

Impact of Environmental, Social and Governance (ESG) Disclosure on Executive Compensation: Evidence from Malaysia

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ABSTRACT

This study focuses on the relationship between ESG disclosure transparency (via ESG scores) and executive compensation in firms in Malaysia. Data from 30 firms are collected over a total of 11 years from year 2006 to 2016 resulting in a total of 103 firm-year observations. OLS regression analysis of the data shows that ESG disclosure score has a highly significant negative impact on executive compensation. The results seem to suggest the impact of commitment costs due to increased disclosure on executive compensation. This study contributes to the growing literature on ESG disclosure and reporting quality as so far, to the author's knowledge, hardly any study has investigated its impact on executive compensation. Since the planning and design of ESG activities are the responsibilities of the management team, its impact on executive compensation should be studied.

Introduction

Securities exchange rules in most countries require listed companies to disclose information regarding their decisions and activities; and the impact of the activities on some or all of their stakeholders (Dardour & Husser, 2016) as the disclosure of corporate information can increase shareholder activism and also incentivize investors to increase monitoring (Iacobucci, 1998). Disclosure in the annual report may be mandatory or voluntary depending on the laws and regulations of the country where the firm is. Mandatory reporting requirements have however developed over time and as a result, disclosure levels have increased (Ioannou & Serafeim, 2016). Corporate executives therefore, have to open up their governance frameworks to stakeholder scrutiny. However, mandatory reporting requirements are still not effective enough to provide adequate disclosure as the regulations are typically on a 'comply or explain' basis (Brooks &

Oikonomou, 2018). Studies on disclosure activities are therefore, important to understand the motive for the disclosures made by firms.

In recent years, there have been increasing calls by both institutional and individual investors for corporations to not just focus on profits but also to be more responsible towards the society and the environment (Manita et al., 2018). Corporate Social Responsibility (CSR) is theorized to be important to a firm's long-term success and financial standing as it can help build and solidify "trusting relationships with a variety of constituents (employees, consumers, local communities, environmental activists and concerned citizens among many others)" (Brooks & Oikonomou, 2018, pg. 1). Aside from the call to firms to be more responsible, stakeholders have also been calling for increasing transparency of the environmental, social and governance (ESG) activities of a firm (Eccles et al., 2011). It is currently being suggested that executive compensation should be linked to the ESG performance of a firm to encourage the commitment of executives to act responsibly. Increasing disclosure of the firm's activities (including its ESG activities) is therefore, necessary as it provides shareholders with the information necessary to justify the compensation paid to the executives in the firm. Disclosure of this information is also necessary to assure that executives in the firm act responsibly, mitigate risks and comply with regulations (Burchman, 2018), thus reducing the principal-agent problem.

The aim of this study is to investigate the relationship between ESG disclosure and executive compensation. This study uses data of firms listed on the Bursa Malaysia for which data on executive compensation is available. This results in a total of 103 firm-year observations from a panel dataset of 30 firms over the years 2006 to 2016. Using Ordinary Least Squares (OLS) regression analysis, the results show that ESG disclosure has a highly significant negative influence on executive compensation, i.e. increased ESG disclosure levels result in lower executive compensation. Aside from that, the number of independent directors on the compensation committee (a control variable) is found to have a highly significant positive influence on executive compensation. This study is important as it is one of the few studies on social responsibility disclosure and executive compensation around the world. In particular, it focuses on an emerging market such as Malaysia where family firms make up around 67% of all corporations and a quarter of the corporate sector is owned by 10 of the largest families (Claessens et al., 2000; Benjamin et al., 2016). Family firms are usually characterized by family management and have been documented to have contrasting effects on agency costs (Benjamin et al., 2016).

The rest of the study is structured as follows. The next section discusses the literature and theories underlying this study and this leads to the hypotheses of this study. This is followed by a discussion of the research methodology and then the analysis of the data where the results are presented and discussed. The final section concludes this study.

Literature Review

Studies on executive compensation and social reporting base their arguments mainly on two theories: the agency theory and the stakeholder theory under which conflict resolution is dealt with (Dardour & Husser, 2016). Both these theories provide ambiguous predictions for the relationship between social reporting and executive compensation. On the one hand, the agency theory by Jensen and Meckling (1976) and the stakeholder theory predict a positive relationship between ESG disclosure and executive compensation but on the other hand, the relationship can be negative.

Studies on disclosure highlight two effects of disclosure – the commitment effect of mandatory disclosure and the information effect of voluntary disclosure. Since this study is focused on Malaysia where there is mandatory disclosure of ESG information, the focus is therefore on the commitment effect. According to Verrecchia (1999) and Baiman and Verrecchia (1996), when a firm commits to higher levels of disclosure, it is able to reduce information asymmetry between the informed manager and the uninformed investor. Under the agency theory, CSR information is viewed as a credible commitment and control mechanism in the principal-agent relationship. CSR activities are intended to benefit the various stakeholders with focus on the social, environmental and governance aspect of the firm. Reporting of ESG activities improves investor's confidence in the firm as it reduces information asymmetry hence providing the investor with a kind of assurance that ultimately reduces agency costs (El Akremi et al., 2018). The disclosure of ESG information thus encourages transparency and reduces the shareholder's burden of having to search for information individually. While it has been argued that CSR activities are important to a firm's long-term success and financial standing (Brooks & Oikonomou, 2018), a conflicting problem is that corporate insiders may try to overinvest in these activities for their own private benefit (Barnea & Rubin, 2010). Hope and Thomas (2008) find that disclosure of earnings information by geographic area was reduced by firm's management when it was not required by US laws to disclose this information so that the management could secure private benefits of control by empire building (Cheng et al., 2013). Disclosure of ESG activities exposes the ESG investments made by these corporate insiders to the scrutiny of the shareholders thereby reducing

the likelihood of overinvestment in these activities for the purpose of private benefit. The willingness of a CEO to disclose his/her decisions to the shareholders is a signal that there is nothing to hide hence it builds his/her legitimacy and improves his/her reputation as a responsible manager (Dardour & Husser, 2016). Improved reputation means that the CEO is able to improve his/her bargaining position, market value and career prospects and therefore also the compensation he/she receives (Dardour & Husser, 2016).

In a similar vein, according to the stakeholder theory (Clarkson, 1995), disclosure results in the actors (in this case the executives) being accountable for the effects of the activities on the stakeholders. Hence, disclosure of social and environmental activities carried out by the management means that management is willing to share information regarding the outcomes of their actions and decisions and this helps resolve conflict between the management and the stakeholders (both internal and external). The disclosure of ESG information also signals that the company is managing its risks efficiently (Godfrey, 2005) and helps improve the firm's long-term economic viability (Dardour & Husser, 2016). Disclosure of ESG activities therefore acts as a tool for conflict resolution between management and the stakeholders. As a result, responsible executives would require higher pay compared to their less responsible counterparts (Dardour & Husser, 2016). Hence, based on the agency theory and the stakeholder theory, a positive relationship can be expected between ESG disclosure and executive compensation (Cai et al., 2011; Milbourn, 2003), i.e. the higher the disclosure of ESG activities, the higher the compensation paid to executives.

However, both the agency theory and the stakeholder theory also predict a negative relationship between ESG disclosure and executive compensation. Based on the reasoning of the stakeholder theory, responsible managers would require higher pay for higher disclosure due to their legitimacy and reputation. However, it is also argued that compared to their less responsible counterparts, socially responsible managers will also be willing to take relatively lower pay in order to mitigate potential conflict of interest between the managers and the stakeholders (Cai et al., 2011). Hence, only managers of irresponsible firms that do not prefer to disclose ESG information will be overcompensated for their decisions. Executive's compensation will therefore suffer when a firm is perceived to be more socially responsible (Riahi-Belkaoui, 1992). Similarly, although the agency theory posits that to decrease information asymmetry, higher disclosures are needed. However, there are costs to this disclosure known as commitment costs which can potentially reduce the firm's earnings. Hence

increased commitment costs may result in a negative relationship between executive compensation and ESG disclosure.

Based on the arguments above, although there is a significant relationship between ESG disclosure and executive compensation, the nature of the relationship is not clear, i.e. it can be positive or negative. Hence, the hypothesis for this study is as follows:

H1: *There is a significant relationship between ESG disclosure and executive compensation.*

Model Specification and Research Methodology

Data collection

In order to achieve the objectives of the study, all firms listed on the Main Market of the Bursa Malaysia for which ESG scores and total executive compensation figures are available in the Bloomberg terminal from year 2006 to 2016 are considered. Out of the 926 firms considered in this study, ESG scores are available for only 78 firms from year 2010 onwards in the Bloomberg terminal, resulting in a total of 568 firm-year observations. However, executive compensation figures are only available for 30 firms out of these 78 firm, resulting in a total of 103 firm-year observations. Not all of the 30 firms disclosed compensation figures for all the years in the study hence the dataset is an unbalanced one. Due to this, only 103 firm-year observations are finally used in the multivariate analysis.

Model Specification and Measurement of Variables

The impact of ESG disclosure on executive compensation is analyzed via the following equation:

$$\text{EXCOMP}_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{MBV}_{it} + \beta_4 \text{GROWTH}_{it} + \beta_5 \text{LEV}_{it} + \beta_6 \text{INDEP_COMP}_{it} + \beta_7 \text{COMPSIZE}_{it} + e_{it} \quad (1)$$

where the dependent variable EXCOMP_{it} is the total executive compensation paid out by firm i in year t. ESG_{it} is the ESG disclosure scores in the Bloomberg terminal which measures the transparency of the firm related to social responsibility matters. The score ranges from 1 to 100 whereby a higher score indicates higher disclosure levels. Since the values range from 1 to 100, the natural logarithm of the ESG scores is calculated to achieve stationarity of the data.

Two types of control variables are used - control variables (SIZE, MBV, GROWTH and LEV) that represent different common firm characteristics and those that represent the characteristics of the compensation committee

in the firm (INDEP_COMP and COMPSIZE). $SIZE_{it}$ is measured by the natural logarithm of the total assets of firm i at time t . MBV_{it} is the ratio of firm i 's market capitalization to the book value of its total assets at time t . $GROWTH_{it}$ represents the growth of firm i at time t and is measured by the change in the sales level from year $t-1$ to year t . LEV_{it} represents the amount of debt in firm i at time t and is measured by the ratio of total debt to total equity. For the control variables that represent the characteristics of the compensation committee, $COMPSIZE_{it}$ is the size of the compensation committee of firm i at t and is measured as the natural logarithm of the total number of members in the compensation committee while $INDEP_COMP_{it}$ is the natural logarithm of the number of independent directors present on the compensation committee. The characteristics of the compensation committee are included in the analysis as executive compensation is discussed and decided by the compensation committee. The values for all the variables are obtained from the Bloomberg terminal and used as it is unless natural logarithms are needed to ensure stationarity of the data.

Analysis and Discussion of Findings

Descriptive Statistics

Table 1 provides an overview of the descriptive statistics (mean, standard deviation, minimum and maximum values) for each variable based on original figures, i.e. before applying natural logarithm.

Table 1
Descriptive Statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
EXCOMP	103	375517.1	807144.7	29381.51	7249939
ESG	568	21.54426	10.79714	8.68	57.85
SIZE	568	9.363639	1.65935	4.468319	13.50893
MBV	563	4.093339	10.10532	0.24	157.39
GROWTH	565	9.295982	24.88321	-86.26	262.6
LEV	567	115.7298	1255.409	0	28934.64
INDEP_COMP	440	2.442222	0.956746	0	6
COMPSIZE	450	3.465217	1.06073	0	10

Table 1 shows different number of observations for each variable with most variables having over 400 observations. However, there are only 103 firm-year observations for EXCOMP hence the regression analysis is carried out using this number of observations, as only firms with complete data for all the variables are considered in the analysis.

The descriptive statistics shows that the average EXCOMP is RM375,517.10 with the highest compensation being RM7,249,939 and the lowest being RM29,381.51, i.e. executive directors are paid on average around RM375,517.10. Trend analysis in Table 2 shows that on average, executive compensation (EXCOMP) has been on an increasing trend since year 2012 but the number of firms disclosing this information has not seen much of an increase (from 25 to 28).

In Table 1, the average ESG disclosure score for the firms is 21.54 which is quite low with the lowest being 8.68 and the highest score being 57.85. A look at the trend of the ESG scores in Table 2 shows that the number of firms disclosing ESG information has been increasing and the ESG scores themselves have also been increasing. This is a good sign as it shows that firms are willing to disclose more ESG information over time. Although not provided in this study, it is found that out of the three components, the governance score is the highest followed by the social score while the environmental score is the lowest. Malaysian firms are being governed by the Malaysian Code of Corporate Governance (MCCG) and high compliance level has been found among Malaysian public listed firms (Germain et al., 2014). Malaysian firms are also found to concentrate more on the philanthropic and public relations aspects of sustainability engagement (Lu & Castka, 2009) rather than on environmental engagement (Thompson & Zakaria, 2004). However, over the years, disclosure levels have increased for all these three components.

Table 2
Trend Analysis

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EXCOMP	-	-	-	-	62363.64	429221	285280.9	328872.9	324781.8	393668.4	565601.6
N	-	-	-	-	1	6	25	26	28	28	23
ESG	14.75	16.52	18.24	21.74	21.48	19.44	20.59	20.83	22.67	23.75	29.69
N	9	29	37	39	53	60	71	78	77	74	40

Referring back to Table 1, among the firm control variables, it is found that average asset SIZE of the firms (in natural logarithm) is 9.36 while the MBV is 4.09 although the minimum MBV is 0.24 and the maximum MBV is 157.39. An MBV value greater than 1 indicates that investors are willing to pay a market value greater than that of the book value of the assets, i.e. they are confident about the future of the firm. Average sales growth is 9.29% with there being firms having negative sales growth (-86.26%) and also those having very high sales growth of 262.6%. LEV, the debt equity

ratio, is found to be on average 115.73% which is quite high with the lowest value being 0% and highest being 28934.64%. Since there is a big difference between the minimum and maximum values of MBV, GROWTH and LEV and these values are all in the ratio or percentage form, the variables are winsorized at the 1% and the 99% levels to control for the effects of extreme values.

Among the compensation committee control variables, the average size of the compensation committee (COMPSIZE) is found to be 3.47 with the minimum being 0 and the maximum being 10. Most exchange rules do not specify the size of a compensation committee but surveys have shown that the typical compensation committee consists of about 3 to 5 members (Wood, 2004). For any committee, it is difficult to manage when the size is too big while too small committees may not have the necessary expertise to carry out their functions. Independence of the compensation committee from the management is essential for it to carry out its role in evaluating the management and deciding on the compensation to be paid to the executives. INDEP_COMP is found to be on average 2.44, meaning there are on average around 3 members on the compensation committee who are independent to the firm. The minimum value is 0 while the maximum value is 6, hence there are firms with no independent members in the compensation committee.

Correlation Analysis

Possible multicollinearity issues are first assessed via correlation analysis as this is necessary before regression analysis is conducted. Results of the correlation coefficients between each variable, their significance and the Variance Inflation Factor (VIF) for each variable are provided in Table 3.

Table 3
Correlations Analysis

	EXCOMP	ESG	SIZE	MBV	GROWTH	LEV	INDEP_ COMP	COMP- SIZE	VIF
EXCOMP	1								-
ESG	-0.1369	1							1.28
SIZE	0.488**	-0.0968**	1						1.65
MBV	0.097	0.2343**	-0.4315**	1					1.63
GROWTH	0.1964*	-0.0668**	0.0995	-0.0501	1				1.03
LEV	0.2318*	-0.0479**	0.2047**	0.2791**	0.032	1			1.29
INDEP_COMP	0.1564	0.3479**	0.1315**	-0.1054	-0.0649	-0.0275*	1		1.95
COMPSIZE	0.2063*	0.2654**	0.3459**	-0.0866	-0.1032	0.1062**	0.6563**	1	2.09

*, * indicate significance at 1% and 5% level, respectively.

All correlation coefficients between the independent variables are found to be less than 0.8 as per requirement (Gujarati & Porter, 2009) with the highest being between INDEP_COMP and COMPSIZE (0.6563). Additionally, the VIF value for each variable is below 4 with the highest being 2.09 for COMPSIZE. For the dependent variable (EXCOMP), SIZE, GROWTH, LEV and COMPSIZE have highly significant positive correlations with EXCOMP. However, ESG has an insignificant negative correlation with EXCOMP.

Regression Analysis

Ordinary Least Squares (OLS) regression analysis is carried out next to analyze the effect of ESG on EXCOMP. Tests for autocorrelation and heteroscedasticity show that these two problems exist hence the estimates are calculated using Rogers' (1993) standard errors adjusted for firm level clustering. Results of the OLS regression analysis are provided in Table 4.

Table 4
OLS Regression results for EXCOMP

	<i>Coef.</i>	<i>Std. Err.</i>	<i>t</i>	<i>P>t</i>
Independent Variable: EXCOMP				
ESG	-0.528*	0.195	-2.710	0.011
SIZE	0.380**	0.086	4.420	0.000
MBV	0.070**	0.018	3.930	0.000
GROWTH	0.008	0.007	1.090	0.286
LEV	0.000	0.001	-0.300	0.766
INDEP_COMP	0.588*	0.285	2.070	0.048
COMPSIZE	-0.227	0.439	-0.520	0.609
C	12.081**	1.099	10.990	0.000
N			103	
R-squared			44.56%	

**, * represent significance at the 1% and 5% levels, respectively

Results in Table 4 show that ESG has a negative relationship with EXCOMP, implying that increased disclosure of ESG results in lower EXCOMP. The effect of ESG is significant at the 5% level. Among the control variables for firm characteristics, SIZE and MBV are highly significant in influencing EXCOMP at the 1% level. Both variables have a positive effect on EXCOMP. Therefore, the bigger the firm, the higher the compensation paid to the executives. Similarly, when investors have confidence about the firm's future (as is indicated by the MBV ratio), the executives are paid

higher compensation. GROWTH and LEV have no significant influence on EXCOMP. With respect to the control variables representing characteristics of the compensation committee, COMPSIZE has no significant influence on EXCOMP while INDEP_COMP is significant at the 5% level. COMPSIZE has a negative effect on EXCOMP but INDEP_COMP has a positive effect. The positive effect of INDEP_COMP on EXCOMP implies that executives get higher compensation in firms with greater independence in the compensation committee.

Robustness Test

The robustness of the results is confirmed by first using an alternative statistical technique that fits panel data linear models using cross-sectional time-series feasible generalized least squares (FGLS). The xtgls command in Stata allows estimation in the presence of AR(1) autocorrelation within panels and cross-sectional correlation and heteroscedasticity across panels. Results of the analysis confirm the significance of ESG on EXCOMP (although the significance of the relationship is greater at 1% level) and the negative relationship between the two. The results of the FGLS analysis are presented in Table 5.

Table 5
Estimation using cross-sectional time-series FGLS

	Coef.	Std. Err.	z	P>t
Independent Variable: EXCOMP				
ESG	-0.403**	0.085	-4.73	0.000
SIZE	0.352**	0.025	14.19	0.000
MBV	0.057**	0.008	6.72	0.000
GROWTH	0.005*	0.002	2.33	0.020
LEV	-0.0006	0.0006	-0.98	0.328
INDEP_COMP	0.375*	0.163	2.29	0.022
COMPSIZE	0.014	0.253	0.05	0.956
C	11.889**	0.253	47.06	0.000
N			103	
No of groups			30	
Wald chi2(7)			381.49	

**, * represent significance at the 1% and 5% levels, respectively

A second robustness test is by using an alternative measure for executive compensation. Here, CEOCOMP is used instead and is measured by the natural logarithm of the compensation received by the Chief Executive

Officer (CEO). The results of the regression analysis with CEOCOMP as the dependent variable is presented in Table 6.

Table 6
OLS Regression results for CEOCOMP

	<i>Coef.</i>	<i>Std. Err.</i>	<i>t</i>	<i>P>t</i>
Independent Variable: CEOCOMP				
ESG	-0.724**	0.207	-3.500	0.002
SIZE	0.207	0.163	1.270	0.217
MBV	0.015	0.092	0.160	0.873
GROWTH	0.000	0.004	0.080	0.938
LEV	0.002	0.004	0.550	0.588
INDEP_COMP	0.765*	0.381	2.010	0.058
COMPSIZE	-0.371	0.668	-0.560	0.585
C	14.800**	2.018	7.330	0.000
N			103	
R-squared			40.84%	

**, * represent significance at the 1% and 5% levels, respectively

Consistent with the relationship found in Table 4, ESG is again found to have a significant negative relationship with CEOCOMP but this relationship is highly significant at the 1% level. Hence the robustness of the relationship between ESG and executive compensation is confirmed.

Discussion of findings

The results in Tables 4, 5 and 6 show that ESG disclosure score has a highly significant negative impact on executive compensation. Although most studies argue for, and find, positive impacts of ESG disclosure on executive compensation, this study seems to indicate that the prediction of the stakeholder theory holds, i.e. socially responsible managers are willing to take relatively lower pay in order to mitigate potential conflict of interest between the management team and the stakeholders (Cai et al., 2011). Thus, executives get lower compensation in a firm that is perceived to be more socially responsible (Riahi-Belkaoui, 1992). This is confirmed by the highly significant positive impact of the independence of the compensation committee on executive compensation. Since board/committee independence is perceived to be a sign of good governance, the positive relationship means that a well-governed firm pays its executives higher compensation in order to resolve the conflict between the management and the stakeholders. It can therefore be concluded that in a well-governed firm, management and board of directors make significant efforts in mitigating

and resolving potential conflicts of interest between management and stakeholders whereby management is willing to be paid lower to signal their credibility and commitment to social responsibility and boards are willing to pay management higher for carrying out their duties well. However, the negative relationship between executive compensation and ESG disclosure may also be viewed from the point of view of the agency theory whereby increased disclosure means increased commitment cost hence reduced executive compensation.

Conclusion

This study explores the impact of ESG disclosure on executive compensation. Data from 30 firms listed on the Bursa Malaysia over a period of 11 years from year 2006 to 2016 are used for this purpose. In total, 103 firm-year observations are used in this study. Analysis is conducted using descriptive statistics, trend analysis, correlation analysis and OLS regression analysis. A highly significant negative relationship is found between ESG disclosure scores and executive compensation. This suggests that increased transparency of ESG matters results in lower compensation to executives. It can also be concluded that firms which are willing to disclose more information to the stakeholders (in this case regarding ESG activities) have to face additional costs called commitment costs which result in lower executive compensation. It is also possible however that the executives are willing to be paid lower in order to mitigate potential conflicts of interest between management and the stakeholders. This study is one of the few studies conducted on how transparency of ESG activities (measured via ESG disclosure scores) can impact executive compensation, especially in emerging economies where family firms are prevalent.

This study has important implications for investors and regulators, especially in Malaysia. The significant impact of the transparency of ESG activities on executive compensation implies the importance of disclosure as a possible signaling mechanism used by management in signaling their credibility and commitment to the society. Disclosure of ESG activities therefore plays an important role in ensuring good governance and therefore mandatory disclosure is needed for stakeholder protection. However, the costs of carrying out ESG activities and its disclosure need also be taken into consideration.

The main limitation of this study is the sample size which is only 30 firms and a total of 103 firm-year observations. 30 firms out of a total of 926 is a very low percentage but this limitation could not be overcome due to the low levels of ESG disclosure among Malaysian firms and also due to the lack

of data available in the Bloomberg database. However, since the reporting of these information is increasing over time and databases are now also including these information, future studies can make use of larger sample sizes in order to further verify the results and to conduct more rigorous analysis. Another limitation of this study is that it only focuses on Malaysia, which is an emerging economy. Future studies could investigate this at a regional level, instead of just the country level, to further confirm the validity of the findings. Additionally, future studies in Malaysia may consider the role family ownership could play in the relationship between ESG disclosure and executive compensation as the majority of Malaysian firms are family owned and family members are usually selected as executives in family firms. Finally, this study uses OLS regression analysis, which has its limitations. Since studies on governance related issues have highlighted the possibility of endogeneity, future studies should consider other statistical analyses that take into account all the possible statistical issues in the data and model.

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