



Sustainability reporting and corporate financial performance of IPOs: witnessing emerging market

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Received: 31 March 2023 / Accepted: 22 June 2023 / Published online: 30 June 2023
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Abstract

The objective of this paper is to investigate the impact of sustainability reporting (SR) quality on the corporate financial performance (CFP) of initial public offering (IPO) in Malaysia. This research applies the OLS and WLS regressions through content analysis of annual reports. The data was collected from Datastream, where 131 IPOs listed companies on Bursa Malaysia between 2007 and 2017. The findings indicate a positive and negative association between SR and its components with CFP. It is found that there is a negative and significant association between the SR characteristics of employees and products with CFP. However, it was discovered that the societal and environmental components have a significantly positive association with CFP. This finding shows that SR practices might be seen as an attempt to enhance IPO performance. The findings can facilitate financial institutions and regulatory agencies in driving responsibility on the part of companies regarding SR issues. The firms should involve SR practices in their SR decisions. Thus, this study emphasises the significance of combining social and organisational activities.

Keywords IPOs · Malaysia · Sustainability reporting · Corporate financial performance

Responsible Editor: Arshian Sharif

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Introduction

Sustainability reporting (SR) is a popular conversational subject in the corporate environment (Abbas et al. 2022b). In particular, the society has given little attention to the four essential elements of sustainability reporting (SR): society, employee, environment, and product (Abdullah et al. 2021). However, issuing an IPO is a critical step towards raising capital for large-scale initiatives for most firms (Tajuddin et al. 2023). During the last 5 years, managers have believed that SR maximises long-term business value since, over time, societal and environmental concerns become financial issues (Ar and Abbas 2020). Social sustainability is anticipated in the context of organisations' concerns about creating strong and sustainable relationships with employees, stakeholders, consumers, and suppliers. The concept of corporate sustainability focuses on the effect of environmental circumstances on enterprises (Abbas et al. 2023). Hence, the focus of this research is on sustainability reporting.

SR activities can transform the image of companies with bad reputations (Abbas et al. 2022a). According to Yoon et al. (2006), SR activities can ease the public's apprehensions about a company by creating a positive firm reputation and developing constructive stakeholder relationships. A high SR

engagement improves organisational financial performance and draws institutional investors (Mahoney and Roberts 2007). SR should not be perceived as a factor in a company's weak performance. Instead, SR and corporate financial performance (CFP) strengthen one another. A company with more extraordinary financial performance would also demonstrate higher involvement in SR activities, and a higher engagement level would subsequently boost the company's financial performance. Consequently, the current research addresses this gap by examining this connection.

Past SR and CFP relationship literature revealed insufficient and inconsistent findings (Cochran and Wood 1984; Sofian and Muhamad 2020). Previous studies similarly concluded that earlier performance was a stronger predictor of SR than future performance (Mcguire et al. 1988). Thus, the influence of SR on financial performance might be a reflection of previous impressive performance. Prior research on the SR-CFP connection revealed inconsistent findings. The primary literature showed a significantly positive relationship between SR and CFP (Gupta 2019; Kumarasinghe et al. 2018; Sofian and Muhamad 2020). Some investigations, however, such as Jones et al. (2007), discovered a negative relationship between SR and CFP. Some researchers, for instance Eljido-Ten (2007) and Iqbal et al. (2012), could not verify the association between SR and CFP. Studies also showed mixed findings from the perspective of CFP in Malaysia. For instance, Ramasamy et al. (2007) confirmed the association between SR reporting and financial performance compared to other organisations in the same capital market. Despite the fact that the SR portfolio outperformed the market, the data revealed no statistically significant differences. Nonetheless, the research demonstrated that firms with high SR outperformed those with low SR (Ramasamy et al. 2007). Ramasamy et al. (2007) further revealed that companies with strong SR could have better performance as compared to those with weak SR. IPO is one of the most prevalent phenomena in IPO literature (Mehmood et al. 2022). Academic scholars have documented weak IPO performance in all financial markets (e.g. Que and Zhang 2019). Other aspects, such as the percentages of shares sold and company size, are insignificantly linked to the weak IPO performance in Malaysia. In contrast, the IPO Malaysian market is smaller than the developed markets (Abu Bakar and Rosbi 2016). According to Abu Bakar & Rosbi, (2016), literature in the context of Malaysian IPOs is scarce.

This present research attempts to analyse the quality of SR among IPO-listed companies in their annual reports from 2007 to 2017. In Malaysia, a significant portion of literature on SR dimensions focused primarily on non-financial sector (Abbas et al. 2022a). Further, over time, studies on SR are continuously increasing; however, studies on SR practices concerning IPO companies are not progressing well, especially in Malaysia. One possible effect of the lack of studies

is that Malaysian companies are less interested in SR activities than developed markets. The findings of this research are generally applicable to all Malaysian IPO companies. In addition, by analysing the yearly reports from (2007 to 2017), the findings may reveal the most current status of SR among Malaysian listed companies.

Previous data on IPOs in Malaysia revealed low IPO activity, particularly in 2016, when IPOs generated less than one billion MYR, one of the lowest levels reported because of the global financial crisis (Zainul 2016). SR is diminishing from its low level of disclosure. Despite the fact that it is not a prominent disclosure category in Malaysian IPO annual reports, regulators and academics may still benefit from future studies on the influence of SR on CFP. However, the frequency of low SR levels is not only limited to Malaysia but also to other Asian nations, for instance, India and Bangladesh (Kansal et al. 2014). Therefore, this study seeks to fill the gap by investigating the effect of SR on the CFP of Malaysian IPO companies using the quality of SR and return on asset (ROA) as a measure for CFP.

The current focus on the SR dimensions of employee, product, society, and environment is driven by their significance in boosting financial performance. Bursa Malaysia launched the SR Framework for public-listed companies (PLCs) on 5 September 2006, but mandatory SR only came into full effect in 2007. This analysis excluded earlier years because Bursa Malaysia's SR rules have changed from 2018 onwards. In recent years, regulators and governments have promoted SR in several Asian markets, such as Indonesia, Taiwan, and Malaysia, which are the latest additions to ACCA. In addition, firms are required to publish all SR initiatives in their annual reports since doing so improves their success when engaging in SR initiatives.

Using CFP, this study adds to the literature on SR and its dimensions. First, the present study examines the CFP in a developing economy such as Malaysia, while previous research has mostly concentrated on developed countries. Secondly, it extends the CFP literature by investigating the existence of SR and its dimensions. Third, the CFP is measured in this research using the ROA of IPOs. Fourth, relatively few research has focused on the quality of SR, whereas most have focused on the extent of SR. This study assesses the quality of SR by analysing the annual reports of 131 IPOs filed on the Bursa Malaysia from (2007 to 2017).

Literature review and hypothesis development

SR and corporate financial performance

SR was initially established in the late 1950s in the USA in response to new legislation concerning consumer rights,

equal opportunity, environmental preservation, and workplace safety (Mishra and Suar 2010). Increasingly, corporations are expected to show their social and ethical responsibility (Sun 2012), and SR activities are becoming more important for enterprises' long-term survival. Carroll (1991) incorporates previous notions while establishing the four components of SR, namely, ethical responsibilities, economic responsibilities, philanthropic obligations, and legal responsibilities.

Prior study has looked at the association between SR and CFP, and the majority of the results show a significant positive relationship (e.g. Kang and Kim 2019; Kuvaas 2019; Usman and Amran 2015; Wan Ahamed et al. 2014). In addition, the notion of Bowerman and Sharma (2016) agency theory suggests that firms must get some advantages from SR to justify and sustain their SR advancements. Therefore, the agency theory may be used to explain why corporations are interested in doing voluntary SR. While managers follow the agency hypothesis, they are also insensitive when delivering SR voluntarily to boost share price performance (De Klerk et al. 2015). Due to their inherent interest in their company's long-term survival, major shareholders will participate in increased SR-related communication to the market value (Anderson and Reeb 2003). At the same time, market efficiency and investor confidence primarily depend on reliable information disclosure of firm performance (Jamali 2008). Therefore, SR disclosures offer additional company information to the capital market value participants (Cui et al. 2018).

An SR policy emphasises the sustainability of society, the environment, employees, and products. To guarantee the effectiveness of the SR model, advancements in corporate reputation, employee engagement, and firm reputation improve the value of stakeholders. This research examines the SR aspects prevalent in Malaysian IPOs and the importance of strengthening the overall SR efficacy of the firms, including employee SR, societal SR, product SR, and environmental SR. This research claims that one of the essential aspects of SR is determining if organisations participating in IPOs are adopting SR activities in their operating environment and identifying the primary characteristics that might positively affect IPOs.

Previous research on the association between SR and its dimensions and CFP revealed conflicting findings. The previous studies (Al Hawaj and Buallay 2022; Gupta 2019; Kumarasinghe et al. 2018; Abbas et al. 2022b; Sofian and Muhamad 2020; Liu et al. 2022) revealed a significant positive relationship between SR and its dimensions with CFP. On the other hand, few studies (Jones et al. 2007; Wan Ahamed et al. 2014) found a negatively significant linked. Other studies (Elijido-Ten 2007; McWilliams and Siegel 2000) find no correlation. In emerging markets and developing nations, particularly Malaysia, there are extremely few

SR research on IPO enterprises (Luo et al. 2015). Unfortunately, no research has been undertaken on the relationship between SR and CFP in Malaysian IPO firms. Thus, this gap is filled by the current study investigating this relationship. Hence, the following hypothesis is formulated:

H1. The SR and its dimensions, product, society, employee, and environment are positively associated with the corporate financial performance of IPOs in Malaysia.

Research methodology

This section summarises the sample size, data, variable measurements, and regression models used in this study.

Data and sample size

This study uses data of Malaysian IPOs from 2007 to 2017. Bursa Malaysia launched the SR Framework for PLCs on 5 September 2006, but mandatory SR only came into full effect in 2007. Meanwhile, all PLCs are obligated to disclose their SR activities in their annual reports. From 2007 through 2017, ROA data was obtained via Datastream. This study selected the period until 2017 due to changes in SR activities in annual reports 2018.

This research focuses on the two main stock exchanges in Malaysia, ACE Market and Main Market, which comprise 131 non-financial IPOs. The study sample excludes companies from the finance sector, closed-ended funds sector, and real estate investment trusts sector. IPOs that do not have annual reports are also excluded from the study sample. Eventually, 131 IPOs are used in the final study sample. The present study findings are more generalisable as they include all IPO firms in Malaysia. In addition, by analysing the yearly reports from (2007 to 2017), the results may reveal the current situation of SR among Malaysian IPOs. All the required information regarding SR is gathered from the IPOs found in Bursa Malaysia's website at www.bursamalaysia.com.my or the companies websites. The annual reports of the IPOs listed on Bursa Malaysia are used to obtain the data from 2007 to 2017.

Measurements of variables

There is no specific standard on the proper measurement of CFP (Uwuigbe and Egbide 2012). However, most CFP measures fall into one of two main categories, i.e. accounting-based measures (Bayoud et al. 2012; Iqbal et al. 2012; Mwangi and Jerotich 2013) and market-based measures (Lioui and Sharma 2012). However, some researchers have adopted both. Based on previous research, the accounting-based measure is the prevalent one. Consequently, the ROA

is used to quantify CFP in this study. This approach is preferred since it has seen phases of popularity and has progressed significantly during the last decade.

The preference for this method arises because it has enjoyed periods of popularity and has evolved considerably over the past decade. One significant variance between ROE and ROA is debt. If there is no debt, the corporate's total assets and shareholder's equity will be the same. This means that in this scenario, ROE and ROA will be equal. If the corporate decides to take a loan, ROE would become better than ROA. A higher ROE is not always a guide to of an impressive performance of a company. In this regard, ROA is a better indicator of the financial performance of a corporate. Therefore, the current study utilised ROA for a better performance.

SR provides guidelines for publicly listed companies (PLCs) on implementing their SR activities, which cover the variables of society, environment, employee, and product. These variables form the basis of the SR measurements in this study and have been utilised in past Malaysian-based studies (e.g. Abd Rahim 2016; Sadou et al. 2017; Zainal et al. 2013). The requirements of Bursa Malaysia are also taken into consideration in ensuring that the index contains items covering the variables mentioned earlier. As such, the modified index employed in this current study consists of 24 items (Appendix), as utilised in earlier studies on Malaysian annual reports (Sadou et al. 2017; Saleh et al. 2011). The 24 items are divided equally to the four categories of variables, namely, 6 for society, 6 for environmental, 6 for employee, and 6 for product.

Previous studies have used different measurements for their content analysis, i.e. according to the extent and quality of the disclosure. The extent of disclosure entails the total number of words, sentences, or pages (e.g. Zainal et al. 2013). Some other studies employed dichotomous variables for disclosure (which is given a score of 1) and

non-disclosure (which is given a score of 0) for the extent of SR (e.g. Abd Rahim 2016; Sadou et al. 2017). Meanwhile, SR quality entails the quality of the disclosure as assessed using a quality index. Researchers have used various indexes to measure the quality of disclosure (e.g. Sadou et al. 2017). The score of 3 is for 'quantitative disclosure', 2 is for 'qualitative disclosure with specific explanations', 1 is for 'general qualitative disclosure', and 0 is for non-disclosure (e.g. Sadou et al. 2017; Saleh et al. 2011; Zainal et al. 2013). SR quality is measured using denoted weights for various types of disclosures according to each item's perceived importance to different user categories, which provides the highest level of measurement precision and enables the exploration of most of the SR information mentioned in the annual reports. Therefore, this study used quality of SR as a measurement.

Aside from the earlier indicated independent variable, various control variables, such as board variables (extent, individuality, and organisation ownership) and company-specific characteristics (firm size, firm leverage, and manufacturing), are used in the current research. Thus, it is demonstrated that this research controls the potential relationship between SR and its dimensions and the CFP of IPO firms. Table 1 explains each of the control variables. Such factors are more appropriate for IPO firms, and the model employed substantially impacts the CFP of IPOs.

Regression model

The link between SR and CFP is investigated using one empirical model. This study uses a multiple regression techniques using the ordinary least squares (OLS) with its robust and weighted least squares (WLS) techniques. This model is used to ensure that the expected results of this research are comparable to those of previous investigations. The association is explained by the regression model below.

Table 1 Measurements of the variables

Variable name	Measurement
Dependent variable	
CFP	Return on assets
Independent variable	
SR	Quality of SR, i.e. a weighted measure of 0, 1, 2, and 3
Control variables	
Board extent	Total number of directors at the IPO date
Board individuality	Percentage of independent non-executive directors serving on the board to total directors on the board at the IPO date
Organisation ownership	The percentage of common shares owned by executive directors
Firm size	The natural logarithm of the total assets at the date of the IPOs
Firm leverage	The percentage of total debts to total assets
Manufacturing	1 indicates manufacturing company and 0 otherwise

$$\begin{aligned}
 CFP_{it} = & \beta_0 + \beta_1SR_{it} + \beta_2SOC_{it} + \beta_3ENVI_{it} \\
 & + \beta_4EMP_{it} + \beta_4PRO_{it} + \beta_6BE_{it} + \beta_7BIND_{it} \\
 & + \beta_8OOWN_{it} + \beta_9FSIZE_{it} + \beta_{10}FLEV_{it} \\
 & + \beta_{11}MANF_{it} + \varepsilon
 \end{aligned}$$

Results and discussion

Reliability and validity of SR

Depending on the Bursa Malaysia's SR Framework and past research findings, the present study came up with four SR categories with 24 items overall. The categories are investigated for reliability utilising the internal consistency test, a common reliability measure according to Elsayed (2010). Internal consistency refers to the degree of association across all components in measuring the same fundamental

qualities, often examined using the inter-item association test known as Cronbach's alpha coefficient, supported by past literature (Elsayed 2010; Sekaran 2003). For SR quality, the average inter-item correlation is represented by a scale of 0, 1, 2, and 3, with higher values representing more reliability. Following the study of Anas et al. (2015), the present research scrutinised 20% or 26 randomly selected sample annual reports to measure the reliability and validity of the SR scoring. The present study examined the internal consistency of each SR component in the yearly reports using Cronbach's Alpha, and the results are reported in Table 2.

A reliable variable has a positive Cronbach's alpha value larger than 0.70, according to Pallant (2013). In this study, the Cronbach's alpha for the society, employee, environmental, and product disclosure categories is more than 0.70, indicating a strong relationship and general dependability of the disclosure items in each category. Consequently, since they always perform together and evaluate the same properties, all SR entries in the disclosure index are acceptable. The results above demonstrate a high consistency between the components of each SR element and the overall index or between all of the items and the entire annual report SR index. This analysis, therefore, verifies the overall index's and component indices' reliability.

Table 2 Results of reliability analyses conducted on all SR dimensions

Cronbach's alpha		
Variables	No. of items	SR quality
(1st category: society)	6	0.8105
(2nd category: environmental)	6	0.8549
(3rd category: employee)	6	0.7623
(4th category: product)	6	0.7467

Descriptive analysis

Table 3 displays the descriptive analysis for all variables for the samples of 131 IPOs, indicating the outcomes for the aforementioned objectives. The CFP, i.e. the first variable,

Table 3 Descriptive analysis

Variables	Obs	Mean	Std. Dev	Min	Max	Skewness	Kurtosis
ROA	131	0.065	0.304	-1.865	0.294	0.000	0.000
SR	131	0.160	0.229	0.000	1.210	0.000	0.016
SOC	131	0.459	0.400	0.000	1.800	0.000	0.288
ENVI	131	0.253	0.317	0.000	1.300	0.000	0.066
EMP	131	0.450	0.373	0.000	1.400	0.041	0.008
PRO	131	0.120	0.233	0.000	1.400	0.000	0.000
BE	131	7.351	1.961	2.000	13.000	0.002	0.154
BIND	131	0.408	0.131	0.111	0.833	0.012	0.146
OOWN	131	0.075	0.109	0.000	0.547	0.000	0.000
FSIZE	131	12.142	1.954	3.430	17.432	0.510	0.000
FLEV	131	0.177	0.197	0.000	0.900	0.000	0.001
MANF	131	0.840	0.368	0.000	1.000	0.000	0.011

This table shows the descriptive statistics of the continuous dependent, independent, and control variables of the IPOs used in this study. The CFP, corporate financial performance, measured by ROA, return on asset; SR, sustainability reporting; SOC, society; ENVI, environmental; EMP, employee; and PRO, product; BE, board extent, total number of directors at the IPO date; BIND, board individuality, percentage of independent non-executive directors serving on the board to total of directors on the board at the IPO date; OOWN, organization ownership, the common shares owned by executive directors; FSIZE, firm size, natural logarithm of total assets, at the date of IPOs; FLEV, firm leverage, the percentage of total debts to total assets; MANF, manufacturing, 1 indicates manufacturing company and 0 otherwise; $n = 115$

is assessed using the ROA from (2007 to 2017). The mean ROA for the whole sample is 0.065, with a maximum of 0.294 and a minimum of -1.866 in Table 3, indicating the Malaysian CFP over the study period. This result is comparable to the research conducted in Malaysia by Corhay et al. (2002), which showed a mean of 0.0458.

The second variable entails the SR variables, which are measured by the QUALITY. The SR dimensions are grouped into four themes, i.e. society (SOC), environmental (ENVI), employee (EMP), and product (PRO). Regarding the themes and dimensions of SR, the most often reported mean index score for SR is 0.160. The particular themes of SR variables, the mean values for SOC, ENVI, EMP, and SR, are reported as 0.45, 0.450, and 0.120, respectively. According to the descriptive data, the BE has a wide range, with a minimum of 2.000 and a maximum of 13.000. The mean for the firms under monitoring for BIND is 0.408, with a minimum of 0.111 and a maximum of 0.833. The average value for the firms under observation for OOWN is 0.075, with a minimum value of 0.000 and a maximum value of 0.547. The mean value for the FSIZE is 12.142, with a minimum of 3.430 and a maximum of 17.432. The range for LEV is not particularly wide since the standard deviation is not too far from the mean. Finally, the mean value for the firms for MANF, a dummy variable, is 0.840.

Correlation analysis

This research uses correlation analysis to determine the direction, strength, and significance of the link between the variables. Table 4 displays the Pearson correlation coefficients between the dependent, independent, and control variables, suggesting a significant association between the disclosure scores. As the correlation values of all variables

are less than 0.80, a multicollinearity issue does not exist (Hair et al. 2010). As seen in Table 4, ENVI is both positively and insignificantly related to ROA. Conversely, the associations between SR, SOC, EMP, and PRO are negative and insignificant. One likely reason for Malaysia's ongoing decrease in social and environmental SR is a lack of SR regulation and firms' beliefs that they are not benefiting from investors or society (Teoh and Thong 1984). In the environment category, firms focus their SR efforts on many issues, such as energy consumption, which includes efficient energy use, reduction of the climatic impact caused by power consumption and emission, and conservation of natural resources. BE, OOWN, FSIZE, and MANF all correlate negatively with ROA. Moreover, there is a positive correlation between BIND and ROA at the 5% significance level ($p < 0.05$). The relationship between FLEV and ROA is both positive and significant. There is no multicollinearity among the variables, since none of them correlate over 0.80, as shown by the correlation matrix.

Regression analysis

Multiple regression is performed to test the study hypothesis, but prior to that, three basic hypotheses important to OLS regression are measured. These include checking the model for multicollinearity among the independent variables and heteroskedasticity presented in Table 3. The variance inflation factors (VIF) are calculated to check the collinearity problem. The VIF values in all cases reported in Table 5 are less than 10, indicating no multicollinearity problem. For skewness and kurtosis, the regression analysis results show that the data is normally distributed in Table 5. The p values for the Breusch-Pagan tests was measured to examine heteroscedasticity which is less than alpha (5%), suggesting

Table 4 Correlation analysis

Variables	ROA	SR	SOC	ENVI	EMP	PRO	BE	BIND	OOWN	FSIZE	FLEV	MANF
ROA	1.000											
SR	-0.051	1.000										
SOC	-0.025	0.650***	1.000									
ENVI	0.006	0.736***	0.300***	1.000								
EMP	-0.009	0.658***	0.388***	0.451***	1.000							
PRO	-0.075	0.714***	0.289***	0.512***	0.333***	1.000						
BE	-0.111	0.067	0.110	0.055	0.116	-0.005	1.000					
BIND	0.223**	-0.064	-0.165	0.039	-0.030	-0.010	-0.259**	1.000				
OOWN	-0.062	-0.100	-0.102	-0.002	-0.069	0.020	-0.145	-0.017	1.000			
FSIZE	-0.056	0.352***	0.264**	0.236**	0.204**	0.325***	0.410***	-0.207**	-0.107	1.000		
FLEV	0.005	0.056	0.072	0.045	0.040	-0.016	0.169*	0.061	-0.121	0.265**	1.000	
MANF	-0.067	-0.100	-0.129	-0.033	-0.087	-0.052	-0.103	-0.111	0.080	-0.153	-0.354***	1.000

***Correlation is significant at the 0.01 level (two-tailed); **correlation is significant at the 0.05 level (two-tailed); *correlation is significant at the 0.10 level (two-tailed)

Table 5 Regression analysis (without dimension)

Variables	Panel A OLS		Panel B OLS robust		Panel C WLS		VIF
	t-stat	sig	t-stat	sig	t-stat	sig	
SR	-0.57	0.567	-1.22	0.023**	-0.57	0.057*	8.1
BE	-0.79	0.434	-1.04	0.030**	-0.8	0.042**	1.33
BIND	2.14	0.034**	1.46	0.015**	2.16	0.033**	1.17
OOWN	-0.79	0.043**	-1.39	0.166	-0.8	0.043**	1.08
FSIZE	0.26	0.798	0.57	0.571	0.25	0.080*	1.53
FLEV	-0.28	0.784	-0.42	0.067*	-0.3	0.077*	1.27
MANF	-0.6	0.055*	-0.5	0.062*	-0.57	0.057*	1.22
Constant	-0.11	0.91	-0.22	0.082*	-0.1	0.092*	
OLS heteroskedasticity		0		0		0	
<i>N</i>		131		131		131	
<i>R</i> ² (%)		8%		6%		6%	
Adjusted <i>R</i> ² (%)		6%					
<i>F</i> -value		1.02		0.36		1.03	
<i>p</i> value		0.43		0.94		0.42	

a substantial amount of heteroscedasticity in the model based on ordinary least squares (OLS). This study used the weighted least squares (WLS) and OLS robust approaches to reduce concerns with normality, outliers, and heteroscedasticity. WLS is an extension of OLS regression used when data violate the premise of homoscedasticity and have a particular scope. According to Shalizi (2015), OLS cannot target particular areas, but WLS works well at this function by emphasising certain parts in the research by giving these areas more weight than others.

Multiple regression techniques are used in this study. A multiple regression model reflecting SR and CFP is used to evaluate the present study objective. At first, OLS regression is applied, then OLS robust regression, and finally, WLS regression is used in this study. The results of the model's hypothesis and independent variable tests are provided in Table 5. Table 5 summarises the investigation outcomes for the model relating the SR and its dimensions (as assessed by QUALITY) with the CFP (assessed by ROA).

Table 5 panel A demonstrates that BIND is positively significant in explaining ROA, while OOWN MANF is negatively significant. Likewise, panel B shows that SR is negatively significant to explain ROA. BE, FLEV, and MANF are negatively significant in influencing ROA; on the other hand, BIND is positively significant in explaining ROA. Panel C of Table 5 demonstrates that SR, BE, OOWN, FLEV, and MANF are negatively significant in explaining ROA. Lastly, BIND and FSIZE are positively significant in explaining ROA. The findings show that the model's *R*² and adjusted *R*² are weak; a similar situation was discovered in a previous research by Iqbal et al. (2012).

Panels A, B, and C of Table 6 demonstrate the findings concerning SR dimensions. Panel A results show that PRO

and OOWN are negatively significant in explaining ROA. In contrast, BIND is only a positively significant factor in impacting ROA. Panel B shows that SOC, ENVI, EMP, and FSIZE are positively significant dimensions of SR to influence ROA, while PRO and BE are negatively significant factors. Panel B findings are similar to panel C of WLS.

As a result, hypothesis H1 which predicts that SR and its dimensions are positively correlated to CFP is not supported in terms of the employee and product dimensions but supported in terms of the society and environmental dimensions. Malaysian regulators could benefit from these findings in their endeavour to carry out a reform process on employee SR to improve its quality. Additionally, the findings can also be used to define efficient SR.

Therefore, the findings for SR and its dimensions are supported by the agency theory. These findings are consistent with the agency theory, which state that an increase in the managers' shareholdings to reform SR issues and drive information disclosure could increase SR, thus leading to improved corporate performance (De Klerk et al. 2015). The argument of the agency theory by Bowerman and Sharma (2016) is that companies have to gain some benefits from SR in order to justify and continue the advances of SR, which will then increase share price performance and vice versa. Investors typically emphasise company transparency, particularly in relation to non-financial information. Directors hold the primary responsibility in addressing agency problems via SR (Alazzani et al. 2019). Agency problems and agency costs can be alleviated by minimising information asymmetry via corporate disclosure (Healy & Palepu 2001). Nonetheless, due to the motivation to retain the company reputation, key shareholders are likely to capitalise on their company's economic, social, and environmental behaviour (Prado-Lorenzo et al. 2008). Hence,

Table 6 Regression analysis with SR dimension

Variables	Panel A OLS		Panel B OLS robust		Panel C WLS		VIF
	t-stat	sig	t-stat	sig	t-stat	sig	
SOC	0.13	0.893	0.2	0.084*	0.08	0.094*	2.5
ENVI	0.43	0.668	0.59	0.056*	0.26	0.071*	2.71
EMP	0.04	0.97	0.06	0.096*	−0.01	0.099*	2.06
PRO	−1.08	0.028**	−1.38	0.017**	−0.66	0.051*	2.83
BE	−0.87	0.385	−1.14	0.026**	−0.62	0.539	1.33
BIND	2.12	0.036**	1.42	0.158	1.39	0.017**	1.17
OOWN	−0.69	0.049**	−1.27	0.206	−0.38	0.701	1.08
FSIZE	0.36	0.722	0.7	0.049**	0.24	0.808	1.53
FLEV	−0.35	0.724	−0.52	0.602	−0.25	0.803	1.27
MANF	−0.58	0.561	−0.48	0.631	−0.3	0.763	1.22
Constant	−0.21	0.836	−0.39	0.070*	−0.13	0.090*	
OLS heteroskedasticity		0		0		0	
<i>N</i>		131		131		131	
<i>R</i> ² (%)		6%		6%		6%	
Adjusted <i>R</i> ² (%)		5%					
<i>F</i> -value		0.64		0.99		0.98	
<i>p</i> value		0.8		0.28		0.33	

key shareholders tend to boost market communications on SR matters due to their particular interest in the long-run survivability of their company (Anderson and Reeb 2003). They are well aware that investor confidence and market efficiency are determined by accurate information disclosure concerning corporate performance (Jamali 2008). The legitimacy theory depends on the leniency with the rights and responsibilities of firms appear from the society. The corporate must prevail within the bounds of a society to match the anticipation of that society. This theory states that SR information is disclosed by a firm to either sustain or establish its legitimacy by achieving society's acceptance of its actions (Deegan 2002). Based on the legitimacy theory, it can also be said that the level of a firm's SR is a reaction to the prices given by the public.

The legitimacy theory predicts gradual improvements to the SR dimensions based on changes in the Malaysian business landscape (Anas et al. 2015). A majority of studies on social and environmental disclosure are based on the legitimacy theory (Aerts and Cormier 2009). This theory asserts that higher SR disclosures are a means to offset potential threats to the company's legitimacy and other changes in the business milieu (Gray et al. 1995). It also proposes that companies will endeavour to ensure that their activities and performance are publicly acceptable in line with the growing public awareness and concern. These findings are supported by past studies that found a negative correlation between the SR dimensions and CFP (e.g. Wan Ahamed et al. 2014; Murray et al. 2006; Verbeeten et al.

2016) as well as those that found a positive correlation (e.g. Kang and Kim 2019; Kuvaas 2019; Saleh et al. 2011; Usman and Amran 2015).

Discussion and conclusion

This study is aimed at investigating the effect of SR on the CFP of Malaysian IPOs. The correlation between SR and CFP is established using regression analysis. A key finding is that the employee and product dimensions are negatively correlated to CFP based on the ROA as measurement. Meanwhile, the society and environmental dimensions correlate positively and significantly to CFP. This study also uses board variables (i.e. extent, individuality, and organisation ownership) and company-specific characteristics (i.e. firm size, firm leverage, and manufacturing) as the control variables.

The analysis results demonstrate that companies emphasise on financial performance and corporate reputation improvement by providing more significant SR disclosures in their annual report. This is consistent with the findings of past studies which indicate that SR is significantly and negatively correlated with CFP (e.g. Crisóstomo and Freire 2011; Jones et al. 2007). Waddock and Graves (1997) asserted that greater social performance leads to better financial performance owing to the efficient

utilisation of financial resources, labour commitment, and other interested groups. The positive correlation between the society and environmental dimensions with CFP suggests the likelihood of boosting the companies' external reputation. Additionally, companies can improve the aspects of employee morale and investor relations (Waddock and Graves 1997). In terms of limitations, the SR measurement does not have any real implications on CFP. It should be noted that the SR measurement is based on the content analysis of the disclosures on the society, environmental, employee, and product dimensions. A more appropriate measurement would be the amount of donation or investment on SR made by the company. Nonetheless, the Malaysian law does not necessitate the disclosure of SR investment cost in companies' annual report, thus rendering content analysis a more practical alternative. This study is also limited in terms of its timeframe and number of IPOs. The correlation may not be properly justified with the usage of a low number of companies and a short timeframe.

Employees are highly significant in attaining corporate responsibility, particularly for improving corporate performance considering their substantial role as decision-makers that determine the long-term success of their companies. The findings of this study enrich the existing body of knowledge on the relationship between CFP and IPO companies. It examines the effect of the SR dimensions on the CFP of Malaysian IPOs. Many studies have investigated the correlation between SR practices and the financial performance of Malaysian companies (e.g. Saleh et al. 2011; Wan Ahamed et al. 2014). Yet, there are very limited studies on the correlation between SR and the CFP of Malaysian IPOs. The findings of this current study indicate that SR practices improve CFP. The result shows a negative and significant link between SR and its employee and product dimensions with CFP. Meanwhile, the society and environmental results found a positive link with CFP. Generally, this study indicates that SR does have an impact on Malaysian IPO companies.

The results of this study can be taken as a wake-up call for supporting the process of reform towards enhancing IPO companies' management. The study reveals that some existing SR practices still require improvements for the betterment of the performance of IPOs. Malaysian regulators could benefit from these findings in their endeavour to carry out a reform process on SR to improve its quality. Additionally, the findings can also be used to define efficient SR. This study generally highlights the crucial role of SR in Malaysian IPOs in developing SR further in the country, which in turn warrants a more rigorous analysis. The findings of this study indicate that SR initiatives could, to a certain extent, improve the performance of IPOs. Company objectives, including profit maximisation and company reputation, can

therefore be realised via vigorous engagement in SR initiatives by company managers. Thus, the findings in this study can be used by companies to engage in SR activities and their disclosures. Support by government agencies is also given in the form of regulations and laws enforced on Malaysian PLCs to drive their active engagement in SR.

This study specifically provides information on SR dimensions that significantly affect CFP; therefore, the managers of IPOs could consider these SR dimensions in their endeavour to improve issued financial performance. This study hence paves the way for future research on the motivations for conducting SR by Malaysian companies. The link between Malaysian corporate firms and the industry also affects the changes in SR standards. The standards which are typically identified externally can be altered to fit the local context and hence boost the intrinsic motivation of companies to perform SR involving the society, environmental, employee, and product dimensions. The results of the study suggest more considerable efforts on the part of policymakers and multi-stakeholder initiatives in enhancing the quality of SR in Malaysia, i.e. by positively channelling various pressure sources from their respective contexts to SR initiatives, including ownership structures and local cultural traditions. There are several implications of the current study findings. Firstly, despite the growing interest on SR, very few studies have explored the effect of SR on the CFP of IPO companies. Based on the notions of the stakeholder theory and the fact that SR functions as an internal actor that makes organisational decisions, stakeholder theory can be utilised to describe the reasons for which a firm may undertake SR activities to gain maximised long-term returns (Samy et al. 2010). It contributes to understanding the stakeholder theory by applying the model on the correlation between SR and CFP. The stakeholder theory proposes that the effect of SR on CFP is dependent upon the stakeholders' comprehension of the companies' motivations for carrying out their respective SR activities (Wang and Qian 2011). This study is one of the few that demonstrates the contributions of the SR dimensions in enhancing SR performance.

Despite the significant importance of forecasting investment analysis and the decision-making process for investors, prospective investors, and market analysts, few studies have been conducted on IPO market performance predictions. As such, this study suggests further research on the said area. The scope of this study is limited only to the Malaysian context. Hence, the findings merely serve as guidance for future research, especially in the context of other countries. For example, the findings of this current study may be dissimilar to that of studies on developed countries such as the UK, the USA, and other European nations but could be similar to that of developing countries. The items on the study's disclosure index merely represent items that could be disclosed by the IPOs as

suggested in the existing literature. This means that certain items that may be important for a certain company are not included in the newly developed disclosure index. Hence, future studies should explore the SR information more thoroughly to assess the extent and quality of disclosure of these items. There are three subsections, including implications, recommendations, and suggestions for future research.

- A. Implications for regulators and investors essentially: an effective SR is one that looks after the best interest of the stakeholders of the listed firms. Meanwhile, the relevant regulatory bodies are responsible for ensuring that the Bursa Malaysia-listed firms conform to the SR. These regulatory bodies' obligation also remains knowing of the attributes of IPO success due to the ongoing changes on the government's SR policies and the Bursa Malaysia listing requirements, so that they can advise IPO issuers and investors about the significant of SR. The disclosure requirement mandates that all firms disclose their SR activities in annual reports. Hence, investors should be careful when making long-term investments in Malaysian IPOs. The findings give valuable insights to investors about how other investors perceive the importance of SR in CFP, despite the fact that the findings might not be representative of all investors in Malaysia.
- B. Policy recommendation: the regulatory bodies must also remain knowing of the attributes of CFP success due to the ongoing changes in the SR policies made by the government in addition to the Bursa Malaysia listing requirements, so that they can advise IPO issuers and investors about the significance of SR. Investors should be careful when making long-term investments in Malaysian IPOs. Hence, investors may consider SR as evidence to consider this element when making IPO investment decisions.
- C. For future research, the current study only tested SR disclosures made on the firms' annual reports; future studies could emphasise on comparing the disclosure level on the annual reports with that of websites or stand-alone reports. Such comparison might provide better insight into the techniques the firms utilised in disclosing their SR information to stakeholders. The focus of the present study is only on Malaysian firms. Future studies are proposed to conduct a cross-sectional comparison among Malaysia and other Asian Economic Community (AEC) for example, Indonesia, Singapore, Bangladesh, Cambodia, Vietnam, and Brunei Darussalam. A comparison between developed and developing countries could also enhance understanding of the association between SR extent and quality and the CFP of IPO companies, i.e. information that can significantly contribute to the field of study.

Appendix. List of SR items

Theme I-society-SR items

1	Donations program
2	Educational program
3	Health projects
4	Development society programs and activities
5	Sports program
6	Charity program

Theme II-environmental-SR items

1	Pollution control
2	Conservation of natural resources
3	Award for environmental programs
4	Waste management
5	Water management
6	Renewable energy

Theme III-employee-SR items

1	Employee health and safety
2	Employee trainings
3	Safety award
4	Improve employee working conditions
5	Employees awards
6	Employee welfare fund

Theme IV-product-SR items

1	Products development
2	Product safety
3	Green product
4	Product quality
5	Product awards
6	Consumer satisfaction

Acknowledgements The authors are grateful to the anonymous referees of the journal for their extremely useful suggestions to improve the quality of the paper.

Author contribution Yasir Abdullah Abbas: writing original draft and analysis.

Waqas Mehmood: review.

Anis Ali: review and edit.

Attia Aman-Ullah: review and edit.

Funding This study is supported via funding from the Prince Sattam bin Abdulaziz University project number (PSAU/2023/R/1444).

Data availability All data and outputs are available and can be shared whenever required.

Declarations

Ethical approval All scholarly contributions by other authors, tables, graphs, data sources, etc. are cited properly. No unethical content is added.

Consent to participate Not applicable.

Consent for publication The authors do not have any consent issue to publish this research paper.

Competing interests The authors declare no competing interests.

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