \beta_5$  – parameters to be estimated.

Abnormal discretionary expenses are the residuals from this model.

In each equation, the  $\alpha$ s and  $\beta$ s are parameters to be estimated based on historical data, and  $\varepsilon_{i,t}$  is the error term for firm  $i$  at time  $t$ . The residuals from these equations are used to measure abnormal cash flows, abnormal production costs, and abnormal discretionary expenses respectively, which are indicators of REM.

1.3. Accrual-based earnings management is a strategy where managers use their discretion over accruals to manipulate reported earnings. Accruals are the difference between net income (which includes both cash and non-cash items) and cash from operations. Managers can potentially manipulate these to smooth earnings or to meet certain targets. To detect accrual-based earnings management, one must typically calculate discretionary accruals, which are the portion of total accruals that can be influenced by management.

Total accruals can be calculated as follows:

$$\text{Total Accruals} = \text{Net Income} - \text{Operating Cash Flow} \quad (2.4)$$

Non-discretionary accruals are those that cannot be easily manipulated by management. They're often estimated using the Jones model (1991) or a modified version of the Jones model. In the original Jones model, non-discretionary accruals are a function of: change in revenues (minus change in receivables), and property, plant, and equipment.

The equation for the Jones model is:

$$\frac{\text{Total Accruals}}{\text{Sales}_{(t-1)}} = \alpha \left[ \frac{1}{\text{Sales}_{(t-1)}} \right] + \beta_1 \left[ \frac{\Delta \text{Revenue} - \Delta \text{Receivables}}{\text{Sales}_{(t-1)}} \right] + \beta_2 \left[ \frac{\text{PPE}}{\text{Sales}_{(t-1)}} \right] + \varepsilon \quad (2.5)$$

where  $\text{Sales}_{(t-1)}$  – total net sales for the previous year,

$\Delta \text{Revenue}$  – change in revenue from year  $t-1$  to year  $t$ ,

$\Delta \text{Receivables}$  – change in accounts receivable from year  $t-1$  to year  $t$ ,

$\text{PPE}$  – gross property, plant, and equipment for year  $t$ .

After running this regression over a set of firms and years, it will provide estimates for  $\alpha$ ,  $\beta_1$ , and  $\beta_2$ .

Discretionary accruals are the difference between total accruals and non-discretionary accruals. After you use the Jones model (or a variant) to estimate non-discretionary accruals, subtract them from total accruals to get discretionary accruals.

1.4. Voluntary disclosures can be found in various parts of a company's annual report:

- management's discussion and analysis (MD&A): This is one of the main sections to look for voluntary disclosures. Here, the company's management discusses the company's performance, future prospects, strategy, risks, and other important factors. This discussion often goes beyond the basic numbers reported in the financial statements.

- notes to financial statements: While the notes are often used to provide required information about the company's accounting policies and to give additional detail about line items in the financial statements, they can also include voluntary disclosures about a wide range of topics, like contingent liabilities, related-party transactions, or the impacts of recent events.

- corporate governance section: Companies often voluntarily provide information about their corporate governance practices, such as board composition, executive compensation, risk management practices, etc.

- chairman's or CEO's letter: These letters, usually found at the beginning of the report, often contain voluntary disclosures about the company's performance, strategy, industry trends, and other factors.

- corporate social responsibility (CSR) or Sustainability Report: These sections, which can be part of the annual report or separate documents, often contain voluntary disclosures about the company's environmental, social, and governance (ESG) practices.

- risk factors: While some discussion of risk factors may be required, companies often voluntarily provide additional detail or discuss additional risks.

When investigating the relationship between corporate governance and the level of financial reporting quality, mediating variables help explain how or why corporate governance affects financial reporting quality. These mediators act as mechanisms that clarify the pathway through which corporate governance influences financial reporting outcomes.

Within the framework of this study, it is proposed to consider the impact of 3 mediating variables.

#### 1. Internal Control (IC).

Strong corporate governance usually improves internal controls, which can lead to better financial reporting quality. The quality of internal controls could mediate the relationship between corporate governance and financial reporting, as robust controls reduce errors and manipulation in financial statements. Internal control analyses the company's risk factor disclosures in its annual report, assessing factors like the number of risks disclosed, the specificity of the disclosures, or changes in the disclosures over time.

#### 2. Financial Leverage (FL).

Financial leverage can play a significant role in how corporate governance impacts financial reporting quality, as it influences managerial decisions, risk levels, and the transparency of financial disclosures. Financial leverage is associated with 2 variables: 1) debt (DE): total debt is typically calculated as the sum of short-term and long-term debt, and it can be found in the liabilities section of the balance sheet; 2) equity (EQ): total equity can be found in the equity section of the balance sheet.

#### 3. External Reporting Quality (ERQ)

It refers to the accuracy, reliability, transparency, and comprehensiveness of the financial and non-financial information that a company discloses to external stakeholders, such as investors, regulators, creditors, and the public. It represents how well a company's financial reports (like income statements, balance sheets, cash flow statements, etc.) provide a true and fair view of its financial performance and position. External reporting quality is analysed on the basis of:

- firm size (FS): log of total assets;

- audit fee (AF): this can often be found in the notes to the financial statements or in the company's proxy statement;
- audit Rotation (AR): the measure of this could be binary (whether the auditor has been rotated or not), or the tenure of the current audit firm in years, which can be obtained from the auditor's report or sometimes from the notes to the financial statements;
- significant error detection (SED): this information may not always be explicitly reported, but you might infer it from the issuance of a non-standard audit opinion (for instance, a qualified opinion or an adverse opinion), which can be found in the auditor's report. You could also potentially look at restatements of previous financial statements due to errors or fraud, which would be disclosed in the company's filings.

This study seeks to assess the correlation between corporate governance and financial statement quality, while examining the moderating effects of internal control and external audit quality. By focusing on companies in Ghana, Nigeria, and South Africa, this research aims to provide insights into how corporate governance structures, when supported by robust internal controls and high-quality external audits, can enhance the quality of financial reporting in emerging markets.

## 2.2 Preliminary data analysis between corporate governance, financial reporting quality and key mediating variables

When analyzing the relationship between corporate governance, financial reporting quality, and key mediating variables (such as internal control, financial leverage, and external audit quality), it is essential to test the assumptions underlying the regression analysis to ensure the model is valid and produces reliable results. Below are the key regression assumptions and how they can be tested in the context of your analysis:

1. **Robustness checks are techniques** used to ensure the validity and stability of empirical results. These checks verify whether the findings hold under different assumptions, methods, or sub-samples. The Durbin-Wu-Hausman Test (Test for

Endogeneity is used to check the Robustness checks in this study. It is a method of diagnosis used to evaluate the presence of endogeneity in regression models. When independent variables have a correlation with the error term, it's known as endogeneity, and it might skew the estimated coefficients. This analysis involved the examination of two regression models:

- regression model that included actual dependent variables – Financial Reporting Quality (FRQ): IFRS Com, VD, REM, ABEM (table 2.1);
- regression model that used the residuals from the first model as the dependent variable (table 2.3).

Table 2.2. Coefficients with actual dependent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.795	.079		10.119	.000
BS	.000	.000	-.092	-3.416	.001
BGD	.032	.025	.030	1.302	.193
BSED	.127	.017	.189	7.540	.000
IAC	.029	.006	.150	5.282	.000
RA	.012	.076	.003	.156	.876
FS	-.001	.002	-.012	-.457	.648
AF	9.525E-10	.000	.046	1.907	.057
AR	.005	.011	.009	.416	.677
FL	-1.541E-05	.000	-.016	-.711	.477

a. Dependent Variables: IFRSCom, VD, REM, ABEM

Table 2.3. Coefficient with Residual Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.858E-15	.079		.000	1.000
BS	0.000	.000	0.000	0.000	1.000
BGD	0.000	.025	0.000	0.000	1.000
BSED	0.000	.017	0.000	0.000	1.000
IAC	0.000	.006	0.000	0.000	1.000
RA	0.000	.076	0.000	0.000	1.000
FS	0.000	.002	0.000	0.000	1.000
AF	0.000	.000	0.000	0.000	1.000
AR	0.000	.011	0.000	0.000	1.000
FL	0.000	.000	0.000	0.000	1.000

a. Dependent Variable: Unstandardized Residual

In order to ascertain whether there is any of endogeneity, it is necessary to examine the coefficients associated with the residuals from the first model shown in the second table. The coefficients for the residuals from the first model in the second table are all close to zero, suggesting that they have little impact on explaining the variance in the dependent variable. When using residuals in a second regression, this is the expected outcome. It is appropriate to do a check on the statistical significance (p-values) of these coefficients to obtain further confirmation. In this particular case, the p-values for the residuals (Unstandardized Coefficients) are all close to 1.000. These findings indicate that the residuals do not have a statistically significant impact on the dependent variable in the second regression. To summarise, the findings indicate that there is no evidence of endogeneity in the model. The residuals' coefficients in the second regression lack statistical significance, suggesting that they are not causing endogeneity concerns.

2. **Multicollinearity Check (VIF)** was performed to evaluate the extent of multicollinearity among the independent variables in the regression model. Multicollinearity is the occurrence of strong connection between independent variables – Corporate Governance: BS, BGD, BSED, IAC which might affect the dependability of individual variable contributions (table 2.4). The Tolerance and VIF values in the findings offer insights into the distinct variance of each variable and the degree to which they are accounted for by other variables.

Table 2.4. Variance Inflation Factor

Model	Collinearity Statistics	
	Tolerance	VIF
1 BS	.683	1.463
BGD	.916	1.091
BSED	.791	1.265
IAC	.617	1.622
RA	.989	1.011
FS	.665	1.505
AF	.870	1.149
AR	.978	1.023
FL	.989	1.011

a. Dependent Variable: IFRSCom, VD, REM, ABEM



The range of Tolerance values, which varies from 0.617 to 0.989, indicates that each independent variable maintains a significant degree of distinct variation that is not explained by the other factors. A higher tolerance number indicates a smaller amount of shared variation, which enhances the model's resilience. Moreover, the VIF values, which are all less than 1.5, provide additional evidence that multicollinearity is not a severe issue. Variables with VIF values below 5 are often deemed acceptable, indicating relatively low levels of association in this particular instance. The Multicollinearity Check indicates that the independent variables in the regression model exhibit an acceptable level of independence from one another. The findings indicate that the model remains acceptable since the variables provide distinct information without being excessively affected by multicollinearity.

**3. Descriptive Statistics summarize** the central tendency, variability, and distribution of the data. These statistics provide an overview of the dataset and include: measures of central tendency, mean, measures of dispersion, shape of distribution (table 2.5).

Table 2.5. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IFRS.Comp	1950	0.0000	1.0000	0.8897	0.1340
VD	1950	0.0000	1.0000	0.9291	0.1234
BS	1950	0.0000	361.0000	98.1841	60.2118
BGD	1935	0.0000	1.0000	0.1849	0.1277
BSED	1935	0.0000	1.0000	0.6487	0.2020
IAC	1934	0.0000	3.6667	1.3179	0.6989
RA	1950	0.0000	1.0000	0.9985	0.0392
FS	1928	4.3456	13.0756	9.0157	1.7890
AF	1950	-10246000.0000	116000000.0000	1517996.9771	6447027.9915
AR	1950	0.0000	1.0000	0.0769	0.2665
REM	1950	-105468536503.5470	387025636087.6320	9.1319	22144697435.6047
ABEM	1950	-446318745367.6120	1888804717785.4600	-22.0697	49098501687.5003
FL	1925	-44.3549	4703.6580	10.0499	138.9478

Source: Author's Construct (2023)

The data in the table 2.5 shows that the sampled organisations have an extremely high level of compliance with International Financial Reporting Standards

(IFRS). The average IFRS Compliance (IFRS.Comp) score is 0.8897. This implies that most of the companies are closely following these criteria, indicating an ideal level of financial reporting quality and openness. The relatively low standard deviation of 0.1340 indicates a certain degree of unpredictability, which may be attributed to variations in industry practices or business sizes. In the same manner, the mean value for Voluntary Disclosure (VD) is 0.9291. The high mean value suggests that enterprises are exceeding the required reporting obligations, demonstrating a proactive attitude in ensuring openness with stakeholders. The coherence in these disclosures is further emphasised by the smaller standard deviation of 0.1234, indicating the widespread adoption of transparency in financial reporting among the selected companies.

The Board Size (BS) has significant variation between organisations, ranging from 0 to 361, with an average board size of 98.1841. The significant range, as indicated by the huge standard deviation of 60.2118, might be attributed to the diverse sizes of operations, governance methods, and industry-specific requirements of the organisations. The data indicates a reasonable degree of Board Gender Diversity (BGD), with a mean value of 0.1849. However, the standard deviation of 0.1277 reveals that gender representation on boards is not consistent across all organisations. This suggests a potential opportunity to enhance gender equality in corporate governance. The mean score for Board Skills and Experience in Diversity (BSED) is 0.6487, indicating that companies usually acknowledge the importance of varied skills and experiences in promoting successful board governance. The insignificant standard deviation of 0.2020 indicates that there is a consistent perception of this component among the organisations.

The existence of an Independent Audit Committee (IAC) is strong with an average score of 1.3179, but the standard deviation of 0.6989 implies that its implementation varies greatly among various organisations. This discrepancy may arise due to differences in corporate governance systems or various degrees of dedication to financial control. A large number of companies appear to have implemented some type of Risk Assessment (RA), as indicated by the nearly perfect

average of 0.9985. The low standard deviation of 0.0392 indicates that risk assessment techniques are consistently and effectively incorporated into the organisations' operating strategy.

A standard deviation of 1.7890 indicates that Firm Size (FS) has a significant range, with an average of 9.0157. This distribution demonstrates a broad sample that includes both smaller enterprises and huge companies. Audit Fees (AF) exhibit diversity and variations. The practice of Audit Rotation (AR) is not widely adopted by enterprises, as evidenced by its low average score of 0.0769. The presence of a standard deviation of 0.2665 suggests that in cases when audit rotation is implemented, there may be significant variations in the manner or frequency in which it is carried out.

The variables Real Earnings Management (REM) and Accrual Based Earnings Management (ABEM) exhibit substantial differences and high standard deviations. These findings indicate significant differences in the implementation of earnings management techniques among different companies, which may reflect distinct financial objectives, industry standards, or even possible issues related to the accuracy of financial reporting. Financial Leverage (FL) varies significantly among enterprises, as shown by a large standard deviation. This suggests that there are several methods of managing capital structure and debt, which may be impacted by factors such as the risk profiles of different industries, chances for growth, and tactics employed by management.

#### **4. Correlations between dependent variable and the predictors (independent and mediating variables)**

Correlation analysis between the dependent variable and predictors is an essential step in understanding the strength and direction of the relationships between variables before moving to more complex modeling techniques, such as regression. In the context of your analysis on corporate governance, financial reporting quality, and mediating variables (such as internal control, financial leverage, and external audit quality), this step helps you identify the preliminary associations between variables. The correlation table examines the influence of

several variables on the dependent variable – IFRS Compliance (IFRS.Comp) – within the framework of corporate governance and financial reporting quality (table 2.6).

Table 2.6. Correlation results (Predictors and IFRS Compliance)

	IFRS.Comp	BS	BGD	BSED	IAC	RA	FS	AF	AR	FL
IFRS.Comp	1									
BS	.024	1								
BGD	.074**	.151**	1							
BSED	.192**	.197**	.206**	1						
IAC	.130**	.545**	.201**	.203**	1					
RA	.000	.018	-.013	-.022	.000	1				
FS	.094**	.335**	.206**	.406**	.436**	-.027	1			
AF	.060**	.118**	-.032	.058*	.102**	.009	.123**	1		
AR	.005	-.050*	.021	.003	-.050*	-.087**	-.028	.008	1	
FL	-.028	.006	.013	-.073**	.001	.003	.008	-.009	.051*	1
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

The table 2.6 indicates a significant positive correlation of 0.192 between IFRS Compliance and Board Skills and Experience Diversity (BSED) at a significance level of 0.01. This implies a strong relationship between increased diversity in skills and experience on the board and improved adherence to IFRS standards. Similarly, the presence of an independent audit committee is strongly related to increased compliance with IFRS, as indicated by a significant positive correlation of 0.130 at the 0.01 level. The correlation between compliance with International Financial Reporting Standards (IFRS) and the diversity of the board in terms of gender (BGD) is significantly and positively correlated with a coefficient of 0.074. This finding highlights the potential influence of gender diversity on the quality of financial reporting. The variables Firm Size (FS) and Audit Fee (AF) are positively correlated with IFRS Compliance, with correlation coefficients of 0.094 and 0.060, respectively. Both correlations are statistically significant at the 0.01 level. The findings indicate that larger corporations and those with greater audit costs are more likely to demonstrate stronger adherence to IFRS standards. In contrast, several variables have a weaker or non-existent significant correlation with IFRS Compliance. For instance, the correlation between Board Size (BS) and IFRS

Compliance is a positive one but very weak (0.024). This suggests that these characteristics may have an insignificant direct influence on IFRS Compliance.

The correlation table 2.7 examines the influence of several variables on the dependent variable, Voluntary Disclosure (VD), within the framework of corporate governance and financial reporting quality.

Table 2.7. Correlation Results (Predictors and Voluntary Disclosure)

	VD	BS	BGD	BSED	IAC	RA	FS	AF	AR	FL
VD	1									
BS	.064**	1								
BGD	-.087**	.151**	1							
BSED	-.031	.197**	.206**	1						
IAC	.136**	.545**	.201**	.203**	1					
RA	.030	.018	-.013	-.022	.000	1				
FS	.025	.335**	.206**	.406**	.436**	-.027	1			
AF	.077**	.118**	-.032	.058*	.102**	.009	.123**	1		
AR	-.013	-.050*	.021	.003	-.050*	-.087**	-.028	.008	1	
FL	-.014	.006	.013	-.073**	.001	.003	.008	-.009	.051*	1
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

The table 2.7 shows a significant positive relationship between Voluntary Disclosure and the existence of an Independent Audit Committee (IAC) with a coefficient of 0.136. This suggests that corporations with stronger audit committees are more likely to participate in voluntary disclosure. This discovery stresses the significance of audit committees in promoting openness beyond the obligatory reporting standards. The connection between Board Size (BS) and Voluntary Disclosure is positive (0.064) but weak. This implies that larger boards may somewhat prefer more broad voluntary disclosure. This occurrence may be attributed to the different points of view and specific expertise that larger boards possess, which foster a culture of increased transparency and exchange of information.

Conversely, there is a notable inverse relationship between Board Gender Diversity (BGD) and Voluntary Disclosure (-0.087), suggesting that higher levels of gender diversity on boards might be linked to less voluntary disclosure. This contradictory result indicates a complex relationship between board composition

and disclosure standards, requiring more examination. The relationship between Audit Fee (AF) and voluntary disclosure is statistically significant and positive (0.077). This implies that higher audit fees, which may indicate more thorough auditing methods, are linked to more voluntary disclosure. This may be attributed to the heightened scrutiny and assurance offered by these audits, which incentivize companies to adopt a more open approach.

Additionally, Board Skills and Experience Diversity (BSED) have no statistically significant relationship with Voluntary Disclosure. This implies that this characteristic may not have a direct impact on a company's voluntary disclosure practices.

The correlation table 2.8 examines the influence of several variables on the dependent variable, Real Earnings Management (REM), within the framework of corporate governance and financial reporting quality.

Table 2.8. Correlation Results (Predictors and Real Earnings Management)

	REM	BS	BGD	BSED	IAC	RA	FS	AF	AR	FL
REM	1									
BS	-.100**	1								
BGD	-.058*	.151**	1							
BSED	-.034	.197**	.206**	1						
IAC	-.088**	.545**	.201**	.203**	1					
RA	-.002	.018	-.013	-.022	.000	1				
FS	-.017	.335**	.206**	.406**	.436**	-.027	1			
AF	-.035	.118**	-.032	.058*	.102**	.009	.123**	1		
AR	.021	-.050*	.021	.003	-.050*	-.087**	-.028	.008	1	
FL	.007	.006	.013	-.073**	.001	.003	.008	-.009	.051*	1
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

The Table 2.8 indicates a significant negative relationship of -0.100 between REM and Board Size (BS), indicating that larger boards may be linked to lower levels of real earnings management. The result can be identified by the heightened supervision and varied viewpoints that bigger boards provide, perhaps preventing the implementation of aggressive profit manipulation strategies. Board Gender Diversity (BGD) also shows a low negative relationship to REM (-0.058). The finding suggests that boards with more gender diversity may have a lower likelihood

of engaging in real earnings management. This might be attributed to the presence of varied perspectives, which in turn promotes more ethical and cautious financial reporting methods.

Furthermore, the existence of an Independent Audit Committee (IAC) has a notable negative correlation with REM (-0.088). It also means that having an independent audit committee, which is responsible for supervising financial reporting and transparency, is linked to a decrease in the occurrence of manipulative practices aimed at inflating actual earnings. Other variables such as Board Skills and Experience Diversity (BSED) and Audit Fee (AF), exhibit negative relationships with REM, although these relationships are not statistically significant. This suggests that although these characteristics have a role in the governance structure, their direct impact on REM methods may be less significant.

The correlation table 2.9 examines the influence of several variables on the dependent variable, Accrual Based Earnings Management (ABEM), within the framework of corporate governance and financial reporting quality.

Table 2.9. Correlation Results (Predictors and Accrual Based Earnings Management)

	ABEM	BS	BGD	BSED	IAC	RA	FS	AF	AR	FL
ABEM	1									
BS	.028	1								
BGD	.017	.151**	1							
BSED	-.033	.197**	.206**	1						
IAC	.031	.545**	.201**	.203**	1					
RA	-.002	.018	-.013	-.022	.000	1				
FS	-.015	.335**	.206**	.406**	.436**	-.027	1			
AF	-.001	.118**	-.032	.058*	.102**	.009	.123**	1		
AR	.061**	-.050*	.021	.003	-.050*	-.087**	-.028	.008	1	
FL	.000	.006	.013	-.073**	.001	.003	.008	-.009	.051*	1
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

The table 2.9 shows a significant positive relationship between Audit Rotation (AR) and ABEM at a value of 0.061. This suggests that companies that rotate their audits more frequently may have greater levels of accrual-based earnings management. This implies that increasing the frequency of changing auditors may

result in reduced uniformity in audit methods, thus enabling more manipulation of financial results. The Board Skills and Experience Diversity (BSED) has a weak negative relationship with the ABEM (-0.033), however the significance level is not very high. This suggests that having a board with a wider range of abilities and experiences may marginally decrease the likelihood of engaging in accrual-based earnings management. This might be because a diverse board brings in different viewpoints and competence in financial monitoring.

The existence of an Independent Audit Committee (IAC) has a positive correlation with ABEM (0.031), indicating that although independent audit committees are generally linked to improved governance standards, their mere presence may not have an important deterring effect on accrual-based earnings management. Variables such as Board Size (BS), Board Gender Diversity (BGD), and Firm Size (FS) have insignificant relationships with ABEM, suggesting that these factors may not significantly influence accrual-based earnings management methods in organisations. The relationship between Audit Fee (AF) with ABEM is low, indicating that the cost of auditing services and the age of the business do not have a major impact on accrual-based earnings management practice.

In the following sections, we analyse the impact of corporate governance on financial reporting transparency. In addition, we will analyse the role of mediating variables in assessing the relationship between these concepts.

### 2.3. Methodological approach to assessing the strength of the linkages between corporate governance, financial reporting quality and mediating variables

Corporate governance and financial reporting quality are critical factors that influence firm performance, investor confidence, and market stability. The relationship between corporate governance and financial reporting quality has been the focus of extensive research, given its importance in ensuring transparency, accountability, and accurate financial disclosures. Strong corporate governance mechanisms, such as an independent board, a well-functioning audit committee, and



effective internal controls, are often associated with higher-quality financial reporting. However, the strength of this relationship can vary significantly depending on the presence of mediating factors, which either amplify or diminish its impact.

For quantitative measurement of the strength of the influence of factor attributes (financial reporting quality, internal control, financial leverage? External audit quality) and their combinations on the independence variable (corporate governance), analysis of variance (ANOVA) is used. ANOVA is method which helps to identify if variations in data are due to genuine differences between groups or simply due to random chance. Key Concepts in ANOVA:

- null hypothesis ( $H_0$ ): assumes that all group means are equal (no significant difference).
- alternative hypothesis ( $H_1$ ): assumes that at least one group mean is different from the others.
- F-Statistic: ANOVA calculates an F-statistic, which compares the variance between group means to the variance within the groups. If the F-value is significantly large, the null hypothesis is rejected.
- p-value: the p-value indicates the probability that the observed differences between groups occurred by chance. A small p-value (typically  $< 0.05$ ) means that the differences are statistically significant.

### 1. Corporate governance and financial reporting quality

The summary of the analysis of variance between corporate governance and financial reporting quality are presented in the table 2.10.

Table 2.10. The summary of the ANOVA model between corporate governance and financial reporting quality variables

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
IFRS.Comp	.226 <sup>a</sup>	.051	.049	.13113
VD	.184 <sup>a</sup>	.034	.032	.1215
REM	.114 <sup>a</sup>	.013	.011	22112270898.3897
ABEM	.056 <sup>a</sup>	.003	.001	49274280970.0114

a. Predictors: (Constant), IAC, BGD, BSED, BS

Source: author's elaboration

The IFRS Compliance model demonstrates that  $R^2$  value is 0.051, suggesting that about 5.1% of the variation in IFRS compliance can be accounted for by the predictors of the model: Board Size (BS), Board Gender Diversity (BGD), Board Skills and Experience in Diversity (BSED), and Independent Audit Committee (IAC). The Adjusted  $R^2$ , which is 0.049, takes into account the number of predictors and offers a more precise assessment of the model's ability to explain the data. The standard error of the estimate is 0.13113, indicating the average deviation of the observed data from the regression line. In the Voluntary Disclosure model, the  $R^2$  value is 0.034, indicating that 3.4% of the variation in voluntary disclosure can be explained by the governance aspects considered in the model. The Adjusted  $R^2$  value of 0.032 provides evidence of the substantial influence of these factors. The standard error in this case is 0.1215, which represents the spread of the observed values around the expected values.

The Real Earnings Management model exhibits a rather weak explanatory capacity, as shown by a  $R^2$  value of 0.013. Thus, it may be inferred that the corporate governance factors account for 1.3% of the variability seen in REM. The Adjusted  $R^2$  value of 0.011 indicates that there are additional factors, not accounted for in this model, that may have a significant impact on REM. The estimate's standard error is quite big, measuring 22112270898.3897. This indicates a high amount of fluctuation in the REM values around the regression line. The Accrual-Based Earnings Management model exhibits the lowest level of explanatory capability among the four models, with an  $R^2$  value of 0.003. This indicates that only 0.3% of the variation in ABEM can be accounted for by the predictors. The Adjusted  $R^2$  decreases to 0.001, indicating the little influence of the included corporate governance variables on ABEM. The standard error is significantly elevated at 49274280970.0114, indicating a substantial spread of the observed values.

The table 2.11 presents the results of assessing the patterns between corporate governance and financial reporting quality variables.

Table 2.11. Results of ANOVA between corporate governance and financial reporting quality variables

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS. Comp	Regression	1.781	4	.445	25.891	.000 <sup>b</sup>
	Residual	33.169	1929	.017		
	Total	34.950	1933			
VD	Regression	1.001	4	.250	16.951	.000 <sup>b</sup>
	Residual	28.486	1929	.015		
	Total	29.488	1933			
REM	Regression	12528887622003600000000.0	4	3132221905500900000000.0	6.406	.000 <sup>b</sup>
	Residual	943189419343394000000000.0	1929	488952524283771000000.0		
	Total	955718306965397000000000.0	1933			
ABEM	Regression	14831446398467800000000.0	4	3707861599616950000000.0	1.527	.192 <sup>b</sup>
	Residual	4683524741900330000000000.0	1929	2427954765111630000000.0		
	Total	469835618829880000000000.0	1933			
a. Dependent Variables: IFRS.Comp, VD, REM, ABEM						
b. Predictors: (Constant), IAC, BGD, BSED, BS						

Source: author's elaboration

In the Table 2.11, the IFRS Compliance model has a regression sum of squares of 1.781 and a mean square of 0.445, which is the average of squared deviations. These calculations were performed using 4 degrees of freedom. The F-statistic, which is a metric used to evaluate the significance of the total regression model, has a value of 25.891. This is very significant, since the p-value is less than 0.000, providing strong evidence that the model is statistically significant. The corporate governance determinants, including Board Size, Board Gender Diversity, Board Skills and Experience in Diversity, and Independent Audit Committee, collectively have a significant influence on IFRS Compliance. Therefore, it may be inferred that differences in these characteristics of governance are expected to have a substantial impact on the extent to which enterprises adhere to the International Financial Reporting Standards (IFRS).

Regarding the analysis of Voluntary Disclosure, the regression's sum of squares is 1.001, and the mean square is 0.250. The F-statistic is 16.951, indicating a robust model. The p-value is once again below 0.000, confirming the statistical significance of the model. The inference is evident: the corporate governance elements being examined collectively have a substantial impact on the voluntary disclosure practices in companies. This highlights the significance of governance structures and practices in

influencing how companies exceed obligatory reporting obligations. The Real Earnings Management model exhibits an extremely high regression sum of squares. Similarly, the mean square is exceedingly huge. The F-statistic is 6.406, and the p-value is less than 0.000, indicating statistical significance. Although the large size of these numbers may be partially due to the size of the REM variable, the findings indicate that corporate governance issues do have a quantifiable, if maybe little, effect on actual earning management techniques.

Regarding Accrual-Based Earnings Management, the regression sum of squares has a significantly high value, accompanied by a big mean square computed over 4 degrees of freedom. Nevertheless, the F-statistic in this case is 1.527, and the significance value is 0.192, beyond the customary threshold for statistical significance. These findings suggest that the collective corporate governance variables do not have a statistically significant influence on the manipulation of earnings through accruals. It implies that there may be more factors not accounted for in the model that might have a greater impact on explaining the variances in ABEM.

Table 2.12. The ANOVA table showing regression coefficients (corporate governance and financial reporting quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
IFRS.Comp	(Constant)	.793	.011		72.555	0.000
	BS	.000	.000	-.086	-3.221	.001
	BGD	.024	.024	.023	.996	.319
	BSED	.117	.015	.176	7.633	.000
	IAC	.026	.005	.136	5.079	.000
VD	(Constant)	.928	.010		91.617	0.000
	BS	-2.688E-05	.000	-.013	-.485	.628
	BGD	-.107	.022	-.111	-4.786	.000
	BSED	-.026	.014	-.042	-1.808	.071
	IAC	.031	.005	.174	6.428	.000
REM	(Constant)	5798383574	1843990974		3.144	0.002
	BS	-26531374.36	10088358.84	-0.071	-2.63	0.009
	BGD	-6746015174	4083866405	-0.039	-1.652	0.099
	BSED	-355367616.5	2592995039	-0.003	-0.137	0.891
	IAC	-1297243344	871097872.8	-0.041	-1.489	0.137
ABEM	(Constant)	1932669961.157	4109090820.591		.470	.638
	BS	17406726.528	22480577.873	.021	.774	.439
	BGD	6936073917.609	9100357969.143	.018	.762	.446
	BSED	-11163851552.857	5778147649.050	-.046	-1.932	.053
	IAC	1741796650.976	1941126785.875	.025	.897	.370

a. Dependent Variables: IFRS.Comp, VD, REM, ABEM

In the IFRS Compliance model, the constant term has a substantial value of 0.793, suggesting a strong impact towards high IFRS compliance among the companies included in the sample. The coefficient for Board Size (BS) is negative and statistically significant (Beta = -0.086, Sig. = 0.001), despite its small size. This suggests that when the size of the board rises, there is a little decline in IFRS compliance, due to the complexity associated with larger boards. Board Gender Diversity (BGD) has a positive coefficient, however it is not statistically significant. This implies that there is no evident correlation between gender diversity and IFRS compliance. The study found that Board skills and Experience in Diversity (BSED) had a statistically significant and positive effect (Beta = 0.176, Sig. = 0.000) on IFRS compliance. This suggests that having a wide range of abilities and experiences on the board contributes positively to meeting IFRS standards. The existence of an Independent Audit Committee (IAC) is positively and significantly associated with IFRS compliance (Beta = 0.136, Sig. = 0.000), highlighting the importance of independent supervision in improving compliance.

The findings suggest that there is a small but significant relationship among the variables related to corporate governance and levels of compliance in the light of IFRS. This is consistent with the agency theory, as proposed by Fama and Jensen (1983) and Eisenhardt (1989), which suggests that governance procedures play a vital role in guiding and overseeing corporate entities. The negative relationship for board size indicates the increased complexity and less accountability that comes with larger boards. This aligns with the managerial hegemony theory, as studied by [62], [64]. On the contrary, the presence of a diverse range of skills and experiences on the board, along with the existence of an Independent Audit Committee (IAC), strengthens the argument put forth by stewardship theory. This theory highlights the importance of capable and ethical stewardship in improving corporate governance and adherence to regulations, as explained by [30], [46].

The model's initial high constant for voluntary disclosure (0.928) suggests a broad tendency towards high voluntary disclosure. The regression analysis reveals that the coefficients for BS and BGD are both negative. However, only the

coefficient for BGD is statistically significant (Beta = -0.111, Sig. = 0.000). This suggests that a rise in gender diversity may be linked to a drop in voluntary disclosure. The effect of BSED is negative and significant (Beta = -0.042, Sig. = 0.071), but IAC has a strong positive correlation (Beta = 0.174, Sig. = 0.000), further emphasising the crucial role of independent audit committees in promoting openness. It implies that although gender diversity is typically considered advantageous for governance, according to theories such as resource dependence and stakeholder theory, its influence on transparency and disclosure standards may not be simple. This suggests a more detailed participation of gender diversity in business decision-making processes. This concept is deeply grounded in both the agency theory and stewardship theory.

In the REM model, the constant is very large, mostly because of the magnitude of the REM variable. The analysis reveals that there is an inverse correlation between board size (BS) and real earnings management (REM) (Beta = -0.071, Sig. = 0.009), suggesting that larger boards may be linked to fewer instances of manipulating actual earnings. The coefficients for BGD and BSED have a negative direction, however, they lack statistical significance. The correlation between IAC and REM is negative, although it is not statistically significant. This aligns with the stance of agency theory, which suggests that strong governance systems reduce opportunistic actions by management, as explained by [20]. Nevertheless, the absence of substantial influence from other governance variables on REM indicates the complicated nature of variables affecting earnings management practices.

The ABEM model has a substantial constant, although it lacks statistical significance. The coefficients for BS and BGD exhibit positive values, although it is not statistically significant. The negative coefficient for BSED is significant (Beta = -0.046, Sig. = 0.053), indicating a possible but not strong impact on lowering accrual-based earnings management. The correlation between IAC and ABEM is positive, however, it does not reach statistical significance. This supports the argument made by [57], [58] in the transaction cost theory, which states that various

organisational structures have distinct costs and consequences. The little negative impact of board skills and experience diversity on ABEM suggests the potential advantages of including a broad range of expertise in overseeing complex accounting methods. Hence, the empirical results derived from the regression analysis provide convincing proof that supports many theoretical viewpoints in the field of corporate governance. These findings suggest that the manipulation of earnings using accrual-based methods is impacted by variables that go beyond standard governance procedures.

## 2. Corporate governance and internal control

The result of the analysis of variance between corporate governance and internal control is detailed table 2.13.

Table 2.13. The summary of ANOVA model relationship between corporate governance and internal control variables

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.035 <sup>a</sup>	.001	-.001	.039
a. Predictors: (Constant), IAC, BGD, BSED, BS				

Source: own elaboration

The analysis of the influence of corporate governance on internal control reveals a weak correlation, as indicated by the low coefficient of determination (R-value) of 0.035. There is an insignificant relationship between governance variables and the effectiveness of internal control. The R<sup>2</sup> value is 0.001, indicating that only 0.1% of the variation in internal control effectiveness can be attributed to the specified governance factors, namely Board Size (BS), Board Gender Diversity (BGD), Board Skills and Experience Diversity (BSED), and Independent Audit Committee (IAC). The Adjusted R<sup>2</sup> value of -0.001 suggests that these variables have very little explanatory power, even when accounting for the number of predictors. The Standard Error of the Estimate, which is 0.039, indicates a moderate level of average difference between the actual values and the anticipated values of the model. These findings suggest that the selected components of corporate governance have little impact on the effectiveness of internal control systems.

The ANOVA results for the model examining the influence of corporate governance on risk assessment (RA) provide additional support to the conclusions drawn from the model description (table 2.14).

Table 2.14. Results of ANOVA between corporate governance and risk assessment

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.004	4	.001	.583	.675 <sup>b</sup>
Residual	2.992	1929	.002		
Total	2.995	1933			

a. Dependent Variable: RA

b. Predictors: (Constant), IAC, BGD, BSED, BS

Source: author's elaboration

The regression's sum of squares is 0.004, with 4 degrees of freedom, resulting in a mean square of 0.001. The F-statistic, which evaluates the overall significance of the regression model, has a value of 0.583. The findings suggest that the corporate governance elements being examined - BS, BGD, BSED, and IAC - do not together have a statistically significant influence on Risk Assessment. This implies that the efficiency of internal control systems, as assessed by RA, is impacted by other elements beyond the scope of these particular governance characteristics.

Table 2.15. The ANOVA table showing regression coefficients (corporate governance and internal control variables)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.001	.003		304.737	0.000
BS	1.938E-05	.000	.029	1.079	.281
BGD	-.003	.007	-.011	-.481	.631
BSED	-.005	.005	-.024	-.994	.320
IAC	.000	.002	-.009	-.313	.754

a. Dependent Variable: RA

Source: author's elaboration

The coefficient for BS is very small (1.938E-05) and lacks statistical significance (Sig. = 0.281), indicating that variations in board size have a minor effect on risk assessment. Similarly, the variables BGD and BSED exhibit negative



coefficients (-0.003 and -0.005, respectively). However, it is important to note that these coefficients are not statistically significant, as indicated by the p-values of 0.631 and 0.320, respectively. This suggests that variations in board gender diversity and skills/experience diversity have little effect on risk assessment methods. The coefficient for IAC is statistically negligible (Sig. = 0.754), indicating that the presence of an independent audit committee does not have a substantial influence on risk assessment inside these companies. This result opposes the traditional viewpoint offered in corporate governance literature, particularly as presented by the [90], [103], which highlights the crucial function of governance procedures in developing strong internal controls. The theoretical underpinnings of the COSO framework, emphasising elements such as control environment and risk assessment, imply a more significant impact of governance structures on internal controls than what research suggests.

This discovery is consistent with the overarching narrative in studies on corporate governance, where the efficiency of internal control mechanisms is frequently linked to a larger range of factors outside the characteristics of the board. It suggests that factors other than the governance variables analysed, such as contextual or environmental components, may have a greater impact on the effectiveness of internal controls.

The examination of coefficients provides additional insights. The low influence of board size, gender diversity, and skills/experience diversity on risk assessment opposes several known concepts in governance research. Previous research has suggested that having a diverse board of directors may enhance the ability to analyse and manage risks more comprehensively. Nevertheless, the results indicate that the examined variables related to board composition have a low impact on risk evaluation methods in the setting under investigation. This result opposes some assumptions made in the resource dependence theory, which suggests that having a diverse board improves the ability of an organisation to access and utilise resources effectively.

The limited impact of the Independent Audit Committee on risk assessment also diverges from the anticipated outcomes based on agency theory. Typically, having an independent audit committee is considered essential for reducing conflicts of interest by providing thorough supervision and control. Nevertheless, the research indicates that its impact may be quite constrained in reality, particularly within the context of internal control effectiveness.

### 3. Corporate governance and financial leverage

The relationship between corporate governance and financial leverage is presented in table 2.16.

Table 2.16. The summary of ANOVA model between corporate governance and financial leverage

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.081 <sup>a</sup>	.006	.004	139.2203

a. Predictors: (Constant), IAC, BGD, BSED, BS

Source: author's elaboration

The model investigating the relationship between corporate governance and financial leverage provides certain insights. The correlation coefficient (R-value) of 0.081 indicates a weak relationship between the governance elements and financial leverage. The R<sup>2</sup> value of 0.006 indicates that 0.6% of the variation in financial leverage can be accounted for by these corporate governance factors. The Adjusted R<sup>2</sup>, with a marginal decrease to 0.004, accounts for the influence of the predictors, suggesting that the explanatory capability of these factors is limited at most. The Standard Error of the Estimate is 139.2203, indicating a reasonably large margin of error.

Table 2.17. Results of ANOVA between corporate governance and financial leverage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	241230.102	4	60307.526	3.111	.015 <sup>b</sup>
	Residual	36903905.175	1904	19382.303		
	Total	37145135.277	1908			

a. Dependent Variable: FL

b. Predictors: (Constant), IAC, BGD, BSED, BS

Source: author's elaboration

The sum of squares for the regression model is 241230.102, and it has 4 degrees of freedom. This leads to a mean square value of 60307.526. When compared to the residual sum of squares of 36,903,905.175 with 1904 degrees of freedom, this number indicates a comparatively low mean square for regression. The F-statistic for the model is 3.111, suggesting that the entire model possesses a certain level of statistical validity in its ability to forecast financial leverage. The significance value (Sig.) of 0.015 is below the standard threshold of 0.05 for statistical significance. These findings suggest that the corporate governance characteristics being examined have a statistically significant influence on financial leverage. However, the total effect size is minor, as evidenced by the low R Square value in the model summary.

Table 2.18. The ANOVA table showing regression coefficients (corporate governance and financial leverage variables)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	37.226	11.731		3.173	.002
	BS	.035	.064	.015	.553	.581
	BGD	29.557	25.851	.027	1.143	.253
	BSED	-57.473	16.557	-.083	-3.471	.001
	IAC	.985	5.546	.005	.178	.859

a. Dependent Variable: FL

Source: author's elaboration

The regression analysis reveals that the coefficient for Board Size (BS) is 0.035, however, it lacks statistical significance (Sig. = 0.581). This indicates that the size of the board does not have a significant effect on financial leverage. The coefficient for Board Gender Diversity (BGD) is 29.557, although the relationship is not statistically significant (Sig. = 0.253). This suggests that gender diversity on the board does not have a substantial impact on the firm's financial leverage. In contrast, the presence of diverse skills and experience on the board, known as Board Skills and Experience Diversity (BSED), has a substantial negative impact on financial leverage. The coefficient of -57.473 with a significance level of 0.001 indicates that a higher level of diversity in skills and experience on the board is

linked to lower financial leverage. The coefficient for the presence of an Independent Audit Committee (IAC) is 0.985, however, it lacks statistical significance (Sig. = 0.859), suggesting that the presence of an IAC does not have a substantial impact on financial leverage.

This finding aligns with the assertions made by Gitman and Zutter (2012) and Susanto & Ramadhani (2016) who highlight the subtle impact of company governance on financial leverage. The low R Square value reflects the idea that financial leverage decisions are impacted by several variables outside governance characteristics, which is consistent with the complex relationship noted in modern financial theories.

The ANOVA findings indicate statistical significance, as evidenced by an F-statistic of 3.111. These results demonstrate that although governance issues have a substantial overall impact on financial leverage, the amount of this impact is very little. This is consistent with the conclusions reached by [20], [141], which indicate that governance plays a wider, but complex role in influencing decisions about financial leverage.

Examining the coefficients enhances the comprehension of this relationship. The lack of substantial influence from board size and gender diversity on financial leverage indicates that these factors have a limited effect in shaping decisions about leverage. This conclusion contradicts the assumptions of resource dependency theory to some extent. This theory commonly suggests that boards with diverse members possess a range of resources and viewpoints that may have a substantial impact on strategic decisions, such as financial structure.

In contrast, the significant negative impact of diversity in board skills and expertise on financial leverage is a major finding. This outcome highlights the significance of having a board comprising individuals with a wide range of expertise and experience in guiding companies towards more cautious financial techniques, maybe as a consequence of a more cautious and thorough decision-making process. This discovery aligns with the risk management approach of corporate governance, indicating that boards with diverse members may possess more proficiency in

recognising and reducing financial hazards. An Independent Audit Committee does not seem to have much of an impact on financial leverage. It indicates that although these committees play a vital role in overseeing finances and ensuring compliance, as other research has demonstrated [135], [207], their direct influence on choices on financial leverage may be limited.

#### 4. Corporate governance and external audit quality

This section presents the regression results of corporate governance variables and external audit quality variables (table 2.19-2.21).

Table 2.19. The summary of ANOVA model between corporate governance and external audit quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
FS	.553 <sup>a</sup>	.306	.305	1.4865
AF	.144 <sup>a</sup>	.021	.019	6411871.5737
AR	.069 <sup>a</sup>	0.005	0.003	0.266

a. Predictors: (Constant), IAC, BGD, BSED, BS

Source: author's elaboration

Regarding Firm Size, the R value of 0.553 suggests a relatively strong relationship with corporate governance variables. The R Square value of 0.306 indicates that around 30.6% of the variation in company size can be accounted for by the governance factors, namely Board Size, Board Gender Diversity, Board Skills and Experience Diversity, and the existence of an Independent Audit Committee. This significant proportion indicates an impact of these governance variables on the growth of the organisation. The association between Audit Fee and the variable corporate governance variables is rather poor, as indicated by a R-value of 0.144. The coefficient of determination (R Square) in this case is just 0.021, indicating that 2.1% of the variation in audit fees can be accounted for by the corporate governance variables. This indicates that these factors have little impact on the fees incurred for external audits. The analysis of Audit Rotation reveals a significantly weak relationship, as shown by a R-value of 0.069 and an R Square value of 0.005. These findings suggest that the analysed corporate governance characteristics account for just 0.5% of the variability in audit rotation patterns, indicating little impact.

Table 2.20. Results of ANOVA between corporate governance and external audit quality

Model		Sum of Squares	df	Mean Square	F	Sig.
FS	Regression	1857.687	4	464.422	210.183	.000 <sup>b</sup>
	Residual	4213.716	1907	2.210		
	Total	6071.403	1911			
AF	Regression	1673257917587140.0	4	418314479396784.0	10.175	.000 <sup>b</sup>
	Residual	79305235262268500.0	1929	41112097077381.3		
	Total	80978493179855700.0	1933			
AR	Regression	.660	4	.165	2.326	.054 <sup>b</sup>
	Residual	136.861	1929	.071		
	Total	137.521	1933			
a. Dependent Variable: FS, AF, AR						
b. Predictors: (Constant), IAC, BGD, BSED, BS						

Source: author's elaboration

The regression model for Firm Size (FS) is highly significant, as shown by an F-statistic of 210.183 and a significance value of less than 0.000. The data suggests a significant relationship between corporate governance variables and business size, indicating that governance has a crucial effect on the growth of the organisation. The model for Audit Fee (AF) has statistical significance, as evidenced by an F-statistic of 10.175 and a significance value of less than 0.000. This suggests that corporate governance variables have a significant, yet less visible, influence on the expenses associated with external audits. However, the Audit Rotation (AR) model shows a borderline level of significance, with an F-statistic of 2.326 and a significance value of 0.054, just over the conventional threshold of 0.05. These findings indicate that the impact of corporate governance on audit rotation procedures is limited and lacks the same level of clarity as the effects of firm size and audit fees. Top of Form.

Table 2.21. The ANOVA table showing regression coefficients (corporate governance and external audit quality variables)

Model		Unstand. coefficients		Stand. coefficients	t	Sig.
		B	Std. Error	Beta		
FS	(Constant)	5.757	.125		46.102	0.000
	BS	.002	.001	.081	3.530	.000
	BGD	.943	.276	.067	3.415	.001
	BSED	2.774	.175	.315	15.852	.000
	IAC	.809	.059	.317	13.731	.000
AF	(Constant)	-391728	534700.1		-0.733	0.464
	BS	9347.091	2925.311	0.086	3.195	0.001
	BGD	-3315260	1184194	-0.065	-2.8	0.005
	BSED	1366529	751888	0.043	1.817	0.069
	IAC	545948.7	252591.3	0.059	2.161	0.031
AR	(Constant)	.090	.022		4.068	.000
	BS	.000	.000	-.043	-1.572	.116
	BGD	.066	.049	.032	1.338	.181
	BSED	.017	.031	.013	.550	.582
	IAC	-.013	.010	-.035	-1.282	.200
a. Dependent Variable: FS, AF, AR						

Source: author's elaboration

For Firm Size (FS), all corporate governance variables show statistically significant coefficients. The impacts of BS and BGD are positive, however, they have relatively small coefficients of 0.002 and 0.943, respectively. The coefficients of 2.774 and 0.809 for BSED and IAC, respectively, indicate that skills/experience diversity and the presence of an IAC have significant positive effects on bigger business sizes. The model's constant does not have a substantial impact on the Audit Fee (AF), but the coefficients for BS, BGD, and IAC have significant impacts. There is a positive correlation between BS and IAC and audit fees, however BGD has a negative association. The coefficient for BSED is positive, though its significance is just a little. None of the governance factors in Audit Rotation (AR)

shows statistically significant coefficients. This indicates that the selected corporate governance variables do not significantly influence audit rotation patterns.

### **5. Corporate governance, internal control, financial leverage and external audit quality, financial reporting quality**

This section of the study presents the effects of corporate governance variables, internal control, financial leverage and external audit quality on financial reporting quality (table 2.22).

Table 2.22. The summary of ANOVA model between internal control, financial leverage and external audit quality and financial reporting quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.231 <sup>a</sup>	.053	.049	.1318
VD	.193 <sup>a</sup>	.037	.033	.1213
REM	.128 <sup>a</sup>	.016	.012	22252255192.27900
ABEM	.088 <sup>a</sup>	.008	.003	49570432050.5568

a. Predictors: (Constant), AR, BSED, AF, FL, RA, BGD, BS, FS, IAC

Source: author's elaboration

The R Square for IFRS Compliance (IFRS.Comp) is 0.053, suggesting that about 5.3% of the variation in IFRS compliance can be accounted for by the predictors. This indicates a moderate yet significant impact of the combined factors on levels of compliance. Regarding Voluntary Disclosure (VD), the R Square value is 0.037, indicating that these factors explain 3.7% of the variation seen in voluntary disclosure practices. This suggests a little however significant influence on how companies accomplish obligatory reporting obligations. The R Square value of 0.016 indicates that the factors included in the study can only account for 1.6% of the variation seen in Real Earnings Management (REM). This suggests a restricted impact on the strategies employed to manipulate revenues through genuine business activity. The R Square for Accrual-Based Earnings Management (ABEM) is 0.008, indicating a very low value. This suggests that the variables being considered have a small effect, accounting for just 0.8% of the variation in ABEM.



Table 2.23. Results of ANOVA between internal control, financial leverage and external audit quality and financial reporting quality

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS. Comp	Regression	1.854	9	.206	11.853	.000 <sup>b</sup>
	Residual	32.963	1897	.017		
	Total	34.816	1906			
VD	Regression	1.076	9	.120	8.134	.000 <sup>b</sup>
	Residual	27.892	1897	.015		
	Total	28.969	1906			
REM	Regression	15586917445301900000000.0	9	1731879716144660000000.0	3.498	.000 <sup>b</sup>
	Residual	939323947586961000000000.0	1897	4951628611423090000000.0		
	Total	954910865032262000000000.0	1906			
ABEM	Regression	36661154065316700000000.0	9	4073461562812970000000.0	1.658	.094 <sup>b</sup>
	Residual	4661361010788810000000000.0	1897	2457227733678860000000.0		
	Total	4698022164854120000000000.0	1906			

a. Dependent Variable: IFRS.Comp, VD, REM, ABEM

b. Predictors: (Constant), AR, BSED, AF, FL, RA, BGD, BS, FS, IAC

Source: author's elaboration

The IFRS Compliance (IFRS.Comp) model has a regression sum of squares of 1.854 and a mean square of 0.206. The F-statistic is 11.853, and the p-value is less than 0.000, suggesting that the model is highly statistically significant. This implies that the combined factors have a significant influence on the adherence to International Financial Reporting Standards (IFRS). The regression sum of squares for Voluntary Disclosure (VD) is 1.076, with a corresponding mean square of 0.120. The F-statistic is 8.134, and the significance level is smaller than 0.000, indicating that the model reliably predicts voluntary disclosure behaviours. The Real Earnings Management (REM) analysis exhibits a substantial sum of squares for regression, with an F-statistic of 3.498 and a significance level below 0.000. This indicates a significant though comparatively little impact of the variables on REM. The Accrual-Based Earnings Management (ABEM) model has an F-statistic of 1.658 and a significance value of 0.094, which is above the standard threshold for statistical significance. This suggests that the predictors have no meaningful effect on ABEM.Top of Form.

Table 2.24. The ANOVA table showing regression coefficients (internal control, financial leverage and external audit quality and financial reporting quality)

Model	Unstandardized Coefficients		Stand.coef.	t	Sig.
	B	Std. Error	Beta		
IFRS. (Constant)	.783	.079		9.948	.000
Comp BS	.000	.000	-.088	-3.263	.001
BGD	.030	.025	.029	1.236	.217
BSED	.120	.017	.179	7.176	.000
IAC	.027	.006	.139	4.917	.000
RA	.019	.077	.006	.245	.806
FL	-1E-05	.000	-.014	-.636	.525
FS	-.002	.002	-.020	-.758	.449
AF	9.530E-10	.000	.046	2.010	.045
AR	.003	.011	.006	.266	.790
VD (Constant)	.855	.072		11.808	.000
BS	-3.350E-05	.000	-.016	-.600	.549
BGD	-.104	.023	-.108	-4.593	.000
BSED	-.030	.015	-.049	-1.933	.053
IAC	.029	.005	.165	5.791	.000
RA	.086	.070	.028	1.220	.222
FL	-1.363E-05	.000	-.015	-.681	.496
FS	-.001	.002	-.014	-.519	.604
AF	1.140E-09	.000	.060	2.613	.009
AR	-.002	.011	-.003	-.148	.883
REM (Constant)	959912811.902	13284394564.879		.072	.942
BS	-26791133.146	10255744.858	-.072	-2.612	.009
BGD	-8055672606.221	4156611715.364	-.046	-1.938	.053
BSED	-2055424194.567	2830719757.721	-.018	-.726	.468
IAC	-1856683727.416	929014546.798	-.058	-1.999	.046
RA	1026140420.573	12920204529.599	.002	.079	.937
FL	841629.385	3670623.002	.005	.229	.819
FS	659579333.843	344763225.896	.053	1.913	.056
AF	-91.199	80.029	-.026	-1.140	.255
AR	1427320892.643	1937666170.130	.017	.737	.461
ABEM (Constant)	1990575417.869	29593098426.249		.067	.946
BS	20696512.139	22846300.262	.025	.906	.365
BGD	6982145716.284	9259512656.878	.018	.754	.451
BSED	-9900119107.344	6305877772.469	-.040	-1.570	.117
IAC	2576531314.625	2069527428.483	.036	1.245	.213
RA	2598781360.727	28781807290.077	.002	.090	.928
FL	-2224230.137	8176895.623	-.006	-.272	.786
FS	-639660194.237	768014833.334	-.023	-.833	.405
AF	-19.748	178.277	-.003	-.111	.912
AR	12150346949.455	4316459091.140	.065	2.815	.005

a. Dependent Variable: IFRS.Comp, VD, REM, ABEM

Source: author's elaboration

The study found that there is a substantial positive relationship between Board Skills and Experience Diversity (BSED) and the presence of an Independent Audit Committee (IAC) in terms of IFRS Compliance. The coefficients for BSED and IAC are 0.120 and 0.027 respectively, and both coefficients are statistically significant. This implies that having a board with a variety of talents and expertise, as well as efficient audit committees, improves adherence to International Financial Reporting Standards (IFRS). In contrast, the size of the board (BS) has a little yet significant negative effect, suggesting that larger boards slightly hinder compliance. Additional factors such as Risk Assessment (RA) and Financial Leverage (FL) do not have any substantial effect.

The Voluntary Disclosure model reveals a significant negative relationship, indicating that a higher level of gender diversity on the board might potentially lead to a decrease in voluntary disclosure. In any case, the IAC has a positive and substantial impact, further solidifying its function in advancing openness. Notably, there is a positive relationship between Audit Fee (AF) and voluntary disclosure, suggesting that higher audit fees may be associated with increased levels of voluntary disclosure. The study found that Real Earnings Management (REM) is negatively associated with Board Size (BS), indicating that larger boards may assist in mitigating earnings management. Additionally, the study found that IAC has a small but significant negative influence on REM, showing that competent audit committees can also contribute to reducing earnings management. The BGD and BSED do not have substantial effects. In the Accrual-Based Earnings Management model, the coefficients tend to be lower in size and have less statistical significance. Nevertheless, there is a strong relationship between Audit Rotation (AR) and accrual-based earnings management, suggesting that the use of audit rotation methods might impact the manipulation of financial statements.

The results highlight the less obvious impact of corporate governance and audit-related issues on the quality of financial reporting. Elements such as the existence of an Independent Audit Committee and the diversity of skills and experience on the board have a substantial impact on improving compliance and

transparency. However, factors like the size of the board and the diversity of gender have more complicated and diverse impacts on different aspects of financial reporting.

This research is consistent with and builds upon many theoretical frameworks and previous empirical investigations in the field of corporate finance and governance. The examination of IFRS Compliance highlights that governance considerations have a minor influence on compliance levels. The correlation between Board Skills and Experience Diversity (BSED) and the existence of an Independent Audit Committee (IAC) in improving compliance with International Financial Reporting Standards (IFRS) aligns with stewardship theory [45], [46] and agency theory [24], [25], which emphasise the importance of capable and autonomous governance systems. The small adverse effect of board size may be attributed to the increased complexity associated with larger boards, a concept supported by the managerial hegemony hypothesis [62], [64].

In the context of voluntary disclosure, the study's conclusions point to a complex relationship. The negative association shown between the variety of board members' genders and the extent of voluntary disclosure suggest that the presence of varied viewpoints introduces complexity, which is consistent with the principles of resource dependence theory. The favourable impact of IAC on disclosure confirms its function in promoting transparency, in line with corporate governance standards. The negative relationship between board size and Real Earnings Management (REM) is consistent with the viewpoint of agency theory, which aims to control management's opportunistic actions [20]. The prominent function of IAC in diminishing REM emphasises the significance of autonomous supervision, a fundamental component in agency theory. The relationship between governance factors and Accrual-Based Earnings Management (ABEM) is notably highlighted by the substantial influence of Audit Rotation (AR) on ABEM. This discovery may be understood by using the principles of agency theory. According to this theory, the practice of regularly rotating auditors is believed to decrease the probability of

profit manipulation since it reduces the strength of the established relationships between auditors and management.

### **Conclusions to the chapter 2**

Based on the results of the section, the following conclusions were made:

1. Understanding the relationship between corporate governance structures and financial reporting quality is crucial because strong governance can help prevent fraudulent reporting, enhance investor confidence, and improve financial performance. A sound methodological framework provides a systematic approach to empirically assess the relationship between corporate governance structures and financial reporting quality. By carefully defining variables, selecting appropriate econometric models, and applying robustness checks, researchers can generate meaningful insights into how corporate governance impacts the integrity and transparency of financial reporting.

2. According to the results of preliminary evaluations, it was established that independent variables (board size, board gender diversity, board skills and experience in diversity, independent audit committee) exhibit an acceptable level of independence from one another. The findings indicate that the model remains acceptable since the variables provide distinct information without being excessively affected by multicollinearity. In addition, the results of the correlation analysis showed that corporations with stronger audit committees are more likely to participate in voluntary disclosure, boards with more gender diversity may have a lower likelihood of engaging in real earnings management, a board with a wider range of abilities and experiences may marginally decrease the likelihood of engaging in accrual-based earnings management. The relationship between audit fee and voluntary disclosure is statistically significant and positive. This implies that higher audit fees, which may indicate more thorough auditing methods, are linked to more voluntary disclosure.

3. The study of the relationship between corporate governance variables and financial reporting quality reveals complex relationships that correspond to different

theoretical viewpoints and models in the literature on corporate governance. The regression analysis shows the substantial yet diverse impact of governance variables such as board size, board gender diversity, board skills and experience diversity, and the inclusion of an independent audit committee on several components of financial reporting quality. The study's findings on voluntary disclosure indicate that the negative impact of increased gender diversity on voluntary disclosure by the board is highly significant. The strong positive relationship between the independent audit committee and voluntary disclosure supports the argument that having independent oversight is crucial for maintaining openness. The real earnings management model indicates that there is a negative relationship between board size and aggressive earnings management methods. This suggests that larger boards are more effective in reducing these actions. The findings of the accrual-based earnings management model indicate that the analysed corporate governance variables have little impact on earnings.

4. The results of the estimates showed a weak relationship between corporate governance and internal control. The model's low R-value and R Square value indicate that the selected corporate governance variables - board size, board gender diversity, board skills and experience diversity, and independent audit committee - have low effects on the effectiveness of internal control systems. The study on the relationship between corporate governance and financial leverage produces findings that both confirm and question existing theories and empirical evidence in the field of corporate finance and governance. The research reveals an insignificant overall relationship but sheds light on how governance structures might impact an organization's decisions about financial leverage. The model's R Square value of 0.006 indicates the very little capacity of the selected corporate governance variables, and independent audit committee to explain the variations in financial leverage.

### **CHAPTER 3. CROSS-COUNTRY COMPARATIVE ANALYSIS OF MODERATING AND MEDIATING VARIABLES IMPACT ON CORPORATE GOVERNANCE AND FINANCIAL REPORT QUALITY**

3.1 Examining cross-country comparative analysis of assessing the relationship between corporate governance structures, financial reporting quality and mediating variables: Ghana, Nigeria, South Africa

Corporate governance plays a crucial role in shaping the transparency, accountability, and integrity of financial reporting in any country. In emerging economies like Ghana, Nigeria, and South Africa, the effectiveness of corporate governance structures is key to ensuring reliable financial reporting, which is essential for investor confidence, economic growth, and financial market development. However, the strength of these relationships can vary significantly across countries due to differences in regulatory environments, economic conditions, and governance practices. This study explores a cross-country comparative analysis of the relationship between corporate governance structures and financial reporting quality in Ghana, Nigeria, and South Africa, while also assessing the influence of key mediating variables such as financial leverage and external audit quality.

The cross-country comparison of Ghana, Nigeria, and South Africa highlights distinct variations in how corporate governance structures interact with financial reporting quality, mediated by financial leverage and audit quality. The differences arise from the regulatory frameworks, market development, and institutional strength in each country:

- regulatory environment: South Africa has a more comprehensive and enforced regulatory framework, while Ghana and Nigeria face challenges in ensuring compliance with governance and financial reporting standards.

- market maturity: South Africa's capital markets are more advanced, which places greater pressure on companies to maintain high financial reporting

standards. In contrast, the underdeveloped markets in Ghana and Nigeria create opportunities for governance lapses and lower reporting quality.

– corporate governance implementation: The strength and effectiveness of corporate governance structures vary, with South Africa having more robust mechanisms compared to the relatively weaker governance frameworks in Ghana and Nigeria.

In summarizing and understanding the fundamental features of a dataset in research the identification analysis is essential. Descriptive statistics provide a simple summary of the data through measures such as mean, median, mode, standard deviation, and range, enabling researchers to present complex data in a more manageable and interpretable form. The values of descriptive statistics for the studied variables in the context of Ghana (Country 1), Nigeria (Country 2), South Africa (Country 3) are presented in tables 3.1-3.3, Appendix A.

The descriptive statistics for each country provide a detailed snapshot of the data distribution across various variables, allowing for a comprehensive comparative analysis. In terms of IFRS Compliance (IFRS.Comp), South Africa has the highest mean of 0.9516, indicating a higher overall adherence to IFRS standards compared to Ghana (mean = 0.8423) and Nigeria (mean = 0.8736). The standard deviation is lowest in Nigeria, suggesting more consistency in IFRS compliance among Nigerian companies.

For Voluntary Disclosure (VD), South Africa again shows the highest mean of 0.9869, suggesting a greater level of transparency among its companies. The low standard deviation further indicates that this practice is uniformly adopted across companies in South Africa. Ghana and Nigeria have slightly lower means of 0.9156 and 0.8825, respectively, with Nigeria showing more consistency due to its lower standard deviation.

Board Size (BS) is largest on average in South Africa (mean = 105.9427) and Nigeria (mean = 102.9764), with Ghana having a smaller average board size (mean = 85.5738). The high standard deviations in all three countries indicate considerable variability in board sizes, reflecting diverse corporate governance



structures. Board Gender Diversity (BGD) is highest in South Africa with a mean of 0.2007, indicating a slightly higher representation of women on boards compared to Ghana (mean = 0.1576) and Nigeria (mean = 0.1957). This suggests that South African companies might be more progressive in gender diversity initiatives.

Board Skills and Experience Diversity (BSED) levels are higher in Nigeria (mean = 0.7330) and South Africa (mean = 0.7341) compared to Ghana (mean = 0.4757). This indicates a higher educational attainment among board members in Nigeria and South Africa, which could be attributed to different corporate governance policies or educational systems. Internal Audit Committee (IAC) activity is more prominent in South Africa (mean = 1.5459) and Nigeria (mean = 1.5236) than in Ghana (mean = 0.8750), suggesting that companies in these countries place more emphasis on internal auditing practices.

Risk Assessment (RA) is constant for all companies in Ghana and South Africa, meaning the variable does not vary and all companies have the same value. In Nigeria, the mean is 0.9953 with slight variability, indicating near-universal risk assessment practices. Firm Size (FS) is larger in Nigeria (mean = 9.6065) and South Africa (mean = 9.6078) compared to Ghana (mean = 7.8474). The standard deviation is lower in South Africa, indicating less variability in firm size. Audit Fees (AF) are substantially higher in South Africa (mean = 3,963,307.8507), reflecting possibly larger and more complex audits. Ghana and Nigeria have significantly lower mean audit fees.

Firm Age (FA) is highest in Nigeria (mean = 46.1837), indicating that Nigerian companies in the sample are, on average, older than those in Ghana (mean = 38.0400) and South Africa (mean = 44.6471). However, the variability is highest in South Africa, suggesting a mix of both old and new firms. In terms of financial performance, Return on Assets (ROA) is highest in Ghana (mean = 0.2978) but with significant variability, indicating high performance for some firms but possibly low or negative performance for others. Nigeria (mean = 0.0934) and South Africa (mean = 0.1330) show lower ROA. Return on Equity

(ROE) is significantly higher in Nigeria (mean = 16.7089) with substantial variability, while South Africa shows a slightly negative mean ROE (-0.0394).

Tobin's Q (TQ) is extremely high and variable in South Africa (mean = 1133.3288), suggesting significant outliers or skewed data. Ghana (mean = 4.8949) and Nigeria (mean = 3.8020) have lower means and variability. Remuneration (REM) data show significant variability and outliers, particularly in Nigeria and South Africa. Ghana's mean remuneration is 1,444,188,958.6702, while Nigeria's is 2,793,707,071.0779, and South Africa's is negative, indicating possible financial anomalies. Accrual Based Earnings Management (ABEM) is positive in Ghana (mean = 1,287,496,489.0439) and South Africa (mean = 138,272,223.4258), while Nigeria shows a large negative mean (-1,457,687,982.8035), indicating possible significant financial losses or adjustments. Financial Leverage (FL) is significantly higher in Ghana (mean = 21.5505) compared to Nigeria (mean = 3.4788) and South Africa (mean = 5.0233), suggesting that companies in Ghana may be more leveraged.

Therefore, the results from the comparative descriptive statistics indicate that South African companies generally show higher compliance with international standards and greater transparency. Nigerian companies exhibit higher variability in financial performance measures, and Ghanaian companies have higher financial leverage and smaller boards but show strong financial performance in terms of ROA.

One of the tasks of country-comparative analysis is to identify specific patterns in the interaction between corporate governance and financial reporting quality. The intermediate results are presented in the tables in the Appendix C.

The final results of the assessment of the relationship between variables of corporate governance and financial reporting quality in the context of Ghana, Nigeria and South Africa are presented in the tables 3.1-3.3.

Table 3.1. Regression coefficients for ANOVA-model for Ghana  
(relationship between corporate governance and financial reporting quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
IFRS.Comp	(Constant)	.810	.025		32.880	.000
	BS	.000	.000	-.085	-1.979	.048
	BGD	.027	.057	.019	.470	.638
	BSED	.067	.035	.087	1.912	.056
	IAC	.024	.012	.097	2.041	.042
VD	(Constant)	.898	.025		36.036	.000
	BS	.000	.000	.117	2.828	.005
	BGD	-.352	.058	-.236	-6.085	.000
	BSED	.008	.035	.009	.213	.831
	IAC	.038	.012	.145	3.180	.002
REM	(Constant)	4307543674.063	314132261.971		13.713	.000
	BS	-17386615.091	1949522.297	-.345	-8.918	.000
	BGD	-176535260.502	728307182.06	-.009	-.242	.809
	BSED	-2993527549.98	446800492.80	-.272	-6.700	.000
	IAC	113639592.690	149666482.180	.032	.759	.448
ABEM	(Constant)	556273815.379	311915600.895		1.783	.075
	BS	3039473.172	1935765.575	.068	1.570	.117
	BGD	595136437.798	723167913.104	.033	.823	.411
	BSED	575029901.001	443647663.941	.059	1.296	.195
	IAC	112598971.758	148610366.952	.036	.758	.449
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						

Table 3.2. Regression coefficients for ANOVA-model for Nigeria  
(relationship between corporate governance and financial reporting quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
IFRS. Comp	(Constant)	.881	.018		48.182	.000
	BS	-3.454E-05	.000	-.029	-.545	.586
	BGD	.024	.025	.041	.984	.325
	BSED	-.039	.025	-.064	-1.556	.120
	IAC	.013	.007	.103	1.924	.055
VD	(Constant)	1.110	.016		68.466	.000
	BS	.000	.000	.102	2.264	.024
	BGD	.046	.022	.075	2.104	.036
	BSED	-.331	.022	-.533	-15.000	.000
	IAC	-.005	.006	-.035	-.767	.443
REM	(Constant)	-2593446193.903	8694017402.144		-.298	.766
	BS	-4950352.114	30151269.582	-.009	-.164	.870
	BGD	-7202610602.939	11764394753.426	-.025	-.612	.541
	BSED	13573082634.014	11841139826.348	.047	1.146	.252
	IAC	-1733131904.887	3281655833.274	-.028	-.528	.598
ABEM	(Constant)	14427299436.629	20257493114.918		.712	.477
	BS	39097637.149	70253958.292	.029	.557	.578
	BGD	20512636582.934	27411625109.002	.031	.748	.455
	BSED	-57600976522.240	27590444947.336	-.086	-2.088	.037
	IAC	12004139804.883	7646421369.215	.084	1.570	.117
a. Country the company is located = 2.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						

Table 3.3 Regression coefficients for ANOVA-model for South Africa  
(relationship between corporate governance and financial reporting quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
IFRS. Comp	(Constant)	.870	.028		31.623	.000
	BS	4.214E-05	.000	.023	.447	.655
	BGD	.049	.036	.054	1.354	.176
	BSED	.136	.038	.145	3.617	.000
	IAC	-.021	.010	-.107	-2.012	.045
VD	(Constant)	.860	.012		73.350	0.000
	BS	.000	.000	-.284	-6.042	.000
	BGD	-.061	.015	-.145	-3.974	.000
	BSED	.153	.016	.347	9.536	.000
	IAC	.034	.004	.371	7.709	.000
REM	(Constant)	3475259974.980	2498997360.806		1.391	.165
	BS	-44206808.821	8567041.968	-.248	-5.160	.000
	BGD	-9573599741.431	3289891145.315	-.108	-2.910	.004
	BSED	5764798754.961	3421761415.178	.063	1.685	.093
	IAC	-3365265225.846	945621292.013	-.175	-3.559	.000
ABEM	(Constant)	4592794044.225	1945688543.682		2.360	.019
	BS	-22272226.582	6670193.283	-.172	-3.339	.001
	BGD	-3121178553.471	2561468696.124	-.049	-1.219	.223
	BSED	-2554711416.422	2664141262.869	-.038	-.959	.338
	IAC	264461408.480	736249082.687	.019	.359	.720
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						

The comparative analysis of corporate governance and financial reporting quality across Ghana, Nigeria, and South Africa reveals distinct patterns and differences based on key variables: Accrual Based Earnings Management (ABEM), Board Size (BS), Board Gender Diversity (BGD), Board Skills and Experience Diversity (BSED), Independent Audit Committee (IAC), Financial Leverage (FL), and External Audit Quality, measured using Firm Size (FS), Audit Fee (AF), Audit Rotation (AR), Real Earnings Management (REM), Voluntary Disclosure (VD), and IFRS Compliance (IFRS.Comp).

For Ghana, the model summary indicates that the predictors (IAC, BGD, BS, and BSED) have varying degrees of explanatory power on the dependent variables IFRS.Comp, VD, REM, and ABEM. The R-squared values suggest that these

variables explain a small proportion of the variance in IFRS.Comp ( $R^2 = 0.011$ ) and ABEM ( $R^2 = 0.012$ ). However, the predictors account for a larger portion of the variance in VD ( $R^2 = 0.093$ ) and REM ( $R^2 = 0.205$ ). This indicates a stronger relationship between corporate governance factors and VD and REM in Ghana. The ANOVA results confirm that the regression models for VD and REM are statistically significant, while the models for IFRS.Comp and ABEM are not. The coefficients further show that BS and IAC significantly influence IFRS.Comp, while BGD negatively impacts VD. BS and BSED are significant predictors for REM, highlighting their influence on executive remuneration.

In Nigeria, the model summary reveals a more substantial relationship between the predictors and VD ( $R^2 = 0.267$ ) compared to IFRS.Comp ( $R^2 = 0.012$ ), REM ( $R^2 = 0.003$ ), and ABEM ( $R^2 = 0.015$ ). The ANOVA results indicate that the model for VD is highly significant, suggesting a strong association between corporate governance practices and voluntary disclosure in Nigerian companies. Interestingly, while the R-squared for REM is low, indicating poor model fit, the model for ABEM shows marginal significance. Coefficient analysis reveals that board size positively affects VD, while board education has a negative impact. The influence of IAC on IFRS compliance is near significance, suggesting that better internal audit practices might improve compliance in Nigeria.

In South Africa, the models for IFRS.Comp, VD, REM, and ABEM all show significant relationships, with R-squared values of 0.027, 0.203, 0.167, and 0.035, respectively. This suggests that the predictors have a notable impact on all four dependent variables. The ANOVA results support these findings, indicating that the regression models are statistically significant for each dependent variable. The coefficients show that BSED positively affects IFRS compliance, while IAC negatively impacts it. VD is significantly influenced by all predictors, with board size negatively affecting VD, while board education and IAC have positive impacts. For REM, board size and BGD negatively impact remuneration, while IAC also shows a significant negative influence. ABEM is significantly affected by board size, indicating that larger boards might be associated with lower abnormal earnings.

In summary, the comparative analysis highlights that corporate governance factors have varying impacts on financial reporting quality across the three countries. In Ghana, voluntary disclosure and remuneration are more strongly associated with corporate governance practices, whereas in Nigeria, voluntary disclosure is the most significantly influenced. South Africa shows significant relationships across all models, indicating a comprehensive impact of corporate governance on financial reporting quality. These findings shows the importance of context-specific governance practices and their varying effectiveness in different national settings.

This study aims to analyse the nature of the relationship between corporate governance and financial leverage. The intermediate results are presented in the tables in the Appendix C.

The results of the assessment of the relationship between corporate governance and financial leverage in the context of Ghana, Nigeria and South Africa are presented in the tables 3.4-3.6.

Table 3.4. Regression coefficients for ANOVA-model for Ghana (relationship between corporate governance and financial leverage)

Model		Unstand. coef.		Stand. coef.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.391	34.364		.186	.853
	BS	.150	.213	.030	.702	.483
	BGD	134.762	79.535	.069	1.694	.091
	BSED	-61.198	48.833	-.057	-1.253	.211
	IAC	12.274	16.622	.035	.738	.461
a. Country the company is located = 1.00						
b. Dependent Variable: FL						

Table 3.5. Regression coefficients for ANOVA-model for Nigeria (relationship between corporate governance and financial leverage)

Model		Unstand. coef.		Stand. coef.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.151	2.282		-.504	.614
	BS	.032	.008	.209	4.053	.000
	BGD	-5.669	3.088	-.075	-1.836	.067
	BSED	6.166	3.108	.081	1.984	.048
	IAC	-1.368	.861	-.084	-1.588	.113
a. Country the company is located = 2.00						
b. Dependent Variable: FL						

Table 3.6. Regression coefficients for ANOVA-model for South Africa (relationship between corporate governance and financial leverage)

Model		Unstand. coef.		Stand. coef.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.577	16.738		1.110	.267
	BS	-.064	.055	-.063	-1.178	.239
	BGD	-26.057	21.041	-.051	-1.238	.216
	BSED	-4.196	22.553	-.008	-.186	.852
	IAC	1.045	6.101	.009	.171	.864
a. Country the company is located = 3.00						
b. Dependent Variable: FL						

The comparative analysis of corporate governance and financial leverage across Ghana, Nigeria, and South Africa reveals distinct patterns and relationships.

In Ghana, the model summary indicates a weak relationship between the predictors (IAC, BGD, BS, and BSED) and financial leverage, as evidenced by an R-squared value of 0.012. This means that only 1.2% of the variance in financial leverage is explained by these corporate governance factors. The ANOVA results show that the regression model is not statistically significant ( $F = 1.848$ ,  $p = 0.118$ ), implying that the predictors do not collectively contribute to variations in financial leverage in Ghanaian companies. The coefficients indicate that none of the predictors have a significant impact on financial leverage individually, although BGD approaches significance ( $p = 0.091$ ), suggesting that gender diversity on boards may have a marginal influence on financial leverage.

In Nigeria, the model summary shows a more substantial relationship, with an R-squared value of 0.043, indicating that 4.3% of the variance in financial leverage is explained by the corporate governance variables. The ANOVA results confirm the statistical significance of the model ( $F = 7.011$ ,  $p < 0.001$ ), suggesting that the predictors collectively influence financial leverage. The coefficients reveal that board size (BS) has a positive and significant impact on financial leverage ( $p < 0.001$ ), indicating that larger boards are associated with higher financial leverage. Board skills and experience diversity (BSED) also positively influences financial leverage ( $p = 0.048$ ), while board gender diversity (BGD) shows a marginally

negative impact ( $p = 0.067$ ). The independent audit committee (IAC) does not have a significant effect.

For South Africa, the model summary indicates a very weak relationship, with an R-squared value of 0.007, suggesting that only 0.7% of the variance in financial leverage is explained by the corporate governance factors. The ANOVA results show that the model is not statistically significant ( $F = 1.107$ ,  $p = 0.352$ ), indicating that the predictors do not collectively influence financial leverage in South African companies. The coefficients show that none of the predictors have a significant impact on financial leverage. Board size (BS) and board gender diversity (BGD) have negative but non-significant coefficients, while board skills and experience diversity (BSED) and the independent audit committee (IAC) do not show any significant relationship.

In summary, the comparative analysis highlights that corporate governance factors have different impacts on financial leverage across the three countries. In Ghana, there is no significant relationship between the predictors and financial leverage. In Nigeria, board size and board skills and experience diversity positively influence financial leverage, while board gender diversity shows a marginally negative impact. In South Africa, corporate governance factors do not significantly influence financial leverage. These findings suggest that the effectiveness and influence of corporate governance practices on financial leverage are context-specific and vary significantly across different national settings.

In addition to financial leverage and financial reporting quality, we propose to analyse the relationship between corporate governance and external audit quality.

The intermediate results are presented in the tables in the Appendix C.

The results of the assessment of the relationship between corporate governance and external audit quality in Ghana, Nigeria and South Africa are presented in the tables 3.7-3.9.



Table 3.7. Regression coefficients for ANOVA-model for Ghana  
(relationship between corporate governance and external audit quality)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
FS	(Constant)	5.268	.220		23.941	.000
	BS	.014	.001	.375	10.099	.000
	BGD	.847	.510	.058	1.659	.098
	BSED	1.485	.313	.185	4.745	.000
	IAC	.645	.105	.251	6.156	.000
AF	(Constant)	674215.511	186114.361		3.623	.000
	BS	-1791.617	1155.036	-.067	-1.551	.121
	BGD	155933.544	431501.130	.015	.361	.718
	BSED	-92069.449	264716.485	-.016	-.348	.728
	IAC	-50959.148	88673.101	-.027	-.575	.566
AR	(Constant)	.069	.039		1.754	.080
	BS	-5.107E-05	.000	-.009	-.209	.835
	BGD	.198	.091	.088	2.168	.031
	BSED	-.022	.056	-.018	-.399	.690
	IAC	-.009	.019	-.024	-.503	.615
a. Country the company is located = 1.00						
b. Dependent Variable: FS						

Table 3.8. Regression coefficients for ANOVA-model for Nigeria  
(relationship between corporate governance and external audit quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
FS	(Constant)	5.680	.420		13.534	.000
	BS	-.005	.001	-.160	-3.271	.001
	BGD	-.058	.568	-.004	-.102	.919
	BSED	4.468	.572	.302	7.816	.000
	IAC	.757	.158	.240	4.781	.000
AF	(Constant)	-220476.154	97677.711		-2.257	.024
	BS	315.682	338.751	.048	.932	.352
	BGD	657434.672	132173.551	.201	4.974	.000
	BSED	308422.194	133035.786	.094	2.318	.021
	IAC	-68714.351	36869.564	-.098	-1.864	.063
AR	(Constant)	.084	.064		1.315	.189
	BS	.000	.000	-.046	-.871	.384
	BGD	.021	.087	.010	.239	.812
	BSED	.059	.087	.028	.682	.496
	IAC	-.022	.024	-.049	-.905	.366
a. Country the company is located = 2.00						
b. Dependent Variable: FS						

Table 3.9. Regression coefficients for ANOVA-model for South Africa (relationship between corporate governance and external audit quality)

Model		Unstandardized Coefficients		Stand. Coef.	t	Sig.
		B	Std. Error	Beta		
FS	(Constant)	7.841	.185		42.271	.000
	BS	.007	.001	.442	10.937	.000
	BGD	1.803	.233	.240	7.733	.000
	BSED	.433	.250	.054	1.733	.084
	IAC	.246	.068	.150	3.643	.000
AF	(Constant)	5903501.151	2431682.516		2.428	.015
	BS	27900.807	8336.274	.172	3.347	.001
	BGD	-9720118.691	3201272.200	-.121	-3.036	.002
	BSED	-5280483.835	3329590.315	-.063	-1.586	.113
	IAC	599522.922	920149.336	.034	.652	.515
AR	(Constant)	.086	.062		1.391	.165
	BS	.000	.000	-.054	-1.030	.304
	BGD	.003	.082	.002	.041	.967
	BSED	.062	.085	.029	.726	.468
	IAC	-.022	.023	-.050	-.923	.356
a. Country the company is located = 2.00						
b. Dependent Variable: FS						

The comparative analysis of corporate governance and external audit quality across Ghana, Nigeria, and South Africa highlights notable differences and relationships.

In Ghana, the model summary for external audit quality shows that the predictors (IAC, BGD, BS, and BSED) have varying degrees of explanatory power on the dependent variables. For Firm Size (FS), the R-squared value is 0.271, indicating that 27.1% of the variance in FS is explained by the predictors. The ANOVA results confirm that this model is statistically significant ( $F = 58.550$ ,  $p < 0.001$ ). Coefficient analysis reveals that board size (BS), board skills and experience diversity (BSED), and independent audit committee (IAC) are significant predictors of FS. In contrast, the models for Audit Fee (AF) and Audit Rotation (AR) are not significant, with R-squared values of 0.006 and 0.008, respectively. These results suggest that, in Ghana, corporate governance factors significantly influence firm size but have little to no impact on audit fees and audit rotation.

In Nigeria, the model summary indicates a weaker relationship between the predictors and the dependent variables compared to Ghana. For Firm Size (FS), the R-squared value is 0.135, meaning that 13.5% of the variance in FS is explained by the predictors. The ANOVA results show that this model is significant ( $F = 24.681$ ,  $p <$

0.001). The coefficients indicate that board size (BS) negatively affects FS, while board skills and experience diversity (BSED) and independent audit committee (IAC) have positive significant impacts. The model for Audit Fee (AF) is also significant ( $R^2 = 0.051$ ,  $F = 8.524$ ,  $p < 0.001$ ), with BGD and BSED positively influencing AF. However, the model for Audit Rotation (AR) is not significant, indicating that the predictors do not collectively influence AR in Nigerian companies.

In South Africa, the model summary shows a strong relationship for Firm Size (FS), with an R-squared value of 0.433, suggesting that 43.3% of the variance in FS is explained by the predictors. The ANOVA results indicate that this model is highly significant ( $F = 121.432$ ,  $p < 0.001$ ). The coefficients reveal that board size (BS), board gender diversity (BGD), and independent audit committee (IAC) significantly influence FS. The model for Audit Fee (AF) is also significant ( $R^2 = 0.046$ ,  $F = 7.939$ ,  $p < 0.001$ ), with BS having a positive impact and BGD a negative impact. However, similar to Ghana and Nigeria, the model for Audit Rotation (AR) is not significant, with an R-squared value of 0.008.

Therefore, the comparative analysis highlights that corporate governance factors have different impacts on external audit quality across the three countries. In Ghana, corporate governance significantly influences firm size but not audit fees or audit rotation. In Nigeria, board size negatively impacts firm size, while board skills and experience diversity and independent audit committee positively influence firm size and audit fees. In South Africa, there is a strong relationship between corporate governance and firm size, with significant impacts also observed on audit fees. However, in all three countries, the predictors do not significantly influence audit rotation. These findings underscore the importance of context-specific governance practices and their varying effectiveness in different national settings.

The final stage of the comparative analysis is to determine the impact of corporate governance, internal control, financial leverage and external audit quality on financial reporting quality. The intermediate results are presented in the tables in the Appendix C. The results of the assessment of the relationship between the 5 components in Ghana, Nigeria and South Africa are presented in the tables 3.10-3.12.

Table 3.10. Regression coefficients for ANOVA-model for Ghana (relationship between corporate governance, internal control, financial leverage and external audit quality and financial reporting quality)

Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.	
	B	Std. Error	Beta			
IFRS.Comp	(Constant)	.884	.034		25.881	.000
	BS	-5.583E-05	.000	-.016	-.336	.737
	BGD	.040	.057	.028	.696	.487
	BSED	.092	.036	.118	2.577	.010
	IAC	.034	.012	.134	2.797	.005
	RA	.019	.077	.006	.245	.806
	FS	-.016	.005	-.165	-3.489	.001
	AF	1.762E-08	.000	.133	3.265	.001
	AR	.000	.025	.001	.016	.987
	FL	-1.045E-05	.000	-.014	-.364	.716
VD	(Constant)	.834	.035		23.913	.000
	BS	.000	.000	.068	1.508	.132
	BGD	-.357	.058	-.240	-6.120	.000
	BSED	-.014	.036	-.017	-.374	.708
	IAC	.030	.012	.112	2.416	.016
	RA	.086	.070	.028	1.220	.222
	FS	.013	.005	.124	2.716	.007
	AF	-3.098E-09	.000	-.022	-.562	.574
	AR	-.007	.025	-.011	-.283	.777
	FL	-1.631E-05	.000	-.021	-.556	.578
REM	(Constant)	4787439359.862	440314537.832		10.873	.000
	BS	-16219877.247	2139999.101	-.319	-7.579	.000
	BGD	-147554135.693	737743811.030	-.007	-.200	.842
	BSED	-2853938838.882	459693060.363	-.257	-6.208	.000
	IAC	170861475.278	157488718.998	.047	1.085	.278
	RA	1026140420.573	12920204529.599	.002	.079	.937
	FS	-95177880.768	59262339.644	-.069	-1.606	.109
	AF	27.934	69.603	.015	.401	.688
	AR	301743487.395	320331559.806	.034	.942	.347
	FL	115909.324	370308.267	.011	.313	.754
ABEM	(Constant)	-438897296.594	417010827.847		-1.052	.293
	BS	-1117309.725	2026739.342	-.026	-.551	.582
	BGD	641556995.725	698698614.157	.037	.918	.359
	BSED	120034298.346	435363739.297	.013	.276	.783
	IAC	-30240615.192	149153605.986	-.010	-.203	.839
	RA	2598781360.727	28781807290.077	.002	.090	.928
	FS	219094564.290	56125871.829	.185	3.904	.000
	AF	-122.114	65.919	-.076	-1.852	.064
	AR	-131374510.905	303377966.119	-.017	-.433	.665
	FL	-32189.027	350709.649	-.004	-.092	.927

a. Country the company is located = 1.00

b. Dependent Variable: IFRS.Comp, VD, REM, ABEM

Table 3.11. Regression coefficients for ANOVA-model for Nigeria (relationship between corporate governance, internal control, financial leverage and external audit quality and financial reporting quality)

Model	Unstandardized Coefficients		Stand. Coef.	t	Sig.	
	B	Std. Error	Beta			
IFRS. Comp	(Constant)	.869	.050		17.527	.000
	BS	-3.334E-05	.000	-.028	-.518	.605
	BGD	.016	.025	.026	.631	.528
	BSED	-.070	.026	-.116	-2.666	.008
	IAC	.012	.007	.092	1.687	.092
	RA	-.013	.045	-.011	-.281	.779
	FS	.005	.002	.120	2.720	.007
	AF	1.782E-08	.000	.097	2.308	.021
	AR	.008	.011	.029	.729	.466
	FL	.001	.000	.073	1.812	.070
VD	(Constant)	1.128	.043		26.489	.000
	BS	5.985E-05	.000	.048	1.083	.279
	BGD	.064	.022	.104	2.987	.003
	BSED	-.281	.023	-.452	-	.000
					12.440	
	IAC	.003	.006	.022	.493	.622
	RA	.038	.038	.033	.982	.327
	FS	-.011	.002	-.254	-6.937	.000
	AF	-2.201E-08	.000	-.117	-3.319	.001
	AR	.006	.010	.022	.660	.509
FL	.001	.000	.090	2.692	.007	
REM	(Constant)	-19437867841.684	23713018879.231		-.820	.413
	BS	683216.679	30774046.316	.001	.022	.982
	BGD	-7679146156.141	12009389478.140	-.027	-.639	.523
	BSED	1873760117.074	12585206843.997	.007	.149	.882
	IAC	-3050927835.568	3343044985.126	-.050	-.913	.362
	RA	4520886352.282	21366176106.360	.008	.212	.832
	FS	2251924512.938	855879747.264	.117	2.631	.009
	AF	2181.345	3691.612	.025	.591	.555
	AR	2122211205.192	5479163450.765	.016	.387	.699
	FL	144823240.729	151508144.582	.039	.956	.340
ABEM	(Constant)	-4365857631.224	55205014673.390		-.079	.937
	BS	56932107.628	71643416.095	.042	.795	.427
	BGD	18796492207.443	27958419201.523	.028	.672	.502
	BSED	-58751365667.617	29298948903.508	-.088	-2.005	.045
	IAC	12128114335.135	7782764750.352	.085	1.558	.120
	RA	13582469370.412	49741455167.436	.011	.273	.785
	FS	269194510.201	1992527996.836	.006	.135	.893
	AF	-879.527	8594.246	-.004	-.102	.919
	AR	37288612658.064	12755748234.245	.117	2.923	.004
	FL	-297762460.056	352718031.702	-.034	-.844	.399

a. Country the company is located = 2.00

b. Dependent Variable: IFRS.Comp, VD, REM, ABEM

Table 3.12. Regression coefficients for ANOVA-model for South Africa (relationship between corporate governance, internal control, financial leverage and external audit quality and financial reporting quality)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
IFRS.Comp	(Constant)	.843	.059		14.345	.000
	BS	4.270E-05	.000	.023	.404	.686
	BGD	.040	.039	.044	1.022	.307
	BSED	.129	.040	.131	3.217	.001
	IAC	-.022	.011	-.110	-2.010	.045
	RA	-.013	.045	-.011	-.281	.779
	FS	.004	.006	.032	.599	.549
	AF	-7.770E-10	.000	-.069	-1.686	.092
	AR	-.005	.018	-.010	-.248	.804
	FL	5.368E-05	.000	.030	.760	.447
VD	(Constant)	.945	.022		43.666	.000
	BS	.000	.000	-.214	-3.953	.000
	BGD	-.052	.015	-.145	-3.580	.000
	BSED	.102	.015	.265	6.936	.000
	IAC	.028	.004	.357	6.998	.000
	RA	.038	.038	.033	.982	.327
	FS	-.005	.002	-.101	-2.033	.042
	AF	-3.693E-10	.000	-.083	-2.178	.030
	AR	.008	.007	.045	1.230	.219
	FL	1.150E-07	.000	.000	.004	.996
REM	(Constant)	43562205323.222	4987278007.242		8.735	.000
	BS	-12672866.482	8966597.109	-.071	-1.413	.158
	BGD	-423766332.272	3349188401.149	-.005	-.127	.899
	BSED	7196856929.176	3405532878.574	.075	2.113	.035
	IAC	-2711973450.095	927265657.107	-.138	-2.925	.004
	RA	4520886352.282	21366176106.360	.008	.212	.832
	FS	-4984911946.935	551259258.011	-.417	-9.043	.000
	AF	136.289	39.090	.123	3.487	.001
	AR	68397369.938	1553161974.913	.002	.044	.965
	FL	-5928391.124	5989266.594	-.034	-.990	.323
ABEM	(Constant)	10670363892.095	4165974578.134		2.561	.011
	BS	-17472440.933	7489980.618	-.134	-2.333	.020
	BGD	-1879525537.135	2797645071.381	-.029	-.672	.502
	BSED	-2448643100.903	2844710757.358	-.035	-.861	.390
	IAC	379161417.108	774563830.024	.027	.490	.625
	RA	13582469370.412	49741455167.436	.011	.273	.785
	FS	-740173145.753	460478050.652	-.085	-1.607	.108
	AF	7.542	32.653	.009	.231	.817
	AR	-277183759.801	1297387732.109	-.008	-.214	.831
	FL	-1640208.638	5002955.988	-.013	-.328	.743

a. Country the company is located = 3.00

b. Dependent Variable: IFRS.Comp, VD, REM, ABEM

The comparative analysis of corporate governance, internal control, financial leverage, and external audit quality on financial reporting quality across Ghana, Nigeria, and South Africa reveals distinct patterns and relationships among the variables.

In Ghana, the model summary indicates varying degrees of explanatory power for the predictors on the dependent variables. For IFRS compliance (IFRS.Comp), the R-squared value is 0.040, suggesting that 4% of the variance in IFRS compliance is explained by the predictors. The ANOVA results confirm the significance of this model ( $F = 3.251$ ,  $p = 0.001$ ). Coefficients reveal that board skills and experience diversity (BSED), independent audit committee (IAC), firm size (FS), and audit fee (AF) are significant predictors of IFRS compliance. Specifically, BSED and IAC positively impact IFRS compliance, while FS has a negative impact. For voluntary disclosure (VD), the R-squared value is 0.102, with the model being significant ( $F = 8.780$ ,  $p < 0.001$ ). The significant predictors include BGD (negative impact), IAC (positive impact), and FS (positive impact). The model for real earnings management (REM) shows an R-squared value of 0.211 and is highly significant ( $F = 20.741$ ,  $p < 0.001$ ), with board size (BS) and BSED negatively impacting REM. For accrual-based earnings management (ABEM), the R-squared value is 0.035, and the model is significant ( $F = 2.779$ ,  $p = 0.005$ ), with FS being the only significant predictor with a positive impact.

In Nigeria, the model summary shows different strengths of relationships. For IFRS compliance, the R-squared value is 0.035, indicating that 3.5% of the variance is explained by the predictors. The model is significant ( $F = 2.495$ ,  $p = 0.008$ ), with BSED negatively impacting IFRS compliance, while FS and AF positively impact it. For voluntary disclosure, the R-squared value is 0.329, and the model is highly significant ( $F = 34.109$ ,  $p < 0.001$ ). Significant predictors include BGD (positive impact), BSED (negative impact), FS (negative impact), AF (negative impact), and FL (positive impact). The model for real earnings management is not significant (R-squared = 0.016,  $F = 1.149$ ,  $p = 0.325$ ),

indicating that the predictors do not collectively impact REM in Nigerian companies. However, for accrual-based earnings management, the R-squared value is 0.030, with the model being significant ( $F = 2.147$ ,  $p = 0.024$ ). BSED negatively impacts ABEM, while audit rotation (AR) has a positive impact.

In South Africa, the model summary shows a moderate explanatory power for the predictors on IFRS compliance, with an R-squared value of 0.031. The model is significant ( $F = 2.572$ ,  $p = 0.009$ ), with BSED positively impacting IFRS compliance, while IAC negatively impacts it. For voluntary disclosure, the R-squared value is 0.154, and the model is highly significant ( $F = 14.438$ ,  $p < 0.001$ ). Significant predictors include BS (negative impact), BGD (negative impact), BSED (positive impact), IAC (positive impact), FS (negative impact), and AF (negative impact). The model for real earnings management shows a strong relationship with an R-squared value of 0.275 and is highly significant ( $F = 30.053$ ,  $p < 0.001$ ). Significant predictors include BSED (positive impact), IAC (negative impact), FS (negative impact), and AF (positive impact). For accrual-based earnings management, the R-squared value is 0.039, and the model is significant ( $F = 3.220$ ,  $p = 0.001$ ). BS negatively impacts ABEM, while other predictors do not show significant relationships.

Thus, the comparative analysis highlights that the impact of corporate governance, internal control, financial leverage, and external audit quality on financial reporting quality varies significantly across Ghana, Nigeria, and South Africa. In Ghana, significant predictors for IFRS compliance include BSED, IAC, FS, and AF. In Nigeria, BSED negatively impacts IFRS compliance, while FS and AF have positive impacts. South Africa shows that BSED positively impacts IFRS compliance, while IAC has a negative impact. The predictors have a stronger and more consistent impact on voluntary disclosure across all three countries. However, their impact on real earnings management and accrual-based earnings management is less consistent and varies across the countries. These findings show the importance of understanding context-specific governance practices and their effectiveness in different national settings.



### 3.2 An empirical investigation of the effects of moderating and mediating variables on corporate governance and financial report quality

Corporate governance and financial decision-making have become increasingly significant in understanding corporate behaviour, particularly in relation to earnings management practices. Corporate governance serves as a control mechanism, ensuring that management acts in the best interests of shareholders and other stakeholders. Strong governance structures, including independent boards, transparent reporting systems, and effective audit committees, are generally associated with reduced opportunities for earnings manipulation. By establishing a culture of accountability, good corporate governance is believed to limit managerial tendencies toward real earnings management, as it emphasizes transparency and long-term value creation over short-term financial gains.

However, the degree to which corporate governance constrains real earnings management may be influenced by financial leverage. Firms with high levels of leverage are often under greater scrutiny from creditors, who demand accurate and timely financial information to assess credit risk. This increased pressure may deter firms from engaging in real earnings management, as stakeholders expect stricter adherence to financial norms. Conversely, highly leveraged firms might be incentivized to engage in real earnings management to meet debt covenants, maintain liquidity, or present a stronger financial position, particularly if corporate governance mechanisms are weak or ineffective.

To describe the indirect effects of mediating variables in a mediation analysis, we use a formula that shows how the independent variable (X) influences the dependent variable (Y) through one or more mediating variables (M).

The indirect effect of X on Y through M can be expressed as the product of two regression coefficients:

1. a: The effect of X on M.
2. b: The effect of M on Y, controlling for X.

$$\text{Indirect effect} = a \times b \quad (3.1)$$

where  $a$  – the coefficient from the regression of the mediator (M) on the independent variable (X);

$b$  – the coefficient from the regression of the dependent variable (Y) on the mediator (M), controlling for the independent variable (X).

The total effect of X on Y includes both the direct effect ( $c'$ ) and the indirect effect ( $a \times b$ ):

$$\text{Total Effect} = c' + a \times b \quad (3.2)$$

where  $c'$  – the direct effect of X on Y (without mediation).

In the context of study, the conceptual framework illustrates the mediation effect of financial leverage and external audit quality on the relationship between corporate governance and financial reporting quality (Figure 3.1).

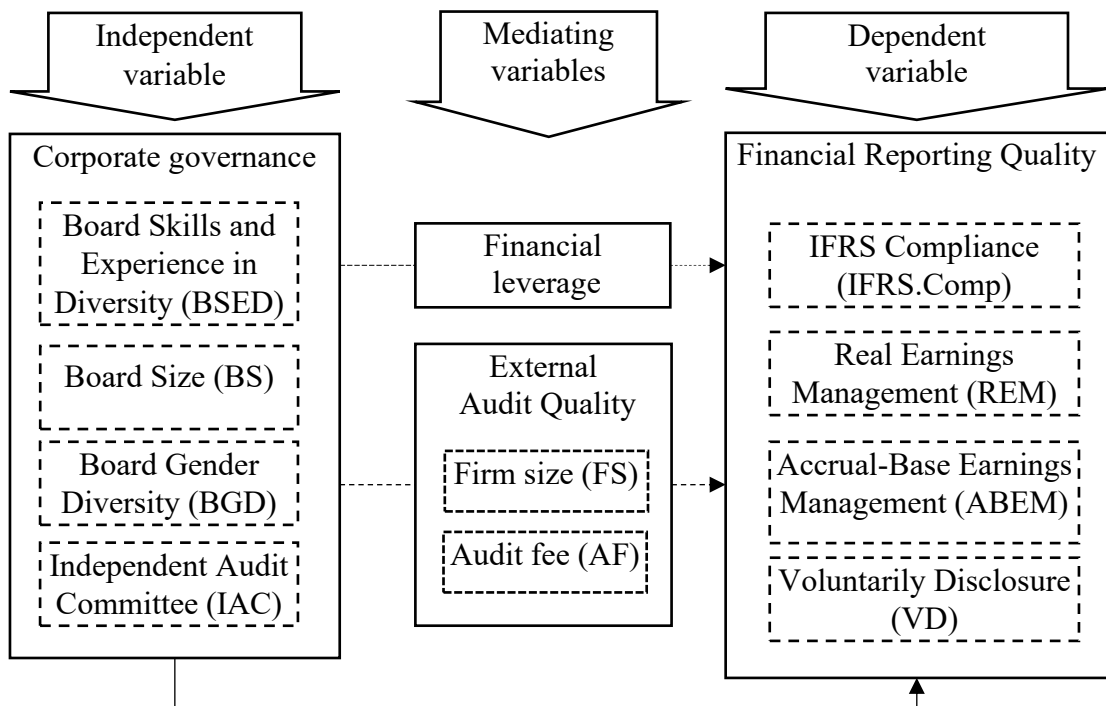


Figure 3.1. The conceptual view of the mediating effect of financial leverage and external audit quality on the relationship between corporate governance and financial reporting quality

Source: author's elaboration

This section presents data on the mediating effect of financial leverage on the various corporate governance variables and IFRS Compliance as the dependent variable. The figure 3.2 below shows a graphical representation of these relationships.

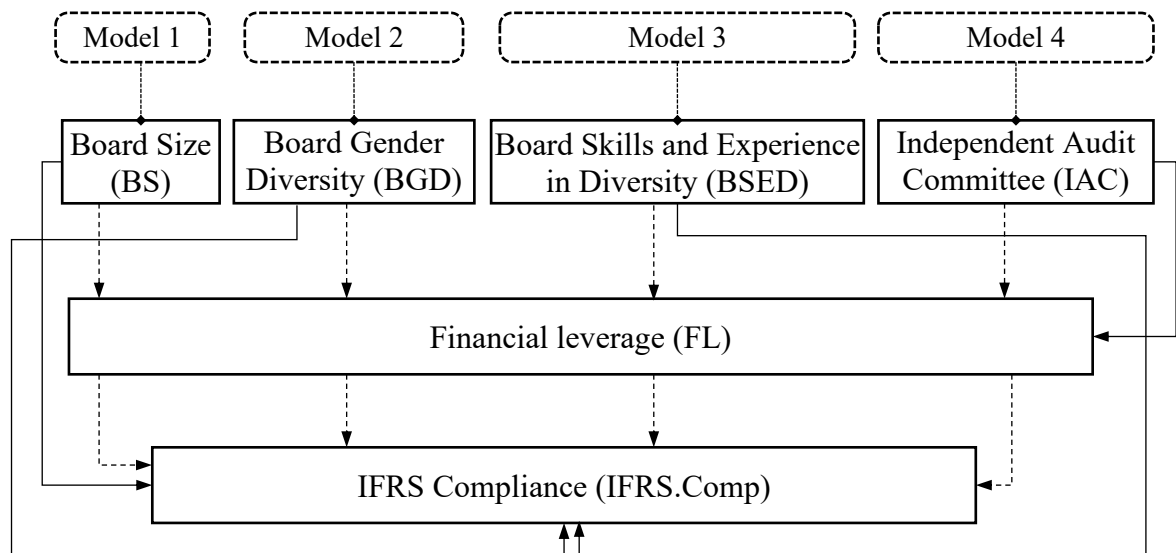


Figure 3.2. Direct and indirect effects of financial leverage on the relationship between corporate governance and IFRS Compliance

Source: author's elaboration

The table 3.13 shows the results of the model of mediation analysis financial leverage on the relationship between corporate governance and IFRS Compliance

Table 3.13. Model summary of mediation analysis financial leverage on the relationship between corporate governance and IFRS Compliance

	R	R-sq	MSE	F	df1	df2	p
BS, FL	.0058	.0000	19315.8733	.0649	1.0000	1923.0000	.7989
BS, FL, IFRS.Comp	.0367	.0013	.0181	1.2983	2.0000	1922.0000	.2732
BGD, FL	.0134	.0002	19464.6255	.3414	1.0000	1908.0000	.5591
BGD, FL, IFRS.Comp	.0792	.0063	.0181	6.0249	2.0000	1907.0000	.0025
BSED, FL	.0731	.0053	19364.1454	10.2437	1.0000	1908.0000	.0014
BSED, FL, IFRS.Comp	.1921	.0369	.0176	36.5153	2.0000	1907.0000	.0000
IAC, FL	.0011	.0000	19478.2866	.0022	1.0000	1907.0000	.9627
IAC, FL, IFRS.Comp	.1331	.0177	.0179	17.1847	2.0000	1906.0000	.0000

Source: author's elaboration

The regression model that includes Board Size (BS) and Financial Leverage (FL) demonstrates a R Square value of 0.0000, showing a little effect on IFRS Compliance. This is further supported by a p-value of 0.7989. This indicates an absence of a significant correlation. When Board Gender Diversity (BGD) is paired with FL, the resulting influence is still insignificant. The R Square value is 0.0002 and the p-value is 0.5591, which further confirms that the relationship is statistically insignificant. Conversely, the relationship between Board Skills and Experience Diversity (BSED) and FL is more noticeable. The model has an R Square value of 0.0053 and an F-statistic of 10.2437, both of which have a significant p-value of 0.0014. This suggests that there is a significant impact on IFRS Compliance. Nevertheless, the combination of the IAC and FL has a rather low R Square value of 0.00001 and an inconsequential F-statistic value of 0.0022, indicating a lack of significant relationship with IFRS Compliance.

After incorporating IFRS Compliance into the model with BS and FL, the R Square value remains low at 0.0013, accompanied by a p-value of 0.2732. These results suggest that there is no significant improvement in the model's ability to explain the observed data. The R Square for BGD, FL, and IFRS.Comp rises to 0.0063, and the F-statistic improves to 6.0249, with a significant p-value of 0.0025. This indicates a considerable improvement in the model's impact. Incorporating IFRS Compliance into the BSED and FL model significantly enhances its effectiveness, as shown by the R Square value of 0.0369 and an F-statistic of 36.5153. These results indicate a very significant relationship (p-value of 0.0000). Moreover, the model which incorporates IAC, FL, and IFRS.Comp displays a higher R Square value of 0.0177 and a statistically significant F-statistic of 17.1847 (with a p-value of 0.0000).

Table 3.14. Coefficients table of multiple regression analysis (the mediating effect of financial leverage on the various corporate governance variables and IFRS Compliance)

Model		coeff	se	t	p	LLCI	ULCI
BS, FL	constant	8.7390	6.0417	1.4464	.1482	-3.1100	20.5880
	BS	.0134	.0525	.2548	.7989	-.0895	.1163
BS, FL, IFRS.Comp	constant	.8841	.0059	151.0499	.0000	.8726	.8955
	BS	.0001	.0001	1.0637	.2876	.0000	.0002
	FL	.0001	.0001	-1.2167	.2239	-.0001	.0000
BGD, FL	constant	7.3936	5.1631	1.3172	.1879	-3.6148	18.4021
	BGD	14.6099	25.0048	.5843	.5591	-34.4298	63.6496
BGD, FL, IFRS.Comp	constant	.8747	.0054	161.3242	.0000	.8641	.8853
	BGD	.0786	.0241	3.2546	.0012	.0312	.1259
	FL	.0001	.0001	-1.2506	.2122	-.0001	.0000
BSED, FL	constant	43.0950	10.7922	3.9932	.0001	21.9292	64.2608
	BSED	-50.7746	15.8642	-3.2006	.0014	-81.8876	19.6617
BSED, FL, IFRS.Comp	constant	.8057	.0103	78.0153	.0000	.7855	.8260
	BSED	.1282	.0152	8.4574	.0000	.0985	.1579
	FL	.0001	.0001	-.6049	.5453	-.0001	.0000
IAC, FL	constant	9.8108	6.8262	1.4372	.1508	-3.5768	23.1985
	IAC	.2151	4.5953	.0468	.9627	-8.7973	9.2275
IAC, FL, IFRS.Comp	constant	.8560	.0066	130.5694	.0000	.8431	.8688
	IAC	.0253	.0044	5.7355	.0000	.0166	.0339
	FL	.0001	.0001	-1.2199	.2227	-.0001	.0000

Source: author's elaboration

The model that combines Board Size (BS) and Financial Leverage has a coefficient of 0.0134 for BS, with a standard error of 0.0525. This leads to a t-value of 0.2548, which is not statistically significant, and a p-value of 0.7989, indicating a high level of insignificance. This confirms the earlier finding that there is a limited direct effect of company strategy on financial leverage regarding IFRS Compliance. Incorporating IFRS Compliance into this model results in a little change in the effect of BS, as seen by a reduced coefficient (0.0001). However, it continues to have an inconsequential impact, as revealed by the p-value of 0.2876. In the model incorporating BGD and FL, the coefficient for BGD is significant (14.6099), but, its high standard error (25.0048) and consequent low t-value (0.5843) suggest an insignificant effect. Upon including IFRS Compliance, the coefficient for BGD undergoes a substantial change (0.0786), accompanied by a decrease in the standard

error and a significant p-value (0.0012). This indicates a more significant influence of BGD on IFRS Compliance when taking financial leverage into account.

Within the BSED and FL model, the BSED variable exhibits a negative coefficient of -50.7746, which is accompanied by a statistically significant p-value of 0.0014. This suggests a substantial influence on financial leverage. The inclusion of IFRS Compliance in the model leads to a large rise in the coefficient for BSED (0.1282), further showing its substantial impact on IFRS Compliance. Regarding the IAC and FL model, the coefficient for IAC is small (0.2151) and has a high p-value (0.9627), indicating that there is no significant direct impact. However, when considering IFRS Compliance, the coefficient for IAC becomes more considerable (0.0253) and statistically significant (p-value of 0.0000), indicating its greater significance in the context of IFRS Compliance.

Table 3.15. Indirect effects of identification with the corporate governance variables on IFRS Compliance through financial leverage

	Effect	BootSE	BootLLCI	BootULCI
BS, FL, IFRS.Comp	.0001	.0001	.0001	.0001
BGD, FL, IFRS.Comp	-.0004	.0012	-.0019	.0037
BSED, FL, IFRS.Comp	.0007	.0015	-.0012	.0048
IAC, FL, IFRS.Comp	.0001	.0002	-.0004	.0004

Source: author's elaboration

The findings indicate that there are only minor mediation effects when evaluating how financial leverage influences the relationship between various corporate governance variables and IFRS Compliance. The research reveals an insignificant indirect influence of Financial Leverage on the relationship between Board Size and IFRS Compliance. This result is supported by smaller confidence intervals, indicating a lack of significant mediation. Similarly, the limited and uncertain mediating impact of Board Gender Diversity (BGD) is shown by a slightly negative indirect effect and broader confidence ranges. To clearly prove a negative mediation, this is not strong enough. Regarding Board Skills and Experience Diversity (BSED), there is a minor indication that Financial Leverage has a positive mediation impact. The positive indirect impact, however, accompanied by wider confidence intervals,

indicates a possible but not conclusive positive mediation. Regarding the Independent Audit Committee (IAC), the little indirect impact with accurate confidence intervals indicates that Financial Leverage does not play a substantial role in mediating the relationship between IAC and IFRS Compliance. The impact of IAC on IFRS Compliance, mediated using Financial Leverage, seems to be insignificant. This aligns with agency theory, which argues that governance structures are essential in addressing agency issues and improving compliance (Jensen and Meckling, 1976; Eisenhardt, 1989).

The next point of the study is the analysis of mediating effect of financial leverage on the relationship between corporate governance and voluntary disclosure (table 3.16).

Table 3.16. Model summary of mediation analysis financial leverage on the relationship between corporate governance and voluntary disclosure

	R	R-sq	MSE	F	df1	df2	p
BS, FL	.0058	.0000	19315.8733	.0649	1.0000	1923.0000	.7989
BS, FL, VD	.0600	.0036	.0151	3.1695	2.0000	1922.0000	.0313
BGD, FL	.0134	.0002	19464.6255	.3414	1.0000	1908.0000	.5591
BGD, FL, VD	.0938	.0088	.0151	8.4713	2.0000	1907.0000	.0002
BSED, FL	.0731	.0053	19364.1454	10.2437	1.0000	1908.0000	.0014
BSED, FL, VD	.0433	.0019	.0152	1.7939	2.0000	1907.0000	.1666
IAC, FL	.0011	.0000	19478.2866	.0022	1.0000	1907.0000	.9627
IAC, FL, VD	.1256	.0158	.0150	15.2625	2.0000	1906.0000	.0000

Source: author's elaboration

When examining the relationship between Board Size (BS) and Financial Leverage, the R-squared value is low at 0.0001. This indicates that both factors, when combined, do not effectively account for the variation in Voluntary Disclosure. The p-value of 0.7989 further substantiates the absence of a robust relationship. Nevertheless, the inclusion of Voluntary Disclosure (VD) in this model (BS, FL, VD) results in a marginal improvement in the R-squared value, which increases to 0.0036. The observed change, along with a p-value of 0.0313, signifies a little enhancement in the model's capacity to explain Voluntary Disclosure. This suggests that there is some degree of effect when these factors are taken into account collectively. The examination of Board Gender Diversity (BGD) in relation

to Financial Leverage exhibits an identical pattern. At the beginning, the R-squared value is extremely low (0.0002) with a significantly high p-value (0.5591), suggesting a limited level of explanatory power. However, the incorporation of Voluntary Disclosure (BGD, FL, VD) into the model greatly improves its capacity to explain the data, as seen by a higher R-squared value of 0.0088 and a substantially lower p-value of 0.0002.

The initial model demonstrates a moderately high R-squared value of 0.0053 and a significant p-value of 0.0014 for the combination of Board Skills and Experience Diversity (BSED) with Financial Leverage. Nevertheless, the inclusion of Voluntary Disclosure does not substantially improve the model, as evidenced by the marginal improvement in the R-squared value of 0.0019 and a p-value of 0.1666. The initial model combining the Independent Audit Committee (IAC) with Financial Leverage shows a significantly low R-squared value of 0.0000, indicating a lack of explanatory power for Voluntary Disclosure. The p-value in this model is 0.9627, which strongly suggests a lack of statistical significance. Nevertheless, the inclusion of Voluntary Disclosure (VD) in the model (IAC, FL, VD) leads to a substantial improvement in the R-squared value, reaching 0.0158. The observed increase, along with a significantly lower p-value of 0.0000, indicates that the joint effect of IAC and Financial Leverage has an increased effect on the explained variability in Voluntary Disclosure.

The initial model, which examines the influence of Board Size (BS) and Financial Leverage (FL) on Voluntary Disclosure, reveals a coefficient of 0.0134 for BS. However, this coefficient is not statistically significant, as indicated by the high p-value and the small t-value. When examining Financial Leverage, it becomes clear that Board Size does not influence Voluntary Disclosure. However, the inclusion of Voluntary Disclosure in the model leads to a noticeable shift in the coefficient for BS, resulting in increased significance as seen by a reduced p-value. This implies that the influence of Board Size on Voluntary Disclosure becomes more noticeable when Financial Leverage is taken into account.



Table 3.17. Coefficients table of multiple regression analysis (the mediating effect of financial leverage on the various corporate governance variables and voluntary disclosure)

Model		coeff	se	t	p	LLCI	ULCI
BS, FL	constant	8.7390	6.0417	1.4464	.1482	-3.1100	20.5880
	BS	.0134	.0525	.2548	.7989	-.0895	.1163
BS, FL, VD	constant	.9176	.0053	171.5386	.0000	.9071	.9281
	BS	.0001	.0001	2.5636	.0104	.0000	.0002
	FL	.0001	.0001	-.6208	.5348	-.0001	.0000
BGD, FL	constant	7.3936	5.1631	1.3172	.1879	-3.6148	18.4021
	BGD	14.6099	25.0048	.5843	.5591	-34.4298	63.6496
BGD, FL, VD	constant	.9464	.0049	191.3586	.0000	.9367	.9561
	BGD	-.0896	.0220	-4.0703	.0000	-.1328	-.0465
	FL	.0001	.0001	-.5579	.5770	-.0001	.0000
BSED, FL	constant	43.0950	10.7922	3.9932	.0001	21.9292	64.2608
	BSED	-50.7746	15.8642	-3.2006	.0014	-81.8876	-19.6617
BSED, FL, VD	constant	.9463	.0096	98.5493	.0000	.9275	.9652
	BSED	-.0253	.0141	-1.7932	.0731	-.0529	.0024
	FL	.0001	.0001	-.7396	.4596	-.0001	.0000
IAC, FL	constant	9.8108	6.8262	1.4372	.1508	-3.5768	23.1985
	IAC	.2151	4.5953	.0468	.9627	-8.7973	9.2275
IAC, FL, VD	constant	.9010	.0060	150.5055	.0000	.8892	.9127
	IAC	.0221	.0040	5.4904	.0000	.0142	.0300
	FL	.0001	.0001	-.6224	.5338	-.0001	.0000

Source: author's elaboration

In the model incorporating Board Gender Diversity (BGD) and FL, the BGD coefficient is sizable but lacks statistical significance suggesting an insignificant direct correlation. However, the addition of Voluntary Disclosure drastically changes the situation: the BGD coefficient becomes negative and attains statistical significance, indicating that Board Gender Diversity has a detrimental effect on Voluntary Disclosure in the setting of Financial Leverage.

The BSED and FL model shows that the negative coefficient for BSED has a significant effect on Voluntary Disclosure, indicating a major influence. Introducing Voluntary Disclosure leads to a decrease in the significance of the BSED coefficient, suggesting an important relationship between Board Skills and Experience Diversity, Financial Leverage, and Voluntary Disclosure. The model including the Independent Audit Committee (IAC) and Financial Leverage (FL) variables initially exhibits a coefficient for IAC that is deemed statistically

insignificant, indicating no impact on Voluntary Disclosure. However, the inclusion of Voluntary Disclosure strengthens the significance of the IAC coefficient, suggesting that the presence of an Independent Audit Committee has a notable impact on Voluntary Disclosure, particularly when it is taken into account with Financial Leverage.

Table 3.18. Indirect effects of identification with the corporate governance variables on voluntary disclosure through financial leverage

	Effect	BootSE	BootLLCI	BootULCI
BS, FL, VD	.0001	.0001	.0001	.0001
BGD, FL, VD	-.0002	.0007	-.0009	.0021
BSED, FL, VD	.0008	.0010	-.0011	.0031
IAC, FL, VD	.0001	.0001	-.0001	.0002

Source: author's elaboration

The model which includes Board Size (BS), Financial Leverage (FL), and Voluntary Disclosure (VD) demonstrates an insignificant impact, as seen by an effect size of 0.0001, which is very small. The Bootstrapped Standard Error (BootSE) is low, and the confidence intervals (BootLLCI and BootULCI) are strongly concentrated around this number, indicating a high degree of precision in this estimate. This suggests that the impact of Board Size on Voluntary Disclosure is not significantly influenced by Financial Leverage. Concerning Board Gender Diversity (BGD), the indirect impact is marginally negative (-0.0002), but, it is accompanied by a greater BootSE and broader confidence intervals. This difference implies a considerable level of uncertainty regarding the role of Financial Leverage in mediating the link between Board Gender Diversity and Voluntary Disclosure. The presence of a negative effect, however low, suggests a possible minor mediating influence of Financial Leverage. However, the broad confidence intervals imply that this effect is not firmly established.

The model demonstrates a marginal positive indirect effect of 0.0008 for Board Skills and Experience Diversity (BSED). Nevertheless, the confidence intervals in this case have a wider range, extending from -0.0011 to 0.0031. The positive impact suggests that Financial Leverage may have a beneficial role in the connection

between BSED and Voluntary Disclosure. The Independent Audit Committee (IAC) has a small indirect effect (0.0001), and the confidence intervals are relatively narrow. These findings suggest that Financial Leverage does not have a substantial mediating effect on the relationship between the existence of an IAC and Voluntary Disclosure. This aligns with resource dependency theory, which highlights the significance of board composition in improving organisational capabilities and disclosure practices (Hillman, Withers, & Collins, 2009).

The next section presents data on the mediating effect of financial leverage on the various corporate governance variables and real earnings management as the dependent variable (table 3.19).

Table 3.19. Model summary of mediation analysis financial leverage on the relationship between corporate governance and real earnings management

	R	R-sq	MSE	F	df1	df2	p
BS, FL	.0058	.0000	19315.8733	.0649	1.0000	1923.0000	.7989
BS, FL, REM	.1011	.0102	4.918E+020	9.9148	2.0000	1922.0000	.0001
BGD, FL	.0134	.0002	19464.6255	.3414	1.0000	1908.0000	.5591
BGD, FL, REM	.0608	.0037	4.989E+020	3.5356	2.0000	1907.0000	.0293
BSED, FL	.0731	.0053	19364.1454	10.2437	1.0000	1908.0000	.0014
BSED, FL, REM	.0349	.0012	5.001E+020	1.1653	2.0000	1907.0000	.3120
IAC, FL	.0011	.0000	19478.2866	.0022	1.0000	1907.0000	.9627
IAC, FL, REM	.0910	.0083	4.969E+020	7.9572	2.0000	1906.0000	.0004

Source: author's elaboration

The initial model including Board Size (BS) and Financial Leverage (FL) has a weak relationship with Real Earnings Management, as indicated by a significantly low R-squared value and a considerably high p-value. This implies that these parameters, when considered separately, do not adequately account for the variation in REM. Nevertheless, the inclusion of REM in the model results in a significant improvement. The R-squared value climbs to 0.0102, but the p-value lowers dramatically to 0.0001. This indicates that the impact of both Board Size and Financial Leverage becomes more significant in explaining the variations in Real Earnings Management when REM is specifically taken into account.

The model that includes Board Gender Diversity (BGD) and Financial Leverage suggests that there is a low direct correlation with REM. This is evident

from the low R-squared value and the non-significant p-value. Nevertheless, including REM in the model modifies this dynamic. The R-squared value exhibits a marginal rise to 0.0037, while the p-value decreases to 0.0293. This suggests that when considering REM, the impact of Board Gender Diversity and Financial Leverage on REM becomes clearer.

The model that evaluates the combination of Board Skills and Experience Diversity (BSED) with Financial Leverage shows a higher R-squared value compared to the prior models. This suggests a stronger association with REM. However, the inclusion of REM in the model does not result in a substantial enhancement of this association, as indicated by the marginal rise in R-squared to 0.0012 and a p-value of 0.3120. This implies that although BSED and Financial Leverage do affect REM, their overall influence is rather little even when considering REM directly. The model on the Independent Audit Committee (IAC) and Financial Leverage shows a considerably low R-squared value, suggesting no effect on REM. Incorporating REM into this model results in a significant enhancement of the R-squared value to 0.0083 and a much-reduced p-value of 0.0004. This demonstrates that the influence of the Independent Audit Committee, in combination with Financial Leverage, on Real Earnings Management becomes more noticeable when REM is expressly taken into account.

The analysis of the relationship between Board Size (BS) and Financial Leverage (FL) in this Table reveals a negligible direct impact on REM, as evidenced by a non-significant coefficient for BS and a slightly high p-value. The coefficient for Board Size (BS) has a substantial and strong negative value, indicating a strong inverse relationship with REM. The correlation for FL, however, remains statistically insignificant, suggesting that Financial Leverage has a small direct effect on REM. Also, in the relationship between Board Gender Diversity (BGD) and Financial Leverage, the BGD coefficient has an insignificant impact on REM initially, as shown by a significant p-value. The inclusion of REM in the model significantly alters this dynamic. The BGD coefficient has a significant negative

value, suggesting a strong inverse correlation between Board Gender Diversity and REM in relation to Financial Leverage.

Table 3.20. Coefficients table of multiple regression analysis (the mediating effect of financial leverage on the various corporate governance variables and real earnings management)

Model		coeff	se	t	p	LLCI	ULCI
BS, FL	constant	8.7390	6.0417	1.4464	.1482	-3.1100	20.5880
	BS	.0134	.0525	.2548	.7989	-.0895	.1163
BS, FL, REM	constant	3661	9645	3.7656	.0002	1769	5552
	BS	-3719	8373.04	-4.4423	.0000	-5361	-2077
	FL	1220.25	3638.51	.3355	.7373	-5915.5	8356.00
BGD, FL	constant	7.3936	5.1631	1.3172	.1879	-3.6148	18.4021
	BGD	14.6099	25.0048	.5843	.5591	-34.4298	63.6496
BGD, FL, REM	constant	1953318412	899043298	2.1727	.0299	190106816	3716530008
	BGD	-1.06e+010	4003540467	-2.6412	.0083	-1.84E+010	-2.72E+009
	FL	1259642.29	3665153.82	.3437	.7311	-5928489.5	8447774.08
BSED, FL	constant	43.0950	10.7922	3.9932	.0001	21.9292	64.2608
	BSED	-50.7746	15.8642	-3.2006	.0014	-81.8876	-19.6617
BSED, FL, REM	Constant	2490813127	174165034	1.4301	1.528	-924930109	5906556363
	BSED	-3.82E+009	2556371826	-1.4952	.1350	-8.84E+009	1191181897
	FL	728148.219	3679209.76	.1979	.8431	-6487550.2	7943846.65
IAC, FL	constant	9.8108	6.8262	1.4372	.1508	-3.5768	23.1985
	IAC	.2151	4.5953	.0468	.9627	-8.7973	9.2275
IAC, FL, REM	Constant	3833264418	1090826855	3.5141	.0005	1693924514	5972604321
	IAC	-2.92E+009	733935527	-3.9773	.0001	-4.36E+009	-1.48E+009
	FL	1145940.21	3657337.48	.3133	.7541	-6026864.5	8318744.92

Source: author's elaboration

The regression analysis reveals that the inclusion of Board Skills and Experience Diversity (BSED) and Financial Leverage in the model results in a significant negative coefficient for BSED. This indicates a strong influence on REM. Nevertheless, the presence of REM in the model does not substantially modify this association, as evidenced by the continuous negative coefficient for BSED. The model evaluating the Independent Audit Committee (IAC) and Financial Leverage reveals that the coefficient for IAC is statistically insignificant, suggesting that it has a negligible effect on REM. Nevertheless, the inclusion of REM in this

model results in a notable adverse coefficient for IAC, indicating a robust inverse correlation between the existence of an Independent Audit Committee and REM when analysed alongside Financial Leverage.

Table 3.21. Indirect effects of identification with the corporate governance variables on real earnings management through financial leverage

	Effect	BootSE	BootLLCI	BootULCI
BS, FL, REM	16320.5935	125967.654	-68547.417	385806.694
BGD, FL, REM	18403245.9	43328242.7	-88487673	79702918.4
BSED, FL, REM	-36971442	32514722.6	-130159919	-18771053
IAC, FL, REM	246514.093	8995240.41	-6948325.7	25343829.5

Source: author's elaboration

The Bootstrapped Standard Error (BootSE) indicates a substantial indirect impact, implying significant variation in the mediation effect. The overall impact is positive but, the confidence intervals are broad, spanning from a significant negative value to an even greater positive value. The indirect effect of Board Gender Diversity (BGD) and FL is significant, although it is accompanied by a notably large BootSE. The confidence intervals have a significant width, encompassing both substantial negative and positive values. The study found that there is a negative indirect relation between Board Skills and Experience Diversity (BSED) and FL. This suggests that Financial Leverage (FL) may act as a mediator in this relationship, leading to a reduction in REM. In the model incorporating the Independent Audit Committee (IAC) and FL, the indirect impact is positively correlated. However, the BootSE is quite substantial, resulting in very wide confidence ranges. This discovery implies that financial leverage acts as a mediator between these governance factors and REM, supporting the agency theory viewpoint on the function of governance systems in reducing opportunistic actions by management (Jensen and Meckling, 1976).

The next section presents data on the mediating effect of financial leverage on the various corporate governance variables and accrual-based earnings management.

Table 3.21. Model summary of mediation analysis financial leverage on the relationship between corporate governance and accrual-based earnings management

	R	R-sq	MSE	F	df1	df2	p
BS, FL	.0058	.0000	19315.8733	.0649	1.0000	1923.0000	.7989
BS, FL, ABEM	.0278	.0008	2.443E+021	.7427	2.0000	1922.0000	.4760
BGD, FL	.0134	.0002	19464.6255	.3414	1.0000	1908.0000	.5591
BGD, FL, ABEM	.0167	.0003	2.463E+021	.2667	2.0000	1907.0000	.7659
BSED, FL	.0731	.0053	19364.1454	10.2437	1.0000	1908.0000	.0014
BSED, FL, ABEM	.0331	.0011	2.461E+021	1.0464	2.0000	1907.0000	.3514
IAC, FL	.0011	.0000	19478.2866	.0022	1.0000	1907.0000	.9627
IAC, FL, ABEM	.0307	.0009	2.463E+021	.9008	2.0000	1906.0000	.4064

Source: author's elaboration

The analysis evaluating the influence of Board Size (BS) and Financial Leverage (FL) on ABEM demonstrates a little ability to explain the observed variation, as evidenced by the R-squared value of 0.0000. This indicates that the combination of these factors does not adequately account for the variability in ABEM. The F-value is likewise small, and the high p-value (0.7989) further shows the absence of a statistically significant association. Nevertheless, including ABEM as a dependent variable has minimal impact on the situation, as evidenced by the marginal increase in the R-squared value to 0.0008 and the persistently high p-value of 0.4760. These findings suggest that the impact of both Board Size and Financial Leverage on ABEM remains insignificant, even when ABEM is included as a direct variable in the model.

In the model incorporating Board Gender Diversity (BGD) and FL, the initial R-squared value is low (0.0002), indicating a weak relationship with ABEM. Incorporating ABEM into the model has minimal impact on this result, as seen by a marginal rise in the R-squared value to 0.0003 and a substantial p-value of 0.7659. This indicates that the impact of Board Gender Diversity on ABEM, especially when facilitated by Financial Leverage, is insignificant.

The Board Skills and Experience Diversity (BSED) and FL model have a comparatively higher R-squared value (0.0053), suggesting a significantly stronger correlation with ABEM. Nevertheless, the addition of ABEM to the model does not improve its ability to explain the data or its statistical significance, as indicated by

the R-squared value of 0.0011 and a p-value of 0.3514. The model incorporating the Independent Audit Committee (IAC) and FL has a significantly low R-squared value, indicating little impact on ABEM. Introducing ABEM into this model results in a marginal improvement in the R-squared value, increasing it to 0.0009, although the p-value remains significantly elevated at 0.4064. This suggests that the combined effect of the Independent Audit Committee and Financial Leverage on Accrual-Based Earnings Management is not significant.

Table 3.22. Coefficients table of multiple regression analysis (the mediating effect of financial leverage on the various corporate governance variables and accrual-based earnings management)

Model		coeff	se	t	p	LLCI	ULCI
BS, FL	constant	8.7390	6.0417	1.4464	.1482	-3.1100	20.5880
	BS	.0134	.0525	.2548	.7989	-.0895	.1163
BS, FL, ABEM	constant	-2.25E+009	2149640427	-1.0445	.2964	-6.46E+009	1970469494
	BS	22741478.9	18660602.0	1.2187	.2231	-13855676	59338633.7
	FL	34014.7628	8109234.88	.0042	.9967	-15869809	15937838.5
BGD, FL	constant	7.3936	5.1631	1.3172	.1879	-3.6148	18.4021
	BGD	14.6099	25.0048	.5843	.5591	-34.4298	63.6496
BGD, FL, ABEM	constant	-1.22E+009	1997607495	-.6128	.5401	-5.14E+009	2693628605
	BGD	6496348000	8895569839	.7303	.4653	-1.09E+010	2.394E+010
	FL	14111.2201	8143699.81	.0017	.9986	-15957384	15985606.7
BSED, FL	constant	43.0950	10.7922	3.9932	.0001	21.9292	64.2608
	BSED	-50.7746	15.8642	-3.2006	.0014	-81.8876	-19.6617
BSED, FL, ABEM	Constant	5315485745	3863447545	1.3758	.1690	-2.26E+009	1.289E+010
	BSED	-8.20E+009	5670712785	-1.4466	.1482	-1.93E+101	2918164083
	FL	-769114.96	8161466.03	-.0942	.9249	-16775454	1523722.8
IAC, FL	constant	9.8108	6.8262	1.4372	.1508	-3.5768	23.1985
	IAC	.2151	4.5953	.0468	.9627	-8.7973	9.2275
IAC, FL, ABEM	Constant	-2.91E+009	2428529468	-1.1963	.2317	-7.67E+009	1857595492
	IAC	2193091856	1633975225	1.3422	.1797	-1.04E+009	5397659458
	FL	82118.5440	8142402.98	.0101	.9920	-15886839	16051076.0

Source: author's elaboration

In the model evaluating the influence of Board Size (BS) and Financial Leverage (FL) on ABEM, the coefficient for BS is insignificant and lacks statistical significance, as evidenced by its high p-value. This implies that the size of the board, when taken into account along with financial leverage, does not have a significant and direct effect on ABEM. Nevertheless, when ABEM is included in the model,



the coefficient for BS exhibits a slight increase but remains statistically insignificant. This suggests that the impact of Board Size on ABEM is still small within the context of Financial Leverage. In the model examining the relationship between Board Gender Diversity (BGD) and FL, the coefficient for BGD initially suggests a negligible effect on ABEM, as evidenced by its elevated p-value. The inclusion of ABEM in the model does not have a substantial impact on this finding. The coefficient for BGD remains substantial but lacks statistical significance, indicating that the impact of Board Gender Diversity on ABEM, even when influenced by Financial Leverage, is not firmly established.

The regression model for Board Skills and Experience Diversity (BSED) and FL reveals a significant negative coefficient for BSED, suggesting a major influence on ABEM. Nevertheless, the inclusion of ABEM in the model does not substantially modify this association, as evidenced by the negative coefficient for BSED. This indicates a detailed relationship among the expertise diversity and skills of the board, the level of financial leverage, and the ABEM. Upon evaluating the Independent Audit Committee (IAC) and FL in the model, the analysis indicates a coefficient for IAC that is statistically insignificant, indicating a negligible effect on ABEM. However, the inclusion of ABEM leads to a slightly larger coefficient for IAC, but it still lacks statistical significance. This suggests that the combined effect of the Independent Audit Committee and Financial Leverage on Accrual-Based Earnings Management is not significant.

Table 3.23. Indirect effects of identification with the corporate governance variables on accrual-based earnings management through financial leverage

	Effect	BootSE	BootLLCI	BootULCI
BS, FL, ABEM	454.8088	72339.0349	-225473.18	710394327
BGD, FL, ABEM	206163.492	20232796.1	-33011510	48320499.5
BSED, FL, ABEM	39051513.0	5319886.6	4292461.44	179721330
IAC, FL, ABEM	17665.3007	5473999.59	-15423283	5501436.22

Source: author's elaboration

The analysis of indirect effects evaluates how Financial Leverage acts as a mediator in the connection between various corporate governance issues and Accrual-Based Earnings Management (ABEM). In the first model incorporating Board Size (BS), Financial Leverage (FL), and ABEM, the indirect impact is rather minor (454.8088), but the corresponding Bootstrapped Standard Error (BootSE) is substantial, suggesting significant variability in this mediation effect. Furthermore, in the model incorporating Board Gender Diversity (BGD) and FL, the indirect impact is positively valued at 206163.492, although it is accompanied by a significantly substantial BootSE. The Board Skills and Experience Diversity (BSED) model, when evaluated in conjunction with FL, demonstrates a significant positive indirect impact, with a value of 39051513.0. The BootSE is comparatively lower with respect to the effect size, and the confidence intervals are narrower, indicating a more consistent and meaningful mediating influence of Financial Leverage in the association between BSED and ABEM. The model that combines the Independent Audit Committee (IAC) with FL shows an insignificant indirect impact (17665.3007), but with a significantly high BootSE.

The study's findings indicate that larger boards, in combination with business size, have a considerable impact on compliance with International Financial Reporting Standards (IFRS). These findings support the existing research which indicates that bigger organisations, because of their intricate nature and public scrutiny, are more inclined to closely follow the International Financial Reporting Standards (IFRS) [20]. The significance of audit fees (AF) in this context, although not as significant, highlights the crucial function of resource allocation in maintaining adherence, as proposed in resource-based theories [208]. The relation between the size of the board and the amount of audit fees emphasises the complex relationship between governance frameworks and the financial responsibilities in attaining regulatory conformity.

The observed connections between governance factors, namely board gender diversity (BGD), board skills and experience diversity (BSED), and voluntary disclosure are highly significant. The significant impact of BGD (Board Gender

Diversity) and BSED (Board Size) on voluntary disclosure demonstrates the increasing acknowledgement of varied viewpoints in improving the clarity and responsibility in corporate reporting. This idea is endorsed by stakeholder theory [31].

Now we consider the impact of another mediating variable – of external audit quality – on the relationship between corporate governance and IFRS Compliance.

Table 3.24. Model summary of mediation analysis external audit quality on the relationship between corporate governance and IFRS Compliance

	R	R-sq	MSE	F	df1	df2	p
BS, FS	.3350	.1122	2.8428	243.4394	1.0000	1926.0000	.0000
BS, AF	.1210	.0146	4.068E+013	28.6319	1.0000	1926.0000	.0000
BS, FS, AF, IFRS.Comp	.1054	.0111	.0179	7.2103	3.0000	1924.0000	.0001
BGD, FS	.2062	.0425	3.0427	84.8396	1.0000	1911.0000	.0000
BGD, AF	.0268	.0007	4.157E+013	1.3723	1.0000	1911.0000	.2416
BGD, FS, AF, IFRS.Comp	.1214	.0147	.0180	9.5232	3.0000	1909.0000	.0000
BSED, FS	.4058	.1647	2.6544	376.8036	1.0000	1911.0000	.0000
BSED, AF	.0605	.0037	4.145E+013	7.0284	1.0000	1911.0000	.0081
BSED, FS, AF, IFRS.Comp	.1972	.0389	.0175	25.7384	3.0000	1909.0000	.0000
IAC, FS	.4358	.1899	2.5751	447.7545	1.0000	1910.0000	.0000
IAC, AF	.1032	.0106	4.118E+013	20.5523	1.0000	1910.0000	.0000
IAC, FS, AF, IFRS.Comp	.1423	.0203	.0179	13.1456	3.0000	1908.0000	.0000

Source: author's elaboration

The analysis of the relationship between Board Size (BS), Firm Size (FS), and Audit Fee (AF) in this table reveals diverse outcomes. The relationship between Board Size and IFRS Compliance is highly significant when combined with FS, as evidenced by a substantial R-squared value of 0.1122 and a remarkably low p-value. Nevertheless, after taking into account the Board Size in connection to the Audit Fee, the R-squared value significantly decreases to 0.0146, indicating a less robust association with IFRS Compliance. Including IFRS Compliance as a dependent variable (BS, FS, AF, IFRS.Comp) results in a reduction in the R-squared value, suggesting that the collective impact of these factors on IFRS Compliance is less significant.

The model that considers both Board Gender Diversity (BGD) and Firm Size demonstrates a modest level of explanatory ability for IFRS Compliance, as shown by an R-squared value of 0.0425. Nevertheless, the correlation between Board Gender Diversity and IFRS Compliance diminishes when combined with Audit Fee, as seen by the reduced R-squared value and the lack of statistical significance indicated by the non-significant p-value. The inclusion of IFRS Compliance in the model (BGD, FS, AF, IFRS.Comp) results in a little improvement of the explanatory power, while the effect is still minimal. The analysis of Board Skills and Experience Diversity (BSED) in connection to Firm Size reveals a significant relationship with IFRS Compliance, as evidenced by a substantial R-squared value of 0.1647. This indicates a substantial ability of these variables to explain IFRS Compliance. When the Audit Fee is included, the correlation remains substantial but is less visible, as seen by the decreased R-squared value. By incorporating IFRS Compliance as a dependent variable, the model's ability to explain the data is strengthened. This is evident from the higher R-squared value obtained when considering the combined components (BSED, FS, AF, IFRS.Comp), suggesting a significant influence on IFRS Compliance.

The relationship between the Independent Audit Committee (IAC) and Firm Size shows a significant association with IFRS Compliance, as indicated by a significant R-squared value of 0.1899. This implies that the existence of an Independent Audit Committee and the size of the firm are important factors in explaining differences in compliance with International Financial Reporting Standards (IFRS). When the Audit Fee is examined in conjunction with the IAC (Internal Audit Committee), the relationship between the two variables remains statistically significant, but with a lower R-squared value. When including IFRS Compliance as a dependent variable in this model (IAC, FS, AF, IFRS.Comp), the resulting R-squared value is acceptable, suggesting that the combined influence of these factors has a significant effect on IFRS Compliance.

Table 3.25. Coefficients table of multiple regression analysis (the mediating effect of external audit quality on the various corporate governance variables and IFRS Compliance)

Model		coeff	se	t	p	LLCI	ULCI
BS, FS	constant	8.0416	.0733	109.7159	.0000	7.8979	8.1854
	BS	.0099	.0006	15.6025	.0000	.0087	.0112
BS, AF	constant	235123.673	277271.770	.8480	.3965	-308660.75	778908.092
	BS	12880.3871	2407.1531	5.3509	.0000	.8159.4869	17601.2873
BS, FS, AF, IFRS.Comp	constant	.8276	.0157	52.6776	.0000	.7968	.8584
	BS	.0001	.0001	-.5361	.5920	-.0001	.0001
	FS	.0070	.0018	3.8371	.0001	.0034	.0105
	AF	.0001	.0001	2.0627	.0393	.0001	.0001
BGD, FS	constant	8.5017	.0702	121.1551	.0000	8.3640	8.6393
	BGD	2.8800	.3127	9.2108	.0000	2.2668	3.4932
BGD, AF	constant	1756332.39	259367.369	6.7716	.0000	1247659.51	2265005.27
	BGD	-1353863.2	1155695.41	-1.1715	.2416	-3620420.1	912693.796
BGD, FS, AF, IFRS.Comp	constant	.8222	.0159	51.6117	.0000	.7910	.8534
	BGD	.0626	.0246	2.5470	.0109	.0144	.1109
	FS	.0059	.0018	3.3429	.0008	.0025	.0094
	AF	.0001	.0001	2.1455	.0320	.0001	.0001
BSED, FS	constant	6.7120	.1253	53.5858	.0000	6.4664	6.9577
	BSED	3.5784	.1843	19.4114	.0000	3.2169	3.9400
BSED, AF	constant	253529.133	494952.125	.5122	.6085	-717174.02	1224232.29
	BSED	1931177.44	728442.738	2.6511	.0081	502551.061	3359803.83
BSED, FS, AF, IFRS.Comp	constant	.7969	.0162	49.3421	.0000	.7653	.8286
	BSED	.1211	.0164	7.3877	.0000	.0890	.1533
	FS	.0013	.0019	.7089	.4785	-.0023	.0050
	AF	.0001	.0001	1.9466	.0517	.0001	.0001
IAC, FS	constant	7.5679	.0784	96.5792	.0000	7.4142	7.7215
	IAC	1.1125	.0526	21.1602	.0000	1.0094	1.2156
IAC, AF	constant	252031.587	313338.530	.8043	.4213	-362490.07	866553.245
	IAC	953109.125	210238.368	4.5335	.0000	540788.207	1365430.04
IAC, FS, AF, IFRS.Comp	Constant	.8296	.0159	52.2422	.0000	.7984	.8607
	IAC	.0203	.0049	4.1543	.0000	.0107	.0298
	FS	.0035	.0019	1.8124	.0707	-.0003	.0072
	AF	.0001	.0001	1.7824	.0748	.0001	.0000

Source: author's elaboration

The Table demonstrates a considerable correlation between the model's Board Size (BS) and Firm Size (FS) variables and IFRS Compliance. This is evident from the notable coefficient for BS and a p-value that is extremely low. Incorporating the Audit Fee (AF) into the model with Board Size and Firm Size results in a significant change. Although the coefficient for Board Size decreases in significance, the coefficients for Firm Size and Audit Fee indicate their impact on IFRS Compliance. The constant in these models has statistical significance, suggesting a fundamental degree of adherence to IFRS Compliance across enterprises.

The analysis of Board Gender Diversity (BGD) in connection to Firm Size reveals a strong association with IFRS Compliance, as the coefficient for BGD is statistically significant. These findings suggest that the presence of both gender diversity on the board and the firm's size might have a substantial influence on adherence to IFRS standards. However, when the Audit Fee is taken into account (BGD, AF), the effect of Board Gender Diversity becomes less evident, with a coefficient that is not statistically significant. This suggests that audit fees do not enhance the impact of gender diversity on IFRS Compliance to the same extent that Firm Size does. Furthermore, the model that includes Board Skills and Experience Diversity (BSED) together with Firm Size reveals a notable relationship with IFRS Compliance, as seen by a substantial coefficient for BSED. By considering Audit Fee in addition to BSED and Firm Size, it is evident that BSED continues to be a strong indicator of IFRS Compliance, whereas the influence of Firm Size and Audit Fee is less significant.

The analysis of the Independent Audit Committee (IAC) in relation to Firm Size reveals a strong relationship with IFRS Compliance, as seen by the substantial coefficient for IAC. Incorporating the Audit Fee into the model (IAC, AF) suggests that although having an Independent Audit Committee is a crucial factor in predicting IFRS Compliance, the influence of the Audit Fee on this association is quite minor.

Table 3.26. Indirect effects of identification with the corporate governance variables on IFRS Compliance through external audit quality

	Effect	BootSE	BootLLCI	BootULCI
BS, FS, IFRS.Comp	.0001	.0000	.0000	.0001
BS, AF, IFRS.Comp	.0001	.0000	.0001	.0001
BGD, FS, IFRS.Comp	.0626	.0246	.0109	.0144
BGD, AF, IFRS.Comp	.0521	.0144	.0100	.1109
BSED, FS, IFRS.Comp	.0047	.0067	-.0084	.0184
BSED, AF, IFRS.Comp	.0018	.0013	-.0006	.0016
IAC, FS, IFRS.Comp	.0039	.0020	-.0001	.0079
IAC, AF, IFRS.Comp	.0008	.0006	-.0005	.0020

Source: author's elaboration

The indirect effects study assesses the role of the mediator of external audit quality variables in the correlation between corporate governance variables and IFRS Compliance. When evaluating the impact of Board Size (BS) on IFRS Compliance, the indirect impacts of FS and AF are shown to have little quantitative significance. The effect size for the BS and FS model is 0.0001, with a BootSE of 0.0000 and confidence intervals ranging from 0.0000 to 0.0001. In the model that combines BS and AF, the effect size remains constant at 0.0001, with the same BootSE and confidence intervals ranging from 0.0001 to 0.0001. These statistics suggest that although FS and AF may play a part in influencing the connection between Board Size and IFRS Compliance, their total influence is quite minor. The indirect impacts of Board Gender Diversity (BGD) with FS and AF are more important. The BGD and FS model yields an effect size of 0.0626, accompanied by a BootSE of 0.0246. The confidence intervals, ranging from 0.0109 to 0.0144, are rather wide. The combination of Audit Fee and BGD results in an effect size of 0.0521, with a BootSE of 0.0144 and confidence intervals ranging from 0.0100 to 0.1109. The bigger impact sizes and broader confidence intervals indicate a stronger mediation role of external audit quality in the connection between Board Gender Diversity and IFRS Compliance.

The indirect impacts of Board Skills and Experience Diversity (BSED), FS, and AF exhibit variability. The effect size for the combination with FS is 0.0047, with a BootSE of 0.0067 and confidence intervals ranging from -0.0084 to 0.0184. The impact size for the combination with AF is 0.0018, with a BootSE of 0.0013 and confidence

intervals ranging from -0.0006 to 0.0016. Although there is evidence of BSED affecting IFRS Compliance, the influence of Firm Size and Audit Fee on this relationship is not as well-established as the impacts identified with Board Gender Diversity.

The Independent Audit Committee (IAC) has a bigger influence on indirect impacts compared to Board Size, but a lesser impact compared to Board Gender Diversity. The combined effect size of IAC and FS is 0.0039, with a BootSE of 0.0020 and confidence intervals ranging from -0.0001 to 0.0079. When combined with AF, the magnitude of the impact is 0.0008, with a BootSE of 0.0006 and confidence intervals ranging from -0.0005 to 0.0020. The data indicates that external audit quality has an indirect effect on the relationship between the Independent Audit Committee and adherence to IFRS standards. The effect sizes, although less than those for Board Gender Diversity, suggest a more substantial impact than Board Size. However, the confidence intervals also demonstrate some degree of fluctuation. This implies that having an Independent Audit Committee is a significant determinant, while the impact of Firm Size and Audit Fee on the relationship with IFRS Compliance is not as prominent and exhibits some degree of variation.

The following section provides data on the mediating role of external audit quality variables between various corporate governance factors and voluntary disclosure, which serves as the dependent variable.

Table 3.27. Model summary of mediation analysis external audit quality on the relationship between corporate governance and voluntary disclosure

	R	R-sq	MSE	F	df1	df2	p
BS, FS	.3350	.1122	2.8428	243.4394	1.0000	1926.0000	.0000
BS, AF	.1210	.0146	4.068E+013	28.6319	1.0000	1926.0000	.0000
BS, FS, AF, VD	.0898	.0081	.0151	5.2126	3.0000	1924.0000	.0014
BGD, FS	.2062	.0425	3.0427	84.8396	1.0000	1911.0000	.0000
BGD, AF	.0268	.0007	4.157E+013	1.3723	1.0000	1911.000	.2416
BGD, FS, AF, VD	.1203	.0145	.0150	9.3388	3.0000	1909.0000	.0000
BSED, FS	.4058	.1647	2.6544	376.8036	1.0000	1911.0000	.0000
BSED, AF	.0605	.0037	4.145E+013	7.0284	1.0000	1911.0000	.0081
BSED, FS, AF, VD	.0926	.0086	.0151	5.5054	3.0000	1909.0000	.0009
IAC, FS	.4358	.1899	2.5751	447.7545	1.0000	1910.0000	.0000
IAC, AF	.1032	.0106	4.118E+013	20.5523	1.0000	1910.0000	.0000
IAC, FS, AF, VD	.1488	.0221	.0149	14.3975	3.0000	1908.0000	.0000

Source: author's elaboration



The influence of Board Size (BS) varies greatly when paired with Firm Size (FS) and Audit Fee (AF). The model incorporating both BS and FS variables demonstrates a significant correlation with Voluntary Disclosure, as evidenced by a substantial R-squared value of 0.1122 and an extremely low p-value ( $p < .0000$ ). These findings indicate that larger companies with more extensive boards are more likely to engage in greater amounts of voluntary disclosure. However, when the Audit Fee is taken into account along with the Board Size, the R-squared value decreases to 0.0146, suggesting a less significant relationship with Voluntary Disclosure. In addition, when include Voluntary Disclosure as a dependent variable in the model (BS, FS, AF, VD), the R-squared value decreases to 0.0081. This indicates that the collective impact of these factors on Voluntary Disclosure is quite small.

The combination of Board Gender Diversity (BGD) and Firm Size has a modest level of influence on Voluntary Disclosure, as indicated by an R-squared value of 0.0425. Nevertheless, the inclusion of Audit Fee along with Board Gender Diversity results in a reduced relationship with Voluntary Disclosure. This is evident from a reduced R-squared value of 0.0007 and a non-significant p-value ( $p = .2416$ ). Adding Voluntary Disclosure to the model (BGD, FS, AF, VD) slightly enhances its explanatory capacity, resulting in an R-squared value of 0.0145. However, the overall effect remains moderate.

The combination of Board Skills and Experience Diversity (BSED) with Firm Size demonstrates a robust correlation with Voluntary Disclosure. The substantial R-squared value of 0.1647 indicates a significant level of explanatory capability. Nevertheless, the inclusion of Audit Fee (AF) in the analysis with BSED results in a decrease in the R-squared value to 0.0037, suggesting a diminished influence on Voluntary Disclosure. Introducing Voluntary Disclosure as a dependent variable (BSED, FS, AF, VD) improves the model's ability to explain the data, although not to the same extent as Firm Size alone, as indicated by an R-squared value of 0.0086.

The high R-squared value of 0.1899 indicates a strong link between Voluntary Disclosure and the combination of Independent Audit Committee (IAC) and Firm Size. When the Audit Fee is included in the model, the association remains statistically significant but is less prominent, as indicated by an R-squared value of 0.0106. When including Voluntary Disclosure as a dependent variable in the model (IAC, FS, AF, VD), the resulting R-squared value of 0.0221 indicates a significant collective influence on Voluntary Disclosure.

Table 3.28. Coefficients table of multiple regression analysis (the mediating effect of external audit quality on the various corporate governance variables and voluntary disclosure)

Model		coeff	se	t	p	LLCI	ULCI
BS, FS	constant	8.0416	.0733	109.7159	.0000	7.8979	8.1854
	BS	.0099	.0006	15.6025	.0000	.0087	.0112
BS, AF	constant	235123.673	277271.770	.8480	.3965	-308660.75	778908.092
	BS	12880.3871	2407.1531	5.3509	.0000	.8159.4869	17601.2873
BS, FS, AF VD	constant	.9174	.0144	63.7130	.0000	.8892	.9457
	BS	.0001	.0001	2.1011	.0358	.0000	.0002
	FS	.0001	.0017	-.0191	.9847	-.0033	.0032
	AF	.0001	.0001	2.9738	.0030	.0000	.0001
BGD, FS	constant	8.5017	.0702	121.1551	.0000	8.3640	8.6393
	BGD	2.8800	.3127	9.2108	.0000	2.2668	3.4932
BGD, AF	constant	1756332.39	259367.369	6.7716	.0000	1247659.51	2265005.27
	BGD	-1353863.2	1155695.41	-1.1715	.2416	-3620420.1	912693.796
BGD, FS, AF, VD	constant	.9272	.0146	63.7073	.0000	.8987	.9558
	BGD	-.0938	.0225	-4.1728	.0000	-.1378	-.0497
	FS	.0020	.0016	1.2306	.2186	-.0012	.0052
	AF	.0001	.0001	2.9415	.0033	.0001	.0001
BSED, FS	constant	6.7120	.1253	53.5858	.0000	6.4664	6.9577
	BSED	3.5784	.1843	19.4114	.0000	3.2169	3.9400
BSED, AF	constant	253529.133	494952.125	.5122	.6085	-717174.02	1224232.29
	BSED	1931177.44	728442.738	2.6511	.0081	502551.061	3359803.83
BSED, FS, AF, VD	Constant	.9314	.0150	62.1533	.0000	.9020	.9607
	BSED	-.0372	.0152	-2.4444	.0146	-.0670	-.0074
	FS	.0023	.0017	1.3098	.1904	-.0011	.0057
	AF	.0001	.0001	3.1893	.0014	.0001	.0001
IAC, FS	constant	7.5679	.0784	96.5792	.0000	7.4142	7.7215
	IAC	1.1125	.0526	21.1602	.0000	1.0094	1.2156
IAC, AF	constant	252031.587	313338.530	.8043	.4213	-362490.07	866553.245
	IAC	953109.125	210238.368	4.5335	.0000	540788.207	1365430.04
IAC, FS, AF, VD	Constant	.9277	.0145	64.0926	.0000	.8993	.9561
	IAC	.0254	.0044	5.7040	.0000	.0166	.0341
	FS	-.0036	.0017	-2.0911	.0367	-.0071	-.0002
	AF	.0001	.0001	2.8442	.0045	.0001	.0000

Source: author's elaboration

The model examining the relationship between Board Size (BS) and Firm Size (FS) reveals a strong association with Voluntary Disclosure, as evidenced by the coefficient of BS (0.0099) and a highly significant p-value ( $< .0000$ ). The constant value for this model is quite significant (8.0416), indicating an essential level of voluntary disclosure. When the Audit Fee (AF) is considered together with the Board Size (BS), the coefficient for BS changes to 12880.3871 with a p-value of  $.0000$ . This suggests a substantial influence of Board Size on Voluntary Disclosure in relation to Audit Fees. In the combined model (BS, FS, AF, VD), the coefficients for BS (0.0001,  $p = 0.0358$ ) and AF (0.0001,  $p = 0.0030$ ) indicate that both Firm Size and Audit Fee have a significant influence on mediating the association with Voluntary Disclosure. However, the effect of Firm Size appears to go down.

The impact of models connecting Board Gender Diversity (BGD) varies. The BGD coefficient has a huge value of 2.8800 and is highly significant with a p-value of less than  $.0000$ . However, the combination of Audit Fee and BGD has a negative effect on Voluntary Disclosure (-1353863.2). However, this effect is not statistically significant, as indicated by a p-value of  $.2416$ . In the integrated model (BGD, FS, AF, VD), BGD shows a substantial negative association with Voluntary Disclosure ( $-.0938$ ,  $p < .0000$ ), suggesting that the existence of Board Gender Diversity, along with Firm Size and Audit Fee, impacts Voluntary Disclosure.

A significant correlation is shown between the Board Skills and Experience Diversity (BSED) model and Firm Size, specifically with respect to Voluntary Disclosure. The coefficient for BSED is statistically significant (3.5784,  $p < .0000$ ), indicating a strong influence on Voluntary Disclosure. Nevertheless, by incorporating the Audit Fee into the model (BSED, AF), the coefficient for BSED remains statistically significant (1931177.44,  $p = .0081$ ). However, it is evident that the connection is changed by the presence of the audit fee. In the composite model consisting of Board Skills and Experience Diversity (BSED), Firm Size (FS), Audit Fee (AF), and Voluntary Disclosure (VD), BSED has a negative effect on Voluntary Disclosure ( $-.0372$ ,  $p = .0146$ ). This suggests that there is a complex relationship among BSED, FS, AF, and VD.

The model that incorporates the Independent Audit Committee (IAC) with Firm Size indicates a very high connection with Voluntary Disclosure, as indicated by a significant coefficient for IAC (1.1125,  $p < .0000$ ). When the Audit Fee is included in the analysis together with the Independent Audit Committee (IAC, AF), the coefficient for IAC remains statistically significant (953109.125,  $p < .0000$ ). This suggests that the presence of an Independent Audit Committee has a significant influence on Voluntary Disclosure. In the complete model (IAC, FS, AF, VD), the relationship remains statistically significant, with IAC having a positive influence on Voluntary Disclosure (coefficient of .0254,  $p < .0000$ ). The regression coefficients for Firm Size (FS) (-.0036,  $p = .0367$ ) and Audit Fee (AF) (.0001,  $p = .0045$ ) indicate that both variables have a significant impact in affecting Voluntary Disclosure within the setting of an Independent Audit Committee.

Table 3.29. Indirect effects of identification with the corporate governance variables on voluntary disclosure through external audit quality

	Effect	BootSE	BootLLCI	BootULCI
BS, FS, VD	.0001	.0000	.0000	.0001
BS, AF, VD	.0001	.0000	.0001	.0001
BGD, FS, VD	.0938	.0225	.0000	.0144
BGD, AF, VD	.0823	.0244	.0001	.0254
BSED, FS, VD	.0081	.0069	-.0055	.0217
BSED, AF, VD	.0027	.0011	.0009	.0051
IAC, FS, VD	-.0041	.0020	-.0080	-.0001
IAC, AF, VD	.0012	.0004	.0005	.0021

Source: author's elaboration

The examination of indirect effects investigates the role of the mediator of external audit quality, as indicated by Firm Size (FS) and Audit Fee (AF), in the correlation between corporate governance variables and Voluntary Disclosure (VD). Firstly, in the models that include Board Size (BS) in relation to FS and AF, the impact on Voluntary Disclosure is insignificant. The effect sizes are extremely low, measuring at 0.0001, with a BootSE of 0.0000 for both FS and AF relationships. The confidence intervals for both models are extremely small. In the BS and FS models, they range from 0.0000 to 0.0001. In the BS and AF models, both the bottom and upper bounds are 0.0001. These findings imply that while Firm Size and Audit Fee

may have some effect in mediating the relationship between Board Size and Voluntary Disclosure, their total influence is quite insignificant.

Furthermore, the models that evaluate the impact of Board Gender Diversity (BGD) on Financial Statements (FS) and Accounting Figures (AF) have more significant indirect effects. The BGD and FS model yields an effect size of 0.0938, accompanied by a BootSE of 0.0225. The confidence intervals are rather wide, ranging from 0.0000 to 0.0144. The effect size in the BGD and AF model is 0.0823, with a BootSE of 0.0244 and confidence intervals ranging from 0.0001 to 0.0254. These bigger impact sizes and broader confidence intervals reflect a more significant mediation role of external audit quality in the link between Board Gender Diversity and Voluntary Disclosure.

Furthermore, the model including Board Skills and Experience Diversity (BSED), FS, and AF exhibits substantially more significant indirect impacts compared to the Board Size models, but to a lesser extent than the Board Gender Diversity models. The effect size for the combination with FS is 0.0081, with a BootSE of 0.0069 and confidence intervals ranging from -0.0055 to 0.0217. For the combination with AF, the effect size is 0.0027, with a BootSE of 0.0011 and confidence intervals ranging from 0.0009 to 0.0051. These figures show the slight mediation influence of external audit quality in the relationship between BSED and Voluntary Disclosure. In the model that incorporates the Independent Audit Committee (IAC) in addition to FS, the indirect impact is determined to be negative (-0.0041). The BootSE is calculated to be 0.0020, and the confidence intervals span from -0.0080 to -0.0001. This indicates that the involvement of Firm Size in the relationship between IAC and Voluntary Disclosure could slightly reduce the influence of IAC on Voluntary Disclosure.

Table 3.30 shows the results of the model which describe the mediating effect of external audit quality variables on the various corporate governance variables and real earnings management.

Table 3.30. Model summary of mediation analysis external audit quality on the relationship between corporate governance and real earnings management

	R	R-sq	MSE	F	df1	df2	p
BS, FS	.3350	.1122	2.8428	243.4394	1.0000	1926.0000	.0000
BS, AF	.1210	.0146	4.068E+013	28.6319	1.0000	1926.0000	.0000
BS, FS, AF, REM	.1050	.0110	4.909e+020	7.1473	3.0000	1924.0000	.0001
BGD, FS	.2062	.0425	3.0427	84.8396	1.0000	1911.0000	.0000
BGD, AF	.0268	.0007	4.157E+013	1.3723	1.0000	1911.0000	.2416
BGD, FS, AF, REM	.0703	.0049	4.978E+020	3.1579	3.0000	1909.0000	.0238
BSED, FS	.4058	.1647	2.6544	376.8036	1.0000	1911.0000	.0000
BSED, AF	.0605	.0037	4.145E+013	7.0284	1.0000	1911.0000	.0081
BSED, FS, AF, REM	.0476	.0023	4.991E+020	1.4478	3.0000	1909.0000	.2271
IAC, FS	.4358	.1899	2.5751	447.7545	1.0000	1910.0000	.0000
IAC, AF	.1032	.0106	4.118E+013	20.5523	1.0000	1910.0000	.0000
IAC, FS, AF, REM	.0973	.0095	4.957E+020	6.0750	3.0000	1908.0000	.0004

Source: author's elaboration

The regression analysis reveals a statistically significant association between Board Size (BS) and Firm Size with REM. This is evident from the R-squared value of 0.1122 and an extremely low p-value ( $< .0000$ ), indicating a strong connection between larger boards in larger businesses and the extent of real earnings management. Nevertheless, when the Audit Fee is taken into account along with the Board Size, the R-squared value lowers to 0.0146. Despite this decline, the impact remains statistically significant ( $p < .0000$ ), suggesting that the Audit Fee does have an influence. However, its effect on the association between Board Size and REM is not as strong as the effect of Firm Size. In the complete model incorporating BS, FS, AF, and REM, the R-squared value reduces significantly to 0.0110. This decrease is accompanied by a significant F-value of 7.1473 and a p-value of .0001, indicating a considerable combined impact of these variables on REM.

The analysis of the connection between Board Gender Diversity (BGD) and Firm Size reveals an insignificant relationship with REM, as shown by an R-squared value of 0.0425 and a p-value of less than 0.0000. This indicates that the combination of gender diversity on the board and the size of the organisation can influence REM. Nevertheless, the inclusion of Audit Fee alongside with BGD demonstrates a notably feeble relationship (R-squared = 0.0007,  $p = .2416$ ), suggesting that Audit Fee does

not meaningfully augment or lessen the influence of Board Gender Diversity on REM. In the combined model (BGD, FS, AF, REM), the R-squared value improves marginally to 0.0049 with a p-value of .0238, demonstrating an insignificant impact of these variables on REM.

The influence of Board Skills and Experience Diversity (BSED) is particularly significant when it is paired with Firm Size, as demonstrated by a strong R-squared value of 0.1647 ( $p < .0000$ ). Incorporating the Audit Fee into this model (BSED, AF) marginally reduces the correlation (R-squared = 0.0037,  $p = .0081$ ). In the complete model comprising BSED, FS, AF, and REM, the R-squared value stands at 0.0023, with a p-value of .2271, showing a less significant combined influence on REM.

The presence of an Independent Audit Committee (IAC) along with Firm Size demonstrates a highly significant correlation with REM (R-squared = 0.1899,  $p < .0000$ ). The addition of Audit Fee in this model (IAC, AF) preserves the substantial association (R-squared = 0.0106,  $p < .0000$ ), demonstrating that both Firm Size and Audit Fee are crucial in the context of an Independent Audit Committee. In the complete model (IAC, FS, AF, REM), the impact is still noteworthy (R-squared = 0.0095,  $p = .0004$ ), demonstrating the substantial combined influence of these variables on REM.

The relationship between Board Size (BS) and REM, when mediated by Firm Size and Audit Fee, offers different results. Initially, with FS, the BS coefficient is significant at 0.0099 ( $p < .0000$ ), showing a significant association. Nevertheless, the inclusion of the Audit Fee results in a substantial increase in the BS coefficient, reaching a value of 12880.3871 ( $p < .0000$ ), indicating a more significant influence. In the complete model that incorporates BS, FS, AF, and REM, the BS coefficient has a negative value (-38603340,  $p < .0000$ ), showing a substantial change in the relationship between them. This change is further demonstrated by a big constant (1596939541) but with a non-significant p-value (.5392), showing the complex relationship between these components. The FS model demonstrates a substantial positive coefficient (2.8800,  $p < .0000$ ) for Board Gender Diversity (BGD).

However, when combined with AF, the coefficient of BGD becomes negative (-1353863.2), although it lacks statistical significance ( $p = .2416$ ). In the combined model (BGD, FS, AF, REM), the coefficient for BGD is highly negative (-1.07E+010,  $p = .0087$ ), suggesting a considerable impact in the presence of Firm Size and Audit Fee.

Table 3.31. Coefficients table of multiple regression analysis (the mediating effect of external audit quality on the various corporate governance variables and real earnings management)

Model		coeff	se	t	p	LLCI	ULCI
BS, FS	constant	8.0416	.0733	109.7159	.0000	7.8979	8.1854
	BS	.0099	.0006	15.6025	.0000	.0087	.0112
BS, AF	constant	235123.673	277271.770	.8480	.3965	-308660.75	778908.092
	BS	12880.3871	2407.1531	5.3509	.0000	.8159.4869	17601.2873
BS, FS, AF, REM	constant	1596939541	2600524088	.6141	.5392	-3.50e+009	6697081558
	BS	-38603340	8906765.41	-4.3342	.0000	-56071269	-21135412
	FS	260335501	300582362	.8661	.3865	-329165954	849836957
	AF	-84.8759	79.4569	-1.0682	.2856	-240.7066	70.9547
BGD, FS	constant	8.5017	.0702	121.1551	.0000	8.3640	8.6393
	BGD	2.8800	.3127	9.2108	.0000	2.2668	3.4932
BGD, AF	constant	1756332.39	259367.369	6.7716	.0000	1247659.51	2265005.27
	BGD	-1353863.2	1155695.41	-1.1715	.2416	-3620420.1	912693.796
BGD, FS, AF, REM	constant	2126945489	265096015	.8023	.4225	-3.07E+009	7326043740
	BGD	-1.07E+010	4092836199	-2.6259	.0087	-1.88E+010	-2.72E+009
	FS	6970970.35	295093248	.0236	.9812	-571768110	585710050
	AF	-125.5108	79.8372	-1.5721	.1161	-282.0882	31.0666
BSED, FS	constant	6.7120	.1253	53.5858	.0000	6.4664	6.9577
	BSED	3.5784	.1843	19.4114	.0000	3.2169	3.9400
BSED, AF	constant	253529.133	494952.125	.5122	.6085	-717174.02	1224232.29
	BSED	1931177.44	728442.738	2.6511	.0081	502551.061	3359803.83
BSED, FS, AF, REM	Constant	2463983746	2724863884	.9043	.3660	-2.88E+009	7808007126
	BSED	-3.68E+009	276034423	-1.3311	.1833	-9.11E+009	1742903421
	FS	12294121.2	315469874	.0390	.9689	-606407750	630995992
	AF	-113.0071	79.8360	-1.4155	.1571	-269.5821	43.5679
IAC, FS	constant	7.5679	.0784	96.5792	.0000	7.4142	7.7215
	IAC	1.1125	.0526	21.1602	.0000	1.0094	1.2156
IAC, AF	constant	252031.587	313338.530	.8043	.4213	-362490.07	866553.245
	IAC	953109.125	210238.368	4.5335	.0000	540788.207	1365430.04
IAC, FS, AF, REM	Constant	926376530	2643834857	.3504	.7261	-4.26E+009	6111486901
	IAC	-3.21E+009	811783632	-3.9543	.0001	-4.80E+009	-1.62E+009
	FS	383229828	318659517	1.2026	.2293	-241727803	1008187459
	AF	-96.6008	79.6899	-1.2122	.2256	-252.8892	59.6876

Source: author's elaboration



In the BSED and FS model, the coefficient for BSED shows a statistically significant positive effect (3.5784,  $p < .0000$ ). Introducing AF into the equation modifies this association, resulting in the BSED coefficient remaining statistically significant but with an increased value of 1931177.44 ( $p = .0081$ ). In the complete model (BSED, FS, AF, REM), the coefficient for BSED becomes negative (-3.68E+009), but it is not statistically significant with a p-value of .1833. This suggests that there is a complicated connection that is impacted by both Firm Size and Audit Fee. The model, which incorporates the Independent Audit Committee (IAC) and FS, demonstrates a noteworthy positive coefficient for IAC (1.1125,  $p < .0000$ ). When the AF variable is taken into account, the coefficient for IAC remains statistically significant (953109.125,  $p < .0000$ ), indicating its substantial impact. In the complete model (IAC, FS, AF, REM), the IAC coefficient exhibits a substantial negative value (-3.21E+009,  $p < .0001$ ), suggesting a significant change in the association with REM when taking into account the influence of Firm Size and Audit Fee.

Table 3.32. Indirect effects of identification with the corporate governance variables on real earnings management through external audit quality

	Effect	BootSE	BootLLCI	BootULCI
BS, FS, REM	2584643.03	5698117.53	-7770417.8	14833599.5
BS, AF, REM	-1093234.8	1065589.07	-3153760.5	1047991.67
BGD, FS, REM	1938124.05	2258118.33	-5423140.3	1054231.24
BGD, AF, REM	40928361.1	2854128.21	-5421543.2	2720091.85
BSED, FS, REM	43993794.6	1871022452	-3.32E+009	3935171457
BSED, AF, REM	-218236715	169916823	-584768112	89088397.8
IAC, FS, REM	426351138	685374315	-835216430	1879263168
IAC, AF, REM	-92071100	80785701.2	-260094784	58661668.9

Source: author's elaboration

The indirect effects table statistically examines how external audit quality, as indicated by Firm Size (FS) and Audit Fee (AF), impacts the relationship between various corporate governance factors and Real Earnings Management (REM). The analysis of the relationship between Board Size (BS) and Firm Size reveals an indirect impact of 2584643.03. The BootSE (Bootstrap Standard Error) is 5698117.53, and the confidence intervals range from -7770417.8 to 14833599.5. This indicates that Firm Size plays an integral part in mediating the relationship between Board Size and REM,

having a significant degree of impact. When Audit Fee is considered, the indirect impact is -1093234.8 (BootSE = 1065589.07), with confidence ranges between -3153760.5 and 1047991.67. This adverse impact suggests a possible decrease in REM as a result of the combined influence of Audit Fees and Board Size.

The model examining the relationship between Board Gender Diversity (BGD) and Firm Size reveals an indirect impact of 1938124.05. This effect is accompanied by a BootSE (bootstrap standard error) of 2258118.33. The confidence intervals for this effect range from -5423140.3 to 1054231.24. The variety observed indicates that although the size of a firm may have an impact on the relationship between board gender diversity and REM. The inclusion of the Audit Fee in BGD results in a significant increase in the indirect impact, which amounts to 40928361.1 (BootSE = 2854128.21). The confidence intervals for this effect range from -5421543.2 to 2720091.85. This suggests a more decisive and large influence of Audit Fee on the relationship between Board Gender Diversity and REM.

The model incorporating Board Skills and Experience Diversity (BSED) and Firm Size reveals a significant indirect impact of 43993794.6. However, the BootSE is very high at 1871022452, resulting in broad confidence intervals ranging from -3.32E+009 to 3935171457. This indicates a substantial although changing impact of Firm Size on the relationship between BSED and REM. When combined with Audit Fee, the indirect impact becomes negative (-218236715) with a BootSE of 169916823, and confidence intervals between -584768112 and 89088397.8, demonstrating a complicated and potentially declining influence of Audit Fee on this relationship.

In the model examining the relationship between the Independent Audit Committee (IAC) and Firm Size, the indirect effect is estimated to be 426351138. The BootSE (bootstrap standard error) for this estimate is 685374315, and the confidence intervals range from -835216430 to 1879263168. This indicates that the impact of Firm Size on the correlation between the Independent Audit Committee and REM is significant. The presence of Audit Fee results in a negative indirect impact (-92071100) with a BootSE of 80785701.2 and lower confidence intervals (-260094784 to

58661668.9), suggesting that an Audit Fee might reduce the influence of the Independent Audit Committee on REM.

The following table 3.33 presents the results of the model which describes the mediating effect of external audit quality variables on the various corporate governance variables and accrual-based earnings management as the dependent variable.

Table 3.33. Model summary of mediation analysis external audit quality on the relationship between corporate governance and accrual-based earnings management

	R	R-sq	MSE	F	df1	df2	p
BS, FS	.3350	.1122	2.8428	243.4394	1.0000	1926.0000	.0000
BS, AF	.1210	.0146	4.068E+013	28.6319	1.0000	1926.0000	.0000
BS, FS, AF, ABEM	.0376	.0014	2.438E+021	.9071	3.0000	1924.0000	.4368
BGD, FS	.2062	.0425	3.0427	84.8396	1.0000	1911.0000	.0000
BGD, AF	.0268	.0007	4.157E+013	1.3723	1.0000	1911.0000	.2416
BGD, FS, AF, ABEM	.0249	.0006	2.459E+021	.3956	3.0000	1909.0000	.7562
BSED, FS	.4058	.1647	2.6544	376.8036	1.0000	1911.0000	.0000
BSED, AF	.0605	.0037	4.145E+013	7.0284	1.0000	1911.0000	.0081
BSED, FS, AF, ABEM	.0331	.0011	2.458E+021	.6975	3.0000	1909.0000	.5536
IAC, FS	.4358	.1899	2.5751	447.7545	1.0000	1910.0000	.0000
IAC, AF	.1032	.0106	4.118E+013	20.5523	1.0000	1910.0000	.0000
IAC, FS, AF, ABEM	.0439	.0019	2.458E+021	1.2259	3.0000	1908.0000	.2988

Source: author's elaboration

The relationship between Board Size (BS), Firm Size (FS), Audit Fee (AF), and ABEM demonstrates clear and unique characteristics. In the model examining the relationship between Board Size (BS) and Firm Size (FS), a significant association (R-squared = 0.1122) is seen, suggesting that larger businesses with larger boards are likely to exhibit a greater degree of ABEM. This is further reinforced by a significant F-statistic of 243.4394, indicating the statistical importance of this association ( $p < .0000$ ). The statement implies that as companies expand, the difficulty of handling accruals becomes more complex, perhaps resulting in increased manipulation of earnings based on accruals. Nevertheless, the inclusion of Audit Fee along with Board Size (BS, AF) results in a drop in how well the model is able to explain ABEM (R-squared = 0.0146), while still maintaining statistical significance ( $F = 28.6319$ ,  $p < .0000$ ). This decrease suggests that although audit fees play a part in the relationship between board size and ABEM, their impact is not as significant as firm size.

In the complete model incorporating Board Size, Firm Size, Audit Fee, and ABEM (BS, FS, AF, ABEM), the impact on ABEM is rather insignificant (R-squared = 0.0014). The F-value of 0.9071 ( $p = 0.4368$ ) suggests that the collective influence of these variables on ABEM is quite weak when taken into account simultaneously. The analysis shows an insignificant relationship (R-squared = 0.0425) between Board Gender Diversity (BGD) and Firm Size (FS) with respect to ABEM. This suggests that the gender makeup of boards in bigger businesses has a discernible influence on ABEM. This is further supported by a high F-value of 84.8396 ( $p < .0000$ ). In contrast, the inclusion of Audit Fee in the model with Board Gender Diversity (BGD, AF) results in a significant decrease in the model's explanatory power (R-squared = 0.0007,  $F = 1.3723$ ,  $p = .2416$ ), suggesting that audit fees have no significance on this relationship. In the comprehensive model that incorporates Board Gender Diversity, Firm Size, Audit Fee, and ABEM (BGD, FS, AF, ABEM), the impact continues to be insignificant (R-squared = 0.0006,  $F = 0.3956$ ,  $p = .7562$ ).

The model demonstrates a significant relationship (R-squared = 0.1647) between Board Skills and Experience Diversity (BSED) and Firm Size. This is supported by a high F-value of 376.8036 ( $p < .0000$ ), indicating that as firms increase in size, they are more likely to engage in ABEM if they have diverse skills and experiences on their boards. Nevertheless, when the Audit Fee is taken into account in conjunction with BSED (BSED, AF), the explanatory ability of ABEM decreases significantly (R-squared = 0.0037) but remains statistically significant ( $F = 7.0284$ ,  $p = .0081$ ), suggesting that the impact of audit fees in this particular situation is minor. The comprehensive model, which incorporates BSED, FS, AF, and ABEM, demonstrates a moderate overall impact (R-squared = 0.0011,  $F = 0.6975$ ,  $p = 0.5536$ ).

The analysis of the Independent Audit Committee (IAC) with regard to Firm Size (IAC, FS) reveals a significant relationship with ABEM (R-squared = 0.1899), as evidenced by a high F-value of 447.7545 ( $p < .0000$ ). This indicates that the existence of an autonomous audit committee in bigger companies has a substantial influence on ABEM. The presence of Audit Fee in this association (IAC, AF) has a substantial impact (R-squared = 0.0106,  $F = 20.5523$ ,  $p < .0000$ ), indicating that audit fees also

contribute to this phenomenon. In the comprehensive model incorporating IAC, FS, AF, and ABEM (IAC, FS, AF, ABEM), the relationship between these variables remained significant (R-squared = 0.0019, F = 1.2259, p = 0.2988), indicating a collective impact of these variables on ABEM.

Table 3.34. Coefficients table of multiple regression analysis (the mediating effect of external audit quality on the various corporate governance variables and accrual-based earnings management)

Model		coeff	se	t	p	LLCI	ULCI
BS, FS	constant	8.0416	.0733	109.7159	.0000	7.8979	8.1854
	BS	.0099	.0006	15.6025	.0000	.0087	.0112
BS, AF	constant	235123.673	277271.770	.8480	.3965	-308660.75	778908.092
	BS	12880.3871	2407.1531	5.3509	.0000	.8159.4869	17601.2873
BS, FS, AF, ABEM	constant	3676983149	5795956237	.6344	.5259	-7.69E+009	1.504E+010
	BS	30174291.2	19851084.2	1.5200	.1287	-8757610.6	69106193.1
	FS	-735652208	669927352	-1.0981	.2723	-2.05E+009	578207814
	AF	-18.1975	177.0907	-.1028	.9182	-365.5074	329.1123
BGD, FS	constant	8.5017	.0702	121.1551	.0000	8.3640	8.6393
	BGD	2.8800	.3127	9.2108	.0000	2.2668	3.4932
BGD, AF	constant	1756332.39	259367.369	6.7716	.0000	1247659.51	2265005.27
	BGD	-1353863.2	1155695.41	-1.1715	.2416	-3620420.1	912693.796
BGD, FS, AF, ABEM	constant	3213889295	5892744120	.5454	.5855	-88.34E+009	1.477E+010
	BGD	8076905476	9097822495	.8878	.3748	-9.77E+009	2.592E+010
	FS	-526537233	655952464	-.8027	.4222	-1.81E+009	759921635
	AF	13.1776	1774674	.0743	.9408	-334.8728	361.2281
BSED, FS	constant	6.7120	.1253	53.5858	.0000	6.4664	6.9577
	BSED	3.5784	.1843	19.4114	.0000	3.2169	3.9400
BSED, AF	constant	253529.133	494952.125	.5122	.6085	-717174.02	1224232.29
	BSED	1931177.44	728442.738	2.6511	.0081	502551.061	3359803.83
BSED, FS, AF, ABEM	Constant	5475609866	6047467160	.9054	.3653	-6.38E+009	1.734E+010
	BSED	-7.99E+009	6138839607	-1.3014	.1933	-2.00E+010	4050706563
	FS	-37166511	700142754	-.0531	.9577	-1.41E+009	1335958682
	AF	7.5866	177.1853	.0428	.9659	-339.9105	355.0836
IAC, FS	constant	7.5679	.0784	96.5792	.0000	7.4142	7.7215
	IAC	1.1125	.0526	21.1602	.0000	1.0094	1.2156
IAC, AF	constant	252031.587	313338.530	.8043	.4213	-362490.07	866553.245
	IAC	953109.125	210238.368	4.5335	.0000	540788.207	1365430.04
IAC, FS, AF, ABEM	Constant	4302110564	588645687	.7308	.4650	-7.24E+009	1.585E+010
	IAC	3272273991	1807424398	1.8105	.0704	-272461402	6817009383
	FS	-954671723	709490760	-1.3456	.1786	-2.35E+009	436787313
	AF	-13.1927	177.4283	-.0744	.9407	-361.1665	334.7811

Source: author's elaboration

In the model, the coefficient for Board Size (BS) is 0.0099, with a t-value of 15.6025 ( $p < .0000$ ). This suggests a strong association between larger boards and ABEM in larger companies. Nevertheless, when the Audit Fee is taken into account in addition to the Board Size, the constant value significantly rises to 235123.673 ( $t = .8480$ ,  $p = .3965$ ), and the coefficient for Board Size becomes substantially bigger at 12880.3871 ( $t = 5.3509$ ,  $p < .0000$ ). These findings indicate that the amount charged for audits has significant effects on the relationship between the size of the board and ABEM. In the complete model that incorporates BS, FS, AF, and ABEM, the constant attains a substantial value of 3676983149, but with a statistically insignificant t-value (.6344,  $p = .5259$ ). Moreover, the coefficients for the components exhibit a less prominent impact on ABEM.

The regression model examining the relationship between Board Gender Diversity (BGD) and Firm Size reveals a strong positive association. This is evident from the high constant value (8.5017) and the substantial coefficient for BGD (2.8800), both of which have statistically significant t-values (121.1551 and 9.2108, respectively) and p-values ( $p < .0000$ ). However, when the Audit Fee is included (BGD, AF), the constant value rises to 1756332.39 ( $t = 6.7716$ ,  $p < .0000$ ). However, the coefficient for BGD becomes negative (-1353863.2) and loses its statistical significance ( $t = -1.1715$ ,  $p = .2416$ ). In the whole model (BGD, FS, AF, ABEM), the overall impact remains uncertain, with a substantially constant value (3213889295) but an insignificant t-value (.5454,  $p = .5855$ ). Additionally, the coefficients for BGD and other components suggest that there is less impact on ABEM.

The model including Board Skills and Experience Diversity (BSED) and Firm Size indicates a strong association with ABEM, as evidenced by a strong constant (6.7120) and a large coefficient for BSED (3.5784), both of which have very significant t-values (53.5858 and 19.4114) and p-values ( $p < .0000$ ). Consequently, the presence of a variety of skills and expertise on the boards of bigger companies is linked to increased ABEM. Introducing the Audit Fee to this model (BSED, AF) marginally alters the situation; the constant and the coefficient

for BSED remain statistically significant (253529.133 and 1931177.44, respectively). In the complete model (BSED, FS, AF, ABEM), the impact of these factors on ABEM becomes less visible as seen by a substantially constant value (5475609866) but an insignificant t-value (.9054,  $p = .3653$ ).

The initial relationship between the Independent Audit Committee (IAC), Firm Size, and ABEM is robust, as seen by the substantial constant (7.5679) and the coefficient for IAC (1.1125) in the model incorporating Firm Size. The significance of an independent audit committee in bigger enterprises on ABEM is supported by high t-values (96.5792 and 21.1602) and very low p-values ( $p < .0000$ ). When the Audit Fee is added to the Independent Audit Committee (IAC) variable, the constant value reduces somewhat to 252031.587, while still being statistically significant ( $t = .8043$ ,  $p = .4213$ ). Additionally, the coefficient for the IAC variable remains significant at 953109.125 ( $t = 4.5335$ ,  $p < .0000$ ). This demonstrates that audit fees have a significant influence on the correlation between the independent audit committee and ABEM. In the comprehensive model (IAC, FS, AF, ABEM), the combined impact of these factors on ABEM is not very significant, as evidenced by a high constant value (4302110564) but with a t-value that is not statistically significant (.7308,  $p = .4650$ ). The coefficients on IAC and other variables, while statistically significant, indicate a complex association with ABEM.

Table 3.35. Indirect effects of identification with the corporate governance variables on accrual-based earnings management through external audit quality

	Effect	BootSE	BootLLCI	BootULCI
BS, FS, ABEM	-7303646.0	13547413.3	-28892799	23744739.0
BS, AF, ABEM	-234391.19	1532205.67	-3750227.4	2330830.73
BGD, FS, ABEM	2538134.05	3241128.13	-2454740.3	3245731.24
BGD, AF, ABEM	20114561.1	2145821.21	-3445123.1	1900272.58
BSED, FS, ABEM	-118347193	5692432533	-8.63E+009	1.306E+010
BSED, AF, ABEM	14650996.6	218809156	-458186382	394600742
IAC, FS, ABEM	-1.06E+009	1481348328	-3.51E+009	2224457836
IAC, AF, ABEM	-12574053	110423874	-256053514	178264822

Source: author's elaboration

The examination of indirect effects offers important insights into how external audit quality, as measured by Firm Size (FS) and Audit Fee (AF), influences

the relationship between various corporate governance characteristics and Accrual-Based Earnings Management (ABEM). Within the model of Board Size and Firm Size (BS, FS), there exists a negative indirect impact on ABEM amounting to -7303646.0. The BootSE increases substantially at 13547413.3, suggesting a substantial level of variability in this impact. The confidence intervals exhibit a significant range, spanning from -28892799 to 23744739.0. This indicates a considerable level of uncertainty regarding the impact of company size on the link between board size and ABEM. When examining the relationship between Audit Fee and Board Size (BS, AF), it is observed that the negative indirect effect is reduced to a lower value of -234391.19, with a BootSE (bootstrap standard error) of 1532205.67. The large confidence ranges (-3750227.4 to 2330830.73) suggest that there may be a slight impact of audit fees on the relationship between board size and ABEM.

The model examining the relationship between Board Gender Diversity (BGD), Firm Size (FS), and ABEM (2538134.05) demonstrates a positive indirect impact, with a BootSE (standard error) of 3241128.13. The substantial range of confidence intervals (-2454740.3 to 3245731.24) indicates that the impact of gender diversity on ABEM can be subject to significant variation in larger companies. The indirect impact of the Board Gender Diversity and Audit Fee (BGD, AF) is more evident, with a substantially lower standard error (BootSE) of 2145821.21. The effect size is 20114561.1. The confidence intervals (-3445123.1 to 1900272.58) indicate a more conclusive influence of audit fees on the gender diversity-ABEM relationship.

The BSED and FS model shows a substantial negative indirect impact on ABEM, with a value of -118347193. However, it is worth noting that the BootSE is very high at 5692432533. The outcome of this leads to significantly large confidence intervals (-8.63E+009 to 1.306E+010), indicating a high level of uncertainty regarding the impact of business size on the BSED-ABEM connection. When combined with Audit Fee (BSED, AF), the indirect effect shows a significant association (14650996.6), although having a high BootSE (218809156) and broad



confidence intervals (-458186382 to 394600742). This indicates a complex and less predictable relationship between BSED and audit fees in impacting ABEM. The study found a significant negative indirect impact of the Independent Audit Committee and Firm Size (IAC, FS) on ABEM, with a value of  $-1.06E+009$ . The large BootSE of 1481348328 and broad confidence ranges ( $-3.51E+009$  to 2224457836) suggest a considerable amount of variability in this relationship. The IAC and AF model likewise demonstrates a negative indirect impact of  $-12574053$  but with a smaller BootSE of 110423874. The confidence intervals ( $-256053514$  to 178264822) indicate that the influence of audit fees on the IAC-ABEM relationship, although negative, is not seen.

The examination of ABEM highlights the complex nature of corporate governance and its influence on financial reporting. The substantial adverse influence of governance factors, with the moderation of business size and audit fees, indicates an intricate association between internal governance processes and accrual accounting methods. These findings support the idea that strong governance systems, backed by sufficient resources, can impact the level of accrual-based earnings management, as proposed in both agency theory and resource dependence theory.

### **Conclusions to the chapter 3**

Based on the results of the section, the following conclusions were made:

The cross-country comparative analysis between Ghana, Nigeria, and South Africa highlights significant differences in the relationship between corporate governance structures and financial reporting quality, influenced by mediating factors such as financial leverage and external audit quality. While corporate governance plays a crucial role in enhancing financial reporting across all three countries, the strength of its impact is contingent on each country's regulatory environment, market maturity, and the quality of external audits. In Ghana, key factors predicting IFRS compliance include board size and expertise (BSED),

internal audit committee (IAC), firm size (FS), and audit firm (AF). In Nigeria, BSED negatively affects IFRS compliance, while FS and AF have positive influences. In South Africa, BSED has a positive effect on IFRS compliance, while IAC negatively impacts it. These factors have a stronger and more consistent effect on voluntary disclosure across all three countries, but their influence on real earnings management and accrual-based earnings management is less consistent and varies between the countries.

The results on the mediating role of financial leverage in relation to IFRS Compliance indicate that the direct impact of board size (BS) and board gender diversity (BGD) on IFRS Compliance is insignificant, as demonstrated by low R-squared values and high p-values. However, the influence of this is limited and may be altered when taking into account the mediating function of financial leverage. The incorporation of financial leverage into models that incorporate board skills and experience diversity (BSED) and an independent audit committee (IAC) demonstrates a substantial enhancement in the ability to explain IFRS Compliance. These findings indicate that financial leverage can play a crucial role in connecting specific elements of corporate governance with adherence to IFRS.

The function of financial power in mediating Voluntary Disclosure is apparent. The first models incorporating board characteristics and financial leverage have a minimal effect on voluntary disclosure. Nevertheless, the inclusion of voluntary disclosure in the models leads to an increase in the R-squared values, especially in models that incorporate board gender diversity (BGD) and independent audit committee (IAC). These findings suggest that the use of financial leverage can have a notable impact on how governance factors affect voluntary disclosure.

The early models indicate a weak relationship between governance characteristics and Real Earnings Management (REM). Nevertheless, the incorporation of REM in the models exhibits a significant enhancement in the explanatory capability, particularly for models that include board skills and experience diversity (BSED) and the independent audit committee (IAC).

The analysis of Accrual-Based Earnings Management reveals the same. The first models suggest that governance factors have little direct impact on ABEM. However, the inclusion of ABEM in the models enhances the explanatory power, especially in models that incorporate board skills and experience diversity (BSED) and the independent audit committee (IAC). This further highlights the significance of financial leverage in mediating the relationship between certain corporate governance characteristics and the management of earnings based on accruals.

The study investigates how external audit quality impacts the relationship between corporate governance factors and different aspects of financial reporting quality, including IFRS Compliance, Voluntary Disclosure, Real Earnings Management (REM), and Accrual-Based Earnings Management (ABEM). This analysis offers detailed insights into the complexities of corporate governance dynamics. The study's findings indicate that larger boards, in combination with business size, have a considerable impact on compliance with International Financial Reporting Standards (IFRS). The relation between the size of the board and the amount of audit fees emphasises the complex relationship between governance frameworks and the financial responsibilities in attaining regulatory conformity.

The observed connections between governance factors, namely board gender diversity (BGD), board skills and experience diversity (BSED), and voluntary disclosure are highly significant. The significant impact of BGD (Board Gender Diversity) and BSED (Board Size) on voluntary disclosure demonstrates the increasing acknowledgement of varied viewpoints in improving the clarity and responsibility in corporate reporting. This idea is endorsed by stakeholder theory (Freeman, 1984). The presence of firm size and audit fees as mediators in these interactions indicates that external audit quality can either enhance or mitigate the influence of board diversity on disclosure procedures. The analysis reveals a complex relationship between corporate governance features and firm-level determinants within the framework of REM. The study indicates that larger boards and greater audit fees have a negative indirect impact on REM, which implies that

they may discourage profit manipulation. The independent audit committee plays a crucial role in preventing profit manipulation by providing monitoring, as outlined in the internal control systems framework.

## CONCLUSION

The dissertation, focused on corporate governance and the level of financial reporting quality: the mediating role of internal control, financial leverage, and external audit quality among companies in Ghana, Nigeria, and South Africa.

The scientific novelty of the research results lies in the identification of variables that impact corporate governance and financial reporting quality issues in Ghana, Nigeria, and South Africa. This will enhance the effectiveness of corporate governance and financial reporting quality through an informed regulation and framework for corporate governance in Sub-Saharan African Countries.

This dissertation is the first to study corporate governance and financial reporting quality, that combines the moderating variables of internal control, financial leverage, and external audit quality in Sub-Saharan African Countries.

The relevance of the study lies in its response to the gap in the literature on corporate governance and financial reporting quality. Despite the growing importance of emerging sub-Saharan African economies on the global stage, a lack of research concerning their unique corporate governance and financial reporting environments still exists creating a research gap. The objective of the study was to investigate the relationships between corporate governance and financial reporting quality, the mediating role of internal controls, financial leverage and external audit within emerging Sub-Saharan African markets, specifically focusing on Ghana, South Africa, and Nigeria and provide informed recommendations for policymakers, regulators, practitioners, investors, stakeholders and academics.

Based on the systematization of theoretical research on the corporate governance concept, the following were identified and established: 1) several key theories and frameworks that have shaped this field, among which The primary theories include agency theory, stakeholder theory, stewardship theory, and transaction cost economics theory, while resource dependence theory and managerial hegemony theory serve as additional theoretical perspectives; 2) the foundational principles of corporate governance, which have been synthesized from international standards such as the OECD and CACG Principles of Corporate

Governance using text analysis techniques, including word clouds. From this analysis, several core principles have been identified: responsibility, accountability, transparency and disclosure, effectiveness, sustainability, shareholders' rights, stakeholder engagement, and risk management; 3) a set of relevant models that enhance the understanding and implementation of effective corporate governance practices (Anglo-Saxon Model, the Continental European Model, and the Japanese Model) and became the basis for adaptation in different regions of the world. As a result, this became the basis of a multi-faceted approach to forming a conceptual framework of interconnections between corporate governance elements and financial reporting quality, considering the mediating role of internal control, financial leverage, and external audit quality.

The results of the bibliometric and trend analysis of corporate governance and financial reporting quality research, conducted using Scopus, Scival, Google Trends tools, Publish or Perish and Voswiew software, made it possible to identify: 1) positive research dynamics in corporate governance and financial reporting quality topics, in particular regarding issues of internal control, financial reporting quality, earnings management, and International Financial Reporting Standards (IFRS); 2) geographic and institutional diversity, according to which the United States, Indonesia, and Australia are among the leading countries, the University of Western Macedonia, Victoria University, and Universiti Teknologi MARA are among the most significant contributors; 3) multidisciplinary nature, because although the majority of research is concentrated in business, management, accounting and economics, econometrics, finance, there is a contribution from social sciences, decision sciences, and even environmental science; 4) among the prominent topics within the corporate governance research, accounting policies, audit processes, corporate taxation, as well as gender diversity and sustainable development goals are highlighted; 4) structural patterns in corporate governance research subfields, which include five clusters of research on: corporate governance regulation and strategic management; audit quality and financial performance; market dynamics

and digital transformation; financial reporting and disclosure; and diversification and ownership.

The study on the evolution of the regulatory landscape development in corporate governance and financial reporting quality identified significant historical shifts in regulatory frameworks driven by major financial scandals and a rise in global awareness and concern about sustainability and climate change. These shifts have led to the growth of the regulatory landscape in corporate governance and financial reporting quality and balancing the ratio of mandatory and voluntary instruments with the prospective development of a principle-based approach. Based on the study, key legal and regulatory frameworks proposed a schematic mapping of relationships among primary external and internal corporate governance actors typical for Ghana, Nigeria, and South Africa, highlighting the main aspects regulated by the normative field.

The findings of the study offer significant insights for many stakeholders, such as policymakers, regulatory bodies, corporate executives, and investors, since they provide insights into the determinants impacting the integrity of financial reporting.

The regression analysis highlights the crucial role that independent audit committees play in enhancing the quality of financial reporting by overseeing compliance with accounting standards and ensuring transparency. The result of this study will help governments, leaders of organisations and investors appreciate the need to invest more resources to establish a competent and strong Independent Audit Committee

Again, the finding study supports the assertion that the attainment of high-quality financial reporting is contingent upon the implementation of strong corporate governance. The results of the study call on governments, organisations and institutions to put in resources and training to ensure robust corporate governance to enhance the dependability of financial reporting which is crucial for the survival of organisations and the protection of stakeholders' interest.

Also, the result of the study emphasises the importance of external auditors in adding credibility to the financial statement. The findings of this study indicate that organisations that are prepared to invest money in obtaining high quality external audits are more likely to demonstrate enhanced financial reporting quality. The study helps investors see the importance of spending more money to acquire highly qualified auditors. The study showed that increasing the frequency of changing auditors may lead to more manipulation of financial results.

Additionally, the study provides valuable insights that can be applied in practice to improve the effectiveness and reliability of corporate governance mechanisms and financial reporting practices.

The study highlights the complex connection among corporate governance, firm characteristics, and the quality of financial reporting. The accuracy of financial reporting is heavily influenced by such factors as Board Gender Diversity and the Independence of the Audit Committee. These factors become more important when considering the moderating effects of internal control, financial leverage and external audit. The findings of this study have several implications, indicating that regulatory agencies should customise their governance principles according to the unique features of each organisation.

The study further suggests that to enhance the calibre and reliability of reporting, it is imperative for organisations to aggressively promote gender diversity within their board of directors and guarantee that their audit committees operate with the highest degree of independence.

Moreover, it is advisable for stakeholders, particularly investors, to approach the business environment with a discerning perspective, considering these complex dynamics to make more knowledgeable choices.

The findings of this study have significant implications for those who formulate policy, for practitioners, and for academics. For practitioners and investors, the study sheds light on the critical areas of governance that require attention to enhance transparency and accountability in financial reporting. In



emerging markets, this study contributes to the existing body of knowledge regarding corporate governance and compliance issues.

For policy, tailored governance frameworks need to be developed. This study emphasises the part that robust regulatory frameworks play in enhancing IFRS compliance, which is important for policymakers to know. It is important for regulatory bodies to consistently enforce regulations and strengthen oversight mechanisms to uphold the most stringent standards of financial reporting. This involves strengthening regulatory frameworks, modernizing regulations to match global standards, and maintaining consistent enforcement.

Moreover, as the study showed that gender diversity has a positive impact on the standard of financial reporting, encouraging gender diversity on corporate boards should be taken into consideration. Having policies that promote or require gender diversity can result in improved board oversight and enhanced compliance outcomes.

For practitioners, especially board members and corporate executives, the study emphasizes the role of board composition in achieving compliance. Firms must prioritize diversity and inclusion, particularly when it comes to women on boards. Additionally, it is important to carefully consider the optimal board size to ensure effective oversight. Improving board composition requires proactively seeking out female directors and cultivating a diverse range of skills and expertise to enhance the effectiveness of oversight and decision-making.

The models of the study indicate that internal controls did not significantly mediate the relationship between corporate governance and financial reporting quality within the context of the selected sub-Saharan African markets. This result prompts an assessment of the internal control systems effectiveness of these economies and suggests that internal controls do not uniformly enhance the influence of corporate governance on the quality of financial reporting as previously thought. The findings of the study indicate the importance of considering local contexts when implementing and evaluating governance and control mechanisms.

For policymakers and regulators, the results emphasize the need to tailor governance frameworks and internal control systems to fit the unique economic, cultural, and regulatory landscapes of each country. Furthermore, Practitioners are urged to reassess internal control systems and enhance board training and diversity. Policymakers should strengthen regulations surrounding internal control systems and their reporting to ensure more consistent and reliable financial disclosures across markets.

Firms should prioritise the enhancement of their internal controls and risk management strategies, including the potential implementation of targeted training programmes for the board members to ensure their comprehensive understanding and effective handling of firm-specific difficulties

Similarly, the findings indicate a need for specifically tailored governance frameworks that consider the distinct economic and regulatory environments of each country. This adaptation can enhance the positive impact of corporate governance on the quality of financial reporting in Sub-Saharan African companies.

In addition, companies must make substantial investments in strong compliance systems and ongoing training programs to guarantee strict adherence to IFRS in Sub-Saharan African companies.

The result of this research reveals the importance of board diversity in skills and expertise, suggesting that corporate leaders should prioritize this aspect to enhance governance outcomes.

Given the limited impact of internal controls on financial reporting quality identified, firms may need to reassess and potentially overhaul their existing internal control frameworks to achieve more integrated and effective outcomes.

The empirical evidence presented in this study supports existing correlations and enhances the understanding of the complex relationships within the contexts of corporate governance and financial reporting quality.

Again, the study supports the assertion that the attainment of high-quality financial reporting is contingent upon the implementation of strong corporate governance. The results of the study call on governments, organisations and

institutions to put in resources and training to ensure robust corporate governance to enhance the dependability of financial reporting which is crucial for the survival of organisations and the protection of stakeholders' interest.

Also, the study emphasises the importance of external auditors in adding credibility to the financial statement. The findings of this study indicate that organisations that are prepared to invest money in obtaining high quality external audits are more likely to demonstrate enhanced financial reporting quality. The study helps investors see the importance of spending more money to acquire highly qualified auditors.

Additionally, it provides valuable insights that can be applied in practice to improve the effectiveness and reliability of corporate governance mechanisms and financial reporting practices in sub-Saharan Africa

### **Limitations of the study**

This study's scope was focused on three sub-Saharan African countries, which, while providing valuable insights, limits the generalisability of the findings across all emerging markets. Each country's unique economic, cultural, and regulatory conditions can influence corporate governance and financial reporting in ways not fully captured by this study.

Additionally, the study measured internal controls based on risk assessment disclosures which can vary widely in quality and depth among firms, potentially affecting the robustness of results. Other influencing factors such as political stability or macroeconomic conditions were also not accounted for, which could impact the relationships studied.

Furthermore, the study is based on publicly available financial reports and disclosures, which may not include all elements of IFRS compliance, especially the qualitative factors that can impact compliance behaviour.

Again, understanding the interaction effects of the regulatory environment can be quite complex, as they may not completely consider other external factors like political stability, economic conditions, and cultural influences that could affect IFRS compliance

## **Recommendations**

The study recommends that regulators develop stricter and more detailed guidelines for corporate governance and internal control disclosures. These guidelines should ensure that disclosures are comprehensive, clear, and consistent across jurisdictions within the region. Moreover, fostering cooperation between regulatory bodies across sub-Saharan Africa could help standardise governance practices and enhance financial reporting transparency. Also, companies should focus on enhancing continuous professional development programmes for board members to enrich their governance skills. Additionally, firms should implement rigorous internal auditing processes that ensure their internal control systems are robust and supportive of high-quality financial reporting.

Also, the study recommends that companies in Sub-Saharan African should focus on enhancing continuous professional development programmes for board members to enrich their governance skills. Additionally, firms should implement rigorous internal auditing processes that ensure their internal control systems are robust and supportive of high-quality financial reporting.

## **Further studies**

This research lays the groundwork for further studies in emerging markets and highlights the necessity of localised investigations that reflect the unique characteristics of these environments.

The study revealed that the relationship between Board Size, Board Gender Diversity, and IFRS Compliance may be contingent upon certain contexts and conditions. Again, the study showed a lack of a substantial and direct correlation between Financial Leverage (FL) and IFRS Compliance which suggests that the influence of financial leverage on the quality of financial reporting may depend on several factors, including industry context and governance mechanisms. These findings lay the groundwork for further studies in emerging markets and highlight the necessity of localised investigations that reflect the unique characteristics of these environments.

Researchers should extend this study to a broader set of emerging economies to validate and broaden the findings. Investigating other aspects of internal controls and their direct impacts on different financial performance metrics and compliance in varying regulatory environments would also be beneficial

Furthermore, the study revealed that the relationship between Board Size, Board Gender Diversity, and IFRS Compliance may be contingent upon certain contexts and conditions. This calls for further studies into that.

The study also showed the lack of a substantial and direct correlation between Financial Leverage (FL) and IFRS Compliance which suggests the influence of financial leverage on the quality of financial reporting may depend on several factors, including industry context and governance mechanisms and call for further studies.

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## Appendix A

Table A.1. The OECD Principles of Corporate Governance

No.	Principles characteristics	
1	Basis for an Effective Corporate Governance Framework	Formation of transparent and efficient markets, adhere to the rule of law, and ensure clear delegation of responsibilities among supervisory, regulatory, and enforcement authorities.
2	The Rights of Shareholders and Key Ownership Functions	Ensuring and protecting the rights and relationships among shareholders (including minority and foreign shareholders), which primarily cover issues such as registration, access to information, participation and voting, election and removal of board members, transfer of shares and distribution of profits, and compensation for violations of rights, among others.
3	The Equitable Treatment of Shareholders	Ensuring reliable incentives within the investment chain for the efficient and transparent functioning of stock markets, including issues related to insider information, material interests (direct, indirect, or from third parties), abuse of power, and more.
4	The Role of Stakeholders in Corporate Governance	Encouraging the recognition of stakeholder rights (established by law or through mutual agreements) and promoting various forms of their cooperation with corporations, particularly in creating new jobs, ensuring well-being, and sustainability of financially sound enterprises.
5	Disclosure and Transparency	High-level control of information disclosure and transparency processes in business activities (in particular, regarding the nature of the organization's activities, the current state of affairs and future vectors of activity), and the board of directors (regarding risks and assessments in the preparation of financial and operational results of activities).
6	The responsibilities of the board	A clear statement of the board's responsibilities, which should cover matters of strategic direction, management monitoring and accountability to stakeholders

Source: OECD (2015).

Table A.2 – The CACG Principles of Corporate Governance

No.	Principles characteristics	
1	Leadership	Provide strong leadership and strategic direction to ensure the corporation's ongoing success, acting transparently, accountably, and responsibly in the best interests of the business
2	Board Appointments	Establish an effective process for board appointments, ensuring a diverse mix of skilled directors who can contribute independent judgment to decision-making
3	Strategy and Values	Define the corporation's mission and values, develop strategies to achieve these goals, and implement practices to safeguard the corporation's assets and reputation
4	Company Performance	Oversee and assess the execution of strategies, policies, management performance metrics, and business plans
5	Compliance	Ensure the corporation's compliance with all applicable laws, regulations, and best business practices
6	Communication	Maintain effective communication with shareholders and other stakeholders
7	Accountability to Shareholders	Serve the legitimate interests of shareholders and provide full accountability to them.
8	Relationships with Stakeholders	Develop policies to guide the corporation's relationships with its shareholders and stakeholders
9	Balance of Powers	Prevent any single person or group from holding unchecked power by balancing power and authority on the board, typically by separating the roles of CEO and Chairman and balancing executive and non-executive directors.
10	Internal Procedures	Regularly review and improve processes and procedures to ensure the effectiveness of internal control systems, decision-making capabilities, and the accuracy of financial reporting
11	Board Performance Assessment	Continually assess the board's overall performance and that of individual directors, including the CEO
12	Management Appointments and Development	Appoint the CEO and participate in selecting senior management, ensuring the protection and motivation of intellectual capital, providing adequate training, and developing a succession plan for senior management
13	Technology	Ensure the adequacy of technology and systems to effectively run the business and maintain competitive relevance
14	Risk Management	Identify and monitor key risk areas and performance indicators of the business
15	Annual Review of Future Solvency	Annually confirm the corporation's ability to continue as a going concern for the upcoming fiscal year

Source: CACG (1999).







### Appendix C

The results of comparative analysis of assessing the relationship between corporate governance structures, financial reporting quality and mediating variables in Ghana, Nigeria and South Africa

Table C.1 Descriptive Statistics for Ghana

	N	Minimum	Maximum	Mean	Std. Deviation
IFRS.Comp	650	0.0000	1.0000	0.8423	0.1655
VD	650	0.0000	1.0000	0.9156	0.1751
BS	650	0.0000	256.0000	85.5738	48.1778
BGD	637	0.0000	0.6000	0.1576	0.1184
BSED	637	0.0000	1.0000	0.4757	0.2158
IAC	636	0.0000	3.3333	0.8750	0.6749
RA	650	1.0000	1.0000	1.0000	0.0000
FS	648	4.3456	12.2355	7.8474	1.7330
AF	650	0.0000	17733000.0000	450636.4958	1245097.9693
AR	650	0.0000	1.0000	0.0769	0.2667
FA	650	1.0000	125.0000	38.0400	24.8118
ROA	648	0.0000	33.0251	0.2978	1.9565
ROE	645	-0.0241	41.4230	0.6801	2.6300
TQ	648	0.0000	1062.9920	4.8949	54.9925
REM	650	-18895022739.8080	9091198180.0048	1444188958.6702	2348521634.2503
ABEM	650	-5438778080.6438	35493999735.0000	1287496489.0439	2091464661.7840
FL	645	-1.6447	4703.6580	21.5505	229.9963
Valid N (listwise)	629				

a. Country the company is located = 1.00

Table C.2 Descriptive Statistics for Nigeria

	N	Minimum	Maximum	Mean	Std. Deviation
IFRS.Comp	637	.33333	1.00000	.87363	.07701
VD	637	.66667	1.00000	.88252	.07945
BS	637	.00000	361.00000	102.97645	63.81544
BGD	636	.00000	.60000	.19569	.12842
BSED	636	.37500	1.00000	.73301	.12763
IAC	636	.00000	3.66667	1.52359	.59882
RA	637	.00000	1.00000	.99529	.06852
FS	637	5.15786	13.07556	9.60648	1.88958
AF	637	.00000	5330000.00000	62020.84458	419846.20769
AR	637	.00000	1.00000	.07849	.26916
FA	637	2.00000	127.00000	46.18367	26.29912
ROA	637	.00000	1.17822	.09336	.12551
ROE	637	.00080	1976.12503	16.70895	99.37926
TQ	637	.00000	504.48036	3.80195	31.18473

## Continuation of table C.2

	N	Minimum	Maximum	Mean	Std. Deviation
REM	637	-86398208827.596	387025636087.632	2793707071.076	36458050177.127
ABEM	637	-446318745367.612	1888804717785.460	-1457687982.803	85472985274.537
FL	637	.01728	191.20959	3.47880	9.76576
Valid (listwise)	N636				
a. Country the company is located = 2.00					

Table C.3 Descriptive Statistics for South Africa

	N	Minimum	Maximum	Mean	Std. Deviation
IFRS.Comp	663	.3333	1.0000	.9516	.1183
VD	663	.6667	1.0000	.9869	.0557
BS	663	.0000	361.0000	105.9427	65.1708
BGD	662	.0000	1.0000	.2007	.1314
BSED	662	.3750	1.0000	.7341	.1264
IAC	662	.0000	3.6667	1.5459	.6042
RA	663	1.0000	1.0000	1.0000	.0000
FS	643	6.1116	11.8206	9.6078	.9837
AF	663	-10246000.0000	116000000.0000	3963307.8507	10560931.1753
AR	663	.0000	1.0000	.0754	.2643
FA	663	1.0000	134.0000	44.6471	36.9442
ROA	643	-4.6724	45.8246	.1330	1.8186
ROE	643	-110.6486	8.2627	-.0394	4.4035
TQ	643	-137.3912	354897.3906	1133.3288	19645.6005
REM	663	-105468536503.5470	36487518150.0000	-4100021432.2852	11617579405.6651
ABEM	663	-132394398714.3240	33911182528.3418	138272223.4258	8400648123.1268
FL	643	-44.3549	1504.6931	5.0233	67.0874
Valid (listwise)	N642				
a. Country the company is located = 3.00					

Table C.3 – Corporate Governance and Financial Reporting Quality Model

Summary<sup>a</sup> (Ghana)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.106 <sup>b</sup>	.011	.005	.1666
VD	.304 <sup>b</sup>	.093	.087	.1685
REM	.452 <sup>b</sup>	.205	.200	2123747697.17966
ABEM	.107 <sup>b</sup>	.012	.005	2108761561.0006
a. Country the company is located = 1.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				



Table C.4 – Corporate Governance and Financial Reporting Quality Model

Summary<sup>a</sup> (Nigeria)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.110 <sup>b</sup>	.012	.006	.0768
VD	.517 <sup>b</sup>	.267	.263	.06815
REM	.057 <sup>b</sup>	.003	-.003	36542103135.8289
ABEM	.124 <sup>b</sup>	.015	.009	85144918446.5791
a. Country the company is located = 1.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.5 – Corporate Governance and Financial Reporting Quality Model

Summary<sup>a</sup> (South Africa)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.164 <sup>b</sup>	.027	.021	.1171
VD	.451 <sup>b</sup>	.203	.198	.0499
REM	.409 <sup>b</sup>	.167	.162	10640399225.0926
ABEM	.187 <sup>b</sup>	.035	.029	8284483688.2061
a. Country the company is located = 3.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.6 – Corporate Governance and Financial Reporting Quality ANOVA<sup>a,b</sup> (Ghana)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.197	4	.049	1.777	.132 <sup>c</sup>
	Residual	17.510	631	.028		
	Total	17.708	635			
VD	Regression	1.829	4	.457	16.099	.000 <sup>c</sup>
	Residual	17.920	631	.028		
	Total	19.749	635			
REM	Regression	732284648539953000000.000	4	183071162134988000000.000	40.590	.000 <sup>c</sup>
	Residual	2846002001485090000000.000	631	4510304281275900000.000		
	Total	3578286650025040000000.000	635			
ABEM	Regression	32742860007644600000.000	4	8185715001911160000.000	1.841	.119 <sup>c</sup>
	Residual	2805978327648040000000.000	631	4446875321153790000.000		
	Total	2838721187655680000000.000	635			
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.7 – Corporate Governance and Financial Reporting Quality ANOVA<sup>a,b</sup> (Nigeria)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.046	4	.011	1.931	.104 <sup>c</sup>
	Residual	3.724	631	.006		
	Total	3.770	635			
VD	Regression	1.070	4	.267	57.577	.000 <sup>c</sup>
	Residual	2.931	631	.005		
	Total	4.000	635			
REM	Regression	2773352713311680000000.000	4	693338178327920000000.000	.519	.722 <sup>c</sup>
	Residual	842590265303010000000000.000	631	1335325301589560000000.000		
	Total	845363618016322000000000.000	635			
ABEM	Regression	71847183523829800000000.000	4	17961795880957400000000.000	2.478	.043 <sup>c</sup>

Continuation of table C.7

	Residual	4574533653620280000000000.000	631	7249657137274610000000.000		
	Total	4646380837144110000000000.000	635			
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.8 – Corporate Governance and Financial Reporting Quality ANOVA<sup>a,b</sup> (South Africa)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.250	4	.062	4.555	.001 <sup>c</sup>
	Residual	9.008	657	.014		
	Total	9.258	661			
VD	Regression	.417	4	.104	41.826	.000 <sup>c</sup>
	Residual	1.636	657	.002		
	Total	2.053	661			
REM	Regression	14940875052712700000000.000	4	3735218763178190000000.000	32.991	.000 <sup>c</sup>
	Residual	74384288854764100000000.000	657	113218095669352000000.000		
	Total	89325163907476900000000.000	661			
ABEM	Regression	1625036782858410000000.000	4	406259195714602000000.000	5.919	.000 <sup>c</sup>
	Residual	45091664176960700000000.000	657	68632669980153200000.000		
	Total	46716700959819100000000.000	661			
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.9 – Corporate Governance and Financial Leverage Model Summary<sup>a</sup>

(Ghana)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.108 <sup>b</sup>	.012	.005	231.9016
a. Country the company is located = 1.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.10 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup>

(Ghana)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	397516.027	4	99379.007	1.848	.118 <sup>c</sup>
	Residual	33665244.283	626	53778.346		
	Total	34062760.310	630			
a. Country the company is located = 1.00						
b. Dependent Variable: FL						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.11 – Corporate Governance and Financial Leverage Model Summary<sup>a</sup> (Nigeria)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.206 <sup>b</sup>	.043	.036	9.592623416791650
a. Country the company is located = 2.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.12 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup>

(Nigeria)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2580.551	4	645.138	7.011	.000 <sup>c</sup>
	Residual	58063.626	631	92.018		
	Total	60644.177	635			
a. Country the company is located = 2.00						
b. Dependent Variable: FL						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.13 – Corporate Governance and Financial Leverage Model Summary<sup>a</sup> (South Africa)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.083 <sup>b</sup>	.007	.001	67.117076415426000
a. Country the company is located = 3.00				
b. Predictors: (Constant), IAC, BSED, BGD, BS				

Table C.14 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup>  
(South Africa)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19944.605	4	4986.151	1.107	.352 <sup>c</sup>
	Residual	2869495.140	637	4504.702		
	Total	2889439.745	641			
a. Country the company is located = 3.00						
b. Dependent Variable: FL						
c. Predictors: (Constant), IAC, BSED, BGD, BS						

Table C.15 – Corporate Governance and External Audit Quality Model  
Summary<sup>a</sup> (Ghana)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
FS	.521 <sup>b</sup>	.271	.267	1.4865
AF	.079 <sup>b</sup>	.006	.0001	1258259.6374
AR	.089 <sup>b</sup>	.008	.002	.267
a. Country the company is located = 1.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.16 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup>  
(Ghana)

Model		Sum of Squares	df	Mean Square	F	Sig.
FS	Regression	517.516	4	129.379	58.550	.000 <sup>c</sup>
	Residual	1389.906	629	2.210		
	Total	1907.422	633			
AF	Regression	6207138825420.420	4	1551784706355.100	.980	.418 <sup>c</sup>
	Residual	999010125879630.000	631	1583217315181.660		
	Total	1005217264705050.000	635			
AR	Regression	.361	4	.090	1.270	.280 <sup>c</sup>
	Residual	44.864	631	.071		
	Total	45.225	635			
a. Country the company is located = 1.00						
b. Dependent Variable: FS, AF, AR						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.17 – Corporate Governance and External Audit Quality Model  
Summary<sup>a</sup> (Nigeria)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
FS	.368 <sup>b</sup>	.135	.130	1.7641
AF	.226 <sup>b</sup>	.051	.045	410552.31891
AR	.082 <sup>b</sup>	.007	.000	.269
a. Country the company is located = 2.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.18 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup>

(Nigeria)

Model		Sum of Squares	df	Mean Square	F	Sig.
FS	Regression	307.221	4	76.805	24.681	.000 <sup>c</sup>
	Residual	1963.603	631	3.112		
	Total	2270.824	635			
AF	Regression	5747327063457.600	4	1436831765864.400	8.524	.000 <sup>c</sup>
	Residual	106357073339809.000	631	168553206560.711		
	Total	112104400403266.000	635			
AR	Regression	.312	4	.078	1.075	.368 <sup>c</sup>
	Residual	45.757	631	.073		
	Total	46.069	635			
a. Country the company is located = 2.00						
b. Dependent Variable: FS, AF, AR						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.19 – Corporate Governance and External Audit Quality Model Summary<sup>a</sup> (South Africa)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
FS	.658 <sup>b</sup>	.433	.429	.7438
AF	.215 <sup>b</sup>	.046	.040	10353781.54841
AR	.091 <sup>b</sup>	.008	.002	.264
a. Country the company is located = 2.00				
b. Predictors: (Constant), IAC, BGD, BS, BSED				

Table C.20 – Corporate Governance and Financial Leverage ANOVA<sup>a,b</sup> (South Africa)

Model		Sum of Squares	df	Mean Square	F	Sig.
FS	Regression	268.739	4	67.185	121.432	.000 <sup>c</sup>
	Residual	352.435	637	.553		
	Total	621.174	641			
AF	Regression	3404099588929870.000	4	851024897232467.000	7.939	.000 <sup>c</sup>
	Residual	70430920575438100.000	657	107200792352265.000		
	Total	73835020164367900.000	661			
AR	Regression	.383	4	.096	1.374	.241 <sup>c</sup>
	Residual	45.840	657	.070		
	Total	46.224	661			
a. Country the company is located = 2.00						
b. Dependent Variable: FS, AF, AR						
c. Predictors: (Constant), IAC, BGD, BS, BSED						

Table C.21 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality Model Summary<sup>a</sup> (Ghana)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.201 <sup>b</sup>	.040	.028	.1655
VD	.319 <sup>b</sup>	.102	.090	.1689
REM	.459 <sup>b</sup>	.211	.201	2133565265.1395
ABEM	.186 <sup>b</sup>	.035	.022	2020646017.8712
a. Predictors: (Constant), AR, BSED, AF, FL, RA, BGD, BS, FS, IAC				

Table C.22 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality Model Summary<sup>a</sup> (Nigeria)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.186 <sup>b</sup>	.035	.021	.0762
VD	.574 <sup>b</sup>	.329	.319	.0655
REM	.127 <sup>b</sup>	.016	.002	36448184623.5919
ABEM	.173 <sup>b</sup>	.030	.016	84853074895.7537
a. Predictors: (Constant), AR, BSED, AF, FL, RA, BGD, BS, FS, IAC				

Table C.23 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality Model Summary<sup>a</sup> (South Africa)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
IFRS.Comp	.177 <sup>b</sup>	.031	.019	.1188
VD	.393 <sup>b</sup>	.154	.144	.0437
REM	.525 <sup>b</sup>	.275	.266	10077049465.6856
ABEM	.198 <sup>b</sup>	.039	.027	8417564017.0211
a. Predictors: (Constant), AR, BSED, AF, FL, RA, BGD, BS, FS, IAC				

Table C.24 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality ANOVA<sup>a,b</sup> (Ghana)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.712	8	.089	3.251	.001 <sup>c</sup>
	Residual	16.978	620	.027		
	Total	17.690	628			
VD	Regression	2.005	8	.251	8.780	.000 <sup>c</sup>
	Residual	17.697	620	.029		
	Total	19.701	628			
REM	Regression	755308454690739000000.000	8	94413556836342300000.000	20.741	.000 <sup>c</sup>
	Residual	2822302459178060000000.000	620	4552100740609770000.000		
	Total	3577610913868800000000.000	628			
ABEM	Regression	90776832479382100000.000	8	11347104059922800000.000	2.779	.005 <sup>c</sup>
	Residual	2531466404314120000000.000	620	4083010329538900000.000		
	Total	2622243236793500000000.000	628			
a. Country the company is located = 1.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), FL, AF, BSED, BS, AR, BGD, FS, IAC						

Table C.25 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality ANOVA<sup>a,b</sup> (Nigeria)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.131	9	.015	2.495	.008 <sup>c</sup>
	Residual	3.639	626	.006		
	Total	3.770	635			
VD	Regression	1.316	9	.146	34.109	.000 <sup>c</sup>
	Residual	2.684	626	.004		
	Total	4.000	635			
REM	Regression	13741296381814100000000.000	9	1526810709090450000000.000	1.149	.325 <sup>c</sup>
	Residual	831622321634508000000000.000	626	1328470162355440000000.000		



Continuation of table C.25

	Total	845363618016322000000000.000	635			
ABEM	Regression	139153093284607000000000.000	9	15461454809400800000000.000	2.147	.024 <sup>c</sup>
	Residual	450722774385950000000000.000	626	7200044319264380000000.000		
	Total	464638083714411000000000.000	635			
a. Country the company is located = 2.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), FL, AF, BSED, BS, AR, BGD, FS, IAC						

Table C.26 – Corporate Governance, Internal Control, Financial Leverage and External Audit Quality Impact Financial Reporting Quality ANOVA<sup>a,b</sup> (South Africa)

Model		Sum of Squares	df	Mean Square	F	Sig.
IFRS.Comp	Regression	.290	8	.036	2.572	.009 <sup>c</sup>
	Residual	8.933	633	.014		
	Total	9.223	641			
VD	Regression	.221	8	.028	14.438	.000 <sup>c</sup>
	Residual	1.210	633	.002		
	Total	1.431	641			
REM	Regression	24414530847531500000000.000	8	3051816355941430000000.000	30.053	.000 <sup>c</sup>
	Residual	64279204116142900000000.000	633	101546925933875000000.000		
	Total	88693734963674300000000.000	641			
ABEM	Regression	1825038182151210000000.000	8	228129772768901000000.000	3.220	.001 <sup>c</sup>
	Residual	44851458059750400000000.000	633	70855383980648400000.000		
	Total	464638083714411000000000.000	635			
a. Country the company is located = 3.00						
b. Dependent Variable: IFRS.Comp, VD, REM, ABEM						
c. Predictors: (Constant), FL, AF, BSED, BS, AR, BGD, FS, IAC						

## Appendix D

### LIST OF PUBLICATIONS

Below are articles published on the objectives and results of the study.

#### **Publications in Ukrainian scientific specialized journals:**

1. Amanamah, R. B. (2024). Exploring the impact of board experience diversity on voluntary disclosure: The moderating role of firm size. *Corporate Board: Role, Duties and Composition*, 20(3), 91–104. <https://doi.org/10.22495/cbv20i3art9>.

2. Amanamah, R. B. (2024). Corporate Governance and Financial Reporting Quality: Mediating function of Internal Control from Emerging Markets. *Corporate Governance and Sustainability Review (ABDC listing)*, 8(3), 36–50. <https://doi.org/10.22495/cgsrv8i3p3>.

3. Amanamah, R. B. (2024). Corporate Governance, Financial Leverage, External Audit Quality, and Financial Reporting Quality in Ghanaian Companies. *Financial Markets, Institutions and Risks, (category B)*, 8 (1), ISSN (online) – 2521-1242; ISSN (print) – 2521-1250. [http://doi.org/10.61093/fmir.8\(1\).43-62.2023](http://doi.org/10.61093/fmir.8(1).43-62.2023)

4. Amanamah, R.B. (2024). Examining the Moderating Role of Firm Characteristics in the Corporate Governance-Financial Reporting Quality Nexus: Evidence from a Developing Country. *Business Ethics and Leadership, (category B)*, 8 (1), ISSN (online) – 2520-6311; ISSN (print) – 2520-6761. [http://doi.org/10.61093/bel.8\(1\).28-44.2024](http://doi.org/10.61093/bel.8(1).28-44.2024).

#### **Publications in non-Ukrainian scientific specialized journals**

5. Amanamah, R.B. (2025). The Impact of Firm Age on Independent Audit Committee and Voluntary Disclosure Quality. *African Journal of Applied Research (Scopus) Vol. 11, No. 1 pp. 228-256*. DOI: <https://doi.org/10.26437/ajar.v11i1.847>. Index by Scopus (<https://www.scopus.com/sourceid/21101193860>)

6. Amanamah, R.B. (2024). International Financial Reporting Standard Compliance in Sub-Saharan Africa: The Influence of the Board and Firm

Characteristics. *International Journal of Auditing and Accounting Studies*, 6(3), 263-297. ISSN: 2582-3272 <https://DOI:10.47509/IJAAS.2024.v06i03.01>.

**Conference Proceedings:**

7. World Finance & Banking Symposium, December, 13th-15th, 2023 Vilnius, Lithuania. Paper presented: Examining the moderating role of firms' characteristics in the corporate governance-financial reporting quality nexus: evidence from developing country. Discussant: Thanuja Gunadeera - Queensland University of Technology (Australia), Speaker Henri Servaes, Professor of Corporate Governance and Finance at the London Business School

8. World Finance Conference - Norway (August 2nd to 4th, 2023). Paper presented: Corporate Governance Research in Ghana: Bibliometric Analysis. Discussant: Mutian Sun - Coventry University (United Kingdom)