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# The Impact of Corporate Governance, Information Asymmetry and Sustainability Reporting: A Systematic Exploration

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#### **Abstract**

Sustainability reporting, integrated reporting and ESG reporting are the newest developments of reporting, suggesting by the many standard setters to overcome the problem by limiting non-financial information being disclosed by the organisation. The boards of directors determine the level, quality and magnitude of disclosure. The board's variation in knowledge, gender, capability, duality and competency will have different impacts on that decision. Whether the board of directors possessed proper enough knowledge to make decisions is questionable. It is because the managers might need to give more information to managers to make a decision, or even the director might not be asked important elements to the manager. This reciprocal effect impacts the level of disclosure. Due to that, the objective of this paper is to explore the potential of information asymmetry in the direction of corporate finance and sustainability reporting. This study uses advanced searching that systematically analyses. After the expert discussion, the findings can be divided into three themes: corporate governance, sustainability reporting and ESG reporting; corporate governance, information asymmetry, and information asymmetry.

Keywords: ESG Reporting, Corporate Governance and Information Asymmetry.

#### Introduction

Sustainability reporting refers to the process of disclosing information related to a company's environmental, social, and economic impact on society and the planet. In recent years, sustainability reporting has become increasingly important in academic circles as a means of promoting transparency and accountability among companies.

The importance of sustainability reporting can be traced back to the increasing awareness of the role that businesses play in contributing to environmental and social issues, such as climate change, resource depletion, and social inequality (So et al., 2021). In this context, sustainability reporting provides a platform for companies to demonstrate their commitment to sustainable development and to engage with stakeholders on their sustainability practices and performance.

Academic studies have shown that sustainability reporting can have positive impacts on a company's financial performance, brand reputation, and customer loyalty. For example, a

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study by the Global Reporting Initiative (GRI) found that companies that regularly report on sustainability outperform their peers in the stock market and have better access to capital (GRI, 2016). Another study by KPMG (2017) found that companies that communicate transparently about their sustainability practices are perceived more positively by consumers and have higher customer loyalty.

Additionally, sustainability reporting can help to align business practices with sustainable development goals and contribute to the creation of a more sustainable future. In this sense, sustainability reporting is seen as a key tool for promoting sustainable business practices and driving the transition towards a more sustainable economy.

Corporate governance and sustainability reporting are two critical components of modern organizations that play a crucial role in promoting ethical behavior, accountability, and transparency. The problems with corporate governance and sustainability reporting are numerous and complex. However, by addressing these problems through the adoption of stronger legal frameworks, the development of more effective and widely recognized reporting standards, and the promotion of greater transparency and accountability, organizations can help to ensure that both areas are more effective in promoting ethical behavior and sustainable business practices.

Corporate governance refers to the set of processes, principles, and values that govern the behavior of organizations. It involves the processes by which an organization is directed, controlled, and held to account. One of the major problems that corporate governance faces is the issue of information asymmetry.

Information asymmetry occurs when one party in a transaction has access to more information than the other. In the context of corporate governance, information asymmetry refers to the situation where management has more information about the company than outside stakeholders, such as shareholders, creditors, or regulators. This can result in a situation where management can use its information advantage to make decisions that are not in the best interest of stakeholders. One example of this is the case of insider trading, where executives or other insiders use their knowledge of confidential information to buy or sell stock. Another example is when executives manipulate financial statements to make the company look more attractive to investors. These actions can lead to a loss of trust in the organization, as well as potential legal consequences.

Overall, information asymmetry is a major problem in corporate governance because it can result in decisions that are not in the best interest of stakeholders. Addressing this issue requires a number of solutions, including greater transparency and accountability in corporate decision-making processes, increased oversight by regulators, and the use of technology to provide more information to stakeholders.

Information asymmetry refers to the unequal distribution of information between different parties involved in a decision-making process. This disparity can lead to adverse outcomes for certain parties and can undermine the efficiency and fairness of decision-making. In the context of sustainability reporting, information asymmetry can occur between companies and stakeholders, such as investors, consumers, and regulators.

Companies may possess privileged information about their sustainability practices, while stakeholders may have limited access to such information. This information gap can result in stakeholders making decisions based on incomplete or inaccurate information, which can negatively affect their trust and confidence in the company. Furthermore, information asymmetry can also lead to a lack of accountability, as stakeholders may be unable to effectively monitor and evaluate the sustainability performance of companies.

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Studies have shown that information asymmetry can be a barrier to the effective implementation of sustainability reporting. For example, Lakhal and Knoepfel (2015) found that information asymmetry negatively impacts the credibility of sustainability reports, as stakeholders may view them as unreliable or untrustworthy sources of information. Similarly, Hermeto et al (2018) demonstrated that information asymmetry can reduce the effectiveness of sustainability reporting, as stakeholders may be unable to accurately assess the sustainability performance of companies.

Overall, information asymmetry is a significant challenge for sustainability reporting, as it undermines the credibility, reliability, and effectiveness of sustainability reporting. To address this issue, companies must increase transparency and accessibility to sustainability information, and stakeholders must be equipped with the necessary skills and knowledge to effectively interpret and use such information.

This study would like to explore those literatures regarding the link between corporate governance and sustainability reporting with the information asymmetry as the intervening variables.

#### Material and methods

#### Identification

In choosing several appropriate papers for this report, the systematic review process consists of three main phases. The first step is keyword recognition and the quest for linked, similar terms based on the thesaurus, dictionaries, encyclopedia, and previous studies. Accordingly, after all the relevant keywords were decided, search strings on Scopus and Web of Science database have been created. In the first step of the systematic review process, the present research work successfully retrieved 36 papers from both databases.

#### Table 1

Scopus	( "Sustainability reporting" OR "integrated reporting" OR "ESG reporting") AND ("corporate governance") AND information) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j")
	Date of access: February 2023
Web sciences	of ("Sustainability reporting" OR "integrated reporting" OR "ESG reporting")  AND ("corporate governance") AND  information (Topic) and English (Languages) and 2022 or 2021 (Publication Years) and Article (Document Types)
	Date of access: February 2023

#### The search string

Screening

Duplicated papers should be excluded during the first step of screening. The first phase omitted 180 articles, while the second phase screened 30 articles based on several inclusion-

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and exclusion criteria developed by researchers. Literature (research articles) was the first criterion because it is the primary source of practical information. It also includes the exclusion from the current study of publications in the form of systematic review, review, meta-analysis, meta-synthesis, book series, books, chapters, and conference proceedings. Furthermore, the review concentrated exclusively on papers written in English. It is essential to note that the schedule was chosen for a ten-year duration (2020-2023). Otherwise, only studies carried out in Malaysia's territory have been selected to conform to the analysis objective. In all, 12 publications based on specific parameters were excluded.

#### Eligibility

For the third step, known as eligibility, a total of 43 articles have been prepared. All articles' titles and key content were thoroughly reviewed at this stage to ensure that the inclusion requirements were fulfilled and fit into the present study with the current research aims. Therefore, two reports were omitted because they were not pure science articles based on empirical evidence. Finally, 36 articles are available for review (see Table 3).

**Table 3**The selection criterion is searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line	2021 – 2022	< 2021
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press

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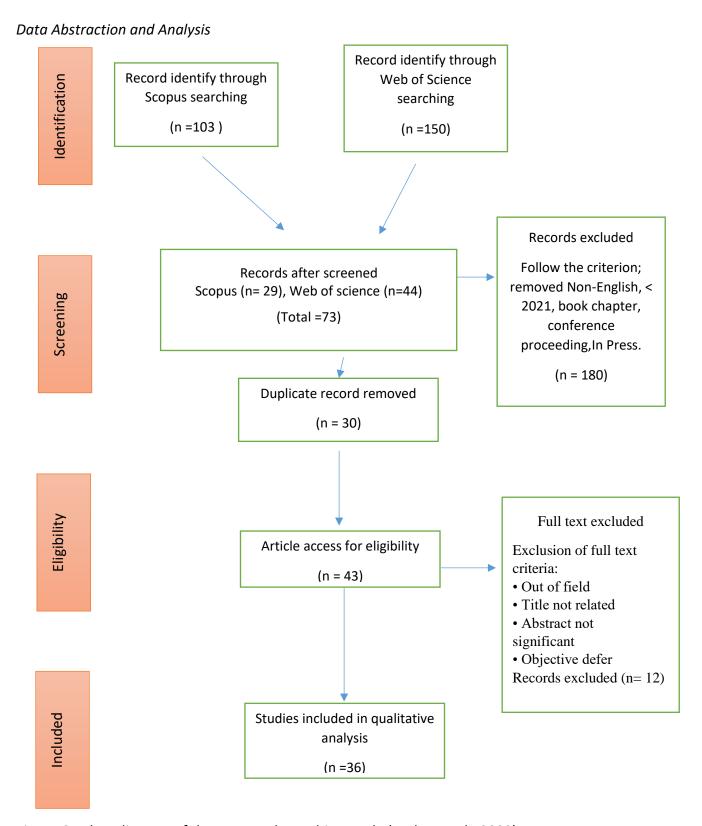


Figure 2. Flow diagram of the proposed searching study (Moher et al., 2009)

An integrative analysis was performed in this study, which was one of the examination techniques used to analyse and synthesise different research designs (qualitative, quantitative, and mixed methods). Expert research centered on developing appropriate topics

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and sub-topics. The first step in the development of the theme was the data collection phase. The authors have carefully reviewed a group of 36 papers for statements or information addressing questions from this current research. In the second step, the authors and expert then analyse the sustainability reporting in the country, determine and form meaningful groups. The three main themes that emerged from the approach are sustainability reporting, corporate governance and information asymmetry. The authors resumed each developed theme from here, including any themes, concepts, or ideas having any relationship. Within the framework of this study, the corresponding author worked with other coauthors to establish themes based on the findings. Here, a log was maintained during the data analysis process to document any analysis, opinions, puzzles, or other ideas relevant to the data interpretation.

The authors also compared the findings to resolve any discrepancies in the theme creation process. Note that if any inconsistencies on the themes arose, the authors address them with one another. Finally, the developed themes were tweaked to ensure their consistency. To ensure the validity of the problems, the examinations were performed by two experts, one specialising in corporate governance and the other in financial accounting and reporting. The expert review phase helped ensure each sub-theme's clarity, importance, and adequacy by establishing domain validity. Adjustments based on the discretion of the author based on feedback and comments by experts have been made.

#### **Result and Finding**

#### 3.1 Integrated reporting/ Sustainability reporting/ESG reporting:

The business reporting paradigm had changed. There are many ways to improve the reporting aspects in the organization. Multiple terminologies have been introduced to overcome the weaknesses of the traditional reporting system with the increase in the demand of stakeholders and the complexity of businesses (Sinnewe et al., 2021). They include integrated reporting (IR), sustainability reporting and environmental, social and governance reporting. This paper would like to elaborate on these modern reporting mechanisms. This reporting mechanism aims to help the business improve information quality (Hamad et al., 2022; Eloff & Steenkamp, 2022), create sustainable value(Hamad et al., 2022), facilitate stakeholder decision-making (Sinnewe et al., 2021) and address the short-term orientation of firms caused by pressure from short-term oriented shareholders (Shirabe & Nakano, 2022).

There is no prescribed standard for this reporting mechanism. The International Integrated Reporting Framework has been currently used widely. These guidelines allow management to implement integrated reporting, making the disclosure quality dependent on management's reporting approach (Eloff & Steenkamp, 2022). This practice is allowed because non-financial reporting is an important measure. Despite that, the mandatory nature of non-financial reporting and public pressure has persuaded company management to address non-financial issues alongside financial ones. A study was conducted to indicate that the companies from prolonged culture and tradition countries have been more eventful in this reporting than those from younger transition countries. Due to that, non-financial reporting has raised the level of social responsibility in companies. However, things could be better. Many uncertain situations, such as environmental, health, energy and others, bring new hiccups. They require not only non-financial reporting but it required to provide sustainable solutions. Therefore, it is deniable that the disclosure of non-financial information has also been renamed sustainability reporting (Primec & Belak, 2022).

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Sustainability reporting is a vital element for firms looking for business opportunities. This reporting is important because ESG performance disclosure negatively impacts the cost of equity capital, resulting in the firm lower cost of capital. ESG disclosures create long-term value for investors, reduce information asymmetry, and build investors' confidence (Mulchandani et al., 2022). A sustainability report should include the environmental and social impacts on firms (Mulchandani et al., 2022; Oware et al., n.d.). It is presented as an integrated report with the contents of the financial reporting to stakeholders or a separate document (stand-alone) with the advantage of communicating better information (Oware et al., n.d.). Companies can utilize the United Nations' Sustainable Development Goals (SDGs) as references for benchmarking and communicating their sustainability performance. The SDGs contain several elements that make them attractive for this reporting. It also has its universality, specificity and direct linkage with corporate outcomes. Without SDGs, companies voluntarily disclose their engagement strategies and outcomes without standardization and external verifications. Inaccurate and non-transparent disclosure can also introduce information asymmetries that distort decision-making by investors and other stakeholders (Lashitew, 2021). Among the theories used to understand the relationships and drivers of sustainability reporting are Stakeholder Theory (So et al., 2021; Erin & Adegboye, 2022), Agency Theory, the TOE Framework (So et al., 2021) and Legitimacy Theory (Erin & Adegboye, 2022; Semenova, 2023; Braasch & Velte, n.d.).

Another study evaluated the extent of materiality assessment disclosures in sustainability reports and their determinants: higher financial performance, lower leverage, and better corporate governance. These determinants influence materiality assessment disclosure scores. However, company size and market-to-book ratio do not influence materiality assessment disclosures. It is important to prepare the sustainability report because an evaluation of the materiality assessment should be part of the scope of assurance engagements. The experts can use examples of best practices when evaluating sustainability reports. In addition, better materiality assessment disclosures may assist in improving sustainability reporting quality. This disclosure will allow corporate stakeholders to evaluate the reporting entities underlying processes, later increasing transparency and corporate accountability. (Farooq et al., 2021).

Gunawan et al. (2022) investigated the extent to which Indonesian companies have prepared sustainability reporting from the beginning of adoption (2006) until the mandatory regulation issued by the Financial Service Authorities (2017). This research attempts to provide information on sustainability reporting practices by collecting quantitative data through content analysis of companies' sustainability reports. They find that the sustainability reporting trend in Indonesia increases from year to year. Indonesian companies (sensitive and non-sensitive industries) mainly disclosed economic, social, and environmental information. The second most disclosed by the sensitive industry is community engagement, while one disclosed by the non-sensitive industry is information related to new employees and employee turnover. The Human Rights indicators have the lowest disclosure percentage (Gunawan et al., 2022).

Integrated reporting (IR) is another report that has been prepared to improve the quality of information available to external parties and internal managerial decision-making (Wu & Zhou, 2022). IR is a current trend in corporate reporting that discloses financial and non-financial information. There has been a significant increase in both IR disclosure level (IRDL) and IR disclosure quality (IRDQ) over this period after the recent recommendation by authorities on adopting IR (Qaderi et al., n.d.).

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It is found that the earning management can be reduced by introducing the IR. A study by Shirabe and Nakano (2022) found an insignificant difference in the degree of real activity manipulation between IR and non-IR firms immediately after introducing IR. The degree of real activity manipulation is quite small in IR firms compared to non-IR firms after the introduction stage of IR. It is consistent with the practitioners 'that IR is a continuous improvement process of internal decision-making (Shirabe & Nakano, 2022). Another supported study proved that IR is an effective governance tool in constraining earnings management behaviour. The institutional environment enables corporate reporting initiatives such as IR to affect substantive internal changes rather than being used opportunistically. Firms that practice IR have lower earnings management in countries where IR is mandatory, contributing to the policy debate on mandating IR. (Wu & Zhou, 2022). It had been refuted by a study by Eloff and Steenkamp (2022), where they found that companies with incomeincreasing EM activities are less likely to disclose higher-quality integrated reports (Eloff & Steenkamp, 2022).

The introduction of IR positively impacts the performance of environmental, social and governance (ESG). IR could discourage companies' short-term behaviour and promote long-term value creation (Shirabe & Nakano, 2022). The capacity of IR quality to allow a debt reduction cost should push managers to a greater propensity towards transparency and disseminating high-quality integrated reports. Moreover, in light of the benefits connected to IR quality, policymakers should push towards adopting IR to fulfil regulatory obligations (Raimo, Caragnano, et al., 2022). However, another study showed that adopting IR makes the IR lengthier, uses more complex language, and contains more boilerplate statements. Without proper regulation, firms may continue to produce long and difficult-to-understand reports for fear of being perceived as omitting bad news. This fear might be justified as we find a loss of analyst following and greater analyst uncertainty when voluntarily adopted IR is concise (Sinnewe et al., 2021).

Both reports cover elements of economy, sustainability, and governance aspects. The ESG performance disclosures can reduce the cost of equity capital, providing the firm with capital at a lower cost. ESG disclosures create long-term value for investors, reduce information asymmetry, and build investors' confidence (Mulchandani et al., 2022). The benefit of ESG performance disclosure is that it can help to reduce gas emissions. This reporting is important because investors perceive a firm with a relatively poor ESG performance record as more socially responsible. Investors are more willing to invest if the management focuses on mitigating direct versus indirect emissions (Johnson et al., n.d.).

The U.S. Securities and Exchange Commission (SEC) started a comprehensive effort to modernize and simplify the disclosure rules to be implemented in U.S. public companies. Investors demand that the regulator standardize disclosure of climate-related risk and environmental, social, and governance (ESG) information. Due to that, standard setters, international organizations, and financial regulators outside the U.S. have started introducing ESG reporting frameworks in their organizations. As a result, the SEC and Congress are facing difficult policy debates as they consider how to implement corporate ESG disclosure reform and whether to pursue a sustainable finance transition. These issues include questions about ESG disclosure reform's rationale, potential costs and benefits, and the precise form any new reporting rules should take (Ho, 2022).

Another study in Spanish found that the environmental, social, and corporate governance (ESG) disclosure strategy significantly impacts the financial performance of the top ten companies in terms of operating income. It found that the IBEX35 companies must improve

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web transparency in ESG reporting. The study also showed a significant relationship between financial indicators and ESG transparency. (Gutierrez-Ponce et al., 2022).

A comprehensive study was conducted on combined reports by examining the factors influencing the level of information disclosures of sustainability (SR) and integrated reports (IR) in Kenya. They found that the SR and IR disclosure level is influenced by board gender diversity, audit committee independence, block ownership, and foreign ownership. Besides regulatory pressure, promotional efforts of regulatory and reporting excellence awards influence the disclosures (Injeni et al., 2022).

#### Corporate governance's determinants on sustainability reporting

Several factors influence the quality of sustainable reporting and integrated reporting, which are

#### Members independence

Member independence indicates how many members are on boards of directors related to the company's management. A higher number of independent directors will improve the quality of integrated reporting (Elshandidy, 2022). This study is coherent with the study conducted by Zaman et al (2021); Zouari and Dhifi (2021), whereby the members' independence enhances sustainability assurance quality (Zaman et al., 2021) and integrated reporting.

Several studies were conducted by (Girella et al., 2022; Chouaibi et al., 2022). Girella et al (2022) examined the moderating variable by looking at incentives for corporate transparency. The result indicates that board independence influences both reporting the adoption of a sustainability report and an integrated report moderated by the incentives towards corporate transparency. It is found that information asymmetry and financial constraints impact the decision of companies whether to publish the integrated report, sustainability report or both (Girella et al., 2022).

Meanwhile, Chouaibi et al (2022) evaluate the relationship between board characteristics, good corporate governance and integrated reporting quality, even if this relationship is moderated by corporate social responsibility. The results portrayed a positive relationship between board independence and integrated reporting quality. However, the findings suggest that the moderating effect positively affects the relationship between board characteristics, good corporate governance and integrated reporting quality (Chouaibi et al., 2022).

However, another study found no significant impact of board independence on the level of environmental disclosure (Raimo et al., 2022). Meanwhile, another study in India indicates that the higher number of independent directors does not improve the sustainability disclosure of companies in India (Kumar et al., 2022).

#### Competency

This segment refers to the boards of directors' expertise and education—one way to improve board effectiveness is through their board director competency (Falatifah & Hermawan, 2021). There is a positive relationship between industry and market experts with sustainability reporting. This relationship is because industry/market expertise enhances sustainability assurance quality (Zaman et al., 2021). Integrated reporting quality is positively associated with board members' education level. It supports the idea that the board members' quality is more important than their quantity in increasing integrated reporting quality (Songini et al., 2022).

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#### Attending meeting.

Attending meetings means how frequently the boards of directors attend the meeting. The result proved that the frequency of attending meetings enhances sustainability assurance quality (Zaman et al., 2021). It has been further supported by another study whereby the frequency of board meetings is one of the most important factors significantly influencing the extent of sustainability information disclosure of companies (Kumar et al., 2022).

#### Size

This segment refers to the number of audit committees or board size. A study mentioned that board size and board independence affect the adoption of integrated reporting. These two variables also influence those companies that jointly adopt sustainability and an integrated report (Girella et al., 2022). It is further supported by another study, which says the sustainability reporting disclosure was significantly influenced by human governance and Islamic corporate governance with firm size and leverage (So et al., 2021). It is further supported by research stating that the linear regressions corroborate the existence of relationships between the size of the board of directors and integrated reporting(Zouari & Dhifi, 2021). At the environmental disclosure level, it positively affected board size (Raimo, de Nuccio, et al., 2022). Another study investigates the impact of corporate governance on the quality of integrated reporting in the eyes of internal and external corporate governance. It has been found that firms with a larger board of directors, a larger proportion of female members on board, and located in countries with enforcement for integrated reporting requirements have a higher quality of integrated reporting (Elshandidy, 2022).

However, a study conducted in India through secondary data found no significant impact of board size on sustainability reporting practice (Kumar et al., 2022). The audit committee size does not affect the sustainability assurance quality (Zaman et al., 2021).

#### **Board Composition**

The board composition refers to the diverse board regarding members' gender and age. The integrated reporting found that the presence of women will not improve the integrated reporting quality (Songini et al., 2022).

The larger proportion of female members on board for integrated reporting requirements have a higher quality of integrated reporting (Elshandidy, 2022). A similar study conducted by looking at the stakeholder agency found that board gender diversity and corporate social responsibility committees exist on the level of environmental disclosure (Raimo, de Nuccio et al., 2022). However, they found that the presence of women has a negative association with the integrated reporting quality apart from a positive association with the level of education of board members. It supports the idea that the quality of the board members is more vital than their quantity in increasing IR quality. The diversity of the board is more relevant than the diversity of the board (Songini et al., 2022). Another study states that female chief executive officers (CEOs) prefer stand-alone reports over integrated reporting. Female CEOs with a dual role are also insignificant in choosing between integrated reporting and stand-alone sustainability reporting (Oware et al., n.d.).

Chouaibi et al (2022) extend the study by including corporate social responsibility as a moderating effect. The results are parallel, with a positive relationship between board diversity, corporate social responsibility, and integrated reporting quality. They suggested that

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the presence of women and independent board members should be encouraged (Chouaibi et al., 2022).

#### Corporate Social Responsibility

Corporate social responsibility refers to the environmental information disclosed for the benefit of stakeholders. There is a positive impact of the board size, board gender diversity and corporate social responsibility committee existence on the level of environmental disclosure (Raimo de Nuccio et al., 2022). However, board independence has a non-significant impact on environmental disclosure (Raimo et al., 2022).

#### **CEO Duality**

This section refers to the CEO's double role as the company director. They found that the directors and CEO will increase financial and non-financial information in the integrated reporting (Zouari & Dhifi, 2021).

#### *Information asymmetry*

Information asymmetry refers to the level of information mismatch between principals (shareholders and directors) and agents (directors and managers). A study found that family-controlled firms' sustainability reporting-information asymmetry nexus needs to be stronger. The information asymmetry should improve our understanding of sustainability reporting and motivations, particularly in companies controlled by families. (Al Natour et al., 2022).

#### Conclusion

The level of disclosure of sustainability reporting, integrated reporting and ESG reporting is determined by several factors: members' independence, competency, CEO duality, corporate social responsibility, and others. However, there needs to be more study on the information asymmetry that significantly impacts the importance of sustainability reporting. The information directors possess is vital in increasing the organisation's disclosure level. It can be hindered by the limited information given by the managers.

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