SYSTEMATIC LITERATURE REVIEW ON THE IMPACT OF SUSTAINABILITY REPORTING ON THE VALUE RELEVANCE

Suzaihan Sulaiman[1]

[1](*Department of Management, Faculty of Management and Information Technology, Universiti Sultan Azlan Shah, Malaysia)*

ABSTRACT : *Sustainability reporting was developed in the 1970's by adding social report to financial report. In the 1990's, environmental occupational, health and safety issues were reported and triple bottom line concept were introduced in 1997. In this concept, corporate performance is valued and measured across three main pillars of sustainability. As a result, corporation now report their financial performance and their social and environmental performance. The purpose of this study is to conduct a systematic literature review on the impact of sustainability reporting on the value relevance. This study selected articles using Scopus database and run the systematic review which is eligibility and exclusion criteria, steps of the review process (identification, screening, eligibility) and data abstraction and analysis. This review confirms the sustainability reporting play an important role on value relevance of the accounting information.*

KEYWORDS – *CSR, ESG, sustainability, systematic literature review, value relevance*

I. INTRODUCTION

Back in 2006, the sustainability was initially taking cognizance of the speech by former Prime Minister, Tun Abdullah Badawi, in the Malaysian Government Budget of 2007/2008 that introduced the corporate social responsibility (CSR) report. CSR is defined as open and transparent business practices that are based on ethical values and respect for the community, employees, the environment, shareholders and other stakeholders. The issuance of the CSR framework marked a significant milestone together with the directive by Bursa Malaysia for Malaysian public listed companies (PLCs) to adopt CSR reporting. The CSR framework issued by Bursa Malaysia emphasised on four perspectives which includes the environment, workplace, community, and marketplace. However, Bursa Malaysia provided no guidance beyond such requirements. The Bursa Malaysia CSR Framework is in fact a framework, and not a template. This framework does not tell the whole story of CSR but it can help companies to identify its choices and priorities as CSR initiatives will depend on the nature of each company's business, its inclinations, and its resources. The CSR Framework is basically a set of guidelines for Malaysian PLCs to help them in the practice of CSR.

Along the way, the reporting of CSR has now changed to a new era of reporting called 'sustainability reporting. It is now necessary for companies to report their strategies, including how the business can sustain in future. Reporting of CSR activities or practices in annual reports that focus more on the social aspects of the business presents a limitation in addressing sustainability issues related to their business operations and in fact, it is less value creation for the business. The Brundtland Report of the World Commission on Environment and Development defined sustainability as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability report is about the economic, environmental and social impacts caused by everyday activities of businesses. A sustainability report also presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy. On the other hand, sustainability reporting is also known as non-financial reporting; triple bottom line reporting, CSR reporting, and more. It is also an intrinsic element of Integrated Reporting (IR); a more recent development that combines the analysis of financial and non-financial performance.

The new Sustainability Framework related to Economic Environment, and Social (EES) aspects was issued October 2015 and came into force in 2016 on comprising amendments to the Listing Requirements Besides EES, the term, ESG (environmental, social and governance) is also used extensively, particularly by the investment community, and describes environmental, social and governance matters that investors are considering in the context of corporate behaviour However, in this sustainability guideline, the governance element is excluded because there are already specific and comprehensive disclosure requirements for corporate governance in the Listing Requirements and in the Malaysian Code on Corporate Governance.

The amendments to the Listing Requirements took effect on a staggered basis over three years, starting from 31 December 2016 to 31 December 2018. This framework has replaced the CSR framework issued in 2006. The value of the sustainability reporting process requires organizations to consider their impacts on these sustainability issues, and enables them to be transparent about the risks and opportunities they face. Stakeholders are the people or groups who have an interest in the business such as investors, customers, employees, suppliers, NGOs, and local communities also play an important role in identifying these risks and opportunities for organizations, particularly those that are non-financial, interactions between businesses and stakeholders are important to deal with sustainability-related issues and towards understanding an organization's risk profile, potential liabilities and its value. This increased transparency leads to better decision-making, which helps build and maintain trust in businesses and governments, Establishing and maintaining trust in businesses and government is fundamental to achieving a sustainable economy and world. Business and government decisions usually have an impact on society and stakeholders.

Reporting on sustainability issues would increase understanding of risks and opportunities. Understanding risks and opportunities would require the organization to emphasize the link between financial and non-financial performance. On top of that, other benefits of reporting sustainability issues include influencing long-term management strategies and policies, and business plans, streamlining processes, reducing costs and improving efficiency, benchmarking and assessing sustainability performance with respect to laws, norms, codes, performance standards, and voluntary initiatives. From the external perspectives, sustainability reporting would help an organization to better improve its reputation and brand loyalty. It has also enabled external stakeholders to understand the organization's true value, tangible and intangible assets and demonstrate how the organization influences, and is influenced by, expectations about sustainable development. PLCs in Malaysia are required to disclose a narrative statement of their material EES risks and opportunities in their annual reports, PLCs with a market capitalization of over RM2 billion will be required to disclose their Sustainability Statement in an annual report issued for the financial year ending on or after 31 December 2016. Among the sustainability reporting guidelines include: Global Reporting Initiative (GRI) Sustainability Reporting Standards. The Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, The United Nations Global Compact (the Communication on Progress) and The International Organization for Standardization such as ISO 26000- International Standard for social responsibility. The beginning of the compliance stage requires a lot of thinking, internal alignment and possible organizational changes. The principle of 'balance' as per the GRI Guidelines, states that the sustainability report should reflect both the positive and negative aspects of the organization's sustainability performance to enable a reasonable assessment of the overall performance. Therefore, a Sustainability Statement should reflect the following qualities: (1) Unbiased; (2) avoids omissions or selective reporting (i.e. reporting only the positive aspects and not the negative aspects such as fines and contentious issues).

On the other hand, value relevance is defined as the capacity of information disclosed in financial statements to forecast the firm’s market value (Barth, Beaver, & Landsman, 2001; Ohlson, 1995). The construct value relevance is interpreted in four perspectives by Francis and Schipper (1999). Interpretation 1: Profits produced from implementing accounting-based transaction rules are used to determine value relevance. Interpretation 2: Financial information has value relevance if it contains or assists in a valuation model.

Interpretation 3: The statistical correlation assesses whether investors use the information to establish prices, implying that value relevance of financial information can be measured as news and indicating that value relevance information causes investors to revise their expectations, and as a result, the value relevant information causes stock prices to change. And, in Interpretation 4, the capacity of financial statement information effects firm's market value, independent of source, and is estimated by value relevance.

Recent research examined the value relevance of accounting information by determining how relevant it is to equity investors. The value relevance study attempts to examine the association between accounting numbers and a firm's market value (Barth et al., 2001; Francis & Schipper, 1999). The Ohlson (1995) model was used in most prior studies to examine at the value relevance of earnings and book values (e.g. Clarkson et al., 2013; Kaspereit & Lopatta, 2014; Loh et al., 2017). In this model, firm value is defined as a function of book values plus earnings and other information; nevertheless, this model does not define the additional information (Ohlson, 1995). According to most past research, earnings and book values are both positively connected to firm value.

This research introduces the perspective of a sustainability report which not only has value relevance but also has an impact on accounting information value relevance because recent research shows that firms with sustainability reports improve investors' confidence In using accounting information, resulting in lower earnings forecasts error (Dhaliwal, Li, Tsang, & Yang, 2014; Dhaliwal, Radhal«ishnan, Tsang, & Yang, 2012), higher forecasting ability of future earnings (Lourenco, Callen, Branco, & Curto, 2014), and improved financial statement value relevance (Sutopo, Kot, Adiati, & Nrdila, 2018). This study intended to fill that gap by examining whether the sustainability report may increase the relevance of accounting information, especially the value relevance of book value of equity per share and accounting earning per share. When evaluating the use of signalling theory, the adoption of the GRI reporting framework on sustainability reports delivers a more useful signal that a company is presenting investors with higher-quality accounting information.

II.METHODOLOGY

In this section the method used to retrieve articles related to the impact of sustainability reporting on value relevance is discussed. The reviewer used the method called PRISMA, which includes resources (Scopus) used to run the systematic review, eligibility and exclusion criteria, steps of the review process (identification, screening, eligibility) and data abstraction and analysis.

2.1 Systematic review process

2.1.1 Identification

Identification is a process to search any synonym, related terms, and variation for the main keywords for the study. Studies analyzed in this review were retrieved from the Social Science Citation Index (SSCI) by Thomson Reuter Web of Sciences (WoS). The search was performed on September 7, 2022, using a Boolean search with keywords "ESG" OR "CSR" OR "EES" OR "sustainability" OR "integrated" OR "disclosure*" OR "report*" AND "value relevance" OR "value relevant" OR "price model*" OR "ohlson model" OR"return model". The search included all English-language articles indexed in the SSCI from 2017 to 2022. The keywords are developed based on the research question as suggested and the identification process relied on online thesaurus, keyword used by past studies, keyword suggested by Scopus, and keyword suggested by experts. The wildcard character (*) was used to obtain results that contain variations of the search keywords. For example, sustainab* will match both "sustainable" and "sustainability." The OR term and AND term was used to expand the search. The search yielded a total of 1,549 articles. Information for each article was then downloaded.

2.1.2 Screening

This study screened all the 1,549 selected articles by choosing the criteria for articles selection which is done automatically based on the sorting function available in the database. As it is almost impossible for the researchers to review all the existing published articles, hence, the researcher determine range of period that she able to review. Based on the searching process on the selected databases, it was realized that the number of studies related to the impact of sustainability reporting on the value relevance was 200 articles.

Meanwhile, the reason for limiting the search to 2017 was due to the searching process that started in September 2022. Therefore, based on this, the timeline between 2017 and 2022 was selected as one of the inclusion criteria. Furthermore, to ensure the quality of review, only articles with empirical data and published in a journal are included. Moreover, only articles published in English are incorporated in the review to avoid confusion in understanding. For the study objective, only articles that meet the criteria are selected (Table1).

This process had excluded 170 articled as they did not fit inclusion criteria and removed 18 duplicates. The remaining 40. articles were used for the third process-eligibility.

2.1.3 Eligibility

Eligibility is the third process where the authors manually monitored the retrieve articles to ensure all the remaining articles (after the screening process) are in line with the criteria. This process was done by reading the title and abstract of the articles. This process excluded 10 articles due to focus on review not empirical data, and published in the form of article. Overall, there were only 30 selected articles.

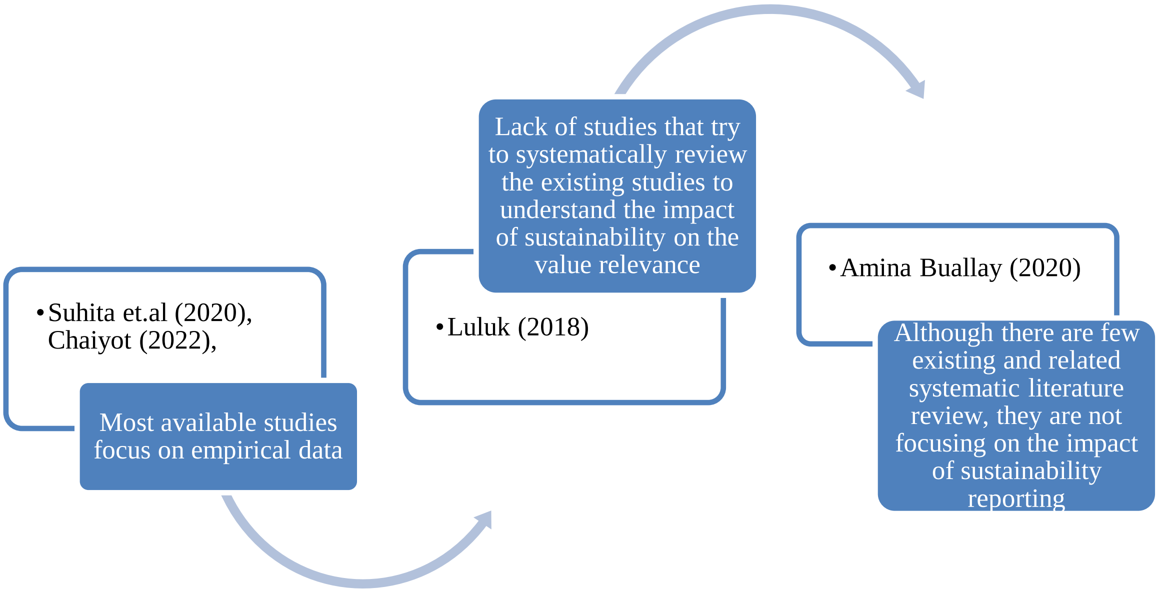

Fig 1. The research gap

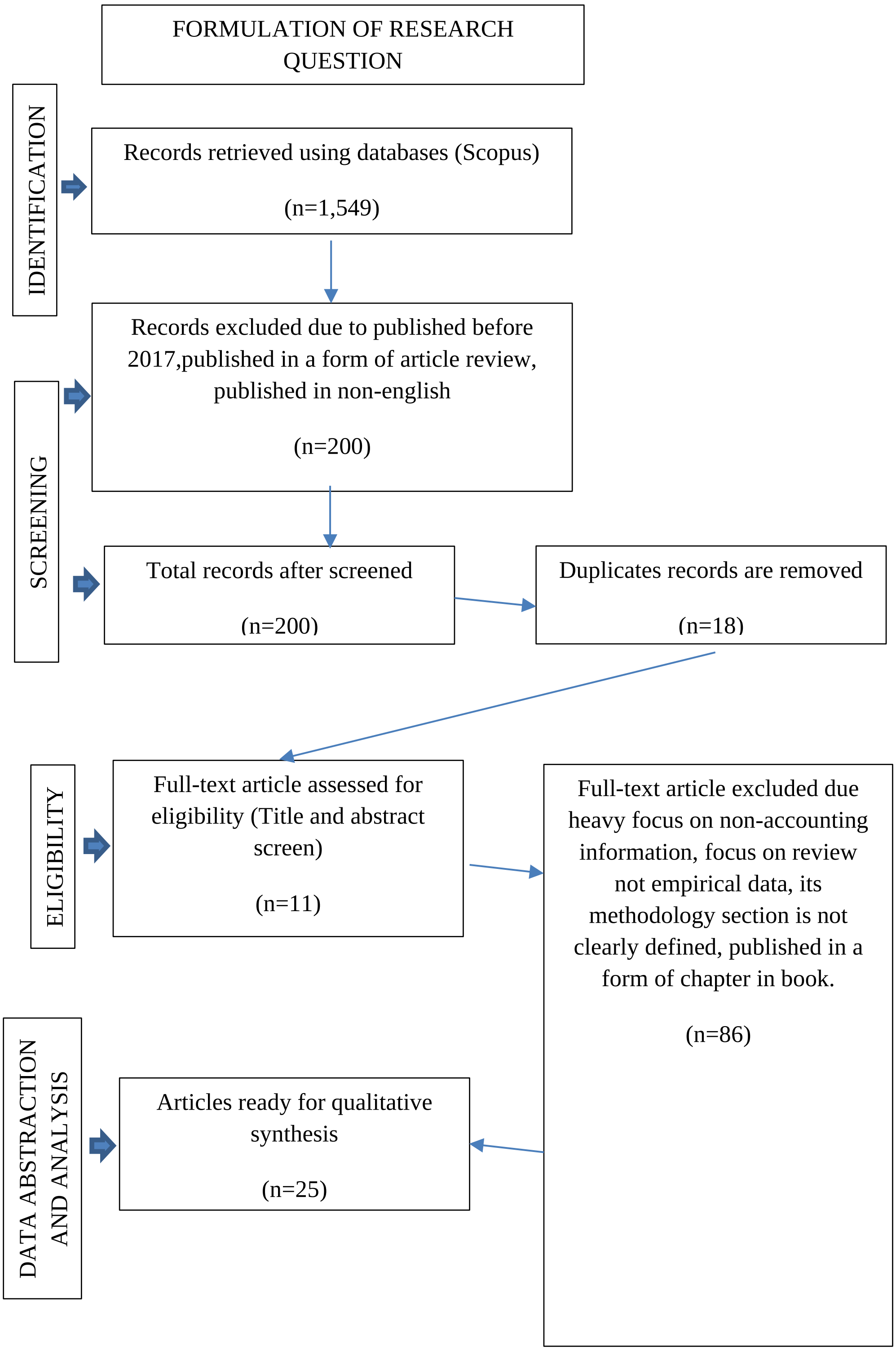
FORMULATION OF RESEARCH QUESTION
IDENTIFICATION
Records retrieved using databases (Scopus)
(n=1,549)
SCREENING
Records excluded due to published before 2017,published in a form of article review, published in non-english
(n=200)
Total records after screened
(n=200)
Duplicates records are removed
(n=18)
ELIGIBILITY
Full-text article assessed for eligibility (Title and abstract screen)
(n=11)
Full-text article excluded due heavy focus on non-accounting information, focus on review not empirical data, its methodology section is not clearly defined, published in a form of chapter in book.
(n=86)
DATA ABSTRACTION AND ANALYSIS
Articles ready for qualitative synthesis
(n=25)

Table 1: The inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Timeline	2017-2022	<2017
Document type	Article journal (empirical data)	Article review
Language	English	Non-english

2.1.4 Data abstraction and analysis

This study relied on integrative review. This technique allowed diverse research designs (quantitative, qualitative, mixed method) to be included in the review. The best way to synthesise or analyse integrative data is by using qualitative or mixed-method technique that enable the researcher to conduct iterative comparisons across the primary data sources. The present study selected the qualitative technique. The researcher read the 25 articles thoroughly particularly in the sections of abstract, results and discussions. The data abstraction was conducted based on the research questions, it denotes that any data from the reviewed studies that are able to answer the research questions were abstracted and placed in a table. Subsequently, the researcher performed thematic analysis that identified themes and sub-themes based on efforts related to noting patterns and themes, clustering, counting, noting similarities, and relationship that existed within the abstracted data (Braun and Clarke, 2006). Thematic analysis is considered as the most suitable in synthesizing a mixed research design (integrative) (Flemming et al., 2018). It is explained as a descriptive method that reduces the data in a flexible mode that merges with other data analysis techniques (Vaismoradi et al., 2013).

III. RESULT

3.1 Background of the selected articles

The review managed to obtain 25 selected articles. Based on the thematic analysis, seven themes were developed namely technology-assisted, traditional and local knowledge, social-related activities, livelihood diversity, government support, food and water securities, and physical infrastructure. Further analysis of the themes has resulted in 20 sub-themes. Out of 25 selected articles, eight studies were conducted in Australia, six studies were con- ducted in India, two studies were conducted in Nepal, and one study was conducted in these countries namely China, New Zealand, Vietnam, Philippines, Fiji, Vanuatu, and Bangladesh. There was one study conducted simultaneously in Canada and Nepal - for this article, only data related to Nepal were included while another study was conducted simultaneously in Fiji and Vanuatu, data from both countries are considered as both are Asia Pacific countries. Out of 25 selected articles, two were published in 2010, one in 2011, four in 2013, three in 2014, two in 2015, six in 2016, six in 2017 and one article published in 2018.

3.2 The themes and the sub-themes

The aim of this study was to determine the impact of sustainability report on the value relevance of accounting information. The interconnectedness of financial and sustainability report enhances the usefulness of accounting information (Baboukardos & Rimmel, 2016). It assumes that such a relationship exits. In order to do so, this study tested whether the interacts between sustainability report and accounting information is value relevant.

The Ohlson (1995) valuation model was used to examine the value relevance of interactions between sustainability reports and accounting information

3.2.1 Measure of Dependent Variable

The timeliness of information is an important role in value relevance research. Following Kaspereit and Lopatta (2014), the firm’s price (PR) is the market value of the firm three months after the fiscal year ends. This ensures that accounting information and the sustainability report are available to investors, and the information can be reflected in firm's valuation.

3.2.2 Measure of Independent Variable

Book value per share (BVS) and earning per share (EPS) are required to be included in Ohlson's model. Book value per share (BVS) is a firm's book value of equity per share at the fiscal year end and earning per share (EPS) is a firm's accounting earnings per share at the fiscal year end.

Sustainability report (GRI) is a dummy variable which assumes the value 1 if the firm is included in sustainability disclosure database operated by Global Reporting Initiative (GRI) at year t in the sample period, and 0 if the firm isn't included in sustainability disclosure database at year t in the sample period (Kaspereit & Lopatta, 2014).

IV. DISCUSSION AND RECOMMENDATION

The study suggests significant theoretical contributions established in previous knowledge and literature in the field of sustainability report implementation. The conceptual model of this study evolved from application of signaling theory. The results show the interaction between sustainability report and book value per share (BVS x GRI) was found to be positive coefficient. Based on GRI reporting framework, a sustainability report will provide information on the associations between the various measures for sustaining, both operational and organizational strategies, as an accompaniment of financial statements. It provides a more useful signal that a company is providing a better quality of information for the investors. Thus, firms with a sustainability report improve the confidence of investors in using book value variable to make a decision. In contrast, this study found a negative effect of the interaction between sustainability report and earning per share (EPS x GRI) and effect of ROA on firm value because profitability alone is not enough for a firm's sustainability growth. If firms lose their organizational legitimacy, they are likely to encounter revenue losses, which affects long-term economic success and future cashflow. As a result, investors are increasingly interested in non-financial corporate performance. Based on these results, the regulation body should encourage public listed firms to provide information about sustainability management using GRI reporting framework in order to provide a better quality of information for the investors use to forecast future cashflow of the firms.

Moreover, this is a new contribution to academic research to extend the understanding of the subject of sustainability report in developing countries. Sustainability report in Malaysia is mandatory disclosure. In mandatory disclosure, firms have to disclose economic, social and environmental management information in an annual report conducted by the Securities and Exchange Commission (SC),. This study focused on stand-alone report with the Global Reporting Initiative (GRI) reporting framework. The result reveals that the main effect of the relation between voluntary sustainability report and market value of the firm was found to be positive. It indicates that with voluntary sustainability report by Thai listed firm, investors in Thailand accumulate sustainability information when they do valuation of a firm listed on the SET.

V.CONCLUSION

The aim of this study is to systematically review the impact of sustainability report on value relevance of accounting information. In considering the implementation of signalling theory, the implementation of GRI reporting framework on sustainability report provides a more useful signal that firms are providing a higher quality of accounting information for the investors. Previous research shows that firms with sustainability report improve the confidence of investors in using accounting information. Such leads to decreased analyst forecast error, and accounting information from companies with sustainability reports has a greater ability to forecast future earnings (Dhaliwal et al., 2012; 2014; Lourenco et al., 2014; Sutopo et al., 2018). The accounting-based valuation model established by Ohlson (1995) was used to examine the value relevance of interactions between sustainability reports and accounting information. The results demonstrated that the coefficient of the interaction between sustainability report and book value per share was found to be positive while the coefficient of the interaction between sustainability report and earning per share was negative. The study's implication is that sustainable development information is evaluated through the eyes of investors seeking a sustained return on their investment, and that sustainable development information is used to support accounting information.

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