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The impact of Earnings Management and Firm Performance on Sustainability Reporting: Evidence from Firms that offer Sharia-Complaint Products and Services in Malaysia

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Abstract
It is a general perception that earning management (EM) is an unethical practice because accounting figures are based on the discretion of management and biased information can manipulate the financial data disclosed to stakeholders. Nevertheless, firms engage itself in societal welfare and take steps for the improvement of social conditions and their concern is beyond profit orientation approach. The purpose of this research is to analyze the association between sustainability disclosure and EM in the firms that are offering Islamic products. The theoretical foundation of this research is supported by an Islamic point of view because this study is based on firms that are offering Islamic products and services. The study utilized panel data to investigate the impact of EM and firm performance on sustainability reporting (SR). The sample of this study is based on the 30 Malaysians firms offering Islamic product and services over the period 2015-2018. SR is operationalized through the well-renowned framework i.e. GRI, whilst EM is operationalized on the basis of the Modified Jones Model and ROA is used to measure financial performance. It is evident from the finding that the firms that have sound financial performance, leads to better SR. While insignificant findings revealed among EM and sustainability reports. This study has answered a long-awaited question, whether financial performance leads to SR or SR leads to financial performance. Conclusively, this argument is valid in both contexts.

Keywords: *Earnings Management (EM); Sustainability Reporting (SR), Firm performance, Islamic point of view*

Introduction

Corporations can collapse by unethical practices especially creative accounting or managerial manipulation practices, Pascanove (2012) Toshiba scandal (2015) provides sufficient evidence of this issue (Mirza, Malek, & Abdul-Hamid, 2019a), irrespective of the fact that these firms were disclosing sustainability reports and was also effectively indulged in environmental security and human welfare (Aziz & Mohamad, 2016; Helfaya, Kotb, & Hanafi, 2018). Past studies argued that the decision regarding corporate disclosures is directly

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influenced by EM practices (Inaam & Khamoussi, 2016). When management decides to manipulate the accounting information through accruals to show the outsiders that the firms performing well under different incentive structure, the issue of EM arises (Kerdpitak & Jermsittiparsert, 2020), having adverse implication for the investors (Ghazali, Shafie, & Sanusi, 2015). Similarly, Martínez-Ferrero, Gallego-Álvarez, and García-Sánchez (2015a) concluded that shareholders delegate their powers to management on their behalf, this issue can create agency conflict between them, managers can abuse the power to influence the decision making regarding sustainability reporting, leads to the manipulation practices for self-interest by the management (Abdullah, Abdullah, Ismail, & Ismail, 2016; Mirza, Malek, & Abdul-Hamid, 2019b, 2019c; Moratis & van Egmond, 2018).

Researchers have found significant positive relationship between SR and EM (Martínez-Ferrero, Garcia-Sanchez, & Cuadrado-Ballesteros, 2015b; Muttakin, Khan, & Azim, 2015; Waworuntu & Hadisaputra, 2016), while some researchers have found the negative association among SR and EM (Aziz & Mohamad, 2016; Binswanger, Koester, Mueller, Gardner, Goddard, & Glanz, 2015; Wang, Cao, & Ye, 2018). According to previous studies, Other than EM, there is another factor that can impact SR is financial performance (Elasrag, 2015; Ibrahim, Darus, Yusoff, & Muhamad, 2015), but this factor is under debate currently, whether SR lead to better financial performance or better financial performance leads to better SR. most of the studies claimed that SR leads to enhanced current profit and future profitability as well (Ali, Mohamed, Shahimi, & Shafii, 2015; Belal, Abdelsalam, & Nizamee, 2015; Laldin & Furqani, 2016) but results are inconclusive (Stellner, Klein, & Zwergel, 2015).

Apart from this question, there is a significant gap in the literature that there is the scarcity of empirical studies on earnings management, financial performance and SR with respect to firms that are offering Islamic products in Malaysia. Therefore, there is a dire need of studies on the firms that are complying with Sharia because the nature of their products and services are different from the conventional products and services (Khan, 2016; Thani, Ahmad, Amat, & Hashim, 2016). The overall statistics of the firms that are offering sharia-compliant products and services regarding SR reporting is very poor. The statistics are presented in Figure 1.

Consequently, the current research is based on examining the impact of EM and firm performance (Saengchai & Jermsittiparsert, 2019; Sriviboon & Jermsittiparsert, 2019) on the sustainability reporting practices of the firms that have offered Islamic goods and services in Malaysia. Furthermore, to investigate that EM is conflicting with SR in these firms. It is obvious that the general perception of these firms is that they are more ethical than conventional firms. Consequently, EM practices should also be less than their conventional counterparts based on their ethical stance.

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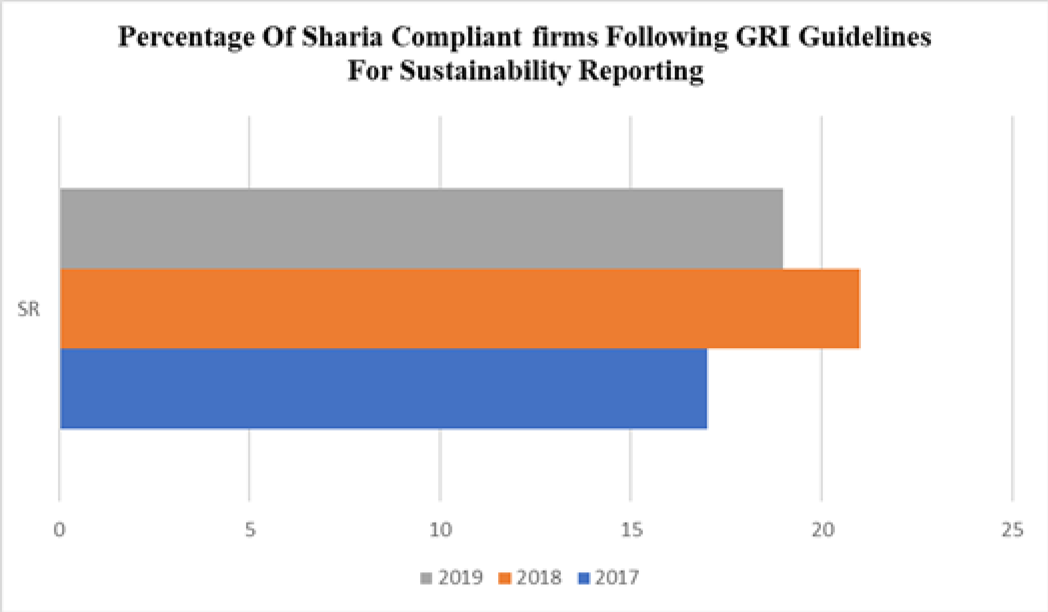

Figure 1: Percentage of Shariah compliant firms following GDI guidelines for sustainability reporting
Source: (Bursa Malaysia Website)

Literature Review and Hypotheses development

Islamic Point of View:

Sharia is a defined set of rules devised from the Holy Quran and is an ethical code that incorporates all associated activities of human life including politics, individual life, economic activities, and intellectual diversification through Ijtihad, but it focuses on the basic belief system (Ibrahim et al., 2015). The basic belief system of Islam focuses on belief on one God (Allah), worship of Allah Almighty, and morality and ethics in day to day activities. In this research, a theoretical framework for social practices of an Islamic firm is devised from Sharia Doctrine and the notion of public welfare. Primarily sharia concentrates on human welfare and protection whilst levels of protection of these elements are established by Maslahah. Aziz and Mohamad (2016), Helfaya et al. (2018) and Ibrahim et al. (2015) stated that from Sharia point of view it is necessary to devise rules and activities of CSR for Islamic firms. CSR will fulfil the objectives of Sharia and it will address the social interest of the public which will increase the motivation for sustainability activities. Elasrag (2015) concludes that focus on Islamic SR will help to devise rules to fulfil the requirements of Islamic firms.

Discretionary use of accounting policies by the management in drafting and reporting the financial position can lead to EM (Ghazali et al., 2015). Management utilizes the accruals for manipulating the earnings figure and increase or decrease the disclosed income. Discretionary Accruals are mostly used by the management for the earnings manipulations for self-interest and disclose in the annual financial statements. Consequently, this research is conducted to investigate EM practices and its impact of SR, previously many researchers in their studies utilized discretionary accruals to operationalize the EM (Braam, Nandy, Weitzel, & Lodh, 2015; Chen, Cheng, & Wang, 2015). From the Islam point of view, EM practices by the management to gain personal benefits under any incentive structure is considered as a non-ethical conduct because, first, stakeholder are potential users of financial statements and they are misguided by EM and results in wrong investment decisions due to under or overstatement of earnings, secondly, concealment of real economic performance that will results in biased figure of shareholder's returns (Kan, 2018; Mudel, 2015;

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Williams, 2018; Zhang, Jiang, Magnan, & Su, 2019).

Kaur and Singh (2019) suggested that EM practices are not adopted by the firms that voluntarily implemented SR practices or the firms that don't have profit maximization objectives. Waworuntu and Hadisaputra (2016) conclude that profit-oriented firms are more likely to engage in EM practices, especially when they are offering sustainability disclosure to improve their image to generate future profitability. Moreover, the author further stated that concealment of real economic performance through EM practices is actually a strategy to mislead investors for personal interest. According to Stellner et al. (2015), firms meeting the high standards of SR are assumed to misrepresent their revenues. On the other hand, Binswanger et al. (2015) revealed that there is a negative association between the SR and EM. The most important objectives of SR is transparency and relevancy of the disclosed information and moral duty towards these objectives are factors that motivate the managers not to indulge in EM practices. Whereby, in the firms that are offering Islamic goods and services will be less interested in EM practices due to their ethical stance. Therefore, it leads to the following hypothesis:

Hypothesis 1: Abnormal accruals has a significant and negative influence on SR.

Economic dimension

Previously it is concluded that firms with better SR are more likely to present sound financial performance in the long run due to their positive image (Stellner et al., 2015). Accordingly, Ibrahim et al. (2015) and Kaur and Singh (2019) suggested that the firm's financial performance increases through activities of SR. The reason behind is that sustainability disclosures can impact the decision making of stakeholders and it will positively influence the firm's image and ultimately the financial performance. The association between SR and financial performance is an interesting topic and has highlighted inconsistent findings in the prior studies but most the research found positive influence (Aziz & Mohamad, 2016; Chetty, Naidoo, & Seetharam, 2015; Lin, Chang, & Dang, 2015; Wang, Dou, & Jia, 2016; Yusoff & Adamu, 2016). Additionally, Aziz and Mohamad (2016) state that stakeholders take strategic decisions on the basis of sustainability disclosures offered in the financial reports. Thomson (2015) inferred that firms with a better financial position are capable to disclose extensive information in their SR because these firms don't have any financial constraints and can invest for current and future profitability on SR. Hence, these arguments lead to the following hypothesis:

Hypothesis 2: financial performance has a significant and positive influence on SR.

The Methodology and Model

The data required for testing the hypotheses are obtained from sustainability reports available at Bursa Malaysia web site. Whereas, the financial data is obtained from Thomson Reuters DataStream. The sample of the study is based on 30 firms that are quoted on the Malaysian capital market as Malaysian Approved Islamic Funds and Exempt Regime Sukuk/Bonds companies The sample size of the firm is very small because of the non-availability of data for the majority of firm. Therefore, this study has taken four years covering period 2015-2018 resulting in 120 observation. Table 1 provides details about the sample.

Table 1
Number of Financial Institutions included in the Sample for the year 2015-2018

As of December 30th, 2018	Total	Sampl
Shariah Compliant companies	843	
With Unit Trust Funds	43	11
With Unit Trust and Wholesale Funds	36	10
Exempt Regime Sukuk/Bonds	32	9
	Total sample	**30**

This study operationalized sustainability reporting on the recommendations given by the Guideline of

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the Global Reporting Initiatives (GRI) G3. This Guideline based on the ten (10) parameters for economic sustainability, twenty-nine (29) environment parameters; seventeen (17) Labor parameters; twelve (12) human rights parameters; seven (7) Society parameters, and thirteen (13) product responsibility indicators. Depending on the disclosure of information about each parameter, a score was assigned on the basis of three groups; if a firms don't disclose about any parameter, a score of 0 is allocated to that firm, if information disclosed is of general nature, a score of 1 is allocated to that firms, if a firm provided partial information, a score of 2 is allocated to that particular firm, Finally, if a firm offers complete information about any parameter, was allocated score of 3 to that particular firm, the maximum score that can be allocated to a firm is 6, if the firm is providing full disclosure about all six parameters mentions in Table 2. This operationalization of SR on the basis of the score as discussed before is used in many of the prior studies (Aziz & Mohamad, 2016; Binswanger et al., 2015; Martínez-Ferrero et al., 2015b; Muttakin et al., 2015; Wang et al., 2018; Waworuntu & Hadisaputra, 2016). To measure the EM the Modified Jones Model was utilized consistent with the previous studies (Achleitner, Gunther, Kaserer, & Siciliano, 2014; Braam et al., 2015; Chen et al., 2015; Mostafa, 2017). was used. Table 2 presents the variables and their measurement.

The study is based on statistical analysis and used the multivariate regression models to assess the association among the SR and EM and financial performance. The study developed the regression model to test hypotheses (H1 and H2) below.

$$\mathbf{SR_{it} = \beta_0 + \beta_1\, AA_{it} + \beta_2\, FP_{it} + \beta_3\, SZ_{it} + \beta_4\, LVG_{it} + \varepsilon}$$

Where

SR represents the Quality of SR,

β_0=intercept.

AA= Abnormal accruals for firm i in year t.

FP= Return on asset (ROA) is a proxy for financial performance, for firm i in year t.

SZE= Natural logarithm of total assets at year t and firm i,

LVG= Ratio of total debt to total assets at year t and firm i,

ε= error term.

Findings

Table 2

The Variables and their Measurements

Variables	Measurement		Formula
Dependent:	GRI G3, guidelines:		Scale:
SR Score	1	Economic Indicators;	Non-disclosure=0;
	2	Environment Indicators;	General Information=1;
	3	Labor Practices/Decent Work Indicators;	Partial Information=2;
	4	Human Rights Indicators;	Full Disclosure =3
	5	Society Indicators	Where: *I* =Indicators (Sum of 6 indicators; *i* =company; *t* =years
	6	Product Responsibility Indicators.	

Independent:
Abnormal Accrual
(Modified Jones

$TAC_{it} = EBIT_{it} – CFO_{it}$

$(TAC_{it} / TA_{i,t-1}) = \alpha_1\ (1 / TA_{i,t-1}) + \alpha_2\ [(REV_{it} – REC_{it}) / TA_{i,t-1}] + \alpha_3\ (PPE_{it} / TA_{i,t-}$

model)	$_{1}) + \varepsilon$ Regression equation below shows NDAC calculated by including the return coefficient α_1, α_2, α_3 to the following equation $NDAC_{it} = \alpha_1 (1 / TA_{i,t-1}) + \alpha_2 [(REV_{it} - REC_{it}) / TA_{i,t-1}] + \alpha_3 (PPE_{it} / TA_{i,t-1})$ $AAC_{it} = (TAC_{it} / TA_{i,t-1}) - NDAC_{it}$ Where: *AAC* = Abnormal accrual; *TAC* = Total accruals; *NDAC* = Non-discretionary accrual; *EBIT* = Earnings before taxes and interest; *CFO* = Operating cash flows; *TA* = Total asset; *REV* = Revenue; *REC* = Receivable (net); *PPE* = Property, Plant and Equipment (gross); ε = Error
Financial Performance	Return on Assets (ROA)
Control Variables	
Size of company	Natural log of total assets
Leverage	Ratio of total debt to total assets

Table 3 presents the descriptive analysis of the variables, the findings regarding skewness and kurtosis present that the data is normally distributed for all variables. Normality is an important assumption especially when the regression needs to be performed on the basis of the small data like current study. This study is based on the 4 years data but sample size id 30 only, Therefore, it results in only 120 observations. Consequently, normality becomes very important in the current studies context. As it can be seen in Table 3 that the Maximum kurtosis is 2.6169 for SR and the maximum skewness is 1.3338 for FP, both lies between +3 and -3. The data is considered as normally distributed if skewness and kurtosis skewness is within (+3/–3) (Greene, 2012; Gujarati, 2003).

Table 3

Descriptive Statistics and Normality Test

Variables	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
SR	3	6	4.18	1.1531	0.0546	-2.2828
AA	-0.17996	0.201139	-0.0564	0.067618251	0.4745	2.6169
FP	06.89	11.622	5.99178	3.629457	1.3338	-0.676
SZ	7.085	11.375	9.67629	1.260714	-0.9594	-0.4992
LVG	1.56	31.473	11.2853	8.446581	0.897	-0.416
No. Observation: 120						

Moreover, abnormal accruals (AA) lies in the range of -0.17996 to 0.201139. These results show that there are variations regarding EM activities of the sample firms because the range varies from positive to negative. It infers that the managers of the firms using increasing or decreasing EM practices under different incentive structures. SR is considered reasonable because the minimum value is 3 and some firm is achieving 6. It shows that some firms disclosing the data on the basis of all 6 criteria. Financial performance based on ROA varies between 6.89% to 11.622% but the average is 5.99%. It shows that, overall, in the period of 2015-2018, ROA for most of the firms, the return was not very high.

Correlation

Table 4 offers the findings of the pairwise correlation based on the Pearsons' test. The Independent variables of the study are insignificantly correlated with the depended variables (SR) but except for the SZ that is significantly correlated at 1% significance level, SZ (r=0.2587), the correlation of other variables AA (r=-0.104), FP (r=0.2431), and LVG

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(r=0.2431), are not significantly correlated with depended variable (SR). Finally, all independent variables are positively correlated with SR, but AA has a negative correlation with SR. It shows that the reduction in EM activities will improve the SR practices by a firm.

Table 4 *Pearson Correlation Matrix*

	SR	AA	FP	SZ	LVG
SR	1				
AA	-0.104	1			
FP	0.2587	-0.0377	1		
SZ	0.3926*	0.2067**	-0.5603	1	
LVG	0.2431	0.1196	-0.3198**	0.3744	1

Significance level (0.01,0.05**,0.10***)*

SR= SR Score, AA=abnormal accruals, FP= Financial performance based on ROA, SIZE: Natural logarithm of total assets; LVG: Ratio of total debt to total assets

Method of Analysis

After performing the correlation analysis, this study performed a diagnostic test to detect the issue of serial correlation and heteroskedasticity in the panel data. These tests are vital because on the basis of theses test a researcher can select appropriate methods of multivariate regression analysis. According to the guidelines given by Baltagi (2005), the panel data should be tested especially for homoscedasticity before performing a multivariate regression analysis. On the basis of the recommendations by Baltagi (2005), the current study has first carried out the diagnostic test for serial correlation and heteroskedasticity for the selection of an appropriate multivariate regression method for testing the hypotheses. Based on the findings provided in Table 3, the value of Chi^2 statistics is 6.978 with respective p-value<0.01. The value of Chi^2 of heteroskedasticity test is 879.78 and the p-value<0.05. The findings from both tests confirm that the panel data is suffering from serial correlation and heteroskedasticity.

Table 3
Test for serial correlation and heteroskedasticity

Wooldridge test for Serial-Correlation		**Breusch-Pagan/ for Heteroskedasticity**	
F Value	4.780	Chi^2	879.78
Prob > F Value	0.002	Prob > Chi^2	0.037

For the selection of the appropriate multivariate regression method for panel data, following the recommendations by Baltagi (2005), to conduct a Lagrange Multiplier (LM) test to estimate whether pooled OLS or random-effect (RE) model is appropriate for the panel data. Based on the findings given in Table 4, Chi^2 value is 1012.92with the corresponding p-value<0.05. In the case, as p-value<0.05, the RE model is considered for performing the multivariate regression model as suggested by (Baltagi, 2005; Greene, 2012; Gujarati, 2003).

Table 4
Breusch and Pagan Lagrange Multiplier Test for Random-Effects vs Pooled Effect

LM Test	
Chi^2	1012.92
Probability > Chi^2	0.042

After performing the LM test, this study has performed the Hausman specification test (1978) to

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select an appropriate regression model among fixed effect and random effect model as suggested by (Baltagi, 2005; Greene, 2012), The value of Chi^2 statistics is 1279.32 with respective p-value<0.05, as shown in Table 5. If the p-value<0.05, the FE method of regression is appropriate for the performing multivariate regression model for panel data to test the hypotheses of the study (Baltagi, 2005; Greene, 2012; Gujarati, 2003).

Table 5
Hausman Specification Test for Random-Effects vs Fixed-Effects

Hausman Test	
Chi^2	1279.32
Probability> Chi^2	0.033

This study has also conducted another test to evaluate the presence of heteroskedasticity in the FE model. Modified Wald test was specifically designed to evaluate the existence of the group-wise heteroskedasticity (Greene, 2012). Based on the of Chi^2 value (180000000), with the corresponding p-value<.05, as shown in Table 6. The significant p-value shows the existence of group-wise heteroskedasticity.

Table 6
Modified Wald Test for Group-wise Heteroskedasticity In Fixed Effect Model

Modified Wald Test	
Chi^2 (120)	180000000
Probability > chi^2	0.027

To deal with issues found in the panel data, the prior literature has suggested many solutions. To make sure that the statistical inference is unbiased, especially when the data is suffering from significant serial correlation and heteroskedasticity, it is suggested to use robust standard errors based on the alternative covariance matrix estimators (Eicker, 1967; Huber, 1967; White, 1980). These alternative covariance matrices assume that the residuals are independently distributed and standard errors that are attained by the help of these estimators are consistent. Therefore, this study will use the FE Model for multivariate regression model on panel data with robust standard errors by (Eicker, 1967; Huber, 1967; White, 1980).

Results of Multiple Regression Analysis

Table 7 below offers the findings of multivariate regression analysis. The adjusted R^2 is 26.72%. The independent variables of the model abnormal accruals and financial performance explain 26.72% variations towards depended variable sustainability reporting. The relationship among AA and SR is negative as expected but the relationship is not significant (β=-0.2041, p>0.10). Based on this finding, H1 is rejected. The finding infers that in the context of Malaysia, there is no association among EM practices and SR. alternatively, it can be argued that, either firms are involving in profit increasing or decreasing, this has no effect on Sr practices. This result is not in line with the arguments given by the previous studies that firms improve their SR practices to hide their EM practices for personal interest or entrench the inventors. Moreover, this may be true in the context of Sharia-compliant companies because it is assumed that theses companies are more ethical than other firms in the market and the real objective of the SR practices is not the manipulation of the earnings for self-interest.

The relationship between the firm performance and SR is positive and significant (β=3.9104, p<0.05). The results indicate that the financial performance has a significantly positive influence on SR. This result specifies that the profitable firms are more inclined towards higher SR because as firms become profitable, they invest more on social and environmental activities to promote the firms' positive image. The relationship among these variables is integrated and complex because of many prior studies investigate the impact of SR on financial performance, while this study investigated the opposite relationship. The result is in line with previous studies that financial performance influence SR or SR influence financial performance (Aziz & Mohamad, 2016; Chetty et al., 2015; Lin et al., 2015; Wang et al., 2016; Yusoff & Adamu, 2016). This study, in the Malaysian context, provided empirical evidence that a highly profitable

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firm disclose more information as compared to firms that are less profitable. Conclusively, based on this result it can be argued that the relationship among these two variables is another way round, financial performance improves SR, on one hand, SR improves financial performance, on the other hand.

Finally, with respect to firm size, it has a significant and positive influence on the SR practices. This result also infers that the firms big in size have more financial resources as compared to the small firms, therefore, they send more on to disclose information about sustainability. Likewise, the firms that have high financial gearing, risk of default is also high as well, therefore, to maintain a good relationship with stakeholders, they invest more on SR practices to improve image and risk reduction in the market Jensen and Meckling (1976), while this argument is not supported in this study because the relationship among LVG and SR is insignificant.

Variance inflation factor (VIF) and tolerance values are also reported in Table 7 to see the collinearity among independent variables, all values are less than 10 for VIF and .1 for tolerance value (Hair, Black, Babin, & Anderson, 2010).

Table 7
Multiple Regression Analysis

	Coeff.	**t-statistic**	**Sig.**	**Tolerance**	**VIF**
AA	-0.2041	-1.5457	0.3133	1.2610	0.793021
FP	0.5694	3.9104	0.0052*	1.0348	0.96637
SZ	0.6045	4.0625	0.0039*	0.9906	1.009489
LVG	0.2275	1.6549	0.2730	1.1648	0.858516
(Constant)	0.9762	1.4131	0.3679		
Adj. R-Square	26.702%				
No. Observation	120				

Significance level (0.01,0.05**,0.10***)*
SR= SR Score, AA=abnormal accruals, FP= Financial performance based on ROA, SIZE: Natural logarithm of total assets; LVG: Ratio of total debt to total assets

Conclusions

The objective of this investigation is to analyze the quality of sustainability reporting in the firms that have offered Islamic goods and services and to further investigate whether EM is negatively influencing these socially responsible firms. Outcomes illustrate that the quality of sustainability disclosures in these firms has increased over the years. It is evident that firm size and financial performance are two variables that can enhance the quality of sustainability reporting. More importantly, the outcomes of financial performance to sustainability reporting conclude that better financial performance can drive the managers to adopt SR measures as suggested by GRI. Nevertheless, non-significant outcomes between earning management and sustainability reporting suggest that though, firms those have offered Islamic goods and services are practicing SR, yet, are unable to avoid earning management activities. Hence, this can be stated that these firms are complying with the aims of Sharia which will secure the future of coming generations by the means of proactive SR.

This study has also tried to answer the long-awaited question whether SR leads to financial performance or Financial leads to SR. Overall, it can be said that the financial constraint is a big hurdle in adopting good SR practice, therefore, large and profitable firms have more financial resources. Therefore, they invest more in SR to maintain not only current profitability but also future profitability. On the other way around, SR also influences financial performance because the firm invests in SR to improve its image in the market and get the reward in terms of future profitability.

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Practical Implications

The findings of the study provide important implication for the policymakers. Especially with respect to SR practices, the sample firms, which are highly profitable are disclosing detailed SR practices, while, less profitable firms are offering less SR practices. The issue is very significant for the stakeholder's interest. Therefore, Malaysian policymakers should focus on giving financial relaxation for example tax relief and should associate this relaxation with the disclosure of SR practices. Through this way, the less profitable firm can improve the SR and ultimately the financial performance. This will ultimately serve the purpose of the whole society in terms of improved decision making through better information and also to protect the interest of the stakeholders.

Limitations and Recommendations for Future Research

Every research has several limitations and offers recommendation for future research. For example, the study is based on a very small sample. Therefore, the findings cannot be generalized to other developing markets. This study used quantitative measurement to operationalize SR, though, some studies measured disclosure through qualitative measurement as well. Therefore, quantitative along with qualitative measures should be used together in future studies. The model tested in this study should also be tested in other markets of Bursa Malaysia such as ACE and Leap market and also in other developing markets with different legal, regularity and economic and political environments. Moreover, this study has chosen ROA as a proxy for financial performance. Other measures such as Tobin Q, profit before interest and tax, earnings per share and firm values should be used in future studies. The abnormal accruals are measured through the Modified Jones Model, another type of EM practices, for example, real earnings management (REM) should also be tested in future studies. It will be appealing for the researchers to test the moderating impact of real REM in this context. Future researchers should also consider these proxies for measuring financial performance. This study is based on the sharia firms, future studies should also consider non-sharia firms as well to apply the model of the current study. Future studies should consider large sample size and time period to validate these results.

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