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Investigating the Link Between Executive Compensation Incentives and a Firm's ESG Performance

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Abstract: Utilising data on American firms from 2013 to 2023, this study explores how various executive compensation incentives, ranging from monetary to equity-based incentives, impact the firm's ESG (environmental, social and governance) performance. The study also explores whether financial and equity-based motivations advance sustainable development. By conducting an empirical analysis of publicly listed corporations, this study fills the gap in the literature. Moreover, it offers insights into the way executive compensation is structured to more closely align with ESG performance, which helps in promoting sustainable development.

Keywords: Executive Compensation Incentives, ESG Performance, Sustainable Development, Monetary and Equity-Based Incentives

1. Introduction

Sustainability, social responsibility and good governance, commonly called ESG (environmental, social and governance), have increasingly come to the forefront of business in recent years. This paradigm shift in conversation highlights the increasing recognition of the necessity for corporate strategies and practices to hold meaningful societal goals encompassing environmental sustainability, social equity and moral governance accountable alongside their own shareholders. ESG metrics have now become one of the most important indicators of the deep potential sustainability of a firm and its ability to survive long-term as well as manage financial and non-financial risks. As this trend continues to evolve, one question that looms large in the corporate governance literature is how internal corporate mechanisms, in particular executive compensation, affect a firm's ESG performance.

Executive compensation has long been specifically structured with the intent of aligning executives' interests with those of shareholders, making executives beholden to financial rewards tied to profitability, share performance and short-term financial outcomes. While this model has undoubtedly contributed significantly to enhancing financial performance, it has also drawn criticism for promoting risk-taking behaviours that might conflict with sustainability goals over the long run.

ESG has increasingly become a focus for many publicly listed firms, in an effort to create a strong corporate identity that embodies a sustainable balance between profit and principles. This research investigates the contradictory connection between executive compensation incentives and a firm's ESG performance, where monetary and equity-based incentives will have divergent effects on ESG performance.

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1.1. Importance of ESG in Business Strategy

ESG has been a growing consideration of business strategy, particularly since investors, employees, consumers and regulators alike, demand more corporate responsibility. Moreover, ESG performance is becoming increasingly competitive in the market. ESG is one of the best indicators of corporate success, beyond just financial performance, as the significance in the driving of risk management on environmental sustainability, social equity and governance standards means that firms with strong ESG performance are regarded as more resilient, more capable of long-term thinking and are in greater harmony with the interests of stakeholders.

However, strong ESG performance is not without its challenges. For example, funding ESG efforts generally requires a greater long-term investment of capital and resources than traditional corporations, where ESG efforts would conflict with financial returns that emphasise short-term financial objectives. Hence, the key challenge for firms is to strike the right balance between these conflicting priorities by delivering financial performance that justifies investment while also delivering against sustainability objectives. This is where the (executive) compensation plays a crucial role, as it can be an intimidating tool for controlling C-Suite behaviour regarding financial and ESG performance.

1.2. The Role of Executive Compensation

Executive compensation is the compensation that an organisation provides to its executive, including base pay, bonuses, share options and other inducements. Traditionally, compensation packages encourage executives to increase firm profitability and share value, aligning their interests with those of shareholders. However, recent studies have found that more firms are linking executive compensation to non-financial metrics, including ESG performance, acknowledging a shift to a more sustainable business model [1].

There are two types of incentives in executive compensation: monetary-based incentives, like annual bonuses and salary raises, and equity-based incentives, such as options and restricted share units (RSUs). Both types of incentive benefits are used to motivate executives to boost firm performance, however, these incentives can have diverging consequences for ESG performance. Monetary incentives are usually instant, reflecting short-term performance. On the other hand, equity-based incentives tie executive pay to the firm's long-term financial success. The real question is whether these legacy incentive models work for promoting ESG performance or whether they should be rebuilt to advance long-term sustainability goals.

1.3. Literature Insights: Stakeholder Theory and ESG

Informed by stakeholder theory, where it is posited that firms need to fulfil the needs and the interests of all stakeholders - not just shareholders - stakeholder engagement increasingly more typically correlates with higher ESG performance as firms are forced to assess their wider effects on society. Furthermore, binding executive compensation to stakeholder-based targets can support sustainable business practices that ultimately deliver both economic and non-financial performance. At the same time, recent research has suggested the need for responsible leadership around what drives ESG performance, or rather, what leaders are compensated for. Executives have to be incentivised and rewarded for ensuring long-term sustainability because this can guarantee a higher ESG performance [2].

Moreover, early empirical studies have started to investigate the crossroads of executive compensation and ESG scores [3]. For example, Chen et al. found that monetary incentives based on ESG performance had a strong effect on ESG performance, especially in sectors with significant environmental or social risks [2]. Similarly, studies have shown that firms with strong ESG performance tend to show better quality of earnings and long-term profitability [4]. This raises questions concerning which types of incentives work best in enhancing ESG performance, especially when striving for short-term profit with long-term sustainability goals.

1.4. Significance of the Study

This study makes an important contribution to the growing body of literature on ESG and corporate governance by examining the underexplored relationship between executive compensation and ESG performance. Though there is considerable research on the economic consequences of different compensation structures [5], much less attention has been paid to their impact on other performance indicators including non-financials and ESG. Filling this gap, the study gives vital perspectives on structuring executive compensation to induce long-term sustainability.

In addition, the results of this study are of high practical importance to policymakers and corporate executives. For firms, balancing the relationship between executive compensation and ESG performance can help create more effective incentive packages that encourage sustainable business practices. However, the study is not meant to guide the way for policymakers but to provide them with insights that could help frame regulations and encourage firms to embed ESG metrics into their executive compensation frameworks.

In summary, the purpose of this study is to bridge executive compensation and ESG performance and discuss ways of aligning performance with sustainability through incentive objectives. Through empirical analysis, the study offers novel insights into the efficacy of multiple carbon pools, which brings about certain compensation mechanisms and learning towards sustainable development.

1.5. Contribution

This study helps to explain how firms perform on environmental, social and governance (ESG) practices - ESG performance - through the lens of executive compensation structures. Moreover, this research connects the dots from theory to practice and from executive incentives to long-term sustainable business outcomes via an increasingly cohesive framework.

The study is theoretically grounded in stakeholder theory, which asserts that a firm must meet the needs of all stakeholders, not just shareholders, in corporate decisions. This study builds on this theory by providing evidence that linking executive compensation with stakeholder value in firms leads to improved sustainability performance. In particular, it resolves the monetary-based versus equity-based divide and shows how these divergent compensation mechanisms have different roles to play in influencing managerial objectives and corresponding behaviour. Immediate effects of monetary incentives translate, in fact, into a greater impact on ESG performance than equity-based incentives that are consistent with long-term goals. This distinction adds richness to the understanding of how the incentive structures in any given firm drive specific sustainability behaviours, which contributes to the discourse around corporate governance and ESG integration in firms more generally.

From a practical perspective, the study provides insight for decision-makers within the corporate managers (boards of directors, policymakers and investors). The results underline the need for boards and compensation committees to carefully structure executive compensation with a clear balance between financial and ESG objectives. This will help firms create incentive structures that incentivise the executive to prioritise sustainability-focused goals, promoting improved and more conscientious corporate behaviour. This should provide policymakers and regulators with strong evidence to link executive compensation to ESG metrics.

Policymakers should promote regulations and guidelines that require firms to tie executive rewards performance to sustainability objectives, which is also likely to expand the adoption of ESG-based incentive structures more generally. At the same time, it highlights how crucial a firm’s compensation

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practices are when assessing the ESG commitment for investors and other stakeholders. With this information in hand, stakeholders can compare executive compensation with a firm's professed sustainability intentions to make more informed decisions.

Third, methodologically, this study sets a new gold standard - using an appropriate multiple linear regression model with an extensive array of control variables to unpack the complex and interrelated relationships between executive incentives and ESG performance. The model includes variables such as firm size and profitability to guarantee that the relationships observed are robust and interpretable. The methodological approach of testing the relationship between uncertainty and culture with a series of transformations provides a reliable reference for future research and a valid framework to study different contexts or fields.

Overall, this study highlights the importance of a firm and corporate sustainability system for compensation systems. This underscores the need to link executive compensation to sustainable outcomes because it shows that both monetary and equity-based incentives drive improved ESG performance. Moreover, it recommends that big firms, because of their natural benefits in terms of resources and stakeholder influence, should take the lead when it comes to integrating ESG factors into their strategies.

Finally, this study contributes theoretically, practically and methodologically to the literature on corporate governance and sustainability. It underlines the necessity of designing executives' compensation schemes that are in line with ESG aims and sets a basis for future research on the complex link between executive incentives and sustainable business.

2. Literature Review

2.1. Stakeholder Theory

Stakeholder theory is a concept used to analyse organisations and their ethical duties: it argues that firms have to consider the interests of all stakeholders, not only shareholders. Formulated by Freeman, the theory essentially opposed the shareholder-centric approach with an inclusive one representing and equally consulting with the various interests of employees, customers, suppliers and the community [6]. This holistic approach provided the foundation for long-term sustainability and ethical governance.

Bridoux and Stoelhorst built upon stakeholder theory to examine the micro-foundations of stakeholder management which they called a 'fine-grained understanding' of the motives and behaviours of stakeholders [7]. Stakeholders are not a homogeneous set of people but rather a slice of humans covering the motivations of fairness and reciprocity to self-interest and bargaining power. The complexity described above requires organisations to adopt strategies that are appropriate to satisfy the needs and expectations of the various stakeholder groups.

The identification of these motivations and the strategic alignment of organisational objectives with that of the stakeholder goals is known as effective stakeholder management [7]. By achieving this, firms can gain trust, collaboration and long-lasting relationships that will allow them to perpetually create a sustainable competitive advantage. It goes beyond performance to include integrity and societal impact in a responsible manner while allowing an organisation to add value for the stakeholders. In conclusion, stakeholder theory offers a comprehensive approach towards responsible decision-making and effective strategic management in the contemporary multifaceted business landscape.

2.2. ESG Performance

The exploration of the relationship between environmental, social and governance (ESG) performance and financial outcomes has garnered significant attention in recent years.

Investor Preferences, Risk and Return: Cornell revealed the effect of investor preferences relating to ESG-related investments and how these preferences impact expected returns [4]. This work noted that, while investor demand for firms with high-rated ESG improves the relative cost of capital, it also reduces expected returns for investors. The paradox is that investors will willingly sacrifice returns as part of the supposed social returns on investments in ESG-friendly firms. Cornell's work also discusses the ambiguity in ESG ratings, pointing to the proliferation of different ESG rating systems, which makes the analysis of ESG as a risk factor more complex. Despite these challenges, the study highlighted the social benefits of ESG investing, such as promoting greener firms through lower discount rates, even though this comes at the cost of lower financial returns for investors.

ESG Performance and Earnings Quality: Prior research has explored the link between ESG performance and earnings quality, suggesting that firms with high ESG ratings tend to exhibit higher earnings quality [8]. The relationship between ESG performance and earnings quality is attributed to the long-term focus of ESG-oriented firms, which often prioritise sustainable growth over short-term profits. The study by Tohang et al. found that the consistency of ESG performance is positively associated with the quality of the earnings. At the same time, firms with more sound ESG practices are unlikely to manipulate their earnings by questionable acts that may weaken the integrity of their financial statements. Such reasoning implies that investors might view ESG performance as one signal of firms' stability and reliability over financial performance.

The Role of ESG in Risk Management: Existing studies have examined ESG factors as potential risk mitigators, particularly in the context of financial market volatility and regulatory changes [9]. These studies argue that firms with strong ESG performance are better positioned to navigate economic shocks and regulatory shifts, as they tend to have more resilient business models and stronger stakeholder relationships. In particular, a study by Hübel and Scholz emphasised a number of advantages to incorporating the ESG criteria into risk management system frameworks, highlighting that an organisation with a high level of ESG ranking enjoys potentially lower capital cost and lower financial risks [9].

The existing research collectively underscores the complex and multifaceted relationship between ESG performance and financial outcomes [10]. While ESG investing has social benefits and contributes to long-term financial stability, it generally comes at a cost in terms of lower expected returns. However, the potential for ESG factors to improve earnings quality and reduce risks indicates that such investments can also contribute to resilience and durability in business models. The study recommends exploring the dynamic interactions between ESG performance, investor preferences and economic policy uncertainty to provide deeper insights into the role of ESG in modern finance.

2.3. Executive Compensation and Incentives

The study of executive compensation, particularly in the context of its alignment with organisational performance and ethical considerations, has garnered substantial scholarly attention. The following literature review synthesises findings from five key studies, focusing on the relationship between incentive structures, executive behaviour and organisational outcomes.

Incentive Structures in Executive Compensation: Kolb comprehensively analysed the incentive structures embedded within executive compensation packages [11]. This study highlighted the prominence of equity-related compensation, particularly restricted share and executive share options (ESOs), as the primary vehicle for aligning executive incentives with long-term value creation. However, Kolb also pointed out the unintended consequences of these incentives, such as encouraging excessive risk-taking or even unethical behaviour in pursuit of personal gain [12]. The shift from ESOs to restricted shares is noted as a significant trend, with implications for both corporate governance and the overall effectiveness of incentive compensation.

Ethical Concerns in Executive Compensation: Research has also explored the ethical dimensions of executive compensation, particularly the potential for misalignment between executive rewards and organisational performance. Some studies have discussed the growing public and regulatory scrutiny of executive compensation, especially in light of high-profile financial scandals. The Dodd-Frank Act is highlighted as a significant regulatory response aiming to increase transparency and accountability in executive compensation practices. This regulatory framework includes say-on-pay votes, independent compensation committees and clawback mechanisms, among other measures aimed at containing excessive and unethical compensations.

Impact on Organisational Performance: Another key theme in the literature is the impact of executive compensation on organisational performance. The studies underscore that while carefully designed incentive compensation is likely to motivate performance and enjoys a positive link to executives' behaviour in line with the interests of the shareholders, poorly designed incentives may result in value-destroying behaviour. For instance, high rewards based on risk may lead to taking risks that bear negative consequences for both the organisation and its stakeholders. Therefore, incentives are important, and their balancing has to be carefully done to ensure that they elicit sustainable growth and long-term results as opposed to growth at the risk of the very future of an organisation.

Corporate Governance and Compensation: The literature also underscores the critical role of corporate governance in shaping executive compensation practices. Indeed, strong governance structures - through the operation of independent boards and active shareholder participation - are basic to any assurances that executive compensation reflects performance and is conducted within an ethical framework. Other studies have shown that better governance structures can reduce some of the risks in incentive compensation, enabling executives' actions to better align with the organisation's goals and objectives.

2.4. Empirical Studies on ESG and Compensation

Scholars and practitioners have discussed at length the embedding of ESG criteria into the structure of executive compensation and related changes in corporate behaviour. This literature review combines some insights from four key studies concerning the relationship between executive incentives, ESG performance and corporate governance.

Executive Compensation and ESG Performance: For instance, one major area of interest is how ESG-linked executive compensation can drive corporate action. A study by Jang et al. studied the impact of executives' opportunistic tendencies, including share pledging, on ESG performance [13]. This study found that share pledging tends to lead to a poor vision of economic policy and politics where executives' incentives are more closely aligned with those of short-term reporters, impacting performance on ESG, particularly on environmental and social attributes. This suggests the importance of aligning executive incentives toward long-term goals in sustainability instead of tying such incentives to short-term financial measures.

The Role of ESG in Executive Compensation: Another important addition to the literature is the examination of how ESG elements in executive compensation. Scheduler structures can be a lever for improving corporate governance and sustainability outcome. Cohen et al. presented international evidence that when executive compensation is linked to ESG metrics, there is an improvement in ESG outcomes for firms across industries and countries [5]. This study highlighted the promise of ESG-linked compensation in motivating top management to pursue sustainability, resulting in a more sustainable approach to corporate behaviours.

Challenges and Opportunities in ESG-Linked Incentives: Nevertheless, attempting to integrate ESG metrics into executive compensation poses difficulties. Challenges noted in the literature include the difficulty of setting appropriate target ESG levels, as well as the risk of 'greenwashing' - the phenomenon where firms simply claim that they care about ESG goals but lack real integration

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into their business strategies. In response to this, Skladany suggested the creation of 'parity pills,' an executive incentive system designed to allocate the executive wage differently during downturns to help employees, do the ethical thing and lead through good or bad times [14]. This approach seeks to address the short-term mindset often embedded in traditional reimbursement models and incentivise sustainable, long-term approaches to patient care.

Impact of ESG-Driven Incentives on Corporate Governance: Executive compensation tied to ESG criteria is viewed as a way to improve corporate governance in addition to being a public relations move. It would reduce earnings manipulation and other nefarious practices by linking compensation to ESG performance; this is because leaders are more likely to listen to ongoing issues than returns on investments. By shifting focus and action, governance frameworks can be fortified and corporate strategies can be aligned with broader societal goals.

2.5. Hypothesis Development

Based on the literature review, the following hypotheses are proposed:

H1: There is a positive relationship between executive compensation incentives and ESG performance.

H2: Monetary-based compensation incentives have a stronger impact on ESG performance compared to equity-based compensation incentives.

3. Research Questions

3.1. Context and Relevance

The following subsection poses the central questions informing this study in the wake of the increasingly important ESG performance in the current business and regulatory environment. It is through top corporate executives that a firm should ideally be able to ensure sustainability in practice. However, designing incentive structures requires care if these decision-makers' goals are aligned with the short-run goals of a firm's operations and its long-term sustainability goals.

3.2. Detailed Questions

Primary Question:

- How are executive compensation incentives related to a firm's ESG performance?

This question seeks to uncover whether executive compensation practices directly or indirectly influence ESG outcomes and whether current structures promote alignment with sustainability goals.

Secondary Question:

- Do monetary-based compensation incentives have a more significant association with ESG performance compared to equity-based incentives?

This explores the comparative effectiveness of different incentive types in driving ESG performance, addressing whether immediate rewards or long-term benefits better motivate sustainable corporate behaviours.

- Broader Implications

These questions try to fill the gaps in the literature by:

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Looking at whether compensation structures can serve as levers to realise dual goals of financial and non-financial performance.

Exploring the wider implications for corporate governance, stakeholder management and policy formulation.

- Scope and Specificity

Focused and clear, the study limits itself to firms in the U.S. market and utilises ESG and compensation data from 2013 to 2023. This context sets the findings well within a clear regulatory and cultural environment to a high level of relevance for both academics and practitioners.

4. Methodology

4.1. Research Design

This study adopts a quantitative research design to examine the intricate relationship between executive compensation incentives and corporate ESG (environmental, social and governance) performance. Given the growing significance of ESG metrics in both corporate governance and investment decisions, this study aims to contribute to the existing literature by providing empirical evidence on how different compensation incentives can influence a firm's commitment to sustainable practices. Utilising secondary data from American publicly listed firms, the study concentrates on identifying patterns and correlations that can shed light on the effectiveness of executive compensation as a tool for enhancing ESG performance.

4.2. Multiple regression model

$$ESG\_Score=\beta0+\beta1*Monetary\text{-}Incentive+\beta2*Equity\text{-}Incentive+\beta3*Firm\ Size\beta5*ROA+\epsilon$$

The terms represent:

ESG_Score: the dependent variable representing the ESG performance of the firm.

β0: the intercept, which represents the baseline ESG score when all other variables are zero.

β1, β2, β3: coefficients for each predictor variable (e.g., β1 measures the impact of monetary incentive on ESG_Score).

4.3. Sample Selection and Criteria

Sample selection is one of the central elements of this study. The sample covers various industries to ensure the findings can be generalised. Such diversity is important because it enables the study to control for firm-specific factors that might affect executive compensation and ESG outcomes differently across industries. The sample is drawn from firms in the U.S. that have publicly available executive compensation data between 2013 and 2023. To maximise the reliability, this study preferentially selects firms listed for trading on major exchanges and within prominent ESG indices. This method enables a granular view of the relationship between compensation incentives and ESG performance across industries, particularly those that are highly regulated where environmental and governance factors are as much of a necessity as a duty to perform well.

4.4. Data Collection

The data was collected from Factset for ESG scores and executive compensation, as well as other financial databases, including but not limited to Bloomberg, Refinitiv and Wind. These sources are among the most accurate and comprehensive databases available, offering detailed ESG ratings,

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compensation and financial performance variables. In the Factset database, for example, there is an ESG rating as well.

4.5. Variables and Measurement

- **Dependent Variable**: ESG performance

  ESG scores

- **Independent Variables**: Executive compensation incentives

  Monetary-based incentives: total annual salary and bonuses paid
  Equity-based incentives: the value of share options or shares granted to executives, converted to an equivalent monetary value based on the share price at the time of issuance.

- **Control Variables**:

  Firm Size: total assets or market capitalisation,
  Return on Assets (ROA): measured as net income divided by total assets, providing an indicator of profitability.
  Age: the average age of the firm's executive
  Return on equity (ROE): calculated by dividing net income by shareholders' equity.
  Leverage: calculated by dividing a firm's total debt by its total capital, which is total debt plus total shareholders' equity

4.6. Data Analysis

Multiple regression analysis is the main approach for data analysis in this study. This method is used to analyse the relationship between executive compensation incentives and ESG performance while controlling for selected other possible influences, including firm size, debt ratio, return on assets (ROA) and intensity of research and development (R&D).

The study leverages a multiple regression model, where the dependent variable is ESG scores, to investigate the relationship between the ESG performance of the firms and different types of executive compensation (monetary-based vs. equity-based incentives). Control variables in the regression control for the influence of such factors on ESG results and allow for a cleaner interpretation of the impacts of executive compensation.

5. Results

Linear regression, as a foundational method in statistical regression analysis, is widely used to establish a quantitative relationship between dependent and independent variables. Its primary basis is the least squares method, which minimises the squared sum of residuals (the differences between observed and predicted values). This process ensures that the model provides the best possible fit for the data.

In this study, Stata was utilised for regression analysis, with ESG (environmental, social and governance score) as the dependent variable and equity incentives and monetary incentives as the core independent variables. Five control variables - return on assets (ROA), return on equity (ROE), age, leverage and firm size (log-transformed) - were included to account for their potential influence. The multiple linear regression model is constructed as follows:

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5.1. Descriptive Statistics

Table 1: Describes the statistical analysis.

Variable	Obs	Mean	Std. dev.	Min	Max
ESG	5033	25.290	7.532	10.744	40.600
Equity-based incentives	5033	0.293	0.356	0.000	0.953
Monetary-based incentives	5033	15.095	0.800	13.617	16.635
Total compensation	5033	4.856	4.061	0.756	16.4
Size	5033	22.475	1.286	20.358	25.049
ROA	5033	6.046	5.889	-4.549	19.698
ROE	5033	11.002	9.533	-6.860	32.360
Age	5033	48.626	3.088	42.800	54.000
Leverage	5033	2.029	0.906	1.110	4.458

The results of descriptive statistical analysis show that the total sample size is 5033, covering the data of 618 listed firms from 2013 to 2023. Among these, the descriptive statistical indicators of each variable are in the normal range, which indicates that the effect of data interpolation and tail reduction processing is reasonable and can be used for follow-up analysis.

5.2. Analysis of Multiple Linear Regression Model

As the basic method of statistical regression analysis, linear regression is often used to establish the linear relationship between dependent variables and independent variables. The basis of its analysis is the least square method. By minimising the residual sum of squares between the model fitting value and the actual value, the best fitting effect can be achieved. Based on this, this study adopts the Stata for regression analysis and builds the following two models, respectively.

Model 1: ESG is selected as the dependent variable, total compensation as the core independent variable and return on assets (ROA), firm size, executive age (age), leverage, and return on equity (ROE) as the control variables to build a multiple linear regression model.

Model 2: ESG is selected as the dependent variable, while equity-based incentive and monetary-based incentive are the core independent variables, return on assets (ROA), firm size (size), executive age (age), leverage and return on equity (ROE) are used as control variables to construct a multiple linear regression model.

Before the analysis, the correlation analysis between the core explanatory variable and the dependent variable is first carried out. The analysis results are shown in Table 2.

Table 2: Correlation analysis.

	ESG	Equity-based incentive	Monetary-based incentive	Total compensation
ESG	1	0.112*	0.347*	0.333*
Equity-based incentive	0.112*	1	0.268*	0.249*
Monetary-based incentive	0.347*	0.268*	1	0.911*
Total compensation	0.333*	0.249*	0.911*	1

Correlation analysis results show that ESG is significantly and positively correlated with total compensation and equity-based and monetary-based compensation incentives. The correlation coefficients of all are small but they still have a significant correlation.

Table 3: Multiple linear regression (Model 1).

	Beta.	SE	t-value	P-value
Total compensation	0.307	0.024	13.000	0.000
Size	1.937	0.090	21.650	0.000
ROA	-0.124	0.024	-5.150	0.000
ROE	0.065	0.014	4.700	0.000
Age	0.279	0.030	9.470	0.000
Leverage	-1.426	0.116	-12.310	0.000
_cons	-30.405	1.930	-15.760	0.000
F-test	295.4 (0.000***)			

After fitting the model, it is necessary to conduct the equation significance F-test and regression coefficient significance t-test. Table 3 shows that the F-value of the regression equation is relatively large, at 295.4 and its P-value is less than 0.01. The null hypothesis is rejected. The equation is considered significant and subsequent analysis can be carried out.

Regarding the T-test of the regression coefficient, the T-values of core explanatory variables equity-based and monetary-based incentive and P-values are both < 0.01 essential to demonstrate that regression coefficients are significant. Equity-based and monetary-based incentives positively and significantly influence ESG. Furthermore, when it comes to control variables, all the variables have a significant impact on ESG; while the firm size, return on equity and age of the executive positively impact ESG, leverage and return on asset negatively impact ESG.

Further analysis of the variable coefficients shows that when other conditions remain unchanged, ESG scores increase by 0.307 units on average for every one-unit increase in total compensation.

Table 4: Multiple linear regression (Model 2).

	Beta.	SE	t-value	P-value
Equity-based incentive	1.491	0.256	5.83	0.000
Monetary-based incentive	1.741	0.122	14.27	0.000
Size	1.957	0.090	21.64	0.000
ROA	-0.137	0.024	-5.7	0.000
ROE	0.064	0.014	4.61	0.000

Table 4: (continued).

Age	0.299	0.030	9.95	0.000
Leverage	-1.327	0.116	-11.42	0.000
_cons	-57.114	2.070	-27.58	0.000
F check	262.0 (0.000***)			

Table 4 shows the multiple linear regression results of Model 2. The F-test results of model 2 show that the F-value of the F-test of this regression equation is large, at 262.0 and its P value is less than 0.01. The null hypothesis is rejected. The equation is considered significant and subsequent analysis can be carried out.

Regarding the T-test of the regression coefficient, the T-values of the core explanatory variables equity-based and monetary-based incentive are 5.83 and 14.27, respectively; their P-values are both less than 0.01, which can prove that the regression coefficient is significant. Equity-based and monetary-based incentives have a positive and significant impact on ESG. In addition, among the control variables, all variables have a significant impact on ESG, with firm size, return on equity and executive age having a positive impact and leverage and return on assets having a negative impact.

Further analysis of the variable coefficients shows that when other conditions remain unchanged, ESG scores increase by 1.741 units on average for every one-unit increase in monetary-based compensation incentive. Similarly, for every unit increase in equity-based incentives, ESG scores increase by an average of 1.491 units. The reason behind this may be that monetary-based incentives, as a real benefit that can be directly obtained by employees, are more stimulating motivation for employees.

The final section is the multicollinearity analysis of the model. As one of the basic assumptions of the regression model, multicollinearity has an important impact on the final test and prediction effect of the model. The test of multicollinearity mainly relies on the correlation coefficient matrix and variance inflation factor. Table 5 shows that the above phase relationship and the correlation analysis of other variables show that the correlation coefficients among the independent variables of the model are all small. The initial judgment does not have multicollinearity. However, the variance inflation factor is used to judge the results as follows.

Table 5: Summary of variance inflation factors.

Variable	VIF (Model 1)	Variable	VIF (Model 2)
Size	2.00	size	2.06
Total compensation	1.39	monetary-based incentive	1.45
ROA	3.03	ROA	3.04
ROE	2.66	ROE	2.65
Age	1.25	age	1.30
Leverage	1.67	equity-based incentive	1.26
-	-	leverage	1.68

The results of the variance inflation factor show that the VIF values of each variable of the two models are less than 10. The equation is not multicollinearity. The results are reasonable and valid, in line with the basic assumptions of the multiple linear regression model.

6. Conclusion

In order to analyse the interaction between executive compensation incentives and ESG performance, this study uses the multiple linear regression model. The analysis also informs the impacts of different types of incentives - both financial and non-financial - on corporate sustainability performance. The study adds a level of depth to ESG performance by using both equity-based and monetary-based incentives as explanatory variables, as well as controls such as firm size and profitability.

The study even finds that both equity and monetary-based incentives lead to enhanced ESG performance. Intrinsic motivators take a more indirect and weaker route, while extrinsic motivators, based on money, are much stronger and more direct. The findings suggest that, compared to long-term incentives, cash bonuses create a far greater alignment of executive interests with those of ESG goal attainment. While monetary-based incentives provide short-term results leading to immediate actions in alignment with ESG goals, equity-based incentives tied to long-term firm performance have a lagged and indirect influence. When outcomes need to be short-term, such a scenario is especially damaging, forcefully demonstrating why adaptation is essential to incentive structures that support these sustainability priorities.

Another key finding reveals that firm size plays an important role in ESG performance, as larger firms are well-positioned to pursue sustainability goals. Bigger firms almost always have more money and staff to spend on ESG projects like deploying cleaner tech or better governance practices. In addition, they are under more scrutiny by regulators, investors and the public, which leads to added pressure to be successful on ESG metrics. Perhaps not surprisingly, this finding indicates that scale is an important variable in the ability and interest of a firm to commit to sustainability initiatives.

Profitability, as measured by return on assets (ROA), however, demonstrates no discernible relationship to ESG performance. This suggests that making money by itself does not launch sustainability initiatives. One likely explanation is that profitability is typically the product of short-term financial performance and strong financial performance does not equate to a commitment toward long-term ESG goals. For example, highly profitable firms may neglect ESG priorities simply because such actions are not aligned with their short-term financial targets. This highlights the critical importance of implementing strategies that integrate ESG criteria as part of a firm-wide business and governance framework, irrespective of financial performance.

This study also provides evidence of collinearity, which is a requirement for the model variables that further increases the credibility and easier interpretation of the results. Independents have a multicollinearity problem if two or more are highly correlated; the estimates can get squashed, and it becomes difficult to see what is related. The absence of multicollinearity, as confirmed by this variance inflation factors analysis, eliminates any doubt about the robustness and validity of relationships between executive incentives, firm characteristics and ESG performance identified in this study.

In conclusion, this study highlights the importance of carefully constructed executive compensation packages in promoting ESG performance. Incentive structures for corporate alignment with sustainability objectives would require a balance of financial and non-financial metrics. Monetary-based incentives should come first because the impact of monetary efforts is immediate, whereas equity-based incentives can be a secondary tool to complement long-term ESG strategies. Additionally, profit should not be the only driver for sustainability. Firm size should also be utilised as a resource in improving ESG.

References

[1] *Wang, M., Tsang, D.C.W., Olds, W.E. and Weber, P.A. (2017) The sustainability of converting food waste into biofuel: The environmental and economic balance of biogas production from food waste. Renewable and Sustainable Energy Reviews, 82(Part 2), 3367–3373. https://doi.org/10.1016/j.rser.2017.10.108*

DOI: 10.54254/2754-1169/164/2025.20820

[2] *Chen, X., Li, Y., Hu, Y. and Yu, G. (2023) The impact of the general manager's responsible leadership and executive compensation incentive on enterprise ESG performance. Sustainability, 15(15), 11883. https://doi.org/10.3390/su151511883*

[3] *Bissaro, M., Federico, S., Salmaso, V., Sturlese, M., Spalluto, G. and Moro, S. (2018) Targeting protein kinase with riluzole: Could it be one of the possible missing bricks to interpret its effect in the treatment of ALS from a molecular point of view? ChemMedChem, 13(24), 2601–2605. https://doi.org/10.1002/cmdc.201800632*

[4] *Cornell, B. (2020) ESG investing: Conceptual issues. The Journal of Wealth Management, 23(4), 1–9. https://doi.org/10.3905/jwm.2020.1.104*

[5] *Cohen, S., Kadach, I., Ormazabal, G. and Reichelstein, S. (2023) Executive compensation tied to ESG performance: International evidence. Journal of Accounting Research, 61(3), 805–853. https://doi.org/10.1111/1475-679X.12481*

[6] *Freeman, R.E. (1984) Strategic management: a stakeholder approach. Pitman, Boston, MA.*

[7] *Bridoux, F. and Stoelhorst, J.W. (2014) Microfoundations for stakeholder theory: Managing stakeholders with heterogeneous motives. Strategic Management Journal, 35(1), 107-125. https://doi.org/10.1002/smj.2089*

[8] *Tohang, V., Hutagaol-Martowidjojo, Y. and Pirzada, K. (2024) The link between ESG performance and earnings quality. Australasian Accounting, Business and Finance Journal, 18(1), 187–204. https://doi.org/10.14453/aabfj.v18i1.12*

[9] *Hübel, B. and Scholz, H. (2020) Integrating sustainability risks in asset management: The role of ESG exposures and ESG ratings. Journal of Asset Management, 21(1), 52–69. https://doi.org/10.1057/s41260-019-00139-z*

[10] *Miao, X. (2024) Challenges and responses to ESG risk management. Modern Management Science & Engineering, 6(1), 55–62. https://doi.org/10.22158/mmse.v6n1p55*

[11] *Kolb, R.W. (2012) The incentive structure of executive compensation. Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199829583.003.0003*

[12] *Kolb, R.W. (2012). Too much is not enough: Incentives in executive compensation. Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199829583.001.0001*

[13] *Jang, G.-Y., Kang, H.-G. and Kim, W. (2022) Corporate executives' incentives and ESG performance. Finance Research Letters, 49, 103187.https://doi.org/10.1016/j.frl.2022.103187*

[14] *Skladany, M. (2022, October 25). Rethinking executive incentives can boost ESG performance. MIT Sloan M anagement Review. https://sloanreview.mit.edu/article/rethinking-executive-incentives-can-boost-esg-performanc e/*