Driving ESG Disclosure towards Financial Performance : A Systematic Literature Review

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ABSTRACT: *Environmental, Social, and Governance (ESG) is a term frequently used to refer to a company's Corporate Social Responsibility (CSR). ESG is referred to by a variety of terms, including Corporate Social Disclosure (CSD), Corporate Social Responsibility Disclosure (CSRD), and other. The introduction of ESG disclosure started with the initiation of corporate responsibility practices. Many researchers have conducted study on the influence and knowledge of ESG disclosure on the financial performance of companies as a result of this issue; however, few researchers have sought to consolidate and highlight systematic literature on the same topic. Therefore, this article aims to provide a systematic literature review on independent studies related to the impact of ESG disclosure on financial performance. The review processes included five key methodological steps, namely guided by review protocol, formulation of research questions, systematic searching strategies based on identification, screening and eligibility on several established database followed by quality appraisal , and data extraction and analysis. Further review of these article resulted in three themes – accounting-base performance, market performance and operational performance. This three themes further produced a total of nine sub-themes. The study offered almost significant contributions for nexus between ESG disclosures and financial performance. The findings explained the importance of disclosing the non financial information namely ESG towards the better financial strength for the companies.*

KEYWORDS – *Environmental, social and governance (ESG), ESG disclosure, impact, financial performance,*

I. INTRODUCTION

ESG (Environmental, Social and Governance) disclosure which is also known as the reporting of Corporate Social Responsibility and Sustainability has become one of the most important aspects in financial reporting in many countries. Recent Nielsen Global Survey on Corporate Social Responsibility indicates that the consumers' willingness to pay extra for products provided by firms which are socially responsible is 66 per cent in 2017 as compared to 55 per cent in 2014. Also, survey by KPMG in 2017 reveals that 78 per cent of Fortune 500 companies have incorporated the ESG information in their annual reports on contrary with just 44 per cent in 2011. Nelson (2017) states that investors viewed sustainability reporting as the effort made by companies to improve corporate reputation with their stakeholders. Obviously, sustainability reporting has entered the mainstream of financial reporting.

Environmental, Social, and Governance (ESG) reporting has gained more popularity among organizations and socially responsible communities. Stakeholders and fund managers believe that firms with high ESG disclosures yield better operating performance, higher returns, and lower firm-specific risk. According to the growing public concern about corporate impacts on society and the environment, "Environmental, Social and Governance" (ESG) disclosure and social reporting have become a crucial issue for many companies. Environmental, Social and Governance has been around for decades and is now rising at an incredible rate with no signs (Quazi et al., 2015). The main objective of ESG disclosure is to achieve an "ethical and socially responsible approach to the stakeholders of the company (Hopkins, 2004). The goal of environmental, social and governance (ESG) disclosure of information is to look at another angle of corporate performance which is beyond accounting information (Zainon et al. 2020). It is also noted that the element of accounting information in the financial statements provides little information to stakeholders in terms of workplace culture, quality, brand, reputation, safety, strategies, know-how and other pertinent non-financial information. For some reasons, ESG information is very important for the management. According to Galbreath (2013), ESG can be used to assess leadership capabilities in a corporation by assisting the management to focus on a wide range of non-financial information, particularly regarding environmental, social and governance aspects. It also helps managers to

proactively understand significant changes in a corporation's overall plans and make necessary changes and amendments to align with the original plan. The basic idea of ESG information is that it serves as a tenet for investors to assess their potential investment (Chen, 2019). ESG enable investors to make better decisions on every investment made by identifying risks that can minimize their problems. Investors prefer short term investments which are always associated with higher risks (Global Sustainable Investment Alliance, 2018). ESG also provides one important element to the intangible assets of corporations reflecting the value of the brand (Ramadhani, 2019). Ethical performance, responsible corporations, employees' safety, and welfare are all intangible assets of ESG.

Disclosure of ESG is important to be explored especially on its impact on financial performance. The literature and empirical studies on the relationship between sustainability disclosure (SD) and financial performance (FP) have grown exponentially in the last three decades. Despite abundance of studies on how ESG disclosures would be impact on financial performance, and it examined from multiple perspectives. Although there are many studies that focused on the impact on financial performance to ESG disclosures, but there were still an insufficient amount of scholars who reviewed systematically the existing studies.

Financial performance is a subjective indicator of a firm's ability to earn revenue via the usage of assets from its principal method of operation. This term is also used to refer to a broad indicator of a firm's financial health over a certain time period and may be used to compare comparable enterprises within the same industry or to aggregate industries or sectors. Firms quantify the outcomes of their policies and operations in monetary terms, such as return on investments, return on assets, and value added. (Tsoutsoura 2004, Jain, Vyas et al. 2016).

Additionally,"to determine the impact of ESG on a company's financial performance, author used one of the Yang and Baasandorj's models (2017). The financial performance of the firm is primarily defined by two indicators: Tobin's Q and return on assets (ROA). Tobin's Q is one of the most widely used and comprehensive financial indicators for describing a firm value, and as such, it is used in several studies to characterize the company's management. (Alexander & Bucholz, 1978; Ding, et al., 2016; Hillman & Keim, 2001; Yang & Baasandorj, 2017). Tobin's Q is a rather complex measure to calculate. Given the complexity of calculation, we follow Chung and Pruitt's (1994) approximation of Q, q, which they found accounts for much of the variability of the full calculation. Tobin's q is defined as a ratio of the market value of the firm over its replacement cost. Tobin's q suggests that if there is good management of the firm's resources and capabilities, then there is added value and the assets have a value greater than their replacement cost. (Minutolo, M., et al., 2019)"

Although there is a vast body of literature on ESG disclosure and financial performance impact at present, the effort to systematically review these studies, identify patterns, and develop potential themes on the subject remains limited. Notably, the review procedures, including identification, screening, and eligibility, have not been adequately addressed. The practices of traditional literature reviews have several issues related to transparency and bias. Many authors would typically simply choose articles that favour their research (Shafril et al. 2020). Indeed, such a system would consequently pose a substantial challenge to future scholars to replicate the study, validate the interpretations, or examine the study's comprehensiveness.

Given this gap found in the literature, the current study aims to conduct an SLR that focuses explicitly on the impact on financial performance onto ESG disclosures in annual report. Through this approach, the authors' empirical evidence can be justified to identify the gaps and guide the direction for future research in this field. In progressing the review, the authors were guided by the main research question; 'How do the ESG disclosures would be impact on companies financial performance?'. Moreover, the main focus of this paper lies in the preparation strategies of companies towards bringing the ESG disclosures to the companies profitability.

To review past studies systematically is important and according to (syahril et al 2020), traditional literature review faces several issues related to rarely comprehensive, highly susceptible to reviewer bias and seldom take into account differences in the quality of studies. SLR refers to a formal technique that comprehensively locates and synthesises pertinent research, in addition to practising organised, transparent, and replicable procedures at each step in the process (Higgins et al. 2011). The SLR proposed in this study relies explicitly on integrative review analysis where quantitative, qualitative, and mixed method.

II. METHODOLOGY

2.1 Review protocol – ROSES

ROSES directs the SLR (Reporting Standards for Systematic Evidence Syntheses). Haddaway et al. (2018) created ROSES with the goal of strengthening and maintaining a strong technique for producing an SLR via improved transparency, as well as ensuring and controlling the quality of the review. Although this review is more focused on disaster management, and given that ROSES was explicitly designed for environmental management, this review protocol is appropriate for the current review because it was designed to accommodate the nuances and heterogeneity across diverse situations and research on the synthesis method (Haddaway et al. 2018). Guided by ROSES, the SLR process began with formulating the research questions applying the PICO method; 'P is for the Problem or Population/Sample, I is for Intervention, C for Comparison (if there is one), and O is for Outcome(s). From that, the technique for document searching was developed and implemented in three stages: identification, screening, and eligibility. The amended criteria stated by Hong et al. were then used to undertake a quality appraisal process (2018). Before being included in the review, the quality of each selected item was assessed. Finally, the selected papers were subjected to numerous steps of data extraction and analysis. The core research topic led the data extraction method, and the gathered data was analysed using qualitative data synthesis (thematic synthesis). Where appropriate, the authors followed the review's comments by examining alternatives to ensure the review process fulfilled the review's goal.

2.2 Formulation of the research question

PICO was used to develop the research questions for this study. PICO is a technique that helps authors identify suitable research questions for the review. PICO is based on four key ideas: (1) the problem or population/sample, (2) the intervention, (3) the comparison (if one exists), and (4) the outcome (s). Based on these concepts, the author has included four main aspects on the review: the company (population/sample), ESG disclosures (Intervention), ESG disclosure implementation (Comparison), and increased financial performance (Outcome), which then guide the authors to formulate its main research question. – What would be the impact of ESG disclosures on companies financial performance?

2.3 Systematic searching strategies

According to (Shaffril et al.2018), the systematic searching strategies process consists of three major steps. The three processes used to get the relevant item were identification, screening, and eligibility. Using these procedures enabled the author to completely discover and synthesise the research in order to produce a well-organized and transparent SLR.

2.3.1 Identification

Based on the formulated research questions, three main keywords were identified: ESG, ESG disclosures, impact, and financial performance. To enrich these keywords, the authors sought its synonyms, related terms and variations by using an online thesaurus, such as thesaurus.com, referring to the keywords used by past studies, referring to the keywords suggested by Scopus and by asking the opinion of experts. Based on this process, several keywords similar to ESG, including CSR, SDG, effect, awareness, consequences, firm performance, financial result and financial outcome, were checked. The combinations of these keywords were processed using search functions, such as field code functions, phrase searching, wildcards, truncation, and Boolean operators in two databases: Scopus and Web of Science (see Table 1). These two databases have the ability to be leading databases in a systematic literature review due to several advantages it possesses such as advance searching functions, comprehensive (indexing more than 5000 publishers), it controls the articles's quality and have multidicspilinary focus, (Martin-Martin et al., 2018; Gusenbauer and Haddaway, 2019). Additionally, the searching process was based on a manual searching technique. Here 'handpicking' was used in databases like Science Direct, Springer Link, Dimension au. and Sage Journals. Another database, which is a Google Scholar was selected as an additional database. Whenever appropriate, combination of keywords such as "ESG disclosure", "impact" and "financial performance" were practiced via functions of phrase searching and Boolean operator (OR, AND). The

selection of Google Scholar as additional database is in line with suggestion by Haddaway et al. (2015) who noted the ability of Google Scholars to act as supporting database in systematic review process. Furthermore, the selection of Google scholars is based on several advantageous. First it produces enormous results as Gusenbauer (2019) in their study concluded that 389 millions documents are available in this database. OrdunaMalea et al., (2017) on the other hand concluded that there are 165 millions articles journals available in Google Scholar while Google Scholar seems excellent at retrieving known scholarly items (including from established publishers) compared with discovery tools (Loan and Sheikh, 2018). Based on the searching efforts, a total of 1,729 potential articles were identified from the selected databases.

Table 1 Search string used in the selected database

Database	String
Scopus	TITLE-ABS-KEY(("ESG disclosure*" OR "CSR disclosure*" OR "SDG disclosure*") AND ("impact" OR "effect") AND ("financial performance" Or "financial result*" OR "firm performance"))
Web of Science	TS=(("ESG disclosure*" OR "CSR disclosure*" OR "SDG disclosure*") AND ("impact" OR "effect") AND ("financial performance" Or "financial result*" OR "firm performance"))

2.3.2 Screening

Screening was the second procedure carried out where articles were either included or excluded (with the assistance of the database or manually screened by the authors) from the study based on a specific set of criteria (see Table 2). Considering the concept of 'research field maturity' emphasised by Kraus et al. (2020), this review limited the screening process to only include the articles published between 2018 and 2022. This timeline was chosen given that the number of published studies was sufficient to perform a representative review. The authors decided to review empirical research papers since they offer primary data. Notably, to avoid confusion, only those written in English were considered. Since the SLR objective related to financial performance , choosing Economics, Econometrics and Finance; Business, Management and Accounting studies as the criteria was believed to increase the possibility of acquiring more articles related to ESG disclosures. A total of 1,378 articles were excluded from the review during this stage since they were not in line with the inclusion requirement. This resulted in 351 remaining articles for evaluation in the subsequent stage. In this process, author have to remove 20 duplicated articles and the remaining 331 article were used for the third process – eligibility.

Table 2 Inclusion and exclusion criteria

Criterion	Inclusion	Exclusion
Timeline	2018 - 2022	2017 and earlier
Document type	Article and review article	Chapter in book, book, conference preceding etc
Language	English	Non-English
Subject areas	Economics, Econometrics and Finance; and Business, Management and Accounting	Other than Economics, Econometrics and Finance; and Business, Management and Accounting

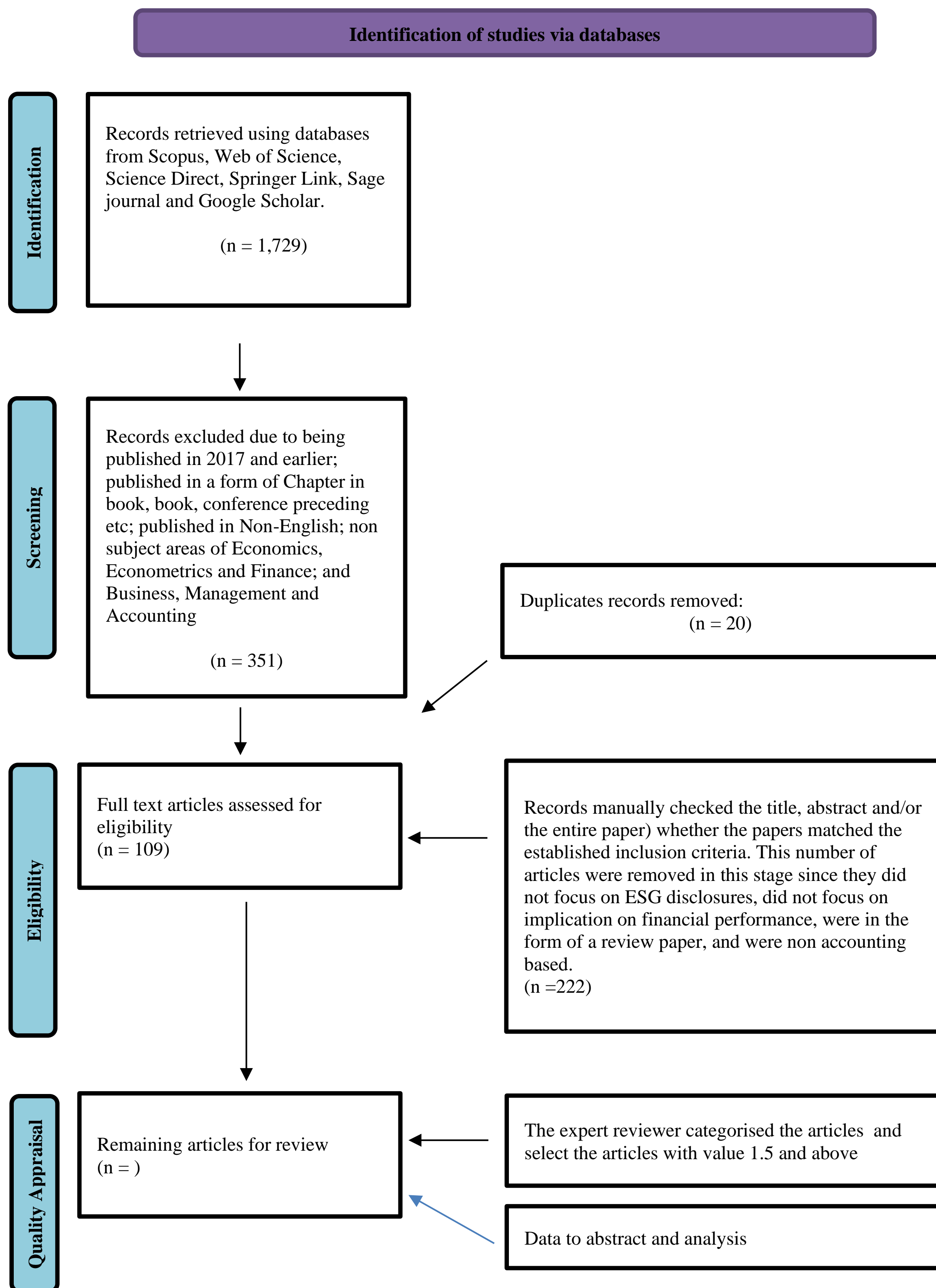

Fig. 1 Flow diagram of the searching process

2.3.3 Eligibility

The third process, eligibility where the author manually monitored the retrieved articles to ensure all the remaining articles (after the screening process) are in line with the criteria. The author manually checked the remaining papers to identify (either by reading the title, abstract or the entire paper) whether the papers matched the established inclusion criteria. 222 articles were excluded during the title screening state, abstract screening stage and after the authors read the content of the selected articles. This number of articles were removed in this stage since they did not focus on ESG disclosures, did not focus on implication on financial performance, were in the form of a review paper, and were non accounting based. The final number of articles for the quality appraisal stage was 109 (see Fig. 1).

2.4 Quality appraisal

The remaining articles from the eligibility process need to be examined to ensure that the quality of the methodology is free from bias (Higgins et al. 2019). One of the most common ways to assess the quality of the articles is to use tools, scales, checklist or standard form. According to the guidelines proposed by Kitchenham and Chaters 2007, once we had selected articles, author have to assess the quality of the researchers they present and quantitatively compare them, by the mean of Quality Assessment. Therefore, author defined six quality assessments for this SLR.

Table 3 Quality Assessments checklist

No. of question	Particular question
QA1	Is the purpose of the study clearly stated?
QA2	Is the interest and the usefulness of the work clearly presented?
QA3	Is the study methodology clearly established?
QA4	Are the concepts of the approach clearly defined?
QA5	Is the work compared and measured with other similar work?
QA6	Are the limitations of the work clearly mentioned?

The scoring procedure used to evaluate each quality assessment was :
Yes (Y) = 1, Partly (P) = 0.5 or No/not sure (N) = 0

In ensuring the quality of the articles, the experts for quality assessment should rank the (Kitchenham et al. 2007) used the quality score to investigate whether the results of the primary study were associated with study quality. Each article was assessed based on six criteria in quality assessment checklist, measured and evaluate with three options provided in presenting their answer :Yes (Y) for 1 score, Partly (P) for 0.5 and No/not sure (N) for representing 0. Each article in this quality appraisal process were included in the review if they passed at least by the mean 0.750 and above. The experts focused on the six quality assessment mention in Table 3, both authors and experts must mutually agreed that the quality must at least at a mean. Any disagreement were discussed between them before deciding on the inclusion or exclusion of the article for the review. In total, 17 articles fulfilled all criteria and 24 article passed at least mean 0.750 (Table 4).

Table 4 Result of the quality assessment

Study	QA1	QA2	QA3	QA4	QA5	QA6	Mean	Inclusion in the review
Yu et al.	√	√	√	√	√	√	1.000	√
Li et al.	√	√	√	√	√	√	1.000	√
Platonova et al.	√	√	√	√	√	√	1.000	√
Manokaran et al.	√	√	√	√	√	√	1.000	√
Santhirasegar et al.	√	√	√	√	√	√	0.750	√
Sarannya	√	√	√	√	√	√	0.833	√
Liu et al.	√	x	√	√	√	√	1.000	√
Almeyda & Darmansyah	√	√	√	√	√	x	1.000	√
Harun et al.	√	√	√	√	√	√	0.833	√

de Lucia et al.	√	√	√	√	√	√	1.000	√
Chijoke-Mgbame et al.	√	√	√	√	√	√	1.000	√
Zainon et al.	√	√	√	√	√	√	1.000	√
Srour	√	√	√	√	√	√	1.000	√
Szegedi et al.	√	√	√	√	√	√	1.000	√
Thuy et al.	√	√	√	√	√	√	1.000	√
Senan et al.	√	√	√	√	√	√	0.833	√
Mohammad & Wasiuzzaman	√	x	√	√	√	√	1.000	√
Aboud & Diab	√	√	√	√	√	√	1.000	√
Mai Tran & Tran	√	√	√	√	√	√	1.000	√
Nguyen et al.	√	√	√	√	√	√	0.917	√
Praveen et al	√	√	√	√	√	√	0.917	√
Pulino et al.	√	√	√	√	√	√	0.833	√
Alhawaj et al.	√	√	√	√	√	√	1.000	√
Giannopoulos et al.	√	√	√	√	√	√	1.000	√

2.5 Data attraction and analysis

This study relied on integrative review. This technique allowed diverse research designs (quantitative, , mixed-method) to be included in the review. According to Whittemore and Knafl (2005), the best way to synthesise or analyse integrative data is by using qualitative or mixed-method techniques that enable the researcher to conduct iterative comparisons across the primary data sources. The present study selected the qualitative technique (qualititative synthesis of quantitative studies). The researcher read the 28 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). Thematic analysis is a form of analysis that attempts to identify and notify the pattern of existing studies by detecting any similarities or relationships that could exist in available data (Braun and Clarke 2019). In this review, the thematic synthesis was based on the steps suggested by Kiger and Varpio (2020).

First, the researchers familiarised themselves with the entire dataset via active and repeated readings. This process offered the researchers valuable orientation to the raw data and set the foundation for all subsequent step.

The second process involved generating initial codes. Here the researchers organised data at a granular and specific level. During this stage, the researchers read all selected articles and extracted any data related to the main research question. The third process involved theme generation. The researchers practised inductive coding frameworks and attempted to note any interests, similarities, and connection between the extracted data. based on the coded data. The synthesis relied on an inductive coding framework where the themes were derived from the coded data. The themes developed were associated with the original data and reflective of the entire data set (Braun and Clarke 2019). During this process, four main themes were developed. Then for each of the themes, the researchers repeated the same process to identify any possible sub-themes, which resulted in nine subthemes. The next process involved reviewing the developed themes. Here, the researchers examined the suitability of the main themes and sub-themes; they decided to combine two main themes, into one theme, namely accounting based performance. The main themes were reduced to three, keeping the nine sub-themes. The themes and sub-themes were then presented to the experts in qualitative synthesis and both experts were also asked about the relevancy of the themes to the research questions. All three themes and nine sub-themes were maintained following this process. Table 5.

Table 5 The themes and sub-themes

Studies	Years	Accounting-based performance			Market performance		Operational performance			Others	Findings
		ROE	NPM	PAT	TQ	EPS	ROA	ROC	ROCE		
Yu et al.	2018				/		/				Significant impact
Li et al.	2018				/		/				+ve impact
Platonova et al.	2018						/				significant
Manokaran et al.	2018	/				/	/				+ve impact
Santhirasegar et al.	2018	/				/	/				+ve ROE ROA -ve EPS
Sarannya	2019						/				+ve impact
Liu et al.	2019						/				Sifnificant impact
Almeyda & Darmansyah	2019						/	/			Significant impact
Harun et al.	2020				/					/MC, MTBV	-ve impact
de Lucia et al.	2020	/					/				+ve impact
Chijoke-Mgbame et al.	2020						/				+ve impact
Zainon et al.	2020									/WACC	Significant impact
Srour	2020				/		/				-ve impact ROA +ve impact TQ
Szegedi et al.	2020	/									Sgnificant
Thuy et al.	2021									/ GRI	+ve impact
Senan et al.	2021	/		/		/	/				Significant influence
Mohammad & Wasiuzzaman	2021				/						+ve impact
Aboud & Diab	2021						/				Significant impact
Mai Tran & Tran	2022	/	/				/				+ve impact
Nguyen et al.	2022						/				-ve impact
Praveen et al	2022						/		/		+ve impact
Pulino et al.	2022						/			/ EBIT, D/E	+ve impact
Alhawaj et al.	2022	/			/		/				Significant ROA Others insignifcicant
Giannopoulos et al.	2022				/		/				Significant impact

ROE = Return on equity
NPM = Net profit margin
PAT + Profit after tax
TQ = Tobin Q
EPS = Earning per share
ROC = Return on capital
ROCE = Return on capital equity
WACC = Weighted average cost of capital
EBIT = Earning before interest and tax
D/E = Debt to equity

III. RESULTS

3.1 Background and selected studies

From 24 articles, a total of four papers focused their studies in developed country (Yu et al., 2018; Li et al., 2018; Almeyda & Darmansyah, 2019; and Alhawaj et al.,2022), five in Middle East (Platonova et al.,2018; Harun et al.,2020; Srour., 2020; Senan et al.,2021; and Aboud & Diab, 2021), five in Malaysia (Manokaran et al.,2018; Santhirasegar et al.,2018; Sarannya, 2019; Zainon et al.,2020; and Mohammad & Wasiuzzaman,2021) and Vietnam (Thuy et al.,2021; and Nguyen et al.,2022). Meanwhile, each research study also focused on Italy (Pulino et al.,2022), Norwegian (Giannopoulos et al.,2022), China (Liu et al.,2019), India (Praveen et al,2022) and Pakistan (Szegedi et al.,2020). Fig 2.

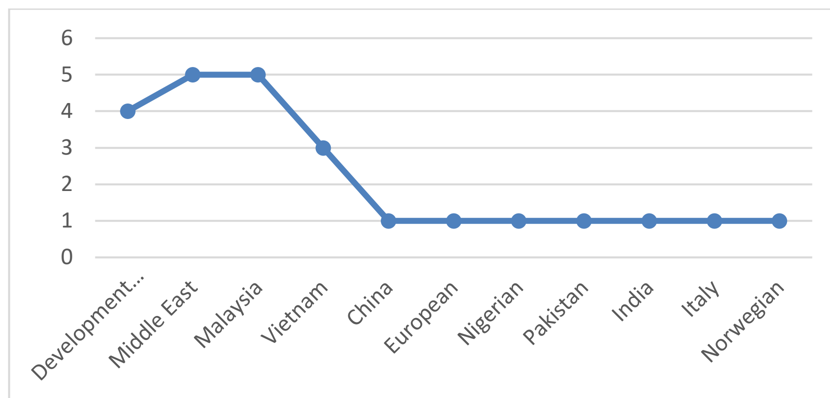

Fig. 2 Countries where the selected studies were conducted

It was recorded that 21 studies focused on quantitative analyses (Yu et al., 2018; Li et al., 2018; Almeyda & Darmansyah, 2019; Alhawaj et al.,2022; Platonova et al.,2018; Harun et al.,2020; Srour., 2020; Senan et al.,2021; Aboud & Diab, 2021; Platonova et al.,2018; Manokaran et al.,2018; Santhirasegar et al.,2018; Sarannya, 2019; Zainon et al.,2020; and Mohammad & Wasiuzzaman,2021; Nguyen et al.,2022; Pulino et al.,2022; Giannopoulos et al.,2022; Liu et al.,2019; Praveen et al,2022; and Szegedi et al.,2020) while the other three studies focused on mixed-method approach (Thuy et al.,2021; de Lucia et al.,2020; and Li et al.,2018).

Regarding the year of publication, five articles were published in 2018 (Platonova et al.,2018; Manokaran et al.,2018; and Santhirasegar et al.2018), three studies were published in 2019 (Sarannya., 2019; Liu et al., 2019; and Almeyda & Darmansyah,2019), six articles were published in 2020 (Harun et al.,2020; de Lucia et al.,2020; Chijoke-Mgbame et al.,2020; Zainon et al.,2020; Srour.,2020; and Szegedi et al.,2020), four papers were published in 2021 (Thuy et al.,2021; Senan et al.,2021; Mohammad & Wasiuzzaman,2021; and Aboud & Diab,2021), and six were published in 2022 (Mai Tran & Tran,2022; Nguyen et al.,2022; Praveen et al.,2022; Pulino et al.,2022; Alhawaj et al..2022; and Giannopoulos et al.,2022). Fig 3

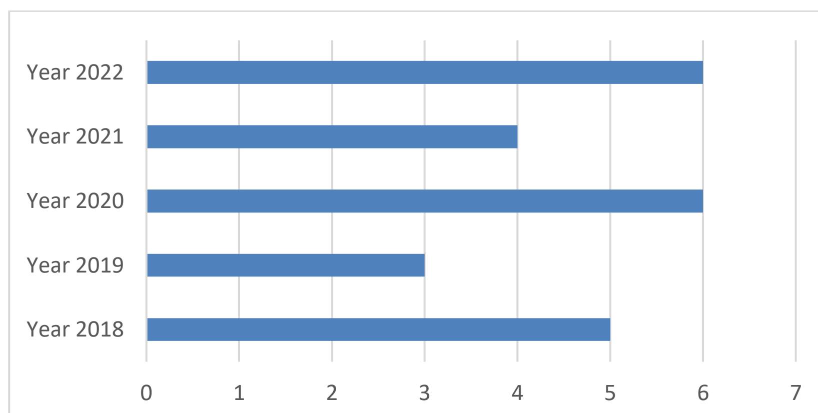

Fig. 3 Publication of selected study

3.2 The developed and analysis themes

The thematic analysis was undertaken on 24 selected articles resulted in three main themes: (1) accounting-based performance, (2) market performance and (3) operational performance. These three themes further produced nine sub-themes (see Table 5). Based on the results, three themes and nine sub-themes provided answers to the main research question of this SLR, " What would be the impact of ESG disclosures on companies financial performance?". The background of the selected studies explained on the next paragraph.

A variety of measures are used to calculate a company's performance, and profit is one of the central ones for many companies (Waters 2011). Prior literature that investigates the relationship between ESG scores and performance uses the following measures: Stock Returns (e.g., Brammer et al. 2006), Return on Assets (ROA) (e.g., Xie et al. 2019) and Return on Equity (ROE) (e.g., Atan et al. 2018). Although the research is slightly old, Griffin and Mahon (1997) reveal that 80 different performance measures have been used in their reviewed literature (51 research studies). Out of these 80 measures, the most frequently used measures are firm size, ROE, and ROA. Velte (2017) emphasises the importance of using market-based accounting measures as a proxy for financial performance, naming ROA as the most common accounting measure. He used this measure and Tobin's Q to conduct his research. The same two variables are also used by several others, such as Atan et al. (2018) and Dalal and Thaker (2019).

Financial performance The majority of studies measure financial performance using a combination of three measurement approaches: (1) accounting-based performance, (2) market performance, and (3) operational performance. Market measurement approaches, which rely on financial performance information from the Wall Street and other financial markets, are the most commonly used across studies (Peloza, 2009). Share price and its variations, including abnormal daily stock returns (e.g., de Franco, 2020; Capelle-Blancard & Petit, 2019; Landi & Sciarelli, 2019), annual stock returns (e.g., Khan, 2019), and marketadjusted return (e.g., Farooq, 2015), dominate financial performance variables. It is because market-based variables are publicly-available which enables investors to evaluate, monitor, and compare firm performances and their link to ESG conduct over time, within the industry, across different sectors, and/or geographical locations. More recently, Tobin's Q, also known as the Q ratio, has become an increasingly popular measure for investors and academics to evaluate whether ESG conduct impacts a firm's market value to be under or over its assets' replacement cost (e.g., Gillan et al., 2021; Alareeni & Hamdan, 2020; Ajour El Zein et al., 2020). Reported firm performance variables are also widely used, and often accompany market variables (e.g., Gillan et al., 2021; Batae et al., 2020; Cek & Eyupoglu, 2020; Ajour El Zein et al., 2020). Under this approach, the variables are calculated from firms' financial reports such as earnings per share (EPS), return on assets (ROA), return on sales (ROS), return on equity (ROE), return on capital (ROC), and return on capital employed (ROCE). These variables show how efficiently firms use their assets to create profit margins and firm value from their assets. While the definitions of these variables are well known, the calculations are inconsistently applied and rely on the period-end timing and the firms' decisions to report specific components of these measures. Some ESG studies rely on both market and reported firm performance variables in analyzing financial performance. Examples of composite variables are operational performance (Alareeni & Hamdan, 2020; Buallay, 2019), economic performance (Ionescu et al., 2019; Tarmuji et al., 2016), and corporate efficiency (Alsayegh et al., 2020).

Financial performance is a proxy for the company's ability to utilize its assets from its most important operations to achieve returns. It is the degree to which the set goal has been accomplished or achieved. Financial performance is a reflection of the company's long-term well-being and existence. Previous research has revealed that implementing corporate social responsibility (CSR) is believed to improve financial performance. Results of the research conducted by (Bidhari et al., 2013) showed that corporate social responsibility disclosure affecting financial performance is return on assets (ROA), return on equity (ROE) and net profit margin (NPM). But there are also studies that show that there is no positive relationship between corporate social responsibility and financial performance. Research by (Yaparto et al., 2013) shows that corporate social responsibility does not have a significant impact on return on assets, return on equity and earnings per share (EPS).

IV. DISCUSSION AND RECOMMENDATION

Since the issuance of ISO 26000 on environmental, social and governance (ESG), most big corporations have prepared annual reports in which they voluntarily release the information about what they have done in relation to ESG activities. Mathews (1997) highlights three possible explanations for why firms provide ESG information beyond that required by law: to satisfy a sense of 'social contract', to enhance their legitimacy and to enhance their economic/financial performance (FP). A possible link between CSR disclosure and FP may arise through firms being proactive in giving the impression of doing good by publishing the CSR information which meets or exceeds stakeholder expectations.

There has been an active debate questioning the financial relevancy of sustainability initiatives proposing theoretical and empirical approaches to deal with the topic. Despite the development of research in the accounting literature, the consequences of implementing sustainability measures is still controversial and scant. Associated studies use corporate social responsibility (CSR) and ESG (in some studies both have been used interchangeably as representative of sustainability performance as well as Tobin's Q and ROA as a financial performance measure. Some suggest that ESG practices have a positive impact on a firm's performance. However, some studies conclude that a firm's financial performance is positively impacted by ESGs. Numerous previous studies have focused on clarifying the direct link between CSR disclosure and financial performance. Recently, author tend to believe in a more complex nature of the above association, suggesting the examination of both direct and indirect effects of ESG disclosure and the clarification of the role of mediator variables.

V. CONCLUSION

The results of this study which account for the direct and indirect impact of ESG disclosure on FP consistently shows that ESG exerts an indirect effect on FP through firm reputation. A large number of prior studies assume a direct impact of ESG disclosure on firm performance, and consequently, their findings are inconclusive. The similar inconsistency happens in our research when we examine the direct impact of CSR disclosure on Tobin'Q without considering the mediating variable (firm reputation). This study results are in line with Lai et al. (2010), Galbreath and Shum (2012) and Saeidi et al. (2015) that examine the whole aspect of firm reputation on the ESG-FP relation. Findings show the apparent channel which transfers the benefit of ESG disclosure to firm performance. In the process of transmitting the benefits of ESG disclosure to firm performance, there may be some intervening factors destructing the benefits, leading to negligible effect on firm performance.

Finally, we propose that policy-makers and regulators set mandatory or voluntary requirements to encourage firms to disclose extensively. Better ESG can only be achieved by a collaborative effort between companies, stock exchanges, security regulators, investors and corporate reporting organizations. This study has limitations that could give rise to future research. Author only examine the quantity of ESG disclosure data, but the quality of ESG disclosure remains of interest. As firms go towards providing sufficient ESG disclosure to the public in the future, researchers should focus on making ESG disclosure data comparable across firms and countries.

REFERENCES

Journal Papers:

[1] Liu, N., Liu, C., Guo, Q., Da, B., Guan, L., & Chen, H. (2019). Corporate social responsibility and financial performance: A quantile regression approach. *Sustainability (Switzerland)*, *11*(13).

[2] Szegedi, K., Khan, Y., & Lentner, C. (2020). Corporate social responsibility and financial performance: Evidence from Pakistani listed banks. *Sustainability (Switzerland)*, *12*(10).

[3] Aboud, A., & Diab, A. (n.d.). *The financial and market consequences of environmental, social, and governance ratings: The implications of recent political volatility in Egypt*.

[4] Aboud, A., & Diab, A. (2018). The impact of social, environmental and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*

[5] Alhawaj, A., Buallay, A., & Abdallah, W. (2022). Sustainability reporting and energy sectorial performance: developed and emerging economies. *International Journal of Energy Sector Management*.

[6] Ali, W., Wilson, J., & Husnain, M. (2022). Determinants/Motivations of Corporate Social Responsibility Disclosure in Developing Economies: A Survey of the Extant Literature. *Sustainability (Switzerland)*

[7] Almeyda, R., & Darmansyah, A. (n.d.). *The Influence of Environmental, Social, and Governance (ESG) Disclosure on Firm Financial Performance*

[8] Chijoke-Mgbame, A. M., Mgbame, C. O., Akintoye, S., & Ohalehi, P. (2020). The role of corporate governance on CSR disclosure and firm performance in a voluntary environment. *Corporate Governance (Bingley)*

[9] Giannopoulos, G., Fagernes, R. V. K., Elmarzouky, M., & Hossain, K. A. B. M. A. (2022). The ESG Disclosure and the Financial Performance of Norwegian Listed Firms. *Journal of Risk and Financial Management*, *15*(6).

[10] Harun, M. S., Hussainey, K., Mohd Kharuddin, K. A., & Farooque, O. al. (2020). CSR Disclosure, Corporate Governance and Firm Value: a study on GCC Islamic Banks. *International Journal of Accounting and Information Management*, *28*(4), 607–638

[11] Khan, M. A. (2022). ESG disclosure and Firm performance: A bibliometric and meta analysis. In *Research in International Business and Finance* (Vol. 61). Elsevier Ltd.

[12] Li, Y., Gong, M., Zhang, X. Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *British Accounting Review*, *50*(1), 60–75.

[13] Liu, N., Liu, C., Guo, Q., Da, B., Guan, L., & Chen, H. (2019). Corporate social responsibility and financial performance: A quantile regression approach. *Sustainability (Switzerland)*, *11*(13

[14] Manokaran, K. R., Ramakrishnan, S., Hishan, S. S., & Soehod, K. (2018). The impact of corporate social responsibility on financial performance: Evidence from insurance firms. *Management Science Letters*, *8*(9), 913–932

[15] Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, *2*.

[16] Nguyen, C. T., Nguyen, L. T., & Nguyen, N. Q. (2022). Corporate social responsibility and financial performance: The case in Vietnam. *Cogent Economics and Finance*, *10*(1).

[17] Platonova, E., Asutay, M., Dixon, R., & Mohammad, S. (2018). The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking Sector. *Journal of Business Ethics*, *151*(2), 451–471.

[18] Pulino, S. C., Ciaburri, M., Magnanelli, B. S., & Nasta, L. (2022). Does ESG Disclosure Influence Firm Performance? *Sustainability (Switzerland)*, *14*(13).

[19] Sadiq, M., Singh, J., Raza, M., & Mohamad, S. (2020). The impact of environmental, social and governance index on firm value: Evidence from Malaysia. *International Journal of Energy Economics and Policy*, *10*(5), 555–562

[20] Saygili, E., Arslan, S., & Birkan, A. O. (2022). ESG practices and corporate financial performance: Evidence from Borsa Istanbul. *Borsa Istanbul Review*, *22*(3), 525–533.

[21] Senan, N. A. M., Noaman, A. A. A., Al-Dalaien, B. O. A., & Al-Homaidi, E. A. (2021). Corporate social responsibility disclosure and profitability: Evidence from Islamic banks working in Yemen. In *Banks and Bank Systems* (Vol. 16, Issue 2, pp. 91–102). LLC CPC Business Perspectives

[22] Szegedi, K., Khan, Y., & Lentner, C. (2020). Corporate social responsibility and financial performance: Evidence from Pakistani listed banks. *Sustainability (Switzerland)*, *12*(10).

[23] Thuy, C. T. M., Khuong, N. V., Canh, N. T., & Liem, N. T. (2021). Corporate social responsibility disclosure and financial performance: the mediating role of financial statement comparability. *Sustainability (Switzerland)*, *13*(18).

[24] Wan-Hussin, W. N., Qasem, A., Aripin, N., & Ariffin, M. S. M. (2021). Corporate responsibility disclosure, information environment and analysts' recommendations: Evidence from Malaysia. *Sustainability (Switzerland)*, *13*(6).

[25] Yu, E. P. yi, Guo, C. Q., & Luu, B. van. (2018). Environmental, social and governance transparency and firm value. *Business Strategy and the Environment*, *27*(7), 987–1004.

[26] Zainon, S., Fadhilah Ismail, R., Nawi, S. M., Shafi, R. M., Misman, N., & Zakaria, N. B. (n.d.). ENVIRONMENTAL, SOCIAL AND GOVERNANCE DISCLOSURES ON FINANCIAL PERFORMANCE OF PUBLIC LISTED COMPANIES IN MALAYSIA. In *Asia-Pacific Management Accounting Journal* (Vol. 15).

[27] Xie, Jun, Wataru Nozawa, Michiyuki Yagi, Hidemichi Fujii, and Shunsuke Managi. 2019. Do Environmental, Social and Governance activities improve corporate financial performance? Business Strategy and the Environment 28: 286–300

[28] Atan, Ruhaya, Md Mahmudul Alam, Jamaliah Said, and Mohamed Zamri. 2018. The impacts of environmental, social and governance factors on firm performance: Panel Study of Malaysian Companies. Management Environmental Quality 29: 182–94.

[29] Eccles, R.G.; Serafeim, G. The performance frontier: Innovating for a sustainable strategy. Harv. Bus. Rev. 2013, 91, 17–18

[30] Xie, J.; Nozawa, W.; Yagi, M.; Fujii, H.; Managi, S. Do environmental, social, and governance activities improve corporate financial performance? Bus. Strateg. Environ. 2019, 28, 286–300

[31] Eliwa, Y.; Aboud, A.; Saleh, A. ESG practices and the cost of debt: Evidence from EU countries. Crit. Perspect.Account. 2019, 102097

[32] Yoon, B.; Lee, J.H.; Byun, R. Does ESG performance enhance firm value? Evidence from Korea. Sustainability 2018, 10, 3635

[33] Lee, D.D.; Faff, R.W.; Langfield-Smith, K. Revisiting the Vexing Question: Does Superior Corporate Social Performance Lead to Improved Financial Performance? Aust. J. Manag. 2009, 34, 21–49

[34] Fatemi, A.; Glaum, M.; Kaiser, S. ESG performance and firm value: The moderating role of disclosure. Glob. Financ. J. 2018, 38, 45 64

[35] Dalal, Karishma K., and Nimit Thaker. 2019. ESG and Corporate Financial Performance: A Panel Study of Indian Companies. IUP Journal of Corporate Governance 18: 44–59