Corporate Governance Mechanisms, Innovation, and Strategic Management Accounting Disclosure: The Moderating Role of Board Gender Diversity

Bernadette Josephine James[1], Corina Joseph[2*], Roshima Said[3]
[1]School of Business, INTI College Sabah, Malaysia.
[2]Faculty of Accountancy, Universiti Teknologi MARA Sarawak Branch, Malaysia.
[3]Faculty of Accountancy, Universiti Teknologi MARA Kedah Branch, Malaysia.

ABSTRACT

This paper aims to examine the moderating effect of the board gender diversity in explaining the relationship between the corporate governance mechanisms, innovation, and the extent of strategic management accounting disclosures in the Malaysian public listed companies' annual reports from the perspective of the research-based view theory. The content analysis technique was employed to collect data (dependent, independent, moderating, and control variables) from 180 public listed companies for the year 2021. The extent of strategic management accounting disclosure in annual reports of the Malaysian public listed companies revealed a 'marginally satisfactory' level at 46%. The hierarchical regression analysis revealed that board size, board independence, foreign ownership, and innovation significantly influenced the extent of strategic management accounting disclosure in Malaysia. The study found that board gender diversity moderated the relationship between board size and SMAD in 2021. The resource-based view theory has been successfully used in this study in conceptualizing the board size, board independence, foreign ownership, and innovation as companies' unique resources that are valuable, rare, inimitable, and non-substitutable. This study contributes to the improvement in strategic management accounting disclosure amongst the publicly listed companies in Malaysia for business sustainability. In response to MCCG 2021 calls for informative and valuable disclosures, disclosing strategic management accounting information helps to instil trust and confidence in the various stakeholders that companies can sustain its business despite the impact of any future crises.

Keywords: Corporate Governance, Innovation, Strategic Management Accounting, Disclosure, Board Gender Diversity

---

ARTICLE INFO

Article History:
Received: 1 June 2025
Accepted: 29 July 2025
Available online: 1 August 2025

* Corresponding Author: Corina Joseph; Faculty of Accountancy, Universiti Teknologi MARA Sarawak Branch, Malaysia.; Email: corina@uitm.edu.my

INTRODUCTION

In today's rapidly evolving business landscape, having a clear strategy is vital for organizational survival. A well-crafted business strategy enables companies to anticipate shifts in markets, industries, and regulatory requirements. This adaptability helps companies maintain a competitive edge and capitalize on emerging opportunities, even during crises or pandemics. In this context, information disclosure in annual reports has gained significant importance as businesses adjust to changing environments. One notable type of disclosure is strategic management accounting disclosure (SMAD) (Honggowati et al., 2020). Therefore, comprehending the role of strategic management accounting (SMA) information as part of a company's strategic approach is essential for effective decision-making, control, and monitoring to ensure long-term business sustainability.

A well-defined and targeted business strategy is essential, particularly when navigating continuous market fluctuations. Winter and Zülch (2019) noted that although a company's strategy serves as a critical determinant of business sustainability, the voluntary disclosure of such strategies remains an underexplored subject in both academic research and managerial practice. Despite the growing significance of SMAD, not all firms publish SMA information in their annual reports. According to an experimental study by Kamei (2020), not all businesses disclose their information, even when doing so incurs no financial consequences. This may be due to the voluntary nature of SMA information or the non-existent nature of a standardized structure for its disclosure. This study aimed to address the gap caused by the inadequate SMA disclosure in the annual reports of Malaysian public listed companies and the absence of guidelines on voluntarily disclosing business strategies in the annual reports, i.e. through SMAD.

According to the Malaysian Code of Corporate Governance (MCCG) 2021, boards are responsible for ensuring that a company's sustainability strategies, objectives, and activities are clearly communicated. Additionally, the company must designate a specific individual within the management to oversee these matters. Building on this premise, the objective of this present study was to investigate the relationship between corporate governance mechanisms (including board tenure, board size, board independence, and foreign ownership), innovation, and SMAD, framed within the Resource-

Based View Theory (RBVT). The focus was on Malaysian public listed companies, as they are subject to greater public scrutiny and are generally expected to uphold strong corporate citizenship (Shim, 2006), while also facing mounting pressure for transparency in sustainability practices (Peng & Chandarasupsang, 2023). The year 2021 was selected as the study period, following the global economic disruption caused by the COVID-19 pandemic, which heightened challenges for business continuity. In response to these difficulties, the disclosure of strategic information through SMAD becomes essential to support decision-making, as well as the control and monitoring of strategies to ensure long-term business sustainability. Figure I presents the problem statement using the pyramid approach, adapted from Blicq and Moretto (2004).

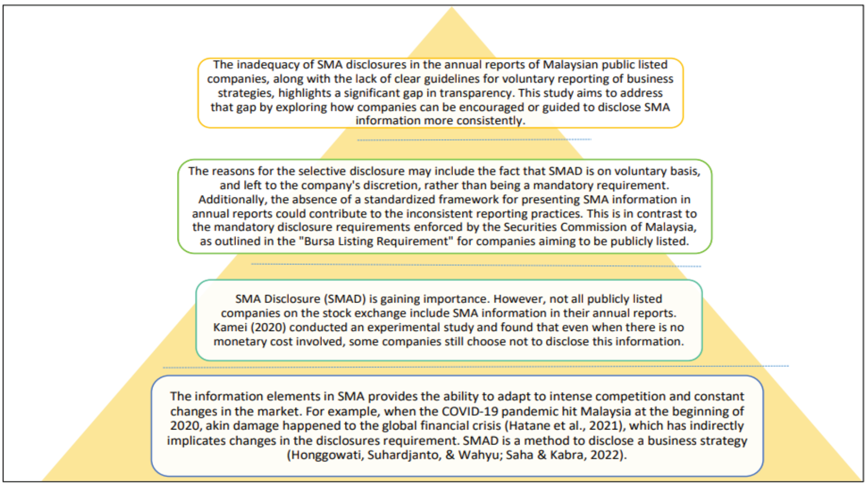

Figure 1: Problem Statement Based on Pyramid Method

The elements of strategic management accounting (SMA) information were drawn from both internal company resources and external factors driven by ongoing market changes. This integrated information plays a vital role in shaping business strategies (Phornlaphatrachakorn & Na-Kalasindhu, 2020) and in ensuring effective control and monitoring of these strategies to achieve long-term sustainability (Nguyen & Nguyen, 2021). The active involvement of the board in providing relevant information and resources is critical to enable companies to navigate market uncertainties and maintain competitiveness.

The remainder of this paper proceeds as follows: Section 2 presents the theoretical support, Section 3 details the review of literature and hypotheses development, Section 4 deliberates the data and methodology, Section 5 presents the empirical models and measurement of variables, Section 6 reveals the results and discussions, and Section 7 concludes the paper.

THEORETICAL SUPPORT

Resourced-Based View Theory (RBVT)

From the theoretical perspective, this study extends the field of strategic management accounting through the application of the RBVT. Most voluntary disclosure research, including the study conducted by Honggowati et al. (2020), applied the agency theory to explain the relationship between the independent and dependent variables. However, deciding upon the right business strategies, capable of controlling, and monitoring of the business strategies for business sustainability is linked to the utilization of the right resources (Wernerfelt, 1984; Barney, 1991).

The RBVT was first presented as a framework for assessing a company's strategic stance with respect to markets and products relative to its competitors (Wernerfelt, 1984). The tremendous potential that RBVT offered businesses to achieve sustainable competitive advantage facilitated its advancement (David-West et al., 2018). Over time, RBVT developed into the most widely used theoretical frameworks in management research (Chahal et al., 2020).

According to the RBVT, resources that are valuable, rare, inimitable, and non-substitutable (VRIN) enables companies to attain and sustain competitive advantage (Wernerfelt, 1984). In this paper, these resources are categorized into tangible (board tenure, and board size), intangible (foreign ownership and innovation), and organizational capabilities (board independence). Furthermore, the presence of women directors on corporate boards is known to be a unique intangible resource, often difficult to replicate, and has been demonstrated to impact sustainability activities and disclosures positively (Barney, 1991; Vitolla et al., 2020).

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Strategic Management Accounting Disclosure Globally

Strategic management accounting disclosure is a specific form of voluntary strategy disclosure (Honggowati et al., 2020). Voluntary strategy disclosure by a company can be used as a broader analysis material to make investment decisions (Sieber et al., 2014). Besides that, SMA disclosure provides information to comprehend and assess the financial performance and position of the company in the market, especially in measuring its competitive advantage. Furthermore, SMA information can be applied to monitor, evaluate, and develop business strategies undertaken by the company (Simmonds, 1981). Hence, the disclosure of information regarding the company's conditions and the strategies used to deal with future developments forms a key part of SMA-related voluntary disclosure.

A study by Guan et al. (2021) found that companies' sustainability in the gaming tourism industry was formed based on the participation of various stakeholder groups, such as customers, government, community, suppliers, and employees. Discussions from the previous studies implied that SMA is the analysis of the company's internal and external market information for business sustainability. This contends that integration between a company's internal resources and information on the market changes is vital to assist in decision-making, control, and monitoring of business strategies to achieve business sustainability. Cescon et al. (2019) revealed that internationally oriented companies used strategic performance measurement and competitor accounting in decision-making. Competitor accounting is a contemporary tool of SMA used to analyze collected quantitative data on competitors' current operations, and details of competitors' future aspirations to provide a high-quality basis for making strategic business decisions. Additionally, SMA technique usage, including strategic pricing, balanced scorecard, risk analysis (management), target costing, and life-cycle costing, was positively associated with competitive forces. The study highlights that SMA information is vital in strategizing business sustainability. Hence, this motivated the rationale for conducting further research into SMAD matters.

Furthermore, Grassmann et al. (2019) posited that companies' non-financial and financial performance had a positive impact on companies' voluntary disclosures. The emphasis was on the importance of strategic shareholders and debt providers that caused a positive impact on the extent of corporate voluntary disclosures on the connectivity of capitals. In contrast, companies in a complex business model and highly competitive business environment were negatively related to the extent of corporate strategy disclosure (Hsiao & Kelly, 2018).

The COVID-19 pandemic left a damaging impact on businesses in Southeast Asia countries, including Malaysia. When crises occured, emerging countries focused on stabilizing their economies but did not have excess funds for investment and therefore, had to rely heavily on loans to sustain business (Hatane et al., 2021). In addition, the COVID-19 pandemic had forced companies in Malaysia to revise the company's strategy and disclosure of information to the public to remain competitive (Issa et al., 2022). Referring to the revised Malaysian code of corporate governance (MCCG) 2021, the board is to ensure that a company's sustainability strategies, goals, and activities conducted are communicated in the annual reports. At the same time, a designated individual within the management of the company is to be identified to handle the matter.

SMA information facilitates strategy formulation and monitoring business strategy, enabling companies to closely monitor the ability to sustain the business under the intensified market environment (Tillmann & Goddard, 2008; Nguyen & Nguyen, 2021). For example, SMA information on competitors' cost structure, pricing, and R&D investments helps companies gauge their competitiveness (López-Santamaría et al., 2021). In addition, having to communicate the SMA information and strategy adopted by the company would signal that the company is in a stable position and can use controls of all the available resources and managing market competition in pursuit of the company sustainability objectives (Albertini, 2019).

Board Gender Diversity

Under the RBVT, companies achieve sustained competitive advantage by leveraging unique, valuable, and inimitable resources (Barney, 1991). In this context, board characteristics, including gender diversity, are conceptualized as strategic resources as they contribute to the development of organizational capabilities, namely strategic decision-making and disclosure transparency. Gender-diverse boards enhance the heterogeneity of cognitive resources, improving the board's ability to process complex information, anticipate stakeholder expectations, and adopt socially responsible practices (Francoeur et al., 2019).

The moderating role of board gender diversity (BGD) is expected to strengthen the relationship between board characteristics, ownership structure, innovation, and the extent of SMAD for several reasons. First, BGD introduces diverse perspectives and ethical orientations, which can foster more rigorous oversight and ensure broader consideration of stakeholder interests. This aligns with RBVT's proposition whereby rare and socially complex resources, such as gender-diverse boards, are difficult to imitate, thereby providing firms with sustained competitive advantage through enhanced governance and disclosure practices (Chairina & Tjahjadi, 2023).

Furthermore, regulatory requirements, such as those embedded in the Malaysian Code on Corporate Governance (MCCG) 2017–2021, reinforce the strategic significance of BGD by mandating companies to disclose progress toward achieving at least 30% female board representation (Securities Commission, 2021). Non-compliance necessitates detailed explanations and disclosure of action plans, compelling companies to integrate gender diversity considerations into the companies' governance strategies. This institutional pressure not only elevates transparency but also embeds gender diversity as a core intangible asset in compliance and reputation management.

Women directors have been found to exhibit higher ethical sensitivity, stakeholder orientation, and risk aversion compared to their male counterparts (Francoeur et al., 2019). These attributes can promote more comprehensive disclosures, particularly on non-financial dimensions such as sustainability, social responsibility, and long-term strategic objectives. By advocating for greater accountability, gender-diverse boards are likely to drive innovations in disclosure practices, resulting in strengthening the company's legitimacy and investor confidence.

However, BGD's positive influence on disclosure is not automatic. If gender diversity is adopted symbolically to meet regulatory quotas rather than substantively integrated into decision-making, its strategic value may be constrained. Token representation can limit the active participation of women directors, reducing their impact on disclosure quality (Yap et al., 2017). Additionally, overly heterogeneous boards might face coordination challenges, leading to slower consensus-building and potential inefficiencies in strategic reporting. Therefore, within the RBVT framework, gender diversity operates as a dynamic intangible resource, whose value depends on its integration into the governance system. When effectively leveraged, it enhances the company's disclosure capacity by providing unique cognitive resources and fostering alignment with regulatory and stakeholder expectations. As a result, when authentically incorporated, gender diversity contributes meaningfully to competitive advantage that is sustainable.

Board Gender Diversity, Board Tenure and SMAD

Board tenure provides directors with more time to understand a company and adapt to changes in the business environment (Yusof et al., 2019). According to Barney (2001), board tenure is considered a valuable resource that equips directors with greater experience as they become more acquainted with the firm's strategic direction, ultimately supporting business sustainability. Longer tenure enhances familiarity with the organization and its market, enabling the formulation of stronger long-term strategies and policies.

Aligned with the RBVT, having women on the board provides additional external resources that aid in developing and executing strategies for competitive advantage, which, in turn, fosters business sustainability. Firms with broader gender diversity often drive innovation in corporate social strategies, emphasizing long-term perspectives and recognizing non-financial outcomes such as environmental performance (Tejedo-Romero & Araujo, 2022). Moreover, women's generally higher ethical orientation has been linked to greater transparency and disclosures, supporting findings from prior research (Wasiuzzaman & Wan-Mohammad, 2020). Hence, in this study, the following hypothesis was constructed:

H1: Board gender diversity moderates the relationship between board tenure and the extent of SMA disclosure.

Board Gender Diversity, Foreign Ownership and SMAD

Foreign ownership is categorized as an intangible resource (Jardon et al., 2018). Not all companies could have a foreign shareholding. Prior studies have found that foreign ownership enhanced corporate disclosures (Ramba et al., 2021). Meanwhile, board gender diversity as an independent variable exhibited a positive influence on voluntary corporate disclosures (Zahid et al., 2020).

Companies with access to foreign capital markets generally secured funding on more favourable terms, which gave companies with foreign ownership a stronger incentive to implement sound governance practices. This, in turn, promoted enhanced corporate disclosure. The presence of foreign owners was considered a unique and scarce resource (Barney, 1991), as it was not commonly available to most companies. Moreover, foreign investors tended to favour companies that provided greater transparency and readily available information (Honggowati et al., 2019). Additionally, the expertise shared by foreign shareholders often motivated companies to further strengthen their corporate disclosure practices (Al-Amosh & Khatib, 2022).

Deriving from the RBVT perspective, foreign ownership and board gender diversity are the qualities of the resources that a company would need to achieve competitive advantage (Davis & DeWitt, 2021). Foreign ownership and board gender diversity possess the unique traits that are not easily imitable by other companies. These distinctive traits, hereafter, are expected to encourage a higher level of SMAD. Hence, the following hypothesis was developed:

H2: Board gender diversity moderates the relationship between foreign ownership and the extent of SMA disclosure.

Board Gender Diversity, Board Size and SMAD

In this study, board size was considered as a tangible resource as board size is determined by the number of directors on the board, making it a visible and easily identifiable attribute. Conversely, board gender diversity is regarded as an intangible resource, believed to enhance the link between board size and SMAD. Barney (1991) explained that the uniqueness of resources can be attributed to time compression diseconomies and interconnectedness. Time compression diseconomies refer to the extended period required to develop resources through accumulated learning, experience, specialized knowledge, and skills. For instance, board gender diversity represents a distinctive intangible resource that is challenging for competitors to replicate, as it involves asset specificity (Nason & Wiklund, 2018) and time compression diseconomies (Varadarajan, 2020).

Several empirical studies have found a negative or insignificant relationship between board size and various corporate voluntary disclosures (Choi et al., 2022). Nonetheless, there is also a notion that companies with smaller board size are more collaborative and can outperform companies with a larger board size (Farnham, 2022). In addition, according to Orozco et al. (2018), the optimal board size for a company is between five to nine board members. The reason is that a smaller board would take lesser time in discussion, and, therefore, more efficient in decision-making.

Constructed from the RBVT, Barney (1995) argued that individual practices have limited ability to generate competitive advantage in isolation. However, when strategically combined, these practices would allow a company to realize its full competitive advantage. From the lens of RBVT, complementarity role is not only in value creation but also for value capture (Gerhart & Feng, 2021). Thus, the interconnectedness of board gender diversity, with the unique capabilities, knowledge, and cognitive ideas, when combined with the board size, was hypothesized to encourage the extent of companies' SMA disclosures. Hence, this study presented the following hypothesis:

H3: Board gender diversity moderates the relationship between board size and the extent of SMA disclosure.

Board Gender Diversity, Board Independence and SMAD

Board independence is classified as an organizational capability (Kamasak, 2017), encompassing human-related competencies such as leadership and strategic decision-making skills that facilitate the effective organization, management, and allocation of resources. As noted by Teece (1986), resources alone lack productivity unless combined with capabilities that enable their optimal use. Organizational capabilities function to assemble, integrate, and reconfigure a firm's resource base into a coherent mix capable of adapting to environmental changes and sustaining competitive advantage. Consequently, these capabilities can drive enhanced levels of disclosure. Variations in resource and capability combinations explain differences in firm performance (Molloy & Barney, 2015).

Under the RBVT, competitive advantage primarily stems from the organizational capabilities of independent directors in effectively managing corporate resources. Additionally, RBVT emphasizes the role of intangible resources (Barney, 1991), such as board gender diversity. Gender-diverse boards serve as a valuable intangible asset by broadening networking opportunities, enriching social cognition, and bringing diverse skill sets to the decision-making process.

Under the RBVT, competitive advantage mainly stems from the firm's ability to leverage its organizational capabilities, such as those held by independent directors, in managing the company resources. Besides that, RBVT prescriptions consist of intangible resources (Barney, 1991), such as the board's gender diversity. Board gender diversity as an intangible resource allows a company to have diverse networking, social cognitive, and skills on the board.

Prior studies have revealed that there was a positive influence of gender diversity on companies' performance (Beji et al., 2021) and voluntary corporate disclosures (Peng et al., 2021; Khaireddine et al., 2020). Within this context, board gender diversity can work in conjunction with board independence, combining social diversity and governance capabilities to promote more transparent, flexible, and sustainable company practices. The interaction effect of gender-diverse boards may heighten the effectiveness of independent directors in responding to the market uncertainties and implementing strategic disclosures that enhance business sustainability. Henceforth, the following hypothesis was constructed:

H4: Board gender diversity moderates the relationship between board independence and the extent of SMA disclosure.

Board Gender Diversity, Innovation and SMAD

Since Schumpeter's seminal work (1983), innovation has been recognized as a fundamental driver of economic value creation and organizational performance (Zhang & Walton, 2017). Firms have long relied on innovation as a mechanism for achieving growth and long-term sustainability (Durana et al., 2020). By fostering the development of new products and services, innovation enables companies to capitalize on emerging business opportunities (Wu et al., 2015). In the absence of continuous innovation, firms risk stagnation, making it challenging to maintain competitiveness and achieve sustainable growth (Schumpeter, 1983).

Within the RBVT framework, a company's innovative capacity is intrinsically linked to its resource portfolio. According to RBVT, competitive advantage arises not merely from resource possession but from the organization's ability to mobilize and recombine resources such as knowledge, technology, and human capital into unique capabilities that foster innovation (Coff, 1997). Therefore, innovation emerges as a dynamic capability, enabling firms to adapt to evolving market conditions and sustain their strategic position.

However, during periods of heightened uncertainty, companies often adopt a conservative approach by curtailing expenditures to mitigate risk and maintain liquidity, which impacts innovation-related investments (Wang et al., 2024). Reduced investment in R&D leads to production slowdowns (Ghirelli et al., 2019), as uncertainty escalates financing costs and constrains access to capital. Given the long gestation periods and delayed returns associated with R&D projects, companies facing financial constraints are likely to scale back or postpone such investments (Ahmad et al., 2022; Liu & Dong, 2020).

RBVT argues that a sustainable business results from a unique set of resources that competitors cannot emulate (Barney, 1991; Coff, 1997; Rouse & Daellenbach, 2002). A competitive environment creates an environment for companies to succeed in the market by producing new innovative products and services. Furthermore, the leadership styles of the top managers are considered one of the most important factors that influence the employees' creative behaviour and the companies' innovative capacity (Jung et al., 2016). Thus, the leadership from board gender diversity not only includes the creative act of forming new ideas but it is also able to transform the ideas into valuable products and services. By having gender diversity on the board, more resources can monitor innovation skills, which helps companies develop its business strategy (Cordero, 1990). Based on the recommendation from previous research, the following hypothesis was developed:

H5: Board gender diversity moderates the relationship between innovation and the extent of SMA disclosure.

DATA AND METHODOLOGY

Data and Sample

The population of the study consisted of 716 public listed companies in Malaysia. From this population, a sample of 180 public companies was selected. The sample size was selected based on Roscoe's (1975) rule of thumb, which suggested that an ideal sample consists of at least ten observations per variable. Since there were five independent variables, one dependent variable, one moderating variable, and two control variables in this study, 90 samples were needed. Therefore, the study sample consisted 180 companies.

Approximately 25% of the proportion (180 ÷ 716) was then applied to select random samples from each stratum across 11 industry sectors (construction, consumer products and services, energy, health care, industrial products and services, plantation, technology, telecommunications and media, transportation and logistics, utilities, and properties). This approach ensured adequate representation of all subgroups, thereby enhancing the accuracy and reliability of results, particularly in cases of heterogeneous populations. Consistent with prior studies (Honggowati et al., 2020; Saha & Kabra, 2022), companies operating in banking, real estate, and investment trust sectors were excluded due to their adherence to unique regulatory frameworks and compliance requirements essential for market continuity. Similarly, financially distressed firms, including those listed under PN17 and GN3, were removed from the sample.

In addition, this study adopted a stratified random sampling approach, a probability-based technique in which the population was divided into distinct subgroups or "strata" sharing similar characteristics. To further minimize the risk of accidental clustering, systematic sampling was applied within each stratum. Specifically, every fourth company listed in each sector was selected, resulting in the inclusion of firms positioned at the 4th, 8th, 12th, 16th, and so forth, until the target sample size for that sector was reached. This method employed a fixed sampling interval to maintain representativeness while ensuring operational efficiency. The decision to use a fourth interval rather than a larger one was intentional, as smaller intervals would increase selection randomness, thereby reducing sampling bias. Additionally, this interval was deemed more practical and efficient for data collection, particularly in sectors with widely dispersed companies.

The unit of analysis of this study was the Malaysian public listed companies' annual reports for the year in 2021. The data were collected from the company's annual reports. This study examined the extent of SMAD by the Malaysian public listed companies for the year 2021 using a content analysis method. The data was then analyzed using SPSS version 29.0.

Empirical Models and Measurement of Variables

The dependent variable was SMAD. This study is an extension of James et al. (2023) that measured the SMAD using a newly developed disclosure index known as the Modified Strategic Management Accounting Disclosure index (MoSMADi). MoSMADi was the total number of SMA items disclosed in the Malaysian public listed companies, calculated using the following formula:

$$MoSMADi = \frac{\sum t = 1Xij}{nj}$$

Where *nj* is the 70 SMA items expected from the company, and Xij was the score of '1' if the company disclosed the item and '0' for non-disclosure of the SMA items.

Regression Model

Regression was conducted to examine the interacting effect of board gender diversity as the moderating variable in this study. The empirical model applied in this study was based on the following:

$$SMAD = \beta_o - 0.010BTEN + 0.089LgFORO + 0.094BSIZE + 0.099BIND + 0.066LgINNOV - 0.643BGEN - 0.042BTEN\_BGEN - 0.076LgFORO\_BGEN + 0.524BSIZE\_BGEN + 0.413BIND\_BGEN + 0.142INNOV\_BGEN + 0.205LgCSIZE + 0.044LgLEV + \mathcal{E}$$

Table 1 summarizes the measurement of the independent, moderating, and control variables in this study.

Table 1: Summary of the Measurement of Control Variables

Variable	Acronym	Measurement	Source
Board Tenure	BTEN	Average number of years a director sat on the board.	Mooneeapen *et al*. (2022); Yusof *et al*. (2019)
Foreign Ownership	FORO	Percentage of foreign shareholdings.	Grassa *et al*. (2020); Honggowati *et al*. (2019); Nagata and Nguyen (2017)
Board Size	BSIZE	Total number of directors serving on the board.	Beji *et al*. (2021); Yusof *et al*. (2019)
Board Independence	BIND	Independent board of directors / total board members	Almaqtari *et al*. (2023); Khan *et al*. (2021)
Innovation	INNOV	Total R&D expenses; if missing, recorded as zero.	Ramba *et al*. (2021); Wang *et al.* (2024)
Board Gender Diversity	BGEN	Number of women directors / Total number of board members	Almaqtari *et al.*, (2023)
Company Size	CSIZE	Total Assets of the company	Almaqtari *et al.*, (2023)
Leverage	LEV	Total Liabilities / Total Assets	Nagata and Nguyen (2017)

Notes: These acronyms are used to present the results of this study in the following sections

Inferential Test

Prior to conducting the regression analysis, it was essential to carry out assumption tests. The first assumption test was on data normality. In the present study, the test was assessed through skewness and kurtosis measures, which evaluated distribution symmetry and peakedness, respectively. For multivariate normality, acceptable thresholds for skewness and kurtosis are generally between –2 and +2, and –3 and +3, respectively (Vitolla et al., 2020). Values outside these ranges indicated the need for corrective measures prior to regression analysis.

Table 2: Normality Test Before Transformation

	Skewness		Kurtosis	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
SMAD	0.526	0.181	0.428	0.360
BTEN	0.597	0.181	-0.039	0.360
FORO	9.065	0.181	87.619	0.360
BSIZE	0.323	0.181	-0.295	0.360
BIND	0.176	0.181	-0.225	0.360
INNOV	5.828	0.181	36.730	0.360
BGEN	0.417	0.181	0.176	0.360
CSIZE	6.301	0.181	49.140	0.360
LEV	13.339	0.181	178.561	0.360

N=180

Table 2 revealed that foreign ownership, innovation, company size, and leverage were highly positively skewed, with skewness values exceeding +2 and kurtosis above +3, indicating non-normal distribution and necessitating data transformation. Since parametric statistical methods assumed normality, failure to address skewness could lead to significant errors. To correct this, the distributions of affected variables were examined, and a log transformation (Lg10) was applied using SPSS, following recommended practices. This transformation normalized the data and minimized the impact of skewness, after which new variable names were assigned: foreign ownership as LgFORO, innovation as LgINNOV, board gender diversity as LgBGEN, company size as LgCSIZE, and leverage as LgLEV. The transformed data is presented in Table 3.

Table 3: Normality Test After Transformation

	Skewness		Kurtosis	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
SMAD	0.526	0.181	0.428	0.360
BTEN	0.597	0.181	-0.039	0.360
LgFORO	0.998	0.181	0.644	0.360
BSIZE	0.323	0.181	-0.295	0.360
BIND	0.176	0.181	-0.225	0.360
LgINNOV	0.221	0.181	-1.585	0.360
BGEN	0.417	0.181	0.176	0.360
LgCSIZE	0.035	0.181	1.595	0.360
LgLEV	0.837	0.181	2.152	0.360

N=180

Secondly, the multicollinearity test. Consistent with Hair et al. (2017), no collinearity issues were found between the independent variables as the tolerance value was more than 0.1 and the VIF value was less than 10. Table 4 presented the tolerance and VIF statistics. The results showed the non-existence of multicollinearity problems the year under study. Hence, this assumption was attained.

Table 4: Tolerance and Variance Inflation Factor (VIF)

	Coefficients	
	Collinearity Statistics	
Variables	**Tolerance**	**VIF**
BTEN	0.916	1.092
LgFORO	0.929	1.077
BSIZE	0.793	1.261
BIND	0.915	1.093
LgINNOV	0.924	1.082
LgBGEN	0.929	1.076

Table 5: Pearson Correlation Analysis

		Correlations								
		SMAD	BTEN	LgFORO	BSIZE	BIND	LgINNOV	BGEN	LgCSIZE	LgLEV
SMAD	Pearson Correlation	1								
	Sig (1-tailed)									
BTEN	Pearson Correlation	-0.061	1							
	Sig (1-tailed)	0.207								
LgFORO	Pearson Correlation	0.111	0.124	1						
	Sig (1-tailed)	0.069	0.049							
BSIZE	Pearson Correlation	**0.369****	**0.151***	0.082	1					
	Sig (1-tailed)	0.000	0.022	0.136						
BIND	Pearson Correlation	**0.229****	**-0.195****	0.006	**-0.205****	1				
	Sig (1-tailed)	0.001	0.004	0.469	0.003					
LgINNOV	Pearson Correlation	**0.270****	-0.056	0.019	0.115	-0.019	1			
	Sig (1-tailed)	0.000	0.227	0.402	0.063	0.401				
BGEN	Pearson Correlation	**0.272****	-0.009	0.017	**0.232****	0.012	0.053	1		
	Sig (1-tailed)	0.000	0.452	0.408	0.001	0.434	0.239			
LgCSIZE	Pearson Correlation	**0.384****	0.069	**0.216****	**0.339****	0.025	**0.241****	0.137	1	
	Sig (1-tailed)	0.000	0.178	0.002	0.000	0.369	0.001	0.033		
LgLEV	Pearson Correlation	**0.158***	-0.099	0.124	0.056	0.043	0.135	-0.062	**0.159***	1
	Sig (1-tailed)	0.017	0.094	0.048	0.227	0.285	0.036	0.205		

**, Correlation is significant at the 0.01 level (1-tailed).
* , Correlation is significant at the 0.05 level (1-tailed).

Furthermore, the correlation analysis as shown in Table 5 revealed no multicollinearity issues, as all Pearson correlation values were below 0.80. Most independent, moderating, and control variables showed a significant positive correlation with the dependent variable, SMAD, except for board tenure (BTEN), which posed an insignificant negative correlation (-0.061), whereas foreign ownership (LgFORO) posed an insignificant positive correlation (0.111). Board size (BSIZE) exhibited a strong positive relationship with SMAD (r = 0.369), indicating that larger boards disclose more SMA-related information, possibly due to diverse expertise and broader discussions during meetings. Board independence (BIND), innovation (LgINNOV), board gender diversity (BGEN), and company size (LgCSIZE) also showed significant positive correlations with SMAD. Larger companies were more transparent, likely due to stronger governance structures and reputational incentives, aligning with prior research. Similarly, leverage (LgLEV) had a positive correlation with SMAD, suggesting that firms with higher debt levels disclose more information to maintain creditworthiness and investor confidence.

Other significant correlations include BTEN with BSIZE (r = 0.151), implying that longer-serving directors are associated with larger boards due to accumulated expertise and the inclusion of additional directors for diverse skills. Foreign ownership correlated positively with company size (r = 0.216), reflecting the role of foreign investors in improving firm performance through governance pressure. BSIZE had a significant negative relationship with BIND (-0.212) and positive relationships with innovation, gender diversity, and company size. Moreover, innovation also showed positive correlations with company size and leverage, while gender diversity positively exhibited a positive relationship with company size, indicating that larger firms may prioritize diversity more actively. These findings highlighted the interconnectedness of governance characteristics, ownership structure, and firm size in influencing disclosure and innovation practices among Malaysian public listed companies.

Thirdly, the linearity test was conducted to evaluate whether a linear relationship exists between the independent and dependent variables. In this study, Figure 2 confirmed that the independent variables maintained a linear relationship with the dependent variable, thereby satisfying the linearity assumption.

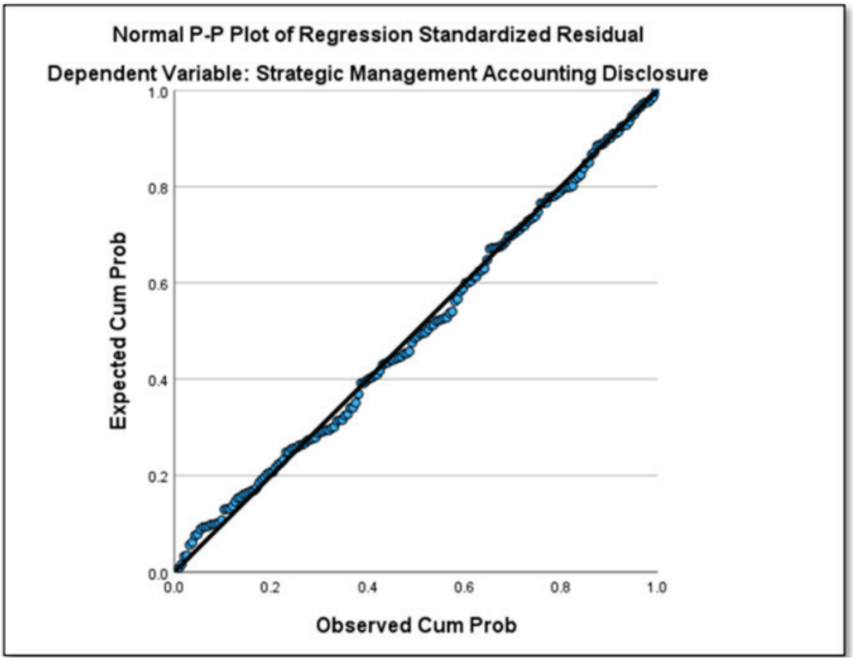

Figure 2: Linear Relationship between Independent Variables and Strategic Management Accounting Disclosure (SMAD) for Year 2021

Lastly, the homoscedasticity test was conducted. The assumption was tested in this study using residual plots against predicted values, where a random distribution around zero indicated compliance. Figure 3 shows that residuals for SMAD in 2021 were closely scattered around zero, confirming that the homoscedasticity assumption was satisfied.

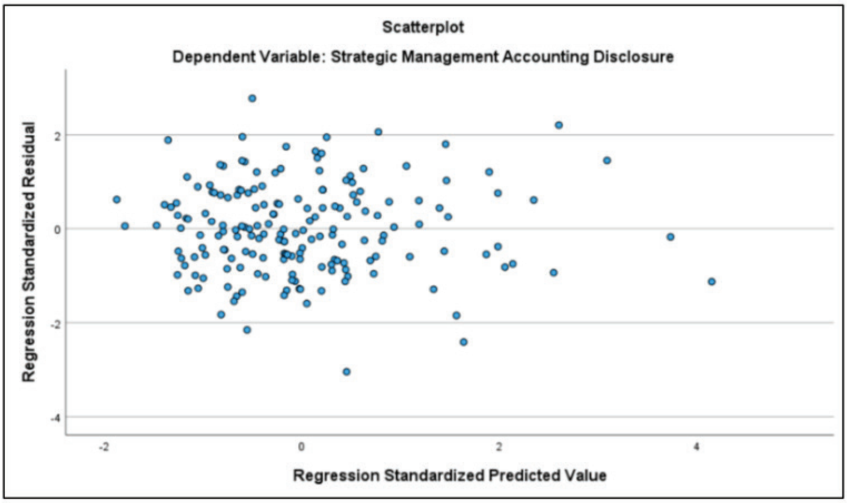

Figure 3: Scatter Plot of Residual Values and Predicted Values for Strategic Management Accounting Disclosure (SMAD)

RESULTS AND DISCUSSION

Descriptive Statistics

Table 6 presents the descriptive statistics of the dependent variable. The table shows the minimum, maximum, and mean values of the extent of SMAD in annual reports of Malaysia public listed companies. The results of the analysis of 180 companies revealed that the highest SMAD was 92.86%, and the lowest was 15.71% of the 70 MoSMADi items. Table 6 also shows that, on average, public listed companies in Malaysia disclosed 32 out of 70 items (46%) related to SMA information in the annual reports. The results were higher than the average SMAD by Honggowati et al. (2019), who examined SMAD in Indonesia for the period 2012 to 2016, with a disclosure value between 16% (7 out of 42 items disclosed) and 72% (30 out of 42 items disclosed), with an average of 39% over the five-year period. On the contrary, Assidi (2023) analyzed the voluntary disclosure practices of 990 listed companies in France from 2010 to 2020. The study shared a disclosure range from 14% (10 out of 73 items) to 94% (69 out of 73 items), with an average value of 88%. This implies that companies in France disseminate a notable higher level of voluntary disclosure compared to those in Malaysia. The reason may be because all the companies in the sample were publicly listed and in a non-Anglo-Saxon setting, namely France, where voluntary disclosure and corporate governance are viewed as substitutes or complements in improving companies' value (Assidi, 2023). Thus, publicly listed companies in France were required to disclose more information to investors to improve companies' performance.

Overall, the SMAD levels among Malaysian public listed companies were classified as marginally satisfactory.

Table 6: Descriptive Statistics

	Observation	Min (%)	Max (%)	Mean (%)
SMAD	180	15.71	92.86	45.99

The MoSMADi scale is to be interpreted as: Poor = 0.00 - 0.20; Fair = 0.21 – 0.40; Satisfactory = 0.41 – 0.60; Good = 0.61 – 0.80; Outstanding = 0.81 – 1.00 (Joseph *et al.,* 2018)

Regression Analysis

Predictive power of the model

Table 7 presents the results of the predictive power. R-square (R^2) refers to the percentage of variance the model explains. Observing from Table 7, the R^2 for the model was 0.382. This also implied that the variance in the interaction effect of board gender diversity could explain the relationship between the independent variables and SMAD.

Table 7: Predictive Power

P-value	R	R^2	Adjusted R^2	STD Error of the Estimate	D-W
0.300	0.618	0.382	0.333	7.850	1.578

Table 8 presents the regression analysis results. Based on Table 8, the presence of BGEN as the moderating variable in the relationship between BTEN and SMAD produced a coefficient value of –0.042, which indicated a negative relationship between BTEN and SMAD. However, the relationship was not significant as the p-value of 0.791 was over the significance level of 0.10. Hence, hypothesis 1 was rejected. There were several reasons for the insignificant moderating role of BGEN in the relationship between board tenure and SMAD.

Table 8: Regression Analysis Results

Regression Test	Coefficients (ß)	t-value	Sig.
(Constant)		- 0.552	0.582
BTEN x BGEN	- 0.042	- 0.266	0.791
LgFORO x BGEN	- 0.076	- 0.524	0.601
BSIZE x BGEN	0.524	1.713	0.089*
BIND x BGEN	0.413	1.643	0.102
LgINNOV x BGEN	0.142	1.115	0.267

Notes: ***Highly significant at p-value < 0.01 level; **significant at p-value <0.05; *moderately significant at p-value < 0.1 level
Source: Authors owns work

One reason for the observed results is associated with the influence of board tenure on disclosure practices. Longer-tenured directors who have been serving on the board for extended periods may counter a few principles of the RBVT. Specifically, such directors may be associated with organizational intertia and resistance to change, as they often follow more conservative decision-making styles and may be less receptive to innovative or disruptive ideas (Lu et al., 2017). This conservatism can lead to a stagnation of resources and capabilities within the company, inhibiting the ability to adapt to changing market conditions and sustain competitive advantage. Furthermore, from the RBVT perspective, long-tenured boards may become more homogenous in views and practices (Ji et al., 2021), in which while it promotes consistency, it may reduce the impact on disclosure practices. In addition, SMAD may be reinforced by other corporate governance mechanisms, and therefore, effective SMAD strategies hada more positive impact when the representation of women directors on the board was low (Orazalin & Baydauletov, 2020).

FORO posed a negative but not significant relationship with SMAD, at a coefficient value of – 0.076, and a p-value of 0.601. Hence, the results revealed that hypothesis 2 was rejected. This finding implied that the presence of women directors on the board did not have an interacting role in the relationship between FORO and SMAD. The insignificant result aligned with previous studies, including Garanina and Aray (2021) in Russia, Amin et al. (2021), in the U.K, and Ramba et al. (2021) in Malaysia. One possible explanation for this insignificant relationship was cultural integration. Compared to introducing new disclosure standards, foreign shareholders may integrate into the existing domestic corporate culture. As a result, their influence on corporate disclosure practices remained limited, leading to minimal changes in how disclosures are managed within domestic companies.

The interacting impact of BGEN also showed a positive and moderately significant relationship between BSIZE and SMAD, with a coefficient value of 0.524 and a p-value of 0.089. From the result, the presence of women directors on the board enhanced the disclosure practices amongst the public listed companies in Malaysia, particularly on SMADs. Thus, hypothesis 3 was accepted. In addition, the positive relationship implied that high BGEN on the board moderated the relationship between BSIZE and SMAD. This result aligned with prior studies by Allam et al. (2024) and Muttakin et al. (2022), which assert that gender-diverse boards positively influence various corporate disclosure practices.

Conversely, the moderating role of BGD on the relationship between BIND and SMAD came out to be insignificant (p-value = 0.102), which was larger than the 0.10 significance threshold. Therefore, hypothesis 4 was rejected. The insignificant moderating role of BGEN may be due to social identity dynamics, which hinders decision-making in business strategy (Kurnianto & Soewarno, 2024). This assertion implied that board gender diversity-focused company may disrupt cohesion and hindering effective decision-making. Although prior studies such as Stevens (2010) highlighted the supportive role of women directors in promoting voluntary disclosures, gender stereotypes and women potential contribution to board decision-making may be limited if they were perceived as unequal board members (Nielsen & Huse, 2010). Empirically, this result postulateds that board gender diversity did not moderate the relationship between environmental disclosure and firm performance, as affirmed by Haris et al. (2023).

Lastly, the presence of BGEN in moderating the relationship between INNOV and SMADs revealed a positive but statistically insignificant relationship, with a coefficient of 0.142, and a p-value of 0.267. Hence, hypothesis 5 was rejected. This may be due to the cautious nature often related to women directors, especially in association to high-risk investments such as R&D (Chen et al., 2018). Additionally, for gender diversity to affect innovation, a minimum ratio of 25% of women directors on the board was crucial (Abtahi et al., 2023). Thus, the interaction effect between BGEN and INNOV did not enhance the extent of SMAD in the annual reports of

Malaysian public listed companies. A summary of the hypotheses and their corresponding results is presented in Table 9.

Table 9: Summary of Hypotheses Development Results

Hypotheses	Description	Result: Supported/Not Supported
H1	Board gender diversity moderates the relationship between board tenure and the extent of SMA disclosure	Not Supported
H2	Board gender diversity moderates the relationship between foreign ownership and the extent of SMA disclosure	Not Supported
H3	Board gender diversity moderates the relationship between board size and the extent of SMA disclosure.	Supported
H4	Board gender diversity moderates the relationship between board independence and the extent of SMA disclosure.	Not Supported
H5	Board gender diversity moderates the relationship between innovation and the extent of SMA disclosure.	Not Supported

CONCLUSION

This study contributes to the existing literature through the conceptualization of the independent variables as tangible (board tenure and board size), intangible (foreign ownership and innovation), and organizational capabilities (board independence) in examining the relationship with SMAD. In conclusion, on average, the SMAD amongst the Malaysian public listed companies stands at 46%, which is classified as marginally satisfactory. The findings pinpoint that board gender diversity moderates the relationship between board size and SMAD for the year under study.

Theoretically, the adoption of RBVT helps explain the extent of SMAD practices in Malaysia. This implies the need for government and policymakers to provide standardized and specific guidelines for SMAD. The study revealed the current level of SMA information disclosure in Malaysia remained inadequate. One contributing factor is the concern that such disclosure may provide competitors with a strategic advantage, coupled with the absence of standardized guidelines for reporting SMA in annual reports. In this study, strategic management accounting is defined as strategically relevant information that supports decision-making, control, and monitoring of business strategies. This information combines internal resources with external insights, including competitor activities, customer behavior, product dynamics, and overall market changes, enabling firms to develop and sustain effective strategies for long-term business viability.

By clarifying what constitutes SMA, companies can better understand and apply strategy disclosure initiatives. SMA and would convey strategy disclosure initiatives effectively. The annual report serves as a key source for both financial and non-financial information about a company. The main objective of utilizing SMA information is to incorporate competitive strategies into a company's sustainability plans, as SMA provides a mechanism for disclosing strategic approaches. Since external environmental changes continually influence corporate strategies, access to accurate SMA-related information becomes essential. This information supports managers in making informed decisions, exercising control, and monitoring strategic initiatives to ensure long-term business sustainability.

Despite its contributions, this study has three key limitations needed to be addressed by future studies. Firstly, this study examined the relationship between board characteristics (board tenure, board size, and board independence), ownership structure (foreign ownership), innovation, and the SMAD of the Malaysian public-listed companies. Thus, other board characteristics and ownership structure need to be considered for future research. Secondly, the study period is limited to a single year (2021). Hence, it is recommended to adopt a longitudinal approach, covering several years to detect changes over time as well as trends or patterns in SMAD practices. Thirdly, since the sample of the study focuses on the public listed companies in Malaysia, future studies could be considered for other developing countries, sharing comparative acumens and broadening the understanding of SMAD practices on a global scale.

REFERENCES

Abtahi, Z., Chikir, I., & Benkraiem, R. (2023). Board diversity and corporate innovation: New evidence from the Canadian context. *Finance Research Letters, 55*(1), 1-9.

Ahmad, M., Haq, Z. U., Iqbal, J., & Khan, S. (2022). Dating the business cycles: Research and development (R&D) expenditures and new knowledge creation in OECD economies over the business cycles. *Journal of the Knowledge Economy*, *13*(1), 1-45.

Al-Amosh, H., & Khatib, S. F. A. (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.

Albertini, E. (2019). Integrated reporting: an exploratory study of French companies. *Journal of Management and Governance, 23*(2), 513-535.

Allam, A., Moussa, T., & Elmarzouky M. (2024). Examining the relationship between CEO power and modern slavery disclosures: The moderating role of board gender iversity in UK companies. *Business Strategy and the Environment*, *33*(8), 8067-8085.

Almaqtari, F. A., Elsheikh, T., Abdelkhair, F., & Mazrou, Y. S. A. (2023). The impact of corporate environmental disclosure practices and board attributes on sustainability: Empirical evidence from Asia and Europe. *Heliyon*, *9*(8), 1-20.

Amin, M. H., Mohamed, E. K. A., & Elragal, A. (2021). CSR disclosure on Twitter: Evidence from the UK. *International Journal of Accounting Information Systems*, *40*(12), 1-18.

Assidi, S. (2023). Voluntary disclosure and corporate governance: substitutes or complements for firm value?. *Competitiveness Review*, *33*(6), 1205-1229.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Barney, J. B. (1995). Looking inside for competitive advantage. *Academy of Management Perspectives, 9*(1), 49-61.

Barney, J. B. (2001). Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review*, *26*(1), 41-56.

Beji, R., Yousfi, O., Loukil, N., & Omri, A. (2021), "Board diversity and corporate social responsibility: Empirical evidence from France. *Journal of Business Ethics*, *173*(1), 133-155.

Blicq, R. & Moretto, L. A. (2004). Technically-write. *Language Arts and Discipline, 6*(1), 1-408.

Cescon, F., Costantini, A., & Grassetti, L. (2019). Strategic choices and strategic management accounting in large manufacturing firms. *Journal of Management and Governance, 23*(3), 605–636.

Chahal, H., Gupta, M., Bhan, N., & Cheng, T. C. E. (2020). Operations management research grounded in the resource-based view: A meta-analysis. *International Journal of Production Economics, 230*(1), 1–16.

Chairina, C., & Tjahjadi, B. (2023). Green governance and sustainability report quality: The moderating role of sustainability commitment in ASEAN countries. *Economies, 11*(1), 1–17.

Chen, J., Leung, W. S., & Evans, K. P. (2018). Female board representation, corporate innovation and firm performance. *Journal of Empirical Finance, 48*(1), 236–254.

Choi, J. K., Joseph, C., & Voon, B. H. (2022). Determinants of forward-looking information disclosure by top Malaysian companies within a resource-based view framework. *Management and Accounting Review, 21*(3), 1–32.

Coff, R. (1997). Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *The Academy of Management Review, 22*(2), 374–402.

Cordero, R. (1990). The measurement of innovation performance in the firm: An overview. *Research Policy, 19*(1), 185–192.

David-West, O., Iheanachor, N., & Kelikume, I. (2018). A resource-based view of digital financial services (DFS): An exploratory study of Nigerian providers. *Journal of Business Research, 88*(1), 513–526.

Davis, G. F., & DeWitt, T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management, 47*(7), 1684–1697.

Durana, P., Valaskova, K., Vagner, L., Zadnanova, S., Podhorska, I., & Siekelova, A. (2020). Disclosure of strategic managers' factotum: Behavioral incentives of innovative business. *International Journal of Financial Studies, 8*(17), 1–23.

Farnham, K. (2022). Board size: Can smaller boards make a more significant impact? *Diligent.* Available online retrieved on 6 September 2024 at *https://www.diligent.com/resources/blog/why-your-board-size-matters-how-a-smaller-board-can-be-more-effective.*

Francoeur, C., Labelle, R., Balti, S., & El-Bouzaidi, S. (2019). To what extent do gender diverse boards enhance corporate social performance? *Journal of Business Ethics, 155*(2), 343–357.

Garanina, T., & Aray, Y. (2021). Enhancing CSR disclosure through foreign ownership, foreign board members, and cross-listing: Does it work in Russian context? *Emerging Markets Review, 46*(1), 1–16.

Gerhart, B., & Feng, J. (2021). The resource-based view of the firm, human resources, and human capital: Progress and prospects. *Journal of Management, 47*(7), 1796–1819.

Ghirelli, C., Pérez, J. J., & Urtasun, A. (2019). A new economic policy uncertainty index for Spain. *Economics Letters, 182*(1), 64–67.

Grassa, R., Moumen, N., & Hussainey, K. (2020). Do ownership structures affect risk disclosure in Islamic banks? International evidence. *Journal of Financial Reporting and Accounting, 19*(3), 369–391.

Grassmann, M., Fuhrmann, S., & Guenther, T. W. (2019). Drivers of the disclosed "connectivity of the capitals": Evidence from integrated reports. *Sustainability Accounting, Management and Policy Journal, 10*(5), 877–908.

Guan, J., Sio, S. H., & Noronha, C. (2021). Value co-creation through corporate social responsibility in a typical controversial industry: Evidence from Macao. *Journal of Global Scholars of Marketing Science, 1*(1), 1–18.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage.

Haris, S. R. P., Raditya, M. R., & Wedari, L. K. (2023). Does environmental disclosure and Instagram engagement affect firm performance? The moderating role of board's gender diversity. *E3S Web of Conferences, 388*(1), 1–10.

Hatane, S. E., Diandra, J. C., Tarigan, J., & Jie, F. (2021). Voluntary intellectual capital disclosure and earnings forecast in Indonesia–Malaysia–Thailand growth triangle's pharmaceuticals sector. *International Journal of Emerging Markets, 18*(1), 1–21.

Honggowati, S., Rahmawati, R., Aryani, Y. A., & Probohudono, A. N. (2019). Strategic management accounting disclosure, ownership structure, and firm characteristics in Indonesian manufacturing companies. *Jurnal Keuangan dan Perbankan, 23*(3), 335–350.

Honggowati, S., Suhardjanto, D., & Wahyu, S. (2020). The role of corporate governance on strategic management accounting disclosure. *International Journal of Innovation, Creativity and Change, 13*(9), 919–936.

Hsiao, P. C. K., & Kelly, M. (2018). Investment considerations and impressions of integrated reporting: Evidence from Taiwan. *Sustainability Accounting, Management and Policy Journal, 9*(1), 2–28.

Issa, A., Zaid, M. A. A., Hanaysha, J. R., & Gull, A. A. (2022). An examination of board diversity and corporate social responsibility disclosure: Evidence from the banking sector in the Arabian Gulf countries. *International Journal of Accounting and Information Management, 30*(1), 22–46.

James, B. J., Joseph, C., & Said, R. (2023). Disclosure of strategic management accounting information: Evidence from award-winning organizations in Malaysia. *Management and Accounting Review, 22*(3), 117–144.

Jardon, C. F., Molodchik, M., & Paklina, S. (2018). Strategic behaviour of Russian companies with regard to intangibles. *Management Decision, 56*(11), 2373–2390.

Ji, J., Peng, H., Sun, H., & Xu, H. (2021). Board tenure diversity, culture, and firm risk: Cross-country evidence. *Journal of International Financial Markets, Institutions and Money, 70*(1), 1–12.

Joseph, C., Madi, N., & Junggu, T. (2018). Online integrity disclosure: Benchmark for good governance? *Asia-Pacific Management Accounting Journal, 13*(1), 207–230.

Jung, D., Kim, Y., Suh, Y., & Kim, Y. (2016). Perceived innovation barriers and open innovation performance: Insights from Korea. *International Journal of Knowledge-Based Development, 7*(2), 125–142.

Kamasak, R. (2017). The contribution of tangible and intangible resources, and capabilities to a firm's profitability and market performance. *European Journal of Management and Business Economics, 26*(2), 252–275.

Kamei, K. (2020). Voluntary disclosure of information and cooperation in simultaneous-move economic interactions. *Journal of Economic Behavior & Organization, 171*(1), 234–246.

Khaireddine, H., Salhi, B., Aljabr, J., & Jarboui, A. (2020). Impact of board characteristics on governance, environmental and ethical disclosure. *Society and Business Review, 15*(3), 273–295.

Khan, I., Khan, I., & Afridi, M. A. (2021). Does board diversity matter for the quality of CSR disclosure? Evidence from the financial sector of Pakistan. *Revista Brasileira de Gestão de Negócios, 23*(1), 104–126.

Kurnianto, S., & Soewarno, N. (2024). Moderating effect of board gender diversity on the relationship between prospector business strategy and financial performance: Evidence from Indonesia. *Cogent Business & Management, 11*(1), 1–20.

Liu, P., & Dong, D. (2020). Impact of economic policy uncertainty on trade credit provision: The role of social trust. *Sustainability, 12*(4), 1–24.

López-Santamaría, M., Amaya, N., Grueso Hinestroza, M. P., & Cuero, Y. A. (2021). Sustainability disclosure practices as seen through the lens of signaling theory: A study of companies listed on the Colombian Stock Exchange. *Journal of Cleaner Production, 317*(1), 1–9.

Lu, C. S., Chen, A., & Kao, L. (2017). How product market competition and complexity influence the on-job-learning effect and entrenchment effect of board tenure. *International Review of Economics and Finance, 50*(1), 175–195.

Molloy, J., & Barney, J. (2015). Who captures the value created with human capital? A market-based view. *Academy of Management Perspectives, 29*(3), 309–325.

Mooneeapen, O., Abhayawansa, S., Ramdhony, D., & Atchia, Z. (2022). New insights into the nexus between board characteristics and intellectual capital disclosure: The case of the emerging economy of Mauritius. *Journal of Accounting in Emerging Economies, 12*(1), 29–51.

Muttakin, M. B., Chatterjee, B., Khan, A., Mihret, D. G., Roy, R., & Yaftian, A. (2022). Corporate political donations, board gender diversity, and corporate social responsibility: Evidence from Australia. *Journal of Business Research, 152*(1), 290–299.

Nagata, K., & Nguyen, P. (2017). Ownership structure and disclosure quality: Evidence from management forecast revisions in Japan. *Journal of Accounting and Public Policy, 36*(6), 451–467.

Nason, R. S., & Wiklund, J. (2018). An assessment of resource-based theorizing on firm growth and suggestions for the future. *Journal of Management, 44*(1), 32–60.

Nguyen, T., & Nguyen, T. (2021). The application of strategic management accounting: Evidence from the consumer goods industry in Vietnam. *Journal of Asian Finance, Economics and Business, 8*(10), 139–146.

Nielsen, S., & Huse, M. (2010). Women directors' contribution to board decision-making and strategic involvement: The role of equality perception. *European Management Review, 7*(1), 16–29.

Orazalin, N., & Baydauletov, M. (2020). Corporate social responsibility strategy and corporate environmental and social performance: The moderating role of board gender diversity. *Corporate Social Responsibility and Environmental Management, 27*(4), 1664–1676.

Orozco, L. A., Vargas, J., & Galindo-Dorado, R. (2018). Trends on the relationship between board size and financial and reputational corporate performance: The Colombian case. *European Journal of Management and Business Economics, 27*(2), 183–197.

Peng, H., & Chandarasupsang, T. (2023). The effect of female directors on ESG practice: Evidence from China. *International Journal of Financial Studies, 11*(2), 1–20.

Peng, X., Yang, Z., Shao, J., & Li, X. (2021). Board diversity and corporate social responsibility disclosure of multinational corporations. *Applied Economics, 53*(42), 4884–4898.

Phornlaphatrachakorn, K., & Na-Kalasindhu, K. (2020). Strategic management accounting and firm performance: Evidence from finance businesses in Thailand. *Journal of Asian Finance, Economics and Business, 7*(8), 309–321.

Ramba, M., Joseph, C., & Said, R. (2021). Determinants of environment, social and governance disclosures by top Malaysian companies. *Middle East J. Management, 8*(2/3), 233–253.

Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences* (2nd ed.). New York, NY: Holt, Rinehart and Winston.

Rouse, M. J., & Daellenbach, U. S. (2002). More thinking on research methods for the resource-based perspective. *Strategic Management Journal, 23*(10), 963–967.

Saha, R., & Kabra, K. C. (2022). Corporate governance and voluntary disclosure: Evidence from India. *Journal of Financial Reporting and Accounting, 20*(1), 127–160.

Schumpeter, J. A. (1983). *The theory of economic development.* New Brunswick, NJ: Transaction Books Reprint.

Securities Commission (2021), *Malaysian code on corporate governance 2021.* Retrieved on 27 July 2025, available at https://www.sc.com.my/resources/media/media-release/sc-updates-themalaysian-code-on-corporate-governance-to-promote-board-leadership-andoversight-of-sustainability

Shim, S. (2006). Governance in the markets: Malaysian perspective. *Journal of Financial Crime, 13*(3), 300–322.

Sieber, T., Weißenberger, B. E., Oberdörster, T., & Baetge, J. (2014). Let's talk strategy: The impact of voluntary strategy disclosure on the cost of equity capital. *Business Research, 7*(2), 263–312.

Simmonds, K. (1981). Strategic management accounting. *Management Accounting, 59*(4), 26–29.

Stevens, C. (2010). Women are the key to sustainable development. *Sustainable Development Insights, 386*(3), 1–8.

Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing, and public policy. *Research Policy, 15*(6), 285–305.

Tejedo-Romero, F., & Araujo, J. F. F. E. (2022). The influence of corporate governance characteristics on human capital disclosure: The moderating role of managerial ownership. *Journal of Intellectual Capital, 23*(2), 342–374.

Tillmann, K., & Goddard, A. (2008). Strategic management accounting and sense-making in a multinational company. *Management Accounting Research, 19*(1), 80–102.

Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources-based view. *Industrial Marketing Management, 89*(1), 89–97.

Vitolla, F., Raimo, N., Marrone, A., & Rubino, M. (2020). The role of board of directors in intellectual capital disclosure after the advent of integrated reporting. *Corporate Social Responsibility and Environmental Management, 27*(5), 2188–2200.

Wang, B., Khalid, S., & Mahmood, H. (2024). R&D spending and economic policy uncertainty in Asian countries: An advanced panel data estimation study. *Journal of the Knowledge Economy, 15*(1), 4710–4729.

Wasiuzzaman, S., & Wan Mohammad, W. M. (2020). Board gender diversity and transparency of environmental, social and governance disclosure: Evidence from Malaysia. *Managerial and Decision Economics, 41*(1), 145–156.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171–180.

Winter, S., & Zülch, H. (2019). Determinants of strategy disclosure quality: Empirical evidence from Germany. *Problems and Perspectives in Management, 17*(4), 104–120.

Wu, K. J., Liao, C. J., Tseng, M. L., & Chou, P. J. (2015). Understanding innovation for sustainable business management capabilities and competencies under uncertainty. *Sustainability, 7*(10), 13726–13760.

Yap, I. L. K., Chan, S. G., & Zainudin, R. (2017). Gender diversity and firms' financial performance in Malaysia. *Asian Academy of Management Journal of Accounting and Finance, 13*(1), 41–62.

Yusof, S. M., Nordin, N. A., Jais, M., & Sahari, S. (2019). Impact of board diversity on corporate social responsibility (CSR) on Malaysian public listed companies. *International Journal of Academic Research in Business and Social Sciences, 9*(7), 1049–1069.

Zahid, M., Rahman, H. U., Ali, W., Khan, M., Alharthi, M., Qureshi, M. I., & Jan, A. (2020). Boardroom gender diversity: Implications for corporate sustainability disclosures in Malaysia. *Journal of Cleaner Production, 244*(1), 1–14.

Zhang, J. A., & Walton, S. (2017). Eco-innovation and business performance: The moderating effects of environmental orientation and resource commitment in green-oriented SMEs. *R and D Management, 47*(5), 26–39.