





## The influence of board gender diversity and ownership structure on integrated reporting: Evidence from Malaysia

 Mazurina Mohd Ali<sup>1\*</sup>

 Erlane K Ghani<sup>2</sup>

 Suhaily Hasnan<sup>3</sup>

 Susi Handayani<sup>4</sup>

<sup>1,2,3</sup>Faculty of Accountancy, Universiti Teknologi MARA, Cawangan Selangor, Kampus Puncak Alam, Selangor, Malaysia.

<sup>1</sup>Email: [mazurina@uitm.edu.my](mailto:mazurina@uitm.edu.my)

<sup>2</sup>Email: [erlanekg@uitm.edu.my](mailto:erlanekg@uitm.edu.my)

<sup>3</sup>Email: [suhailyhasnan@uitm.edu.my](mailto:suhailyhasnan@uitm.edu.my)

<sup>4</sup>Faculty of Economics & Business, Universitas Negeri Surabaya, Kampus Unesa Ketintang, Surabaya, East Java, Indonesia.

<sup>4</sup>Email: [susihandayani@unesa.ac.id](mailto:susihandayani@unesa.ac.id)



(+ Corresponding author)

### ABSTRACT

#### Article History

Received: 18 August 2023

Revised: 16 February 2024

Accepted: 7 March 2024

Published: 29 July 2024

#### Keywords

Agency theory  
Content analysis  
Gender diversity  
Integrated reporting  
Malaysia  
Ownership structure  
Performance.

This study examines the influence of board gender diversity and ownership structure on integrated reporting. Integrated reporting is widely regarded as a report providing the most comprehensive and valuable information regarding an organization's performance and value creation, offering significant benefits in improving stakeholder relationships. This type of reporting is expected to accurately represent existing relationships between organizations and their stakeholders by focusing on investors and other stakeholders. Therefore, the purpose of this study is to examine the influence of gender diversity and the role of ownership structure in an integrated reporting context. In order to elucidate the relationships among the variables in this study, the agency theory was utilized. The sample of the study was derived from the top 100 Malaysian companies based on market capitalization for the years 2018 to 2020. The content analysis approach was employed to hand-collect the data from the annual reports. The findings of this study show a positive and significant relationship between board gender diversity and government ownership with integrated reporting. However, this study found a negative and significant relationship between family and foreign ownership with integrated reporting. This study could assist company owners and management in improving their company's information disclosure practices. Also, companies might consider adopting policies and practices that promote gender diversity in leadership roles and optimize ownership structures to enhance their integrated reporting practices. Additionally, regulatory authorities might find the results of this study valuable in formulating effective policies aimed at advancing integrated reporting.

**Contribution/Originality:** This study contributes to the literature by expanding our understanding of the relationships between board gender diversity, ownership structures, and integrated reporting. This study proposes insights for stakeholders, giving a unique perspective on the positive impact of gender diversity and government ownership structures on integrated reporting within Malaysian companies' context.

## 1. INTRODUCTION

Environmental and social impact, which are the non-financial aspects of a company's operations, are gaining the stakeholders' interests, including investors, customers, employees, and communities. The stakeholders often display interest in understanding the organisation's values, how employees are treated, and the sustainability measures employed by the organisation. Annual reports and other communications, including sustainability and social

responsibility reports, by many organisations offer information on these topics (Velte & Stawinoga, 2017). The increasing prominence of environmental, social, and governance (ESG) investments, which consider an organisation's financial and non-financial performance, also reflects this trend. Organisations can build trust with their stakeholders and showcase their commitment to undertaking responsible business practices by offering comprehensive information on the topics stated earlier.

Organisations face new challenges and acquire additional responsibilities due to the rapid globalisation of businesses. Organisations are required to take into consideration a wider range of issues concerning their environmental and societal impacts besides their traditional financial goals. Companies are facing growing expectations for higher standards of governance, encompassing both their financial and non-financial aspects, to address these challenges. The development of non-financial regulations and guidelines by governments and international organisations also plays a role in setting these standards. Responsible and transparent companies have a higher likelihood of being trusted by stakeholders, leading to improved brand loyalty and a better reputation in the market. Organisations are capable of contributing to the development of a highly equitable and sustainable society by taking these responsibilities seriously.

An organisation's success critically relies on effective communication and disclosure of information. The organisation's operations, goals, and impact can be better understood, and stakeholders' trust can be improved through effective communication and information disclosure. Non-financial information, including sustainability reports and social responsibility reports, and financial information, such as financial statements and annual reports, are disclosed. The organisation's commitment towards transparency and accountability can be observed through the disclosed information. Besides, organisations can determine areas that require improvements and make informed decisions through effective communication and information disclosure. For instance, organisations can comprehend stakeholders' expectations and needs by collecting and analysing their feedback, allowing them to offer swift responses. Thus, effective communication and information disclosure are crucial for an organisation's governance and overall success.

Stakeholders often face difficulty seeing the full picture of an organisation's performance and impact as separate reports or documents present separate reports or documents (Boone & White, 2015). Assessing the organisation's long-term sustainability is also challenging, as the separation of information poses challenges for stakeholders to comprehend the connections between financial and non-financial information (Malik & Makhdoom, 2016). In response to this concern, certain companies and organisations are advocating a more integrated reporting (IR) approach that consolidates financial and non-financial information into a single and comprehensive report. This IR framework focuses on providing a complete picture of an organisation's performance that includes environmental, social, and financial impact. Stakeholders can make more informed decisions and understand the long-term sustainability of their operations better when organisations provide the required information in a more accessible and understandable format. As IR is still in its infancy, the best approach and format to present this report to relevant stakeholders are topics of ongoing debate. Nonetheless, as stakeholders and organisations acknowledge the significance of a more holistic approach towards reporting and assessment, the trend towards greater integration of non-financial and financial information has a high likelihood of continuing.

Traditional financial and non-financial reports tend to be retrospective in nature, offering insights into an organisation's impact and past performance. Despite being significant, this information does not necessarily offer a complete picture of the organisation's objectives, future planning, or potential risks. In order to tackle this concern, several organisations are currently utilising forward-looking reporting approaches, which offer information on objectives, future planning, and critical risks. For instance, organisations could use sustainability reports to outline long-term social and environmental goals or offer information on the measures adopted to deal with critical future risks, such as resource scarcity or climate change. Stakeholders can better understand an organisation's future plans and directions and build trust and confidence in its capabilities to tackle crucial future challenges through this type

of reporting. Forward-looking reporting approaches that offer a more comprehensive picture of an organisation's future plans and critical risks are becoming increasingly vital, although traditional financial and non-financial reports are part of corporate reporting. Organisations can offer a complete and more transparent picture of their performance, impact, and future plans to stakeholders by combining the strengths of both retrospective and forward-looking reporting.

As an organisation's value extends beyond traditional financial metrics, the information needs of investors and other key stakeholders are evolving constantly. The required information assists the stakeholders in making informed decisions regarding their investments, partnerships, and other relationships with the organisation. Organisations can offer a more comprehensive and transparent picture of their performance and impact to stakeholders by integrating financial and non-financial information into a single integrated report. The integrated report can assist in improving comparability between global companies, decreasing corporate reputation risks, and improving awareness regarding the long-term sustainability perspective (Elkington, 1998). The significance of taking both financial and non-financial information into consideration to develop a complete picture of an organisation's performance and impact is recognised in the framework. In addition, organisations can help build stakeholders' trust and confidence and position themselves for long-term success in the complex, volatile, and competitive global marketplace by adhering to this framework.

The risk of selective non-financial information reporting and difficulties in comparing information provided by different organisations are some of the concerns emerging from the suggested combined reporting of financial and non-financial information. An IR framework that incorporates mandatory reporting and compliance or explanatory reports has been proposed by the International Integrated Reporting Council (IIRC) to tackle emerging concerns. Financial information and non-financial information are linked to an organisation's communication performance, future prospects, governance, risk management, and strategy through this framework. Organisations can offer a comprehensive and transparent picture of their impact and performance while simultaneously reducing the risks of incomplete or selective reporting by adhering to this framework. Furthermore, the IIRC is focused on improving the comparability of information offered by different organisations by establishing reporting standards for IR. This approach could potentially assist stakeholders in making informed decisions and understanding the long-term sustainability of an organisation's operations. The concerns that emerge from the combined reporting of financial and non-financial information can be tackled by adopting IR frameworks, such as the IIRC proposed framework. Adherence to the suggested frameworks enables organisations to offer stakeholders a complete and transparent picture of their performance and impact and solidify their position for long-term success in a rapidly changing global marketplace.

Notably, IR can be applied to large organisations, small and medium-sized enterprises (SMEs), the public sector, and non-profit organisations (NGOs). Organisations can align their financial and non-financial reporting with their business strategy, enhance stakeholder engagement, and position themselves for sustained success in an ever-evolving global market by adopting IR. The IR concept is widely supported as it is viewed as a vital tool for organisations attempting to improve long-term organisational sustainability and competitiveness.

Protected shareholder rights, improved corporate transparency, and guaranteed greater disclosure of financial and non-financial information are part of good corporate governance, which is viewed as a vital component of an organisation's success (Haji, 2014). Corporate governance establishes a framework for an organisation's management, thereby ensuring alignment between the interests of shareholders and stakeholders (Black, Kim, Jang, & Park, 2015). Research has revealed that organisations with strong corporate governance practices exhibit a greater degree of voluntary disclosure of financial and non-financial information (Cheng, Green, Conradie, Konishi, & Romi, 2014). The higher voluntary disclosure level potentially emerges from the culture of transparency and accountability practised in organisations with good governance. Furthermore, because of their strong internal controls and risk management strategies, these businesses are better equipped to handle risks and have a tendency

to take their responsibilities to stakeholders seriously. Hence, the organisations are well equipped to face any emerging uncertainties or challenges. Good corporate governance is vital for organisations to offer voluntary information and assure higher accountability and transparency. Organisations can enhance their long-term sustainability and competitiveness and develop better stakeholder relationships by embracing strong corporate governance practices.

The functions of ownership structure in the IR context have been limitedly explored, despite the close association between IR and good corporate governance. An organisation's disclosure policies are significantly impacted by its ownership structure. As agency theory states, information asymmetry issues can emerge due to the separation of ownership and management (Jensen & Meckling, 1976). The separation causes situations where the concealment of information can be prevented as certain shareholders possess the abilities, drive, and expertise to uncover it, although others lack these capabilities (Donnelly & Mulcahy, 2008). The information asymmetry level in different organisational contexts can be affected by different ownership structures (Mokhtari & Makerani, 2013). For instance, firms characterised by significant insider ownership or family ownership often experience reduced information asymmetry. These shareholders possess a direct stake in the company's performance and are more likely to possess the expertise, motivation, and insights needed to prevent information concealment. The level of IR and the quality of information disclosed can be impacted by an important factor, which is the ownership structure. Additional studies are required to understand the relationship between ownership structure and IR and to identify the most effective ownership structures for promoting transparency, accountability, and sustainable business practices. As traditional financial reporting models do not sufficiently meet the information needs of stakeholders to measure past and future organisational performance, the calls for IR have garnered attention (Flower, 2015). Additional detailed information is required in this modern and digitalised corporate reporting era. Therefore, to meet the need for such inclusive information, the IIRC suggests IR. In 2013, the IIRC took the lead in promoting the adoption of IR by creating the International Integrated Reporting Framework (IR Framework). As a solution to address the limitations of financial reporting, the promotion of the IR framework has been advocated by taking into consideration the approaches to reporting and presenting information methods that significantly influence the company's capacity to generate long-term value. Nevertheless, the adoption of the IR framework is still voluntary in Malaysia and Indonesia.

Information asymmetry issues might arise among the organisation's management and shareholders as IR adoption is not mandatory. Organisational management activities are the responsibility of the management, while the authority to participate in management activities does not belong to shareholders. Consequently, an unequal power balance occurs between shareholders and management, therefore increasing the need for greater corporate disclosures. Previous researchers indicated that voluntary disclosures could reduce capital costs by decreasing information asymmetry (Dhaliwal, Li, Tsang, & Yang, 2011). The shareholders' confidence level regarding the organisation should improve when the information asymmetry issue is reduced (Hoque, 2017).

Organisation's emergence of IR practices is vital since shareholders would seek a comprehensive overview of a company for their assessment. Nevertheless, the decision on the extent of the reporting would depend on the board's judgement. Therefore, there is still a lack of evidence on whether the organisations are more or less receptive to IR practice initiatives proposed by the board or shareholder pressure. This study aims to narrow this gap by assessing the board gender diversity and ownership structure's influence on IR.

The present study concentrates on the effect of board gender diversity and company ownership structure (family, foreign, and government) on IR in Malaysian companies. This relationship has been scarcely analysed in the Malaysian IR context. Thus, the study's objectives are as stated below:

- (i) To investigate the relationship between board's gender diversity and IR by Malaysian public-listed companies (PLCs).
- (ii) To investigate the relationship between ownership structure and IR by Malaysian PLCs.

The study's outcomes may suggest the importance of ownership structure and board gender diversity towards IR. The study's findings may indicate that company boards should prioritise the development of management's responsiveness, especially by having gender diversity on the board, which may improve a company's IR. Hence, this study supports the notion of Sustainable Development Goal (SDG) 5 on Gender Equality, which empowers women, particularly in the business aspect. Besides, the findings may suggest that controlling shareholders is crucial to ensuring companies enhance their IR.

This article is structured into five sections. The next section delves into the literature review and hypotheses development, focusing on the influence of board gender diversity and ownership structure on IR. Section 3 delineates the methodology employed. Section 4 provides the results and discusses the study's findings. The final section offers a conclusion to this study.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

As stated earlier, IR is a principle-based framework. There are no fixed measurement methods, key performance indicators, or disclosures of individual items that a company must follow for preparing an integrated report. It is based on the professional judgement of the individual in charge in determining the items' significance and relevant information disclosure method. IR focuses on eight content elements: business model, strategy and allocation of resources, governance, organisational overview and external environment, future outlook, risks and opportunities, performance, and the basis of presentation. Additionally, seven guiding principles-stakeholder relationships, consistency and comparability, conciseness, reliability and completeness, materiality, strategic focus and future orientation, and connectivity of information – have been identified for preparing and presenting the integrated report. Together, these content elements and principles ensure the report establishes a clear relationship between financial and non-financial information, facilitating the evaluation of the company's present and future performance.

### 2.1. Agency Theory

Agency theory is a financial and economic concept that elucidates the relationship between the owners (principals) of a firm and its managers (agents) (Jensen & Meckling, 1976). According to the theory, a natural tension revolves around the managers and owners, as the former aims to maximise their power and influence, whereas the latter prioritises wealth maximisation. Conflicts of interest and potential agency costs associated with ensuring that the agents act in the principals' best interests emerge from the tension (Jensen & Meckling, 1976). As shareholders' objectives, preferences, and risk tolerance levels differ, the conflict of interests may worsen in organisations with multiple shareholders (Kavadis & Thomsen, 2023). For instance, one shareholder may focus on long-term growth, while another could prioritise short-term financial gains. Consequently, good corporate governance is crucial for these types of organisations, as potential agency issues are greater in organisations with multiple shareholders. Various mechanisms, such as effective monitoring, performance-based incentives, and checks and balances, can help mitigate the potential for agency problems and ensure that the stakeholders' interests align.

### 2.2. Board Gender Diversity and Integrated Reporting

The board of directors holds vital positions in a company and is responsible for monitoring the attitude of managers and developing business strategies by applying their knowledge. Generally, the board of directors has the authority over corporate reporting. The board would take action on behalf of the company's shareholders. Therefore, the board's decisions could impact the company's performance. Boardroom diversity is gaining increased attention among policymakers (Lee-Hwei & Liao, 2018). For example, the Malaysian Code on Corporate Governance (MCCG) has stated that companies in Malaysia must disclose their gender diversity policies in their annual reports. Large companies are encouraged to ensure the board comprises 30% female directors. The



participation of female directors in the preparation of corporate reporting exhibits lower errors in financial reporting. Female directors have better monitoring abilities, are more active than male directors, and are less tolerant of unethical opportunistic behaviour (Luo, Xiang, & Huang, 2017). In addition, the diversity of the board of directors can also increase the level of information disclosure to stakeholders as female directors possess better ethical behaviour and are more socially sensitive (Ibrahim & Hanefah, 2016).

Prior studies discovered that the participation of female directors had a positive relationship with disclosures (Issa & Fang, 2019). Huei and Kee (2021) found that female directors' involvement supports IR disclosures as they are more ethical than male directors and highly willing to disclose information to stakeholders. This action could reduce information asymmetry issues and enhance firm performance. According to prior studies, IR quality (Vitolla, Raimo, & Rubino, 2020) and information disclosure (Liao, Lin, & Zhang, 2018) are positively associated with gender diversity. In contrast, based on the measurement of women's presence on the board, an insignificant positive relationship was found by Cooray, Gunarathne, and Senaratne (2020) between gender diversity and IR quality. They proposed that in a society where men dominate the board, such as in Sri Lankan communities, the ability of this minority group to express themselves freely might have been constrained due to the average representation of women at only 10%. Consequently, the following hypothesis has been posited in this study:

*H<sub>1</sub>: There is a significant relationship between board gender diversity and IR disclosure among Malaysian PLCs.*

### 2.3. Ownership Structure and Integrated Reporting

Corporate governance encompasses the framework of regulations, customs, and procedures that govern the management and supervision of a company. Making sure that the company's activities serve the interests of all of its many stakeholders—shareholders, staff, clients, and the community at large—is its main goal. It sets the tone for decision-making, how power is exercised, and performance monitoring and evaluation (Monks & Minow, 2011). Good corporate governance ensures that an organisation is well-managed, transparent, and accountable, leading to better financial performance, greater trust in the company, and more sustainable long-term success.

A vital aspect of corporate governance is ownership structure, since control and power distribution in an organisation are influenced by ownership structure (Hossain, Tan, & Adams, 1994). There is a greater likelihood of management being held accountable to the shareholders within a widely dispersed ownership structure where numerous small shareholders own shares since their interests tend to be well-aligned (Haniffa & Cooke, 2002). These shareholders can wield considerable influence over the company in a concentrated ownership structure, characterised by a small group of large shareholders holding a substantial share of the company's stock, potentially at the expense of other stakeholders. A carefully developed ownership structure that aligns the interests of management and shareholders plays a vital role in ensuring that the company operates in all stakeholders' best interests and safeguards its long-term success (Chau & Gray, 2002). Companies must regularly assess and adapt their ownership structures to ensure they continue to effectively foster good corporate governance and the alignment of interests (Eng & Mak, 2003).

One mechanism that aligns the interests of company managers and shareholders is the ownership structure (Eng & Mak, 2003). Prior studies revealed that various outcomes associated with corporate governance, including financial performance (Guluma, 2021) risk-taking behaviour (Shah, Kouser, Aamir, & Hussain, 2012) and strategic decision-making (Camisón-Zornoza, Forés-Julián, Puig-Denia, & Camisón-Haba, 2020) are influenced by corporate governance. In other words, when a company's ownership is heavily concentrated among a small group of large shareholders, these shareholders often have greater capacity to influence the decisions made by the company's managers. They are generally more inclined to act in the best interests of all shareholders.

However, various ownership structures exert different influences on managerial disclosure incentives. Raimo, Vitolla, Marrone, and Rubino (2020) found the positive impact of institutional ownership and the negative impact of ownership concentration, managerial ownership, and state ownership on the quality of integrated reports. The

findings affirm the alignment of integrated reports with the IR framework. Furthermore, Raimo et al. (2020) contended that IR could play a role in mitigating agency conflicts and information asymmetry by offering a more comprehensive view of a company's performance and value generation. This approach can contribute to fostering trust and accountability between shareholders and managers. This study explores how IR disclosure is affected by family, foreign, and government ownership.

### 2.3.1. Family Ownership

According to Huei and Kee (2021) since family members have greater control over organisations, they tend to prioritise their benefits. Key positions in family-owned companies, such as the Chief Executive Officer (CEO) or board member, are held by family members, who also possess the capability of making decisions that benefit themselves or their family at other shareholders' expense. As family members' interests may not constantly align with others, this situation leads to agency conflicts between family and non-family shareholders. Huei and Kee (2021) stated that family members are highly likely to decrease disclosures to outsiders to hide their expropriation activities. Reducing the level of disclosures can help family members conceal these activities and avoid scrutiny from regulators, investors, and other stakeholders. Information concealment can create significant agency conflicts between family members and non-family shareholders, who are not provided with the same level of access to information as family members and are less capable of monitoring the company effectively. Therefore, information asymmetry occurs between family and non-family owners. Thus, the study proposes the hypothesis stated below:

*H<sub>1</sub>: There is a significant relationship between family ownership and IR disclosure among Malaysian PLCs.*

### 2.3.2. Foreign Ownership

Foreign investors face increased information asymmetry due to geographical distance and are exposed to higher risks associated with overseas investments (Gehrig, 1993; Huafang & Jianguo, 2007). Hence, greater disclosure is required to monitor management actions by foreign owners. The presence of foreigners on boards may have significantly impacted the company's approach to corporate financial reporting to fulfil foreign reporting requirements (Barako, Hancock, & Izan, 2006). A significant positive relationship between the proportion of foreign ownership and the level of voluntary disclosure was discovered in prior studies (Al Amosh & Khatib, 2022; Alhazaimeh, Palaniappan, & Almsafir, 2014; Nguyen, Pham, Dao, Nguyen, & Tran, 2020; Rustam, Wang, & Zameer, 2019). This association can be considered a significant element in promoting sustainability disclosure practices in emerging economies. Hence, firms with foreign investors could meet their stakeholders' expectations more effectively if they disclosed more information (Nguyen et al., 2020).

From an agency perspective, foreign shareholders can exercise oversight over management decisions through the implementation of strengthened control mechanisms, including more frequent reporting systems and advanced auditing procedures (Zaid, Abuhijleh, & Pucheta-Martínez, 2020). With their monitoring authority, these investors frequently urge the company to disclose more information, resulting in decreased agency costs and improved company performance (Abor & Biekpe, 2007). Hence, foreign ownership could be a crucial determinant of the level of IR disclosure practices among Malaysian PLCs. Thus, the following hypothesis is posited in this study:

*H<sub>2</sub>: There is a significant relationship between foreign ownership and IR disclosure among Malaysian PLCs.*

### 2.3.3. Government Ownership

Studies have shown that governments often invest in companies operating in critical sectors with substantial impacts on the economy and the absoluteness of the country. In this situation, government-owned enterprises tend to experience higher agency costs due to competing objectives between a commercial firm's pure profit motive and those associated with national interests (Eng & Mak, 2003). The agency theory states that corporations with a greater proportion of government-owned shares are likely to give more voluntarily disclosed information to reduce

agency costs. In addition, government shareholders can apply pressure on business managers to place more emphasis on critical political and environmental government policies during their business operations. Consequently, a higher degree of government ownership may lead to increased levels of transparency in IR.

Masduki and Mohd Zaid (2019) emphasise that the government's goals to create a knowledge-based economy policy in government-affiliated corporations (GLCs) should result in higher disclosure in the IR. Moreover, government-influenced companies may tend to establish a larger network of contacts or connections, including political connections, compared to other companies. Consequently, the connections seemed to be a value-maximising activity that can ensure the company's long-term sustainability by providing incentives to disclose information. Moreover, governments, which also act on the general public's behalf, often face pressure to showcase positive investments in parliament. As a result, government stakeholders may demand that investee companies provide comprehensive reports detailing the financial health and performance of these companies, which can be achieved through voluntary IR disclosure. Government-owned companies must ensure that their profits are used to create social and economic value while simultaneously meeting their business goals (PWC, 2015). Prior studies have revealed a favourable correlation between the level of information disclosure and government ownership (Al Amosh & Khatib, 2022; Manes-Rossi, Nicolò, Tiron Tudor, & Zanellato, 2021; Masduki & Mohd Zaid, 2019; Nguyen et al., 2020). Consequently, government ownership will enhance the level of IR disclosure. Thus, the hypothesis suggested below is proposed.

*H<sub>1</sub>: There is a significant relationship between government ownership and IR disclosure among Malaysian PLCs.*

### 3. RESEARCH METHOD AND DESIGN

#### 3.1. Sample Selection

The top 100 companies listed on Bursa Malaysia made up the study's sample. After excluding companies with unavailable data, the final dataset comprises 95 listed companies. The researchers observed the selected PLCs over a three-year period from 2018 to 2020, totalling 285 firm-years of study. The samples include firms from numerous sectors listed on Bursa Malaysia. This paper primarily relies on secondary data extracted from annual reports of Malaysian PLCs, accessible on both the official website of Bursa Malaysia and the companies' websites.

#### 3.2. Data Collection, Construction of Variables and Measurement

##### 3.2.1. Dependent Variable

This study employed an IR score (IRSCORE), which was developed by Lee and Yeo (2016). This IRSCORE is an anon-weighted index in which all content elements, namely organisational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation, are equally important. Each content element includes sub-elements for evaluating IR disclosure quality, with a raw score ranging from 0 (non-compliance) to 5 (high conformance). After scoring, the minimum IRSCORE is 0, and the maximum is 200. A higher IRSCORE indicates superior IR quality consistent with the IR framework and its guiding principles. The weight of each content element's score is summarised in Table 1.

##### 3.2.2. Independent Variables

Board gender diversity and ownership structure are the independent variables in this study. The data for board gender diversity and ownership structures were extracted from the annual reports accessible on the Bursa Malaysia website. Gender diversity is specifically assessed using the ratio of women on board to the total number of directors. Ownership structure was categorised into family, foreign, and government ownership. The number of family members on board was employed to measure family ownership. In contrast, foreign and government ownership were measured based on the number of shares owned by the top 30 foreign and government owners, respectively.



Table 1. Weight score for content elements.

Item	Major content element	The weight of each element in the score
CE1	Organisational overview and external environment	0 up to 25
CE2	Governance	0 up to 20
CE3	Business model	0 up to 25
CE4	Risk and opportunities	0 up to 25
CE5	Strategy and resource allocation	0 up to 20
CE6	Performance	0 up to 30
CE7	Future outlook	0 up to 25
CE8	Basis of preparation and presentation	0 up to 30
Total		Up to 200 points

### 3.2.3. Data Analysis

The data was analysed using Statistical Package for Social Science (SPSS) version 28. In order to ensure that the data collected for independent variables does not include duplicates, a multicollinearity analysis was used as a filtering measure. The independent variables are considered devoid of multicollinearity issues when they meet the tolerance value criterion, which should exceed 0.1, and when the variance inflation factor (VIF) falls within the range of 1 to 10. These criteria are in accordance with guidelines provided by Pallant (2016) and Hair, Black, Babin, and Anderson (2010). In this study, descriptive statistics, such as mean, median, and standard deviation, were utilised to summarise and depict the primary features of the dataset. An overview of the data's variability and central tendencies is provided by these statistics. Additionally, this study also uses inferential statistics to make inferences or predictions for hypothesis testing. In order to assess the relationship between the independent variables (board gender diversity and ownership structure) and the dependent variable (IR), multiple regression analysis was employed.

## 4. RESULTS AND ANALYSIS

### 4.1. Descriptive Analysis

The descriptive statistics of the overall disclosure index scores are summarised in this section. The sample consists of observations on 95 Malaysian PLCs during the period 2018 to 2020. Table 2 presents the findings of the descriptive statistics analysis for the dependent variable, namely the content analysis score, spanning the years 2018 to 2020. The average (mean) content analysis score for the period varied from 112.65 to 131.39, with a minimum value of 68 and a maximum value of 119. This score implies that the quality of IR among Malaysian companies was high, indicating strong engagement with IR practices within the Malaysian company samples. Numerous companies received commendable reporting scores, with their reports encompassing nearly all the necessary content elements prescribed by an IR framework. Moreover, some of the sampled firms demonstrated near-complete compliance, which is particularly encouraging considering that IR disclosure is voluntary.

The mean score rose, increasing from 112.65 in 2018 to 121.24 in 2019 and subsequently reaching 131.39 in 2020. This result also suggests that the MCCG, introduced in 2017 by the Securities Commission Malaysia, has prompted many PLCs to include IR in their annual reports. The finding corroborates the findings of Jaffar, Nor, and Selamat (2019) and Malak (2014) who both observed a significant improvement in the voluntary disclosure level following the adoption of the Malaysian regulatory framework. Conversely, the lowest scores in the IR content elements were attributed to companies that did not incorporate the standard IR frameworks into their annual reports for a specific year.

**Table 2.** Descriptive statistics for overall IR content elements score (n = 95).

Year	Variable	N	Minimum	Maximum	Mean	Std. deviation
2018	Content analysis score	95	68	198	112.65	41.274
2019	Content analysis score	95	68	199	121.24	46.469
2020	Content analysis score	95	68	199	131.39	48.372

#### 4.1.1. Descriptive Analysis for Integrated Reporting Content Elements Score

The detailed analysis is additionally displayed in [Table 3](#), providing a comprehensive breakdown of the scores for each content element, including their respective minimum, maximum, and mean scores. The improved reporting scores were achieved by companies that incorporated nearly all the necessary content elements specified by an IR framework into their annual reports.

**Table 3.** Descriptive statistics for individual IR content elements score.

Item	Content element	N	Min.	Max.	Mean	SD
CE1	Organisational overview and external environment	285	5.00	25.00	14.965	4.951
CE2	Governance	285	14.00	25.00	18.723	4.532
CE3	Business model	285	4.17	25.00	14.792	7.253
CE4	Risk and opportunities	285	1.25	25.00	14.447	7.135
CE5	Strategy and resource allocation	285	8.00	25.00	14.979	6.011
CE6	Performance	285	9.00	25.00	15.070	6.157
CE7	Future outlook	285	5.00	25.00	13.206	6.666
CE8	Basis of preparation and presentation	285	7.00	25.00	15.568	6.556

The findings revealed that among the IR content elements, CE2-Governance had the highest average disclosure score, with a mean score of 18.723%. This score indicates that governance-related information, including board structures, corporate policies, and compliance with regulatory guidelines, received significant attention from many of the companies in the sample. In contrast, the mean score for CE7-Future Outlook had the lowest average disclosure percentage, at only 13.206%. On average, this score suggests that PLCs were less inclined to provide detailed information about their future plans, strategies, and outlook in their annual reports. This score indicates that the companies examined in this study were relatively reserved when disclosing their long-term plans or prioritising presenting their historical performance and current status. This situation might have implications for stakeholders, as a lack of information about the future outlook can pose challenges for investors and analysts when evaluating a company's growth prospects and long-term sustainability. In general, all content elements received above-average scores for disclosure. This finding suggests that, in general, the sampled PLCs were relatively transparent in their annual reporting practices. Although some elements received more attention than others, the overall disclosure standards appeared to be adequate.

The overall mean scores of 14.965% for CE1-Organisational Overview and External Environment were primarily contributed by the disclosure of ownership and operating structure, information on principal activities, and also the disclosure of key quantitative information about employees, revenues, locations, and changes. Since the majority of this information is often accessible in financial statements, it could be assumed that gathering and disclosing the information is relatively easy for companies. On the other hand, based on the percentage of scores earned, not all major companies have clearly defined values, missions, visions, and other business cultural aspects included in the IR. In addition, the scores for significant factors impacting the external environment and environmental challenges were the lowest, implying that certain companies do not furnish information pertaining to the market and external environment.

CE2-Governance, with a mean score of 18.723%, received the highest overall content element score rating. This score suggests that IR and corporate governance practices are closely linked ([Arul, De Villiers, & Dimes, 2021](#)). Moreover, according to [Boonlua and Phankasem \(2016\)](#) increased governance disclosure conveys a greater

amount of information related to integrity and ethics and a clearer message and detailed procedure, providing stakeholders with a thorough understanding of the company's current governance status. Hence, most companies disclose their board of directors' list, experience, and skills in leadership structure. A majority of them also presented compensation policies in remuneration, incentives, value creation, and procedures for strategic decisions, risk, and integrity. Nevertheless, the organisation's values, culture, and ethics contributed the lowest score for this element, indicating that a substantial number of companies do not incorporate this kind of information into their IR.

CE3-Business Model showed an overall mean score of 14.792%. According to the findings, most companies were able to disclose the identity of their stakeholders and provide a moderate amount of information concerning their business model and position within the entire value chain during the period. In contrast, the majority of companies did not explain how their inputs relate to capital and how their outputs relate to products and services. These companies only provided a moderate amount of information regarding the connection between the business model and other content elements, including performance, strategy, risks, and opportunities, resulting in a lower rating score.

Additionally, the mean score of 14.447% for CE4-Risks and Opportunities indicated that half of the sampled companies did not provide information on risks and opportunities in accordance with IR standards. As a result, the companies were unable to determine the likelihood and potential consequences of both risks and opportunities. In addition, they were unable to explain how they intend to address issues that they are currently facing, resulting in a lower score for this disclosure. Nonetheless, Flower (2015) underscored that companies are not obligated to disclose information that could potentially harm their competitive position. As a result, businesses could be hesitant to share data or sensitive information that could jeopardise their competitive advantage. For instance, risk information is generally regarded as a negative signal by users, as it can be interpreted as unfavourable news. This perception often leads to a negative impact on the value of firms (Kravet & Muslu, 2013).

CE5-Strategy and Resource Allocation indicated an overall mean score of 14.979%, which implied that 80% of the companies presented their strategic objectives without a specific time frame. On average, nearly half of the organisations did not present their implementation and resource allocation plans. Nonetheless, the disclosure rating score of 15.070% on performance revealed that most companies that adopted IR had disclosed quantitative indicators, the status of key stakeholders' relationships, the relationship between past and current performance, and performance indicators. On the other hand, the lowest score for capital effects indicates that a majority of companies would eliminate this information.

CE7-Future Outlook had the lowest mean score, 13.206%, indicating that companies that adopted IR are the most open about how much their available capital is, their costs, challenges, and uncertainties. On average, potential implications and effects on future performance are low, but the score is gradually rising over time. It could be inferred that companies do not allocate significant resources or effort towards disclosing this specific content element.

Finally, the mean score of 15.569% for CE8-Basis of Preparation received the highest percentage score from compliance with governance rules, disclosure of key information, and materiality determination. On the other hand, the significant framework and methods received the lowest rating score. It was found that most IRs do not have a defined reporting boundary. Furthermore, reporting boundaries are frequently determined without any explanation of the method. Despite the absence of frameworks and methods in most reports, all annual reports were audited.

As per the analysis in this study, it can be summarised that most companies that adopted IR could provide enhanced disclosures compared to reports initially published in 2018. The scores are slightly above average, indicating that companies that have adopted IR do not include sufficient relevant information in their published reports. It could be assumed that these companies do not strictly adhere to the IR framework and disregard some of the information.

#### 4.1.2. Descriptive Statistic for Selected Variables

Table 4 displays the descriptive statistics for both the variables that are dependent and independent. Regarding board gender diversity, the percentage of female board members was calculated in relation to the total number of board members. Family ownership was determined by calculating the proportion of family members on the board in relation to the total number of directors on the board. In the case of foreign ownership, the percentage of shares held by foreign investors was measured in relation to the total number of shares issued. Finally, the percentage of shares held by the government relative to the total number of shares issued was used to evaluate government ownership. The IR scores ranged from 68 to 199, with an average score of 121.76. Regarding board gender diversity, the percentage of women directors varied from 0.00% to 0.60%, with a mean value of 0.22%. For family-owned companies, the ownership percentage ranged from 0.00% to 0.78%, with an average ownership level of 0.09%. Nevertheless, foreign ownership ranged from 0.00% to 57.726%, with an average leverage ratio of 3.84. Lastly, government ownership ranged from 0.00 to 82.75, with a mean average of 14.14.

**Table 4.** Descriptive statistics for selected variable.

Variables	N	Min.	Max.	Mean	SD
IR score	285	68	199	121.76	45.955
Board gender diversity	285	0.000	0.600	0.221	0.129
Family ownership	285	0.000	0.778	0.096	0.172
Foreign ownership	285	0.000	57.726	3.839	6.917
Government ownership	285	0.000	82.748	14.138	22.131

#### 4.2. Normality Test

A normality test was undertaken to determine whether data distribution was normal before performing the multiple regression analysis. Data normality in the study was evaluated by examining skewness and kurtosis. Data is considered to follow a normal distribution when skewness values fall within the range of -2.0 to +2.0 and kurtosis values are within -7.0 to +7.0, as per guidelines provided by Hair et al. (2010). Table 5 displays the skewness and kurtosis values.

The skewness for the IR score is 0.413, while the kurtosis is 0.288. Furthermore, the board gender diversity has a skewness and kurtosis of 0.175 and 0.147, respectively. The skewness of family ownership is 1.716, while the kurtosis is -2.193. Subsequently, the skewness of foreign ownership is 4.796, and the kurtosis is 31.833. The government ownership skewness and kurtosis are 1.746 and 2.029, respectively. The skewness and kurtosis values for foreign ownership are out of the acceptable range, indicating a violation of normality. Nevertheless, violations of the normality assumption are less likely to have a substantial impact or pose significant problems in a sample size exceeding 30 (Pallant, 2011).

**Table 5.** Skewness and kurtosis analysis.

Variables	N	Skewness		Kurtosis	
		Statistic	Std. error	Statistic	Std. error
IR score	285	0.413	0.144	-1.430	0.288
Board gender diversity	285	0.175	0.144	0.147	0.288
Family ownership	285	1.716	0.144	-2.193	0.288
Foreign ownership	285	4.796	0.144	31.833	0.288
Government ownership	285	1.746	0.144	2.029	0.288

#### 4.3. Correlation Analysis

The Pearson correlation coefficient (r) was used to determine the significance of the relationship between each independent variable and the dependent variable. Table 6 exhibits the findings of the correlation analysis. The results reveal that board gender diversity has a weak but positive and statistically significant impact on the IR score

( $r = 0.329$ ,  $p < 0.01$ ). Nevertheless, family ownership had a significant but negatively correlated relationship with the IR score ( $r = -0.342$ ,  $p < 0.01$ ). This finding implies that increasing family ownership will reduce the IR score. Foreign ownership had no significant relationship with the IR score ( $r = -0.25$ ,  $p > 0.673$ ), thus does not affect the IR score. Finally, the Pearson correlation coefficients between government ownership and IR score revealed a weak but significant positive relationship ( $r = 0.436$ ,  $p < 0.001$ ). This result indicates that government ownership companies will affect the disclosure of IR.

Table 6. Pearson correlation between variables (n = 285).

Correlations						
Variables		Content analysis score	Board gender diversity	Family ownership	Foreign ownership	Government ownership
IR score	Pearson correlation	1				
	Sig. (2-tailed)					
Board gender diversity	Pearson correlation	0.329**	1			
	Sig. (2-tailed)	< 0.001				
Family ownership	Pearson correlation	-0.342	-0.166**	1		
	Sig. (2-tailed)	< 0.001	0.005			
Foreign ownership	Pearson correlation	-0.25	0.170**	-0.150*	1	
	Sig. (2-tailed)	0.673	0.004	0.11		
Government ownership	Pearson correlation	0.436**	0.169**	-0.233**	0.182**	1
	Sig. (2-tailed)	< 0.001	0.004	< 0.001	0.002	

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed).  
\*. Correlation is significant at the 0.05 level (2-tailed).

#### 4.4. Regression Analysis

The relationship between ownership structure and IR score was further investigated using regression analysis. This analysis assessed the impact of four independent variables, namely, board gender diversity, family ownership, foreign ownership, and government ownership, on the dependent variable, IR score. As a result, a multiple regression analysis was carried out based on the model given below:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_i$$

Hence,

Content Element Score ( $Y_i$ ) =  $\beta_0$  +  $\beta_1$  Board Gender Diversity +  $\beta_2$  Family Ownership +  $\beta_3$  Foreign Ownership +  $\beta_4$  Government Ownership +  $\epsilon_i$

Table 7 illustrates the relationship between the dependent variable and the independent variables. The R-squared value of 0.331 signifies that the independent variables account for 33% of the content element score of the dependent variable. This finding implies that additional contributing factors are responsible for the remaining 67% of the unaccounted content analysis score in this model.

Table 7. Model summary.

Model summary <sup>b</sup>				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.575 <sup>a</sup>	0.331	0.321	37.868

Note: a. Predictors: (Constant), board gender diversity, family ownership, foreign ownership, government ownership.  
b. Dependent variable: Content analysis score.

The analysis was elaborated upon through an analysis of variance (ANOVA), which involves computations offering insights into the variability levels within a regression model. These calculations serve as the foundation for significance tests. It furnishes a statistic for assessing the hypothesis that  $\beta_1 \neq 0$  (indicating a significant relationship between the independent variable and dependent variable) in contrast to the null hypothesis, which posits that  $\beta_1 = 0$  (suggesting no significant relationship between the independent variable and dependent variable)



(Mwangi & Jerotich, 2013). Table 8 demonstrates that  $F(4,280) = 34.562$ ,  $p < 0.001$ , signifying that the regression model predicts the outcome variables statistically significantly, indicating that independent variables had an impact on the dependent variable. It can be assumed that this study offers sufficient evidence, as signified by at least one independent variable influencing the dependent variable, namely the IR score.

Table 8. ANOVA test.

Model	ANOVA <sup>a</sup>					Sig.
		Sum of squares	df	Mean square	F	
1	Regression	198248.464	4	49562.116	34.562	< 0.001 <sup>b</sup>
	Residual	401523.312	280	1434.012		
	Total	599771.775	284			

Note: a. Dependent variable: Content analysis score.  
 b. Predictors: (Constant), Board gender diversity, family ownership, foreign ownership, government ownership.

Table 9 displays the outcomes of the random-effects linear regression models examining the influence of board gender diversity and ownership structure on the IR score. The results show that both board gender diversity and government ownership exhibit a positive and statistically significant relationship with the IR score, as indicated by p-values below 0.01. On the other hand, family and foreign ownership have a negative and significant relationship, as the p-value was less than 0.01. The results also included the tolerance and VIF values for collinearity statistics related to individual independent variables. According to Pallant (2016), a variable is not considered to have multicollinearity issues when its VIF value is less than ten. The VIF values for all four independent variables in this study range from 1.066 to 1.097, proving that none of the individual independent variables had multicollinearity issues.

Table 9. Coefficient analysis.

Model	Variables	B	t	Sig.	Collinearity statistic	
					Tolerance	VIF
1	(Constant)	101.451	20.107	< 0.001		
	Board gender diversity	90.891	5.065	< 0.001	0.938	1.066
	Family ownership	-64.082	-4.709	< 0.001	0.921	1.086
	Foreign ownership	-1.138	-3.395	< 0.001	0.938	1.066
	Government ownership	0.763	7.177	< 0.001	0.911	1.097

Note: Dependent variable: Content analysis score.

In this study, H1 is supported. Hence, a positive and significant relationship exists between board gender diversity and IR score. The IR disclosure score will increase if the percentage of women on the board increases. The positive and significant relationship between board gender diversity and the IR score (coefficient value of 90.891 and a p-value of < 0.001) is displayed in Table 9. Previous studies by Manita, Bruna, Dang, and Houanti (2018); Kılıç and Kuzey (2018); Gerwanski, Kordsachia, and Velte (2019) and Vitolla et al. (2020) corroborate this study's findings on H1. These previous studies discovered that the quantitative and qualitative forward-looking disclosures presented in integrated reports are significantly and positively impacted by board gender diversity. The findings reveal that companies are more likely to produce a high-quality integrated report when female board of directors is present since the female directors offer in-depth insights and undertake close monitoring (Qaderi, Ghaleb, Hashed, Chandren, & Abdullah, 2022). In line with Piironen (2019) research on accounting conservatism, female managers are known to exhibit higher levels of conservatism, which may extend to scenarios involving integrated information disclosure. This research emphasizes the value of gender diversity in the implementation of this strategy by showing how having women on the board improves the quality of IR.

The findings signify that family ownership is negatively correlated with the IR score. The outcome demonstrates that family ownership has a coefficient value of - 64.082 but remains statistically significant with a p-

value  $< 0.001$ . Hence, the relationship between family ownership and the IR score was negative. When the independent variable is increased by one point, the dependent variable is reduced by 64.082. As a result, H2 is rejected. The finding was consistent with a study by Huei and Kee (2021) which revealed that family ownership is likely to diminish the association with IR disclosures. Other previous studies, such as Ghazali and Weetman (2006) and Al-Akra and Hutchinson (2013) also found evidence suggesting that family influence within companies may have an adverse effect on voluntary disclosure practices. Since families hold a significant portion of the shares, the demand for disclosure is reduced. Furthermore, there is a motivational incentive to disclose information to demonstrate improvements in external financing contracts. The presence of trust and familiarity among family members could contribute to decreased signalling motivation (Masduki & Mohd Zaid, 2019). Hence, family ownership is expected to diminish the quality of IR disclosures.

The finding also demonstrated that foreign ownership was also statistically significant, as the p-value was  $< 0.001$ . On the other hand, the regression coefficient value was 1.138, demonstrating a negative relationship between foreign ownership and IR score. As a result, H3 is also rejected. This finding supports the findings of Altarawneh and Al-Halalmeh (2020); Haniffa and Cooke (2002) and Eng and Mak (2003). These authors determined there was no significant relationship between voluntary disclosure level and foreign ownership. Therefore, IR framework conformability disclosure was not significantly impacted by foreign ownership.

Finally, H4 indicated a positive relationship between IR disclosure and government ownership, with a coefficient value of 0.76 and a p-value  $< 0.001$ . The results showed that the relationship between government ownership and the IR disclosure score is statistically significant. Thus, H4 is supported. This finding supports previous studies by Masduki and Mohd Zaid (2019) and Eng and Mak (2003) who found that stronger IR disclosure is related to government ownership. Hence, the finding validates the positive influence of government ownership on IR disclosure. Additionally, companies with a greater proportion of government-held shares are inclined to voluntarily disclose information as a means to mitigate agency costs, aligning with the principles of agency theory.

## 5. CONCLUSION

This study examined the influence of board gender diversity and ownership structure on IR in Malaysia. The findings shed light on several key insights. Firstly, board gender diversity was found to positively impact IR, suggesting that having a more diverse board in terms of gender can improve the quality of IR practices in Malaysian companies. This finding corroborates the expanding body of literature, which prioritises the significance of diversity in corporate leadership for sustainability and organisational performance. Second, IR had a significant and positive relationship with government ownership. Companies' IR disclosure is strengthened by higher government ownership, signifying that IR practices may be enhanced by government ownership. Hence, the impact of government presence on board is crucial.

Overall, by providing empirical evidence from Malaysia, the study's findings contribute to the literature on IR and corporate governance. The results show that promoting gender diversity on business boards and government ownership participation can improve investor relations practices. These results have significant implications for policymakers, regulators, and corporate executives in both Malaysia and other regions. They underscore the importance of considering board gender diversity and government ownership when devising strategies to advance IR and enhance corporate governance standards. In order to understand these relationships and their implications for corporate sustainability and performance in depth, further research is necessary.

Although this study provides valuable insights into the impact of board gender diversity and ownership structure on IR in Malaysia, acknowledging some limitations that may affect the findings' generalisability and interpretation is important. First, the study concentrated on the top 100 Malaysian companies in terms of market capitalisation from 2018 to 2020. The relatively small sample size may not comprehensively reflect the diversity of the Malaysian corporate landscape. Companies of different sizes and industries may exhibit varying responses to

board gender diversity and ownership structure. Thus, the findings might not apply universally. Second, the study covers only a relatively short time frame, from 2018 to 2020. Long-term effects and trends in IR and corporate governance practices may not be fully captured within this period. Finally, although the findings are valuable for the Malaysian context, their applicability to companies in other sectors or industries or different ownership structures should be interpreted with caution.

**Funding:** This research is supported by Universiti Teknologi MARA, Selangor, Malaysia through the SRP research grant (Grant number: 100-RMC 5/3/SRP (063/2021)).

**Institutional Review Board Statement:** The Ethical Committee of the Universiti Teknologi MARA, Malaysia has granted approval for this study on 10 March 2022 (Ref. No. REC/03/2022 (ST/EX/9)).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

## REFERENCES

- Abor, J., & Biekpe, N. (2007). Corporate governance, ownership structure and performance of SMEs in Ghana: Implications for financing opportunities. *Corporate Governance: The International Journal of Business in Society*, 7(3), 288-300. <https://doi.org/10.1108/14720700710756562>
- Al-Akra, M., & Hutchinson, P. (2013). Family firm disclosure and accounting regulation reform in the Middle East: The case of Jordan. *Research in Accounting Regulation*, 25(1), 101-107. <https://doi.org/10.1016/j.racreg.2012.11.003>
- Al Amosh, H., & Khatib, S. F. (2022). Ownership structure and environmental, social and governance performance disclosure: The moderating role of the board independence. *Journal of Business and Socio-Economic Development*, 2(1), 49-66. <https://doi.org/10.1108/jbsed-07-2021-0094>
- Alhazaimeh, A., Palaniappan, R., & Almsafir, M. (2014). The impact of corporate governance and ownership structure on voluntary disclosure in annual reports among listed Jordanian companies. *Procedia-Social and Behavioral Sciences*, 129, 341-348. <https://doi.org/10.1016/j.sbspro.2014.03.686>
- Altarawneh, G. A., & Al-Halalmeh, A. a. O. (2020). Conformity of annual reports to an integrated reporting framework: ASE listed companies. *International Journal of Financial Studies*, 8(3), 1-24. <https://doi.org/10.3390/ijfs8030050>
- Arul, R., De Villiers, C., & Dimes, R. (2021). Insights from narrative disclosures regarding integrated thinking in integrated reports in South Africa and Japan. *Meditari Accountancy Research*, 29(4), 720-739. <https://doi.org/10.1108/MEDAR-06-2020-0934>
- Barako, D. G., Hancock, P., & Izan, H. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, 14(2), 107-125. <https://doi.org/10.1111/j.1467-8683.2006.00491.x>
- Black, B. S., Kim, W., Jang, H., & Park, K.-S. (2015). How corporate governance affect firm value? Evidence on a self-dealing channel from a natural experiment in Korea. *Journal of Banking & Finance*, 51, 131-150. <https://doi.org/10.1016/j.jbankfin.2014.08.020>
- Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, 117(3), 508-533. <https://doi.org/10.2139/ssrn.2528891>
- Boonlua, S., & Phankasem, S. (2016). Engagement in integrated reporting: Evidence from the international integrating reporting council adoption framework. *Journal of Business and Retail Management Research*, 10(3), 1-11.
- Camisón-Zornoza, C., Forés-Julián, B., Puig-Denia, A., & Camisón-Haba, S. (2020). Effects of ownership structure and corporate and family governance on dynamic capabilities in family firms. *International Entrepreneurship and Management Journal*, 16, 1393-1426. <https://doi.org/10.1007/s11365-020-00675-w>
- Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, 37(2), 247-265. [https://doi.org/10.1016/s0020-7063\(02\)00153-x](https://doi.org/10.1016/s0020-7063(02)00153-x)

- Cheng, M., Green, W., Conradie, P., Konishi, N., & Romi, A. (2014). The international integrated reporting framework: Key issues and future research opportunities. *Journal of International Financial Management & Accounting*, 25(1), 90-119. <https://doi.org/10.1111/jifm.12015>
- Cooray, T., Gunarathne, A. N., & Senaratne, S. (2020). Does corporate governance affect the quality of integrated reporting? *Sustainability*, 12(10), 4262. <https://doi.org/10.3390/su12104262>
- Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 59-100.
- Donnelly, R., & Mulcahy, M. (2008). Board structure, ownership, and voluntary disclosure in Ireland. *Corporate Governance: An International Review*, 16(5), 416-429. <https://doi.org/10.1111/j.1467-8683.2008.00692.x>
- Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*, 8(1), 37-51. <https://doi.org/10.1002/tqem.3310080106>
- Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, 22(4), 325-345.
- Flower, J. (2015). The international integrated reporting council: A story of failure. *Critical Perspectives on Accounting*, 27, 1-17. <https://doi.org/10.1016/j.cpa.2014.07.002>
- Gehrig, T. (1993). An information based explanation of the domestic bias in international equity investment. *The Scandinavian Journal of Economics*, 97-109. <https://doi.org/10.2307/3440137>
- Gerwanski, J., Kordsachia, O., & Velte, P. (2019). Determinants of materiality disclosure quality in integrated reporting: Empirical evidence from an international setting. *Business Strategy and the Environment*, 28(5), 750-770. <https://doi.org/10.1002/bse.2278>
- Ghazali, N. A. M., & Weetman, P. (2006). Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting, Auditing and Taxation*, 15(2), 226-248. <https://doi.org/10.1016/j.intaccaudtax.2006.08.001>
- Guluma, T. F. (2021). The impact of corporate governance measures on firm performance: The influences of managerial overconfidence. *Future Business Journal*, 7(1), 1-18. <https://doi.org/10.1186/s43093-021-00093-6>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, New Jersey: Prentice Hall.
- Haji, A. A. (2014). The relationship between corporate governance attributes and firm performance before and after the revised code: Some Malaysian evidence. *International Journal of Commerce and Management*, 24(2), 134-151.
- Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317-349. <https://doi.org/10.1111/1467-6281.00112>
- Hoque, M. E. (2017). Why company should adopt integrated reporting? *International Journal of Economics and Financial Issues*, 7(1), 241-248.
- Hossain, M., Tan, L. M., & Adams, M. (1994). Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on the Kuala Lumpur stock exchange. In (pp. 334-351): Department of Accountancy, Massey University.
- Huafang, X., & Jianguo, Y. (2007). Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal*, 22(6), 604-619.
- Huei, L. Y., & Kee, P. L. (2021). Integrated reporting and firm performance in Malaysia: Moderating effects of board gender diversity and family firms. *Studies of Applied Economics*, 39(4). <https://doi.org/10.25115/eea.v39i4.4588>
- Ibrahim, A. H., & Hanefah, M. M. (2016). Board diversity and corporate social responsibility in Jordan. *Journal of Financial Reporting and Accounting*, 14(2), 279-298. <https://doi.org/10.1108/jfra-06-2015-0065>
- Issa, A., & Fang, H.-X. (2019). The impact of board gender diversity on corporate social responsibility in the Arab Gulf states. *Gender in Management: An International Journal*, 34(7), 577-605. <https://doi.org/10.1108/gm-07-2018-0087>

- Jaffar, N., Nor, A., & Selamat, Z. (2019). Integrated report content elements effecting value relevance of publicly listed companies in Malaysia. *International Journal of Innovation, Creativity and Change*, 8(6), 303-318.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kavadis, N., & Thomsen, S. (2023). Sustainable corporate governance: A review of research on long-term corporate ownership and sustainability. *Corporate Governance: An International Review*, 31(1), 198-226. <https://doi.org/10.1111/corg.12486>
- Kılıç, M., & Kuzey, C. (2018). Determinants of forward-looking disclosures in integrated reporting. *Managerial Auditing Journal*, 33(1), 115-144. <https://doi.org/10.1108/maj-12-2016-1498>
- Kravet, T., & Muslu, V. (2013). Textual risk disclosures and investors' risk perceptions. *Review of Accounting Studies*, 18, 1088-1122. <https://doi.org/10.1007/s11142-013-9228-9>
- Lee-Hwei, K. K., & Liao, J. (2018). Board gender diversity and its risk monitoring role: Is it significant? *Asian Academy of Management Journal of Accounting and Finance*, 14(1), 83-106.
- Lee, K.-W., & Yeo, G. H.-H. (2016). The association between integrated reporting and firm valuation. *Review of Quantitative Finance and Accounting*, 47, 1221-1250. <https://doi.org/10.1007/s11156-015-0536-y>
- Liao, L., Lin, T., & Zhang, Y. (2018). Corporate board and corporate social responsibility assurance: Evidence from China. *Journal of Business Ethics*, 150, 211-225. <https://doi.org/10.1007/s10551-016-3176-9>
- Luo, J.-h., Xiang, Y., & Huang, Z. (2017). Female directors and real activities manipulation: Evidence from China. *China Journal of Accounting Research*, 10(2), 141-166. <https://doi.org/10.1016/j.cjar.2016.12.004>
- Malak, S. S. D. A. (2014). The voluntary disclosure of Malaysian executive directors' remuneration under an evolving regulatory framework. *Procedia-Social and Behavioral Sciences*, 164, 535-540. <https://doi.org/10.1016/j.sbspro.2014.11.143>
- Malik, M. S., & Makhdoom, D. D. (2016). Does corporate governance beget firm performance in fortune global 500 companies? *Corporate Governance*, 16(4), 747-764. <https://doi.org/10.1108/cg-12-2015-0156>
- Manes-Rossi, F., Nicolò, G., Tiron Tudor, A., & Zanellato, G. (2021). Drivers of integrated reporting by state-owned enterprises in Europe: A longitudinal analysis. *Meditari Accountancy Research*, 29(3), 586-616. <https://doi.org/10.1108/MEDAR-07-2019-0532>
- Manita, R., Bruna, M. G., Dang, R., & Houanti, L. H. (2018). Board gender diversity and ESG disclosure: Evidence from the USA. *Journal of Applied Accounting Research*, 19(2), 206-224. <https://doi.org/10.1108/jaar-01-2017-0024>
- Masduki, S. B., & Mohd Zaid, M. H. (2019). Corporate governance and compliance of integrated reporting: Evidence from Malaysian listed companies. *Intellect Journal*, 14(2), 161-173.
- Mokhtari, Z., & Makerani, K. F. (2013). Relationship of institutional ownership with firm value and earnings quality: Evidence from Tehran stock exchange. *International Journal of Economy, Management and Social Sciences*, 2(7), 495-502.
- Monks, R. A. G., & Minow, N. (2011). *Corporate governance* (5th ed.): John Wiley & Sons. <https://doi.org/10.1002/9781119207238>.
- Mwangi, C. I., & Jerotich, O. J. (2013). The relationship between corporate social responsibility practices and financial performance of firms in the manufacturing, construction and allied sector of the Nairobi securities exchange. *International Journal of Business, Humanities and Technology*, 3(2), 81-90.
- Nguyen, T. X. H., Pham, T. H., Dao, T. N., Nguyen, T. N., & Tran, T. K. N. (2020). The impact of foreign ownership and management on firm performance in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(9), 409-418. <https://doi.org/10.13106/jafeb.2020.vol7.no9.409>
- Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using the SPSS program* (4th ed.). Berkshire: Allen & Unwin.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using SPSS program* (6th ed.). London, UK: McGraw-Hill Education.
- Piironen, A. (2019). *The effect of gender on accounting conservatism in finnish listed firms*. Master's Thesis, Hanken School of Economics.



- PWC. (2015). *State-owned enterprises catalysts for public value creation?* Retrieved from [www.pwc.com/gr/en/publications/government/state-owned-enterprises-catalysts-for-public-value-creation.html](http://www.pwc.com/gr/en/publications/government/state-owned-enterprises-catalysts-for-public-value-creation.html)
- Qaderi, S. A., Ghaleb, B. A. A., Hashed, A. A., Chandren, S., & Abdullah, Z. (2022). Board characteristics and integrated reporting strategy: Does sustainability committee matter? *Sustainability*, 14(10), 6092. <https://doi.org/10.3390/su14106092>
- Raimo, N., Vitolla, F., Marrone, A., & Rubino, M. (2020). The role of ownership structure in integrated reporting policies. *Business Strategy and the Environment*, 29(6), 2238-2250. <https://doi.org/10.1002/bse.2498>
- Rustam, A., Wang, Y., & Zameer, H. (2019). Does foreign ownership affect corporate sustainability disclosure in Pakistan? A sequential mixed methods approach. *Environmental Science and Pollution Research*, 26, 31178-31197. <https://doi.org/10.1007/s11356-019-06250-3>
- Shah, A. A., Kouser, R., Aamir, M., & Hussain, C. M. (2012). The impact of the corporate governance and the ownership structure on the firm's financial performance and its risk taking behavior. *International Research Journal of Finance and Economics*, 93(1), 44-55.
- Velte, P., & Stawinoga, M. (2017). Integrated reporting: The current state of empirical research, limitations and future research implications. *Journal of Management Control*, 28, 275-320. <https://doi.org/10.1007/s00187-016-0235-4>
- Vitolla, F., Raimo, N., & Rubino, M. (2020). Board characteristics and integrated reporting quality: An agency theory perspective. *Corporate Social Responsibility and Environmental Management*, 27(2), 1152-1163. <https://doi.org/10.1002/csr.1879>
- Zaid, M. A., Abuhijleh, S. T., & Pucheta-Martínez, M. C. (2020). Ownership structure, stakeholder engagement, and corporate social responsibility policies: The moderating effect of board independence. *Corporate Social Responsibility and Environmental Management*, 27(3), 1344-1360. <https://doi.org/10.1002/csr.1888>

*Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Management and Sustainability shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*