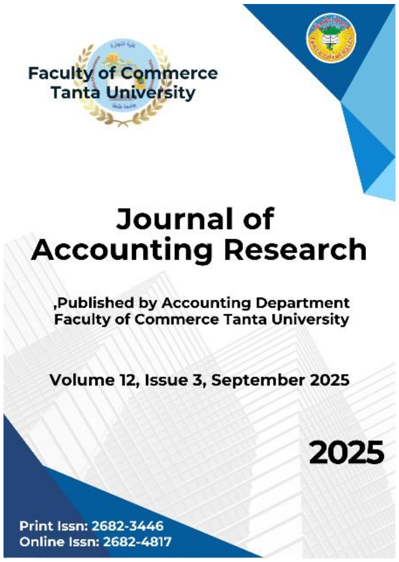

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The Relationship Between Integrated Reporting Disclosure and Corporate Governance Performance: An Empirical Study

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Abstract

Purpose – The main purpose of this research is to examine the impact of Integrated Reporting Disclosure (IRD) on corporate governance performance in Egyptian listed firms. The study specifically focuses on internal governance mechanisms, including board characteristics, audit committee, and risk management committee.

Methodology – The study employs content analysis to measure the level of Integrated Reporting Disclosure (IRD) using a disclosure index consisting of 27 items derived from the IIRC framework and prior literature. A multiple regression analysis was conducted to examine the impact of IRD on selected governance-related variables (board characteristics, audit committee, and risk management committee). The sample includes 56 companies listed on the EGX100 index, covering a four-year period from 2020 to 2023.

Findings – The findings reveal that a higher level of IRD is significantly associated with enhanced governance quality, particularly in terms of board expertise, audit committee expertise, and risk management committee expertise. However, the study finds no significant relationship between IRD and the activity levels of these governance bodies.

Research Limitations – The sample includes only 56 companies within the EGX100 index, which may affect the generalizability of the findings across other sectors or markets. Second,

even though there are other corporate governance mechanisms like internal audit, governance committee, and sustainability committee, the study only looked at three main independent variables.

Keywords : Integrated Reporting; Corporate Governance; Agency theory; stakeholder theory.

1. The General Framework of Study

1.1. Introduction

Traditional corporate financial reporting is unable to meet the reporting standards of the postmodern business environment because of limitations like the lack of non-financial information, short-termism, incoherence, and complexity. The business environment is evolving, and a lot of things that were previously unimportant or unknown are now becoming crucial. For stakeholders, they have taken the shape of important bits of information. Scholars have observed a paradigm shift in corporate reporting as a means of overcoming the limitations of conventional reporting methodologies. Consequently, integrated reporting (IR) emerged as the subject of an ongoing, lively, and even moving debate in the field of corporate governance and corporate social responsibility (CSR) (Soriya & Rastogi, 2022).

Integrated Reporting (IR), as one of the various statutory and discretionary modalities of corporate reporting, has quickly emerged as a new accounting method to help businesses understand their value creation and interact with external stakeholders (de Villiers & Dimes, 2023). IR requires that data and information about the government, society, and environment be disclosed in a single document.

The framework of rules and regulations that governs and manages businesses to achieve a fair and equitable balance between the interests of the company's various constituencies, including its shareholders, managers, clients, vendors, creditors, regulators, and citizens, is known as corporate governance (CG). In fact, Governance mechanisms are crucial for controlling the information that is created and shared outside of the organization. They also guarantee that managers uphold the rights and interests of the company's stakeholders and that they behave responsibly when it comes to the creation, preservation, and allocation of value that has been invested in the company (Shu and Chiang, 2020).

1.2. Research Problem

Regarding the influence of corporate governance mechanisms on integrated reporting practices, there are a conflicting conclusion, For instance, (Chariri & Januarti, 2017) found that audit committee expertise has a positive impact on IR practices. Nonetheless, it has not been shown by (Haji & Anifowose, 2016 and Raimo *et al*., 2021) that the audit committee members' financial experience and educational background had no bearing on the caliber of the integrated reports. On the other hand (Ahmed, 2023) has shown that audit committee expertise negatively correlated with IR practices. These mixed findings highlight the need to explore the relationship in the opposite direction. Specifically, whether integrated reporting disclosure the quality and effectiveness of internal corporate governance mechanisms.

Furthermore, most studies that have explored the relationship between corporate governance and integrated reporting have been conducted in countries where integrated reporting is mandatory, such as South Africa. This raises concerns regarding the generalizability of their findings, as results observed in one regulatory and institutional context may not necessarily hold true in another particularly in developing economies where integrated reporting remains voluntary or emerging, such as Egypt.

Therefore, the research problem is embodied in investigating whether the level of integrated reporting disclosure is associated with governance performance, particularly the attributes of the board, audit committee, and risk management committee. This leads to the following research questions:

1. To what extent does the level of integrated reporting disclosure enhance the accounting expertise of board members in Egyptian listed companies?
2. To what extent does the level of integrated reporting disclosure enhance the activity level of board members in Egyptian listed companies?
3. To what extent does the level of integrated reporting disclosure enhance the accounting expertise of audit committee in Egyptian listed companies?
4. To what extent does the level of integrated reporting disclosure enhance the activity level of audit committee in Egyptian listed companies?
5. To what extent does the level of integrated reporting disclosure enhance the accounting expertise of risk management committee in Egyptian listed companies?
6. To what extent does the level of integrated reporting disclosure enhance the activity level of risk management committee in Egyptian listed companies?

1.3. Research Objectives

The main objective of this study is to investigate the moderating effects of board size and auditor type on the relationship between IRD and governance mechanisms, in particular the characteristics of the board, audit committee and risk management committee of listed Egyptian firms.

This main objective can be achieved through the following sub-objectives

- Evaluate the extent and quality of integrated reporting disclosure in the annual reports of Egyptian companies within the chosen sample.
- Develop or apply a framework for measuring disclosure level of integrated reporting.

- Provide empirical insights from an emerging market context, contributing to the understanding of how integrated reporting supports governance performance.

1.4. Research Methodology

To achieve the objectives of this research, a positivist approach will be employed to systematically analyze the relationship between integrated reporting disclosure and governance performance. This approach facilitates a structured investigation by explaining, analyzing, and predicting how the extent and quality of integrated reporting influence specific corporate governance characteristics, such as board, audit, and risk management mechanisms.

1.5. Research Importance

1.5.1 Scientific importance

this study contains several contribution to enhance the existing literature regarding IR.

- The concept of Integrated Reporting (IR) remains relatively novel in developing nations. Consequently, this research contributes to the academic discourse within developing countries by augmenting existing studies on IR across various capital markets.
- The evidence is found in Egypt, recognized as a developing economy, where there exists a limited number of studies regarding the correlation between integrated reporting disclosure (IRD) and corporate governance.
- By incorporating a novel corporate governance mechanism the Risk Management Committee, this research extends prior studies and offers an understanding of how integrated reporting may influence specific aspects of governance.

1.5.2 Practical importance

- This study provides valuable insights for managers and policymakers by identifying how integrated reporting practices can enhance various dimensions of corporate governance, in the context of Egyptian-listed companies.
- The study's results are expected to be beneficial for managers of firms in the early stages of integrated reporting implementation.
- The findings are anticipated to be valuable for professionals preparing financial and social reports, as well as for investors looking for profitable investment opportunities.

2. Literature Review

2.1 Studies Related To Integrating Reporting Disclosure:

Girella *et al*. (2019)

The purpose of this research was to investigate the impact of firm- and country-specific attributes on the voluntary adoption of integrated reporting across national borders. It did this by analyzing a sample of 71 globally listed companies that embraced this reporting form in 2016.The findings indicated that companies were more likely to use integrated reporting if they are located in countries that are perceived as being more feminist and collectivist, have better risk ratings, and have a longer time horizon. The legal system is now not very important. Regarding the characteristics of the firms, it was determined that the size of the board, market-to-book ratio, profitability, and large size were significant variables. Furthermore, the findings showed that greater leverage, firm efficiency, board diversity, and independence had no influence on the adoption of integrated reporting.

Songini *et al*. (2020)

IR quality determinants were the focus of this study. The authors had identified the primary factors that influence the quality of IR, taking into account prior research on voluntary disclosure, particularly that related to corporate social responsibility (CSR) and sustainability disclosure. The Integrated Reporting Scoreboard, which has been recently proposed in the literature, has been utilized by the authors to evaluate the IR's quality. Following the formulation of the research hypothesis, a sample of IRs issued over a three-year period by 55 companies were the subject of an empirical analysis. The primary research findings showed that, while the country in which a company operates—especially those in Europe and those with mandatory IR laws—was the primary determinant of IR quality, industry and firm size do not appear to positively affect IR quality.

Abogazia *et al*. (2022)

Using data from Egypt, this study attempted to examine the moderating role that external financing needs have on the relationship between the degree of integrated reporting (IR) disclosure and firm value. For a matched sample of 50 companies listed on the Egyptian Stock Exchange (EGX), specifically from EGX100, this study employed a panel regression analysis. The four-year sample period (2017–2020) was covered. Tobin's Q, a stand-in for firm value, and IR were measured in the current study using content analysis. The results showed a strong positive correlation between firm value and IR disclosure level. Furthermore, the authors discovered that the relationship between IR and firm value was moderated by the need for external financing. The study concluded that a firm's value increases with the level of IR content disclosure, and that this relationship was stronger for firms that require a lot of outside funding.

Jayasiri *et al.* (2023)

This paper's goal was to review the IR articles that the accounting, finance, and management journals that were listed in the Australian Business Deans Council's (ABDC) list of journals published between 2009 and 2020. In this study, 210 IR articles from 64 journals are reviewed. The results showed that, in contrast to previous research, which was primarily normative, the scope of IR research has expanded over time and now encompasses more study of IR in practice.

Mishra & Nurullah (2023)

The goal of this study was to investigate how integrated report preparers in India view the advantages and challenges associated with integrated reporting (IR). The preparation of integrated reports and the role of preparers in that process were other objectives of this study. The study's conclusion is drawn from nine semi-structured in-depth interviews with report preparers. The study's findings demonstrated that preparers have a generally positive attitude toward integrated reporting and that they were crucial to its adoption and preparation. According to the analysis, integrated thinking has become a crucial aspect of corporate disclosures and represents the company's engagement with its diverse stakeholders.

2.2 Studies Related To Corporate Governance

Puni and Anlesinya (2020)

This study aimed to investigate the impact of corporate governance mechanisms that the Ghana Securities and Exchange Commission (SEC) recommends on the performance of listed Ghanaian companies from 2006 to 2018. The performance metrics used in this analysis include earning per share, return on equity, and return on assets, as well as market-based measures like Tobin's Q. These mechanisms include shareholder concentration, board meetings, chief executive officer (CEO) duality/separation, board committees (audit, remuneration, and nomination), and board composition (board size, inside directors, and outside directors). The study discovered that improved financial performance resulted from having both insiders and outsiders on the corporate board. Similarly, ownership structure and shareholder concentration, as well as board size and meeting frequency, all generally improved financial performance. Nonetheless, CEO duality had no effect on financial performance, whereas the existence of board committees typically had a negative effect.

Abdou *et al*. (2021)

The study aimed to investigate the connection between earnings management (EM) and corporate governance (CG) using both traditional regressions and generalized regression neural networks (GRNNs). Additionally, it investigated whether, for a sample of British and Egyptian companies, governance quality moderates the association between EM and CG. The results indicated that the following factors are associated with lower levels of EM in UK firms: (a) smaller boards, a high proportion of independent outside directors, and a low percentage of female directors; (b) larger boards, a high proportion of independent outside directors, and a low percentage of female directors are associated with lower levels of EM in Egyptian firms.

Erin et *al.* (2022)

The purpose of this study was to investigate the relationship between listed companies in Nigeria's sustainability reporting quality and corporate governance. The authors use audit committee characteristics (audit committee size, audit expertise, and audit meeting) and board governance variables (board size, independence, gender diversity, and expertise) to measure corporate governance. The authors used a scoring system with a range of 0 to 4 to assess the quality of sustainability reporting. When sustainability reporting is independently verified by an audit firm, the highest grade is obtained. The lack of reporting on sustainability receives the lowest score. Utilizing the ordered logistic regression technique, the study focuses on 120 listed companies on the Nigeria Stock Exchange. The findings showed a significant relationship between sustainability reporting quality and audit committee attributes (audit committee size, audit meeting, and audit expertise) and board governance variables (board size, gender diversity, and expertise). Further investigation showed that corporate governance traits of external assurance enhance the quality of sustainability reporting.

Ismaeel & Soliman (2022)

This study aimed to investigate how corporate governance affected the organizational performance of small and medium-sized domestic enterprises (SMEs) in the mining, distribution, construction, and industrial sectors that are listed on Egypt's Nilex stock market. This study employed an empirical analysis to investigate the impact of various board factors, including size, composition, CEO duality, and audit committee presence, on the listed companies' performance. This study used accounting-based metrics, such as return on assets (ROA), to examine how well corporations perform. The results of the study showed a negative correlation between the proportion of executive directors on the board and company performance in Egypt, as well as a negligible correlation between board size and company performance. Additionally, there was a positive correlation between CEO duality and company performance. A negative correlation between the performance of the companies and the audit committee's existence.

2.3 Studies Related To The Relationship between Integrating Reporting and Corporate Governance

Haji and Anifowose (2016)

This paper attempted to investigate the function of the audit committee as a source of internal assurance. Specifically, the authors looked at the function of the audit committee in IR practice and its overall effectiveness as well as certain aspects of it. Over a three-year period (2011-2013), the authors analyze the integrated reports of 246 firm-year observations of major South African companies. Utilizing opposing theoretical stances from economics-based (like agency theory) and socio-political theories (like legitimacy theory). The authors discovered a strong positive correlation between the scope and quality of internal reporting (IR) practice and the overall efficacy of the audit committee function, which aligns with the predictions of economics-related theories. It has been demonstrated that audit committee meetings and authority, in particular, significantly improve internal reporting practices. The authors did not discover a significant correlation between important elements of the audit committee function, such as audit committee independence and financial expertise and IR practice, as suggested by socio-political theories.

Chariri and Januarti (2017)

The purpose of this study was to look into how audit committee independence, meeting frequency, and expertise affect integrated reporting. The integrated reports of manufacturing companies listed on the Johannesburg Stock Exchanges provided the data for this study. The purposive sampling method was used to select samples from a total of 58 companies. After that, a multiple regression model was used to examine the data. According to the results, 70% of the necessary items were covered by the companies' integrated reports. Furthermore, the level of integrated reports was positively impacted by the audit committee's experience and frequency of meetings. The association between the reports of the companies and independent audit committees was not supported by this study.

Raimo *et al*. (2021)

The study used agency theory to examine how the audit committee's characteristics affected the quality of IR. A sample of 125 was used for the regression analysis.The findings showed that the audit committee's size, independence, and frequency of meetings had a positive impact on the quality of IR. The results also showed that the audit committee members' financial experience and educational background had no bearing on the caliber of the integrated reports. Moreover, the results demonstrated that these characteristics impact both the degree of alignment with the IR framework and the quality of the integrated reports.

Songini *et al*. (2022)

This study sought to explore how the characteristics of the Board of Directors influence the quality of integrated reporting, measured by the extent to which the report's content aligns with the guidelines set forth in the Integrated Reporting Framework developed by the IIRC. The board attributes examined include its size, structure, and diversity in terms of members' gender, age, and educational background. A sample of 53 companies was analyzed over the period from 2013 to 2016 for a total number of 212 integrated reports. Five research hypotheses were formulated. The research findings indicated that the quality of integrated reporting was positively influenced by the Educational level of board members, while it was negatively affected by the presence of female members. Additionally, among the control variables, profitability showed a positive association with IR quality, whereas leverage exhibited a negative association. Overall, the results suggested that the "quality" of board members plays a more critical role than their "quantity" in enhancing the quality of integrated reporting.

Ahmed (2023)

This paper's primary goal was to determine whether the degree of disclosure in integrated reports of South African listed companies is correlated with corporate governance mechanisms, specifically the characteristics of the board, audit committee and risk management committee. Examining the impact of integrated reporting (IR) on the sustainable development goals (SDGs) is the second goal of this paper. The impact of corporate governance mechanisms on the IR practices of a sample of South African listed firms is estimated using a multiple regression analysis for the period between 2019 and 2021. A disclosure index made up of 60 information items that were created from the IIRC framework and earlier research was used to measure disclosures in order to determine the level of IR using the content analysis method. The findings showed that IR practices are positively impacted by board size, board independence, and risk management committee independence. However, the following factors are negatively correlated with IR practices: board expertise, board activity, audit committee independence, audit committee size, audit committee expertise, audit committee meetings, risk management committee expertise, risk management committee meetings, audit committee size, and the type of auditor. The findings also showed that by using integrated thinking, IR played a significant role in accomplishing the SDGs.

Makri *et al*. (2024)

This study seeks to investigate the effect of board attributes on the quality of integrated reporting (IRQ) among companies listed in India. Utilizing a sample of 197 firms from the BSE 500 index across the financial years 2017–2018 to 2019–2020, the research tests its hypotheses through the application of two-stage least squares regression analysis. The findings revealed that board size, board independence, and gender diversity have a positive impact on the quality of integrated reporting (IRQ). Additionally, the results showed that board activity and role duality did not have a significant relationship with IRQ. Regarding firm-specific attributes, factors such as firm size, profitability, and capital intensity were found to positively affect IRQ.

3. Theoretical Framework

3.1. The Concept and Nature of Integrated Reporting

The IIRC (2013) provides a definition of integrated reporting as a process that is rooted in integrated thinking and culminates in the production of a periodic integrated report by an organization focusing on value creation and associated communications on various aspects of value generation. An integrated report serves as a succinct means of communicating how an organization's strategy, governance, performance, and prospects, within the framework of its external surroundings, contribute to value creation across the short, medium, and long term. However, integrated reporting is not framed as the next evolution of sustainability reporting; rather, it is posited as an endeavor to advance "a more unified and effective method of corporate reporting that incorporates various reporting components" (IIRC, 2013).

Samy & Deeb (2019) explicated the concept of (IR) as the mechanism through which the broader value drivers of a corporation are internally managed and subsequently linked to investors and other stakeholders. The primary aim is not solely to provide additional information, but rather to offer enriched information. It is the information that stockholders are increasingly looking for to increase the utility and efficacy of their decision-making processes (EY, 2014).

According to Steyn (2014) the fundamental concepts of the integrated report, center on the following:

- The diverse forms of capital (financial, manufactured, intellectual, human, social, relationship, and natural) that an organization employs and influences.
- The generation of value across time.
- The business model.

3.2. Integrated Reporting Objectives

The aims of integrated reporting encompass enhancing the business and maximizing the advantages derived from incorporating both financial and non-financial disclosure elements in companies' integrated reports (Samy & Deeb, 2019). According to IIRC (2013, 2021), IR aims to

- Encourage a more unified and effective approach to corporate reporting that combines various reporting streams and conveys the entire spectrum of elements that significantly impact an organization's capacity to generate value over time.
- Promote a higher level of accountability and stewardship concerning the diverse array of capitals (financial, manufactured, intellectual, human, social and relationship, and natural), while also fostering comprehension of the interconnections among them.
- Enhance the quality of information accessible to financial capital providers is essential in facilitating a more effective and efficient capital allocation process.
- Reinforce integrated thinking and decision making, and acting that are centered on generating value in the short, medium, and long terms.

3.3. Benefits Associated With Integrated Reporting

An organization and its stakeholders can benefit greatly from the implementation of integrated reporting. It's now the only place to go for all the information you need. The majority of users will probably only use the information that is pertinent to their own decision-making and not the entire report (Jin, 2021).

In order to facilitate a more effective and fruitful distribution of capital, IR enhances the caliber of information available to financial capital providers. Among the alleged potential advantages of IR are (Lee & Yeo, 2016):

1. An enhanced explication of the strategic direction of an organization and how its business model adapts to shifts in the competitive landscape and external environment.
2. An improved explication of particular risks and opportunities that impact the organization's capacity to generate value over the short, medium, and long run.
3. A more refined elucidation of the manner in which the organization handles/mitigates significant risks, generates value from crucial opportunities, and the requisite governance framework to bolster value generation.
4. A focus on both financial and non-financial performance in order to satisfy the needs and concerns of important stakeholders.
5. An emphasis on information connectivity (such as how the entity aligns its strategic objectives and resource allocation strategies with external environmental influences, stakeholder involvement, and identified risks and opportunities).
6. Enhancement in internal processes (which is assumed to result in increased efficiency and cost reduction) due to the integration of departments.

3.4. Integrated Thinking

The notion of 'integrated thinking' was initially put forth by Martin and Austen (1999) as a fundamental component of a decision-making framework aimed at equipping managers to navigate the inherent conflict between pursuing profit maximization and fostering social and environmental sustainability (Feng *et al*., 2017).

According to La Torre *et al.* (2019) integrated thinking constitutes a fundamental concept, if not the primary concept, supporting the agenda of the International Integrated Reporting Council (IIRC). The active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects is defined as integrated thinking. This definition of integrated thinking states that its goal is to eliminate barriers between various divisions and functions within an organization, facilitating smoother information dissemination and enhancing internal communication (IIRC, 2013).

Integrated thinking enhances an organization's information systems, which in turn enhances internal decision-making quality. This facilitates transparent governance and positive organizational transformations through the evaluation of capitals and value creation processes. The recognition of risks and opportunities, strategic decision-making, and operational efficiencies all benefit from the adoption of an integrated thinking mindset (Barth *et al*., 2017).Integrated thinking serves as the logic that guides integrated reporting.

Although Lai *et al.* (2018) state that integrated thinking is a prerequisite for IR, they also contend that IR plays a role in cultivating integrated thinking by promoting discussions between the various departments and individuals responsible for preparing the reports. Consequently, IR and integrated thinking mutually reinforce each other (Dumay & Dai, 2017), with an integrated report serving as the ultimate outcome of this process (De Villiers *et al*., 2014). In a similar vein, La Torre *et al* (2019) view IR and integrated thinking as interconnected components of the same overarching concept.

3.5. Definition of Corporate Governance

Despite the presence of a well-defined set of principles and mechanisms, corporate governance lacks a unified conceptual framework. Consequently, different definitions of corporate governance have been demonstrated by earlier research in the literature. As stated by Ntousa (2023), corporate governance can be described as the "system through which organizations are directed and controlled." In other words, corporate governance refers to an overall collection of regulations, customs, habits and laws that dictate the manner in which individuals entrusted with authority oversee a corporation.

Guo *et al*. (2013) demonstrated that Corporate Governance pertains to the relationship between stockholders (the principal) and management (the agent). They demonstrated that the focus on this issue aims to restrict and oversee the potential conflicts between these two entities. Furthermore, Corporate Governance (CG) can be described as the systematic approach to overseeing and managing business operations in order to enhance business success and corporate responsibility, aiming to achieve organizational goals and long-term stakeholder value.

According to Keasey *et al*. (2005) corporate governance (CG) is defined as the array of mechanisms, encompassing both institutional and market-oriented aspects, which incentivize a company's self-interested controllers, or those who make decisions about how the business will be run, to take actions that optimize the firm's value for its stakeholders , or the suppliers of capital.

3.6. The Relationship Integrated Reporting and Corporate Governance

Corporate governance has emerged as a response to factors such as climate change, globalization, and financial crises. It plays a crucial role in rebuilding connections with investors and various stakeholders. Simultaneously, there has been a growing emphasis on integrated reporting as a means to offer a comprehensive overview of an organization's performance (Higgins *et al*., 2019). Consequently, companies are required to establish sustainable values beyond financial ones for the benefit of their investors, society, and also to disclose non-financial information to stakeholders. Actually, corporate governance within the realm of integrated reporting, has evolved to restore stakeholder trust and foster the perception that owners' interests align with managers' (Roxana-Ioana & Petru, 2017).

The genesis of the integrated report can be traced back to corporate governance, serving as a response to the increasing pressures faced by corporate executives in relation to strategic decision-making, sustainability practices, risk management, and overall performance evaluation (Higgins *et al*., 2019). Corporate governance is one of the main factors influencing integrated report disclosure, as it is deeply impacted by the decisions made by the management. Moreover, based on prior literature, integrated reporting is necessary to preserve the long-term value and relationships with stakeholders.

There are numerous theories that explain how IR disclosure and corporate governance are related. IR as a comprehensive phenomenon cannot be explained by a single theory. It is challenging, in fact, to incorporate every empirical finding into a single theoretical framework. Consequently, this study includes agency and stakeholder theories.

3.6.1 Integrated Reporting for Good Corporate Governance

Integrated reporting, as outlined by Roxana-Ioana & Petru (2017), serves as a valuable tool for enhancing corporate governance:

1. Integrated reporting is premised on the concept of integrated thinking, thereby placing a strong emphasis on internal processes to comprehend the diverse needs and interests of various investors and stakeholders. Companies that utilize integrated reporting are more proficient in conveying the overall performance of the organization globally.
2. The integration of financial and non-financial information, encompassing forward-looking aspects, within integrated reporting has the potential to bolster corporate governance. Given that the focus on integration is a fundamental aspect of integrated reporting, it is conducive for making more informed decisions, undertaking enhanced actions, and improving the allocation of capital and resources to foster the creation and maintenance of long-term sustainable value.
3. Integrated reporting serves as a tool to pinpoint opportunities and risks for the organization and, significantly, to elucidate how these aspects are managed rather than merely articulating them. This approach contributes to facilitate better risk management.

4. Empirical Study

This research examined the relationship between the extent of integrated reporting disclosure and governance performance. Six indicators were used as proxies: board member expertise, board member Activity, audit committee expertise, audit committee activity, risk committee expertise, and risk committee activity.

Using seven of the eight Integrated Reporting (IR) content elements, this study employed the Integrated Reporting disclosure level (IRD) independent variable. The researcher decided to exclude the 8th content element, the future outlook because this content assessment required heavy judgments to be made by the researcher; it might be subjective and biased. The study obtained the integrated report's data of the selected companies from annual reports, on their websites and used content analysis on these reports.

To inspect the relationship between integrated reporting disclosure (IRD) and corporate governance, this research was helped by some control variables: firm size and auditor type.

4.1. Research Hypotheses

The hypotheses of this study will be formulated using the following alternative forms:

H1: There is a significant positive relationship between integrated reporting disclosure and board expertise.

H2: There is a significant positive relationship between integrated reporting disclosure and board activity.

H3: There is a significant positive relationship between integrated reporting disclosure and audit committee expertise.

H4: There is a significant positive relationship between integrated reporting disclosure and audit committee activity.

H5: There is a significant positive relationship between integrated reporting disclosure and risk management committee expertise.

H6: There is a significant positive relationship between integrated reporting disclosure and risk management committee activity.

4.2. Sample Selection

To test the hypotheses, data on the study variables must be accessible. Consequently, the 100 most actively traded companies on the EGX between 2020 and 2023 represent the study community. With the exception of the bank sector and non-bank financial services sector, all sectors into which the EGX divides listed companies are examined in this study.

Financial companies were not included Because of their distinct features and different disclosure requirements High leverage, for instance, is typical for financial corporations due to the nature of their operations , but nonfinancial firms most likely do not follow this practice or would interpret its existence in the same way.

Purposive sampling is used in this study's sample, which is derived from secondary data taken from the DataStream and annual reports of the chosen companies over a four-year period, from 2020 to 2023. Due to data unavailability, missing observations for certain firms are not included. Consequently, 56 companies with 224 firm-year observations, spread across 14 sectors, made up the final sample. The study's initial and final samples are described in Table

(1). The sample includes firms listed on the Egyptian Stock Exchange that went to the public. The final sample was selected based on two criteria:

1. The selected firms were continuously listed on the Egypt Stock Exchange (EGX) during the period of study.
2. Availability of annual reports: Each firm has financial reports, and annual reports, available for four consecutive years ending in 2023.

Table 1: Outlines the Initial and Final Sample of the Study.

Description	Number of observations
Initial Sample (100 firms * 4 years)	400
Less : Banks Sector (6 Banks * 4 years)	(24)
Less : Non-Bank Financial Services sector (11firms * 4 years)	(44)
Less : Unavailable data Reports (27 firms*4 years)	(108)
Final Sample Size (56 firms * 4 years)	224

4.3. Sample Features:

Based on the above criteria, the research is applied to a sample of the Egyptian firms that are listed on the Egyptian Stock Exchange, 100 firms were selected but only 56 firms, which meet the above criteria.

This results in a final sample of 56 firms with 224 firm-year observations over fiscal years 2020 to 2023. The sample was distributed across 14 different sectors as shown in Table 2.

Table2: Sector Representation of Sample Firms.

No.	Sector	No.	%
1.	Basic Resources	11	20%
2.	Health Care & Pharmaceuticals	7	13%
3.	Industrial Goods, Services & Automobiles	2	3%
4.	Real Estate	9	17%
5.	IT, Media & Communication Services	3	5%
6.	Food, Beverages & Tobacco	8	15%
7.	Shipping & Transportation Services	1	2%
8.	Energy & Support Services	2	3%

9.	Trade & Distributors	1	2%
10.	Textile & Durables	2	3%
11.	Education Services	2	3%
12.	Building Materials	4	7%
13.	Contracting & Construction Engineering	3	5%
14.	TRAVEL & LEISURE	1	2%
Total		56	100%

Table (2) shows that the 56 sample firms are distributed across 14 different sectors. The Basic Resources sector has the highest number of sample firms, representing 20% of the total study sample. Followed by the Real Estate sector, which accounts for 17% .This is followed by the Food, Beverages & Tobacco sector, which accounts for 15% of the sample, while the Health Care & Pharmaceuticals sector accounts for 13%. The Building Materials sector makes up 7%, and both the IT, Media & Communication Services sector and the Contracting & Construction Engineering sector each represent 5% of the sample. The Industrial Goods, Services& Automobiles sector, Energy & Support Services sector, Textile & Durables sector, and Education Services sector each account for 3%. Finally, the Shipping & Transportation Services sector, Trade & Distributors sector, and Travel & Leisure sector each include only one firm, representing 2% of the total study sample.

4.4. Variable Definitions and Measurements

The analysis was based on three main variables: 1) Integrated Reporting Disclosure (independent variable): the researcher designed an indicator for this goal. 2) Corporate Governance (dependent variable): the study focused on six key corporate governance indicators: board expertise, board activity, audit committee expertise, audit committee activity, risk management committee expertise, and risk management committee activity. 3) Control Variables: In line with prior research (e.g., Buitendag *et al*., 2017and Ahmed, 2023), firm size and auditor type were included to account for other factors that may influence governance practices beyond integrated reporting disclosure.

Table 3: The Definition and Measurement of Study Variables.

Variable	Description	Measure
Independent variable IRD	Integrated Reporting Disclosure	An indicator designed for this goal
Dependent variables BE	Board expertise	A dummy variable is equal to 1 if at least one of the members in the board has accounting knowledge, and 0 otherwise

BA	Board activity	The number of meetings held by the board in the year
ACE	Audit committee expertise	A dummy variable is equal to 1 if at least one of the members in the audit committee has accounting knowledge, and 0 otherwise
ACA	Audit committee activity	The number of meetings held by the audit committee in the year
RMCE	Risk management committee expertise	A dummy variable is equal to 1 if at least one of the members in the risk management committee has accounting knowledge, and 0 otherwise
RMCA	Risk management committee activity	The number of meetings held by the risk management committee in the year
Control variables FS	Firm size	The natural logarithm of total assets
AT	Auditor type	A dummy variable is equal to 1 if a company is audited by one of the big four, 0 otherwise

4.4.1 Measuring Integrated Reporting Disclosure (IRD)

The subject of IRD and IR practices, which has recently generated interest in both the literature and empirical research, is directly tied to this final aspect. The issues of IRD and their determinants seem to be more significant now after reviewing different kinds of research on the importance and benefits of IR (Songini *et al*., 2020).

Based on the IIRC's (2013) IR framework and an examination of the methodology employed in the following previous studies, the study created and designed an index to measure IRD (Songini *et al*., 2020; Haji & Anifowose, 2016; Erin & Adegboye, 2022; Maroun, 2020; Zhou *et al*., 2017). The elements of the indicator that measures IRD are displayed in the appendix (B).

Following a comprehensive examination of the methodologies employed in prior research, the paramount vocabulary and components necessary for stakeholders in evaluating the firm's capacity to generate value were discerned. The index contains 27 elements organized into 7 major categories: organizational overview and external environment, governance, business model, risk and opportunities, strategy and resource allocation, performance, basis of preparation and presentation. (Appendix B)

To determine the degree of IRD, the study employed content analysis. The number of actual disclosure items in each company from the study sample was determined by manual content analysis due to the small sample size. Accounting research involving disclosure/reporting studies is where content analysis is most frequently employed (Haji & Anifowose, 2016a and Erin & Adegboye, 2022). The qualitative data was converted into a quantitative approach using content analysis. Using word counts, pages, and sentences, content analysis methodology quantifies qualitative information in annual reports and other valuable research materials (Erin & Adegboye, 2022).

A number of items are included in each content element to evaluate the degree of IRD compliance (Appendix B). Each item in the study is given a score between 0 (noncompliance to IRD) and 1 (compliance to IRD). Appendix B contains the section pertaining to the detailed IRSCORE. The IRSCORE will range from 0 (the minimum) to 27 (the maximum), depending on the method used to calculate it (7 main content elements have 27 sub-components multiplied by the range from 0 to 1 points per item). A high degree of IRD in accordance with the guidelines and principles the IR framework is indicated by a higher IRSCORE.

The weighted average score of each company for IRD was determined by the researcher using the following methodology, which was adapted from Abogazia *et al*. (2022).

$$PC_j = \frac{\sum_{i=1} X_i}{R_j} \qquad (1)$$

PC_j Stands for the respective score for every fiscal and corporate year. The degree of disclosure for each dimension within the IR dimensions is indicated byX_i. The total number of useful items for the corresponding company j, orR_j, is divided by the sum of the scores for a given dimension (X). As a result, IR has seven dimensions that can be calculated using the equation below:

$$IR_{it} = \sum_{j=1}^{7} X_{it} + \varepsilon_{it} \qquad (2)$$

Where $X_t$represents the dimensions of IR, i, t and ε_{it} measure the individual effect, the temporal effect and the stochastic error, respectively, where:

$$\sum_{j=1}^{7} X_{it} = \propto + \beta_1\, OOEE_{it} + \beta_2\, GOV_{it} + \beta_3\, RO_{it} + \beta_4\, SRA_{it} + \beta_5\, BPP_{it} + \beta_6\, BM_{it} + \beta_7\, PER_{it} \qquad (3)$$

Where

OOEE: Organizational overview and external environment

GOV: Governance

RO: Risk and opportunities

SRA: Strategy and resource allocation

BPP: Basis of preparation and presentation

BM: Business model

PER: Performance

4.5 Descriptive Statistics of Total Sample Study

This section provides descriptive statistics for the variables that have been used to test the hypotheses. In the next table (5.4), descriptive statistics for variables are displayed. Descriptive statistics make it possible to summarize the central tendency of the data (the minimum and maximum values that each variable can take as well as the mean and the standard deviation) of the variables.

Table 4: Descriptive Statistics.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IRD	224	.104762	1.000000	.75627126	.210700908
BE	224	.00	1.00	.7679	.42315
BA	224	4	35	9.84	5.064
ACE	224	0	1	.77	.423
ACA	224	0	14	5.26	2.917
RMCE	224	0	1	.20	.402
RMCA	224	0	10	1.38	2.114
FS	224	7.3908	11.3054	9.538854	.7828130
AT	224	0	1	.49	.501
Valid N (listwise)	224				

The descriptive statistics in Table (3) showed that the average level of Integrated Reporting Disclosure (IRD) across the sample is approximately 75.63%, with a minimum value of 10.47% and a maximum of 100%, indicating relatively high levels of IR practices among Egyptian firms. This suggests a growing awareness of the importance of disclosure through integrated reporting. The average number of board meetings (BA) is 9.84, ranging from 4 to 36 meetings.

The proportion of board members with expertise (BE) has a mean of 0.7679 with a standard deviation of 0.42315. The mean audit committee activity (ACA) is 5.26 meetings, while the proportion of audit committee members with expertise (ACE) averages 0.77. For risk management, the activity level (RMCA) shows a mean of 1.38, and the expertise of risk management committee members (RMCE) has a mean of 0.402. Regarding control variables, the average firm size (FS) is 9.59, ranging from 7.39 to 11.30, indicating variation in company sizes. Lastly, auditor type (AT) shows a mean of 0.49, suggesting a balanced distribution between different types of auditors.

4.6. Pearson Correlation Test

The second statistical technique used in this research is Pearson correlation test, this technique enables us to test the strength and direction of the relationship between variables, this technique measures the correlation between study variables either between the dependent and independent variables or between the independent variables themselves.

Table 5: The Correlations between Study Variables with a Two Tailed Significance Test for the Total Study Sample.

Correlations		IR INDEX	BE	BA	ACE	ACA	RMCE	RMCA	FS	AT
IR INDEX	Pearson Correlation	1								
	Sig. (2-tailed)									
BE	Pearson Correlation	.244**	1							
	Sig. (2-tailed)	0								
BA	Pearson Correlation	0.072	0.085	1						
	Sig. (2-tailed)	0.283	0.205							
ACE	Pearson Correlation	.300**	.399**	-0.02	1					
	Sig. (2-tailed)	0	0	0.771						
ACA	Pearson Correlation	0.054	.231**	.453**	0.072	1				
	Sig. (2-tailed)	0.425	0	0	0.286					
RMCE	Pearson Correlation	.157*	.276**	-0.026	.276**	. - 0.049	1			
	Sig. (2-tailed)	0.018	0	0.699	0	0.464				
RMCA	Pearson Correlation	.153*	0.008	-0.02.	143*	-0.023	672**	1		
	Sig. (2-tailed)	0.022	0.911	0.767	0.033	0.728	0			
FS	Pearson Correlation	.263**	0.102	.150*	0.103	.218**	153*	.284**	1	
	Sig. (2-tailed)	.000	0.126	0.025	0.124	.001	0.022	.000		
AT	Pearson Correlation	.219**	-0.031	-0.126	0.075	- .212**	-0.024	-0.115	0.104	1
	Sig. (2-tailed)	0.001	0.645	.060	0.265	.001	0.716	.085	0.122	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table (4) presents the Pearson correlation coefficients between the study variables and Integrated Reporting Disclosure (IRD) for the total study sample, using a two-tailed significance test. The results indicate that four variables exhibit statistically significant positive correlations with IRD. IRD is positively correlated with BE as the person correlation coefficient is .244 and is statistically significant at .01 level, suggesting that companies with higher level of integrated reporting disclosure tend to have more skilled and experienced board members. Similarly, a positive and statistically significant relationship is observed between IRD and ACE with a person correlation coefficient of 0.300 and a statistically significant level of.01. . Both risk meetings and risk expertise have a positive correlation with the IRD; at the significant level of 0.05, their respective person correlation coefficients are.153 and.157.

On the other hand, IRD do not show statistically significant correlation with variables such as BA and ACA, indicating that the frequency of meetings may not be directly influenced by the level of integrated reporting disclosure. With respect to the control variables, table (5.5) also demonstrates a positive correlation between IRD and the firm size and auditor type, with respective person correlation coefficients of.263 and.219 at significant level 0.01.

4.7 Multiple Regression Analysis

The relationship between the independent variable (predictor) and a set of dependent variables (predicted variables) is investigated by multiple regression analysis. Additionally, this analysis is used to determine the predictive power and significance of the regression models, as well as the degree to which the variation in the independent variable explains the variation in each dependent variable. Stated differently, multiple regression analysis aids in determining how much the dependent variables change in response to changes in the independent variable.

4.7.1 Testing the First Hypothesis

To test this hypothesis, the following regression model was used.

$$\text{BE}= \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \boldsymbol{IRD} + \boldsymbol{\beta_2 FS} + \boldsymbol{\beta_3 AT} + \boldsymbol{\varepsilon}$$

Table 6: The Results of Testing the First Hypothesis.

Variable	B	t	Sig.t
(Constant)	.188	.559	.577
IRD	.507	3.668	.000
FS	.025	.672	.502

AT	-.077	-1.363	.174
R	.263[a]		
R^2	.069		
Adjusted R^2	.056		
F	5.448		
Sig. F	.001[b]		

- The table shows that the correlation coefficient (R) is 0.263, indicating a moderate positive linear relationship between the independent variable (IRD) and the dependent variable (BE). It can be noticed from this table that R Square (Coefficient of Determination) is 0.069, meaning that approximately 6.9% of the variation in board expertise can be explained by the independent variables.
- The F-statistic is 5.448, with a significance level (Sig. F) of 0.001, which is well below the 0.05 threshold. This indicates that the model as a whole is statistically significant and has explanatory power.
- From Table (5), regarding the significance level between independent variables and the dependent variable, it was found that the (IRD) has a coefficient (B) of 0.507, a t-value of 3.668, and a p-value of 0.000, indicating a significant positive relationship with (BE). It means that as firms enhance their IR practices, they are more likely to have or attract Boards with financial expertise who possess a deeper understanding of both financial and non-financial information, including accounting principles, financial analysis, and reporting standards. Leading to the first hypothesis of the study to be accepted.

4.7.2 Testing the Second Hypothesis

To test this hypothesis, the following regression model was used.

$$\mathbf{BA}= \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \boldsymbol{IRD} + \boldsymbol{\beta_2 FS} + \boldsymbol{\beta_3 AT} + \boldsymbol{\varepsilon}$$

Table 7: The Results of Testing the Second Hypothesis.

Variable	B	t	Sig.t
(Constant)	.240	.059	.953
IRD	1.616	.965	.335
FS	.959	2.171	.031
AT	-1.578	-2.312	.022
R	.216[a]		
R^2	.047		
Adjusted R^2	.034		
F	3.597		
Sig. F	.014[b]		

- The table shows that the correlation coefficient (R) is 0.216, indicating a weak positive relationship between the independent variable (IRD) and the dependent variable (BA). The R Square (R^2) value is 0.047, which means that only 4.7% of the variation in board activity is explained by the model. The adjusted R^2 is slightly lower at 0.034, indicating that the explanatory power of the model remains limited after adjusting for the number of predictors.
- The F-statistic is 3.597 with a significance value (Sig. F) of 0.014, indicating that the overall model is statistically significant at the 5% level.
- Integrated Reporting Disclosure (IRD) has a coefficient (B) of 1.616, a t-value of 0.965, and a p-value of 0.335. This result is not statistically significant, indicating that there is no sufficient evidence to support a direct positive relationship between IRD and BA, and therefore, *H*2 is rejected.

4.7.3 Testing the Third Hypothesis

To test this hypothesis, the following regression model was used.

$$\text{ACE}= \boldsymbol{\alpha + \beta_1 \, IRD + \beta_2 FS + \beta_3 AT + \varepsilon}$$

Table 8: The Results of Testing the Third Hypothesis.

Variable	B	t	Sig.t
(Constant)	.191	.574	.567
IRD	.586	4.288	.000
FS	.014	.379	.705
AT	.007	.125	.901
R	.301[a]		
R^2	.091		
Adjusted R^2	.078		
F	7.318		
Sig. F	.000[b]		

- The table shows that the correlation coefficient (R) is 0.301, indicating a moderate positive relationship between the independent variable (IRD) and the dependent variable (ACE). The R Square (R^2) is 0.091, meaning that 9.1% of the variance in audit committee expertise is explained by the independent variables. The Adjusted R^2 is 0.078, which remains close, confirming a consistent model fit.
- The model's overall significance is confirmed by the F-statistic of 7.318 and a Significance F value of 0.000. For a result to be significant, the P-value of the test has to be smaller than or equal the acceptable significance level (5%). In this case the P-value of 0.000 is smaller than 0.05 so the model is statistically significant.
- Integrated Reporting Disclosure (IRD) shows a coefficient (B) of 0.586, a t-value of 4.238, and a p-value of 0.000. This indicates a significant positive relationship between IRD and ACE. The result supports *H*3, it means that the more items disclosed in the integrated report the more firms tend to have audit committees members with stronger backgrounds in accounting and finance.

4.7.4 Testing the Fourth Hypothesis:

To test this hypothesis, the following regression model was used.

$$\textbf{ACA} = \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \boldsymbol{IRD} + \boldsymbol{\beta_2 FS} + \boldsymbol{\beta_3 AT} + \boldsymbol{\varepsilon}$$

Table 9: The Results of Testing the Fourth Hypothesis.

Variable	B	t	Sig.
(Constant)	-2.743	-1.205	.230
IRD	.644	.689	.491
FS	.862	3.494	.001
AT	-1.431	-3.755	.000
R	.324[a]		
R^2	.105		
Adjusted R^2	.093		
F	8.600		
Sig. F	.000[b]		

- The regression output shows a correlation coefficient (R) of 0.324, indicating a moderate positive relationship between the independent variable (IRD) and the dependent variable (Audit Committee Activity). The R^2 value is 0.105, meaning that about 10.5% of the variation in (ACA) can be explained by the model.
- The F-statistic for the model is 8.600, with a significance value (Sig. F) of 0.000, indicating that the model as a whole is statistically significant. This means that the three predictors together have a meaningful effect on audit committee activity.
- Integrated Reporting Disclosure (IRD) has a coefficient (B) of 0.644, a t-value of 0.689, and a p-value of 0.491. This result is not statistically significant, this means that even though the coefficient is positive, there is no strong evidence to suggest that higher levels of integrated reporting are associated with more frequent audit committee meetings. Leading to reject *H*4.

4.7.5 Testing the Fifth Hypothesis

To test this hypothesis, the following regression model was used.

$$\textbf{RMCE} = \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \boldsymbol{IRD} + \boldsymbol{\beta_2 FS} + \boldsymbol{\beta_3 AT} + \boldsymbol{\varepsilon}$$

Table 10: The Results of Testing the Fifth Hypothesis.

Variable	B	t	Sig.t
(Constant)	-.575	-1.773	.078
IRD	.266	2.003	.046
FS	.063	1.794	.074
AT	-.054	-1.002	.317
R	.206[a]		
R^2	.042		

Adjusted R^2	.029
F	3.247
Sig. F	.023[b]

- The regression model shows a correlation coefficient (R) of 0.206, indicating a positive relationship between the independent variables (IRD) and the dependent variable (RMCE). The R^2 value is 0.042, meaning that 4.2% of the variation in RMCE is explained by the model.
- The F-value of 3.247 and its associated p-value (0.023), which is below the 0.05 threshold. Suggest that the overall model is statistically significant.
- Integrated Reporting Disclosure (IRD) has a positive coefficient (B = 0.266) and is statistically significant (t = 2.003, p = 0.046). This supports *H*5 and indicates that the more a company discloses through integrated reporting, the more expertise it tends to have in its risk management committee.

4.7.6 Testing the sixth Hypothesis

To test this hypothesis, the following regression model was used.

$$\textbf{RMCA}= \boldsymbol{\alpha} + \boldsymbol{\beta_1}\, \boldsymbol{IRD} + \boldsymbol{\beta_2 FS} + \boldsymbol{\beta_3 AT} + \boldsymbol{\varepsilon}$$

Table 11: The Results of Testing the Sixth Hypothesis.

Variable	B	t	Sig.t
(Constant)	-6.144	-3.744	.000
IRD	1.190	1.767	.079
FS	.731	4.110	.000
AT	-.715	-2.602	.010
R	.339[a]		
R^2	.115		
Adjusted R^2	.103		
F	9.491		
Sig. F	.000[b]		

- The regression analysis shows a moderate positive correlation (R = 0.339) between the independent variables and risk management committee activity. The R^2 value is 0.115, indicating that 11.5% of the variation in RMCA is explained by the model
- The model is statistically significant overall, as evidenced by an F-value of 9.491 and a p-value of 0.000, which is well below the 0.05 significance level.
- Integrated Reporting Disclosure (IRD) has a positive coefficient (B = 1.190), but the p-value is 0.079, which is not statistically significant. This means there is no sufficient evidence to support the claim that higher levels of IRD lead to increased activity in the risk management committee. Leading to *H*6 to be rejected.

4.8 Research Results

The findings support *H1*, indicating that firms with stronger integrated reporting practices are more likely to appoint board members with greater financial expertise. Although the direction of analysis in this study differs from that of Songini *et al*. (2022), who examined board expertise as a driver of IR quality the results remain directionally consistent, suggesting a reciprocal link between governance structures and reporting transparency. This aligns with agency theory, which argues that enhanced IR practices reduce information asymmetry and increase the demand for qualified directors who can effectively oversee disclosures and safeguard stakeholder interests.

The findings also confirm that IRD is positively associated with ACE, supporting *H3*. This suggests that firms that engage in more comprehensive integrated reporting tend to have audit committee members with stronger backgrounds in accounting and finance. According to agency theory, enhanced disclosure increases the demand for effective internal monitoring, which may prompt firms to appoint more qualified audit committee members capable of ensuring the integrity and reliability of both financial and non-financial information. A highly competent audit committee helps mitigate agency problems by overseeing the reporting process and reducing the likelihood of managerial manipulation.

While previous studies such as Chariri & Januarti (2017) and Raimo *et al*. (2021) examined this relationship in the opposite direction, emphasizing that the audit committee with accounting/finance expertise positively affect the scope of integrated reporting, This study suggests that the reverse may also hold true: the firm's commitment to integrated reporting may act as a catalyst for improving the quality of its audit committee.

The study, on the other hand discovered an insignificant association between IRD and BA, leading to the rejection of *H2*. Although the relationship was positive, the statistical insignificance indicates that firms with higher levels of integrated reporting do not necessarily hold more frequent board meetings. This result is directionally consistent with Makri *et al*. (2024), although they investigated the reverse relationship they claimed that excess frequency of board meetings may be an unnecessary expending of time and company resources, creating no significant effect on disclosure quality. Suggesting that IRD and BA may not be strongly linked in either direction.

Moreover, an insignificant association between IRD and ACA was found, leading to reject *H4*. This finding is inconsistent with the finding of Haji & Anifowose (2016), who examined the reverse relationship and found that ACA positively affects IR practices. The inconsistency may be attributed to their focus on large companies in South Africa, or differences in analytical direction.

Regarding risk management committee expertise, the results show a positive and significant relationship between IRD and RMCE, supporting *H5.* From a stakeholder theory perspective, firms that disclose more extensively may feel greater pressure to demonstrate credible and responsible risk governance to meet the expectations of investors, regulators, and the public. Enhancing the qualifications of the risk committee serves as a strategic response to stakeholder demands for both accountability and long-term stability.

Regarding the control variables, when starting with the firm size, Firm Size demonstrated a significant and positive impact in half of the models (*H2*, *H4*, and *H6*), particularly those related to governance activity (board, audit, and risk committees). This supports Stakeholder Theory, which posits that larger firms are subject to greater public visibility, regulatory scrutiny, and stakeholder expectations thereby pushing them to demonstrate stronger governance engagement.

Finally, Auditor Type (AT) showed a strong and statistically significant impact in the same three models (*H2*, *H4*, and *H6*). These findings align with Agency Theory, as external auditors play a vital role in enhancing accountability, especially in procedural oversight such as meeting frequency and committee activity.

5. Research Recommendations

1. **Enhancing the Strategic Role of IR in Governance Practices**
   - Companies should recognize integrated reporting as a strategic tool that contributes not only to transparency but also to the strengthening of board and committee effectiveness.
2. **Capacity Building for Governance Committees**
   - Organizations are encouraged to appoint governance committee members with expertise in sustainability, risk, and non-financial reporting to ensure that IR is meaningfully utilized.
3. **Promoting Active Engagement Between IR and Governance Units**
   - Increased interaction between risk management, audit functions, and IR teams is recommended to ensure that disclosures reflect a comprehensive view of governance performance.

6.4 Suggestions for Future Research

With the increasing integration of big data analytics, artificial intelligence (AI), machine learning, and blockchain technology, future research could investigate:

1. How digital tools enhance the accuracy and quality of IR disclosures.
2. The impact of AI-powered analytics on measuring and communicating ESG performance indicators.
3. The role of blockchain in improving transparency, traceability, and credibility of sustainability data reported in IR.
4. The extent to which digital transformation facilitates stakeholder engagement and supports interactive reporting platforms that go beyond traditional static reports.

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مستخلص البحث

الهدف . تهدف هذه الرسالة إلى دراسة تأثير الإفصاح في التقارير المتكاملة (IRD) على اداء اليات الحوكمة في الشركات المدرجة في البورصة المصرية، مع التركيز بشكل خاص على آليات الحوكمة الداخلية المتمثلة في: مجلس الإدارة، ولجنة المراجعة، ولجنة إدارة المخاطر.

المنهجية . تعتمد الدراسة على أسلوب تحليل المحتوى لقياس مستوى الإفصاح في التقارير المتكاملة باستخدام مؤشر إفصاح يتكون من 27 بندًا مستمدًا من إطار عمل مجلس التقارير المتكاملة (IIRC) والدراسات السابقة. كما تم استخدام تحليل الانحدار المتعدد لفحص أثر الإفصاح في التقارير المتكاملة على عدد من المتغيرات المرتبطة بالحوكمة (خصائص مجلس الإدارة، ولجنة المراجعة، ولجنة إدارة المخاطر). وتضم العينة 56 شركة مدرجة في مؤشر EGX100 خلال فترة زمنية تمتد من 2020 إلى 2023.

النتائج . أظهرت النتائج أن ارتفاع مستوى الإفصاح في التقارير المتكاملة يرتبط بشكل معنوي بتحسن جودة الحوكمة، وخصوصًا من حيث خبرة مجلس الإدارة، وخبرة لجنة المراجعة، وخبرة لجنة إدارة المخاطر. ومع ذلك، لم تجد الدراسة علاقة معنوية بين مستوى الإفصاح ومستوى نشاط هذه اللجان.

حدود البحث . تقتصر العينة على 56 شركة فقط ضمن مؤشر EGX100 ، مما قد يحد من امكانية تعميم النتائج على قطاعات او اسواق اخرى. كما ان الدراسة ركزت فقط على ثلاث متغيرات مستقلة ،رغم وجود اليات اخرى لحوكمة الشركات مثل المراجعة الداخلية، ولجنة الحوكمة، ولجنة الاستدامة.

الكلمات المفتاحية :التقارير المتكاملة ؛ حوكمة الشركات؛ نظرية الوكالة ؛ نظرية أصحاب المصلحة

Appendix (A): A List of Companies Used in the Empirical Study

No.	Company Name	The Sector
1.	Abou Kir Fertilizers	BASIC RESOURCES
2.	Egypt Aluminum	
3.	Misr National Steel - Ataqa	
4.	Asek Company for Mining - Ascom	
5.	Misr Chemical Industries	
6.	Egyptian Chemical Industries (Kima)	
7.	Ezz Steel	
8.	Kafr El Zayat Pesticides	
9.	Egyptian Financial & Industrial	
10.	Misr Fertilizers Production Company - Mopco	
11.	Sidi Kerir Petrochemicals - SIDPEC	
12.	Ibnsina Pharma	HEALTH CARE & PHARMACEUTICALS
13.	Glaxo Smith Kline	
14.	Tenth Of Ramadan Pharmaceutical Industries&Diagnostic-Rameda	
15.	Cleopatra Hospital Company	
16.	Egyptian International Pharmaceuticals (EIPICO)	
17.	Minapharm Pharmaceuticals	
18.	Medical Packaging Company	
19.	ELSWEDY ELECTRIC	INDUSTRIAL GOODS , SERVICES AND AUTOMOBILES
20.	GB Corp	
21.	T M G Holding	REAL ESTATE
22.	Arab Developers Holding	
23.	Amer Group Holding	
24.	Emaar Misr for Development	

25.	Madinet Masr For Housing and Development	
26.	Mena Touristic & Real Estate Investment	
27.	Heliopolis Housing	
28.	Six of October Development & Investment (SODIC)	
29.	Egyptian Gulf Marseilia For Real Estate Investment	
30.	Egyptian Media Production City	IT , MEDIA & COMMUNICATION SERVICES
31.	Telecom Egypt	
32.	Fawry For Banking Technology And Electronic Payment	
33.	Sharkia National Food	FOOD, BEVERAGES AND TOBACCO
34.	Eastern Company	
35.	Edita Food Industries S.A.E	
36.	Juhayna Food Industries	
37.	Arabian Food Industries DOMTY	
38.	The Arab Dairy Products Co. Arab Dairy - Panda	
39.	Delta Sugar	
40.	Ismailia Misr Poultry	
41.	Egyptian Transport (EGYTRANS)	SHIPPING & TRANSPORTATION SERVICES
42.	Alexandria Mineral Oils Company	ENERGY & SUPPORT SERVICES
43.	Maridive & oil services	
44.	MM Group For Industry And International Trade	TRADE & DISTRIBUTORS
45.	Remco for Touristic Villages Construction	TRAVEL & LEISURE
46.	Dice Sport & Casual Wear	TEXTILE & DURABLES
47.	Oriental Weavers	
48.	Taaleem Management Services	EDUCATION SERVICES
49.	Cairo Educational Services	
50.	Rubex International for Plastic and Acrylic Manufacturing	
51.	El Ezz Porcelain (Gemma)	

52.	Arabian Cement Company	BUILDING MATERIALS
53.	Ceramic & Porcelain	
54.	Orascom Construction PLC	CONTRACTING & CONSTRUCTION ENGINEERING
55.	Nasr Company for Civil Works	
56.	Engineering Industries (ICON)	

Appendix (B): Constructing Integrated Reporting Score

IR Content Elements	Acronym	Items	Notation	Evidence from Prior studies	Keywords
Organizational overview and external environment What is the nature of the work of the organization and what are the conditions under which it operates?	OOEE	The organization's mission	OOEE-1	(IIRC, 2013; Sriani and Agustia, 2020; Zhou *et al*., 2017; Abogazia *et al*., 2022)	" mission"
		The organization's vision	OOEE-2		"vision"
		The organization's culture and values	OOEE-3		"Culture" "values "
		The organization's activities	OOEE-4		"activities" "business activity" "core activity"
		The organization's products and services	OOEE-5		"products" "services"
		The organization's markets	OOEE-6		"market" "industry" "competitive landscape"
		Quantitative information like number of employees	OOEE-7		"average number of employees"

IR Content Elements	Acronym	Items	Notation	Evidence from Prior studies	Keywords
		Number of countries in which the organization operate	OOEE-8		"countries of operation"
		Ownership structure	OOEE-9		"ownership structure" "Capital structure"
		Operating structure	OOEE-10		"operating structure" "business structure"
Governance How does the organization's governance structure support its ability to create value in the short, medium and long term?	GOV	The organization's leadership structure, including the skills and diversity (e.g., range of backgrounds, gender, competence and experience)	GOV-1	(IIRC, 2013; Sriani and Agustia, 2020; Zhou *et al.*, 2017; Abogazia *et al.*, 2022)	"director" "commissioner" "audit committee" "internal audit" "secretary"
		specific procedures used in making strategic decision and risk management	GOV-2		"decision" "monitor"
		How incentives and remuneration are associated	GOV-3		"remuneration" "incentive" "value creation"

IR Content Elements	Acronym	Items	Notation	Evidence from Prior studies	Keywords
		with value creation			
Business model What are the main inputs that the organization uses and what are its value-added activities, as well as what are the actual outputs through which it aspires to create value in the short, medium and long term?	BM	The organization's business model description	BM-1	(IIRC, 2013; Sriani and Agustia, 2020; Zhou *et al.*, 2017; Abogazia *et al.*, 2022)	"Business model."
		key outputs, i.e. the products and services placed in the market	BM-2		"output"
		Describe business model key Business activities	BM-3		"Business model."
Risk and opportunities What are the specific risks and opportunities that affect the organization's ability to create value over the short, medium and long term, and how is the organization dealing with them?	RO	The specific source of risks and, which can be internal, external or, commonly, a mix of the two, internal and external risk	RO-1	(IIRC, 2013; Sriani and Agustia, 2020; Zhou *et al.*, 2017; Abogazia *at al.*, 2022)	"internal risk", "external risk"
		The specific source of opportunities	RO-2		"Competitive advantages" "business expansion" "Opportunities"
		The specific steps are taken to	RO-3		"Risk management."

IR Content Elements	Acronym	Items	Notation	Evidence from Prior studies	Keywords
		mitigate or manage key risks			
		The specific steps are taken to create value from key opportunities	RO-4		"strategic initiatives"
Strategy and resource allocation Where does the organization want to go, and how does it intend to get there?	SRA	The organization's short, medium and long term strategic objectives	SRA-1		"strategic objective" / "strategic intent"
		The strategies it has in place or intends to implement to achieve those strategic objectives	SRA-2		"strategy"
		How it will measure achievements for those strategic objectives	SRA-3		"achievement"
Performance What about the organization's current performance compared to its strategic objectives and related strategic plans, and what	PER	key performance indicators (KPIs)	PER-1	(IIRC, 2013; Sriani and Agustia, 2020; Zhou *et al.*, 2017; Abogazia	"KPIs" "Financial and non-financial indicators"
		the stakeholder relationships and how the organization has responded	PER-2		"Stakeholder engagement " "Stakeholder relationships "

IR Content Elements	Acronym	Items	Notation	Evidence from Prior studies	Keywords
are the main results already generated by its operational and financial activities?		to their legitimate needs and interests		*et al.*,2022)	"Sustainability and stakeholder inclusion"
Basis of preparation and presentation How to determine what should be disclosed in annual reports and how to measure those items?	BPP	Compliance with the rules of governance	BPP-1	(IIRC, 2013; Sriani and Agustia, 2020; Abogazia *et al.*, 2022)	"governance framework" "Regulatory compliance" "Governance reporting"
		Disclosure of key information and material	BPP-2		"Material information " "Financial and non-financial disclosure "