

The nonlinear effect of executive compensation on corporate social responsibility performance

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Abstract

Purpose – Taking cues from the fact that there remains a dearth in the establishment of theoretical and empirical relationship between executive compensation and corporate social responsibility (CSR) performance of the firms, this study attempts to explore the non-linear relationship between the said variables.

Design/methodology/approach – The study utilizes a strongly balanced panel data set of 179 non-financial National Stock Exchange (NSE) 500 listed firms for the study period of 2015–2020. The study further employs both static as well as Arellano-Bond dynamic panel model under generalized method of moments (GMM) framework to establish the relationship between executive compensation and CSR performance of the sampled firms.

Findings – The study acknowledges an inverted U-shaped relationship between executive compensation and environmental, social and governance (ESG) score of the firms. According to the robust estimator, an increase in the level of executive compensation is said to affect CSR performance positively until it surpasses a threshold level of 18.7 percent.

Practical implications – One of the major takeaways that the study provides for the corporate policymakers is that the level of compensation can only motivate the executives to take up socially responsible work up to a certain level surpassing which the executives becomes resistant towards any benefits provided by the CSR performance and get inclined towards economical performances of the firm. At the later stage, the economical expansionary investment benefits outweigh the personal career benefit gained by the executives from the CSR performances of the firm.

Originality/value – The nonlinearity relationship between executive compensation and CSR performance and the threshold level providing the two-fold effect of compensation on the CSR performance of the firms attempted by this study is a rare attempt in an emerging economy like India.

Keywords Executive compensation, Corporate social responsibility performance, Generalized method of moments, Dynamic panel data analysis, Non-linear

Paper type Research paper

1. Introduction

One of the most prominent and progressive development among the corporates all over the world has been including current environmental and social challenges under the borders of their responsibility and being accustomed to sustainable development and business ethics (Aggarwal, 2011). The approach has shifted from narrow shareholder value to a more inclusive stakeholder model which paves way for more competitive, sustainable and

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innovative business benefitting both the business as well as the society. This increased awareness and interest has ultimately led to the development of the concept of corporate social responsibility (CSR) in which companies actively work towards environmental, social and economic issues beyond their legal obligations in order to achieve a more sustainable society (Amiot and Hallin, 2018). The CSR performance however additionally results in increased financial performance (Konar and Cohen, 2001), lesser liability exposure (Berrone and Gomez-Mejia, 2009), enhanced corporate reputation (Bansal, 2005) and strengthening of stakeholders relations (Javed *et al.*, 2016). In lieu of the institutional theory, the firms undertake managerial policies which have certain social value to retaliate to their concern for legitimacy (Berrone and Gomez-Mejia, 2009). The firms thus motivate their executives to undertake various environmental and social-friendly practices that confer greater legitimacy and reward them for better environmental performance (Berrone and Gomez-Mejia, 2009). The Chief Executive Officers (CEOs) are incentivized and rewarded for the achievement of social and environmental goals and the risk they undertake while implementing those long term sustainable strategies (Al-shaer and Zaman, 2019). Also, incentivizing for their sustainable performance helps in aligning the self-interest of the executives along with that of the shareholders thereby resulting in reduced agency costs (Sigler and Sigler, 2015). By aligning the executive compensation with sustainability performance, corporations add value to their organizations by putting more emphasis to long-term social and environmental objectives over short term financial objectives (Brochet *et al.*, 2012).

This dynamic compensation-CSR causation sheds light on how socially responsible firms behave distinctly from socially irresponsible or lesser CSR performing firms in deciding the executive compensation for the firms. Based on the overinvestment hypothesis cultivated from the agency theory by Jensen and Meckling (1976), it is reasoned that CSR initiatives are apparently value-destroying proposition if it finally does not amplify firm value (Barnea and Rubin, 2010). Therefore, insiders such as executives and managers incline towards overinvestment in CSR programs for their own private benefit such as increase in professional reputations. The increase in a CEO's reputation provides them competitive advantage in their career opportunity and ultimately their bargaining power, thus predicting a positive relationship between engagement in CSR programs and CEO compensation (Cai *et al.*, 2011).

In lieu of this conceptual background, an empirical investigation into the effect of executive compensation structure on CSR performance in context of an emerging economy like India would really impart incremental value to the existing literature in the domain of corporate sustainability and governance of emerging market economies. Firstly, the topic relating to the effect of executive compensation structure on CSR performance is much more debated in developed markets of the United States (US) and the United Kingdom (UK) (Mahoney and Thorne, 2006; Maas, 2018) and very limitedly in emerging markets like India (Aggarwal, 2011; Naseem *et al.*, 2017). In India where we get a traditional empirically-established relationship between the pay structures and the financial performance of the firms (Raithatha and Komera, 2016; Ghosh, 2010; Saravanan *et al.*, 2016), a new dynamic to the present relationship in context of CSR performance that is the need of the hour would be really worthwhile for the corporate policy makers. Secondly, limited numbers of researchers (Li *et al.*, 2020; Joubert, 2019) have considered the nonlinear dynamism of this relationship and the issue of controlling for endogeneity in compensation-CSR performance relationship. In this stage, this research effort is instigated with an objective to theoretically and empirically address and determine the nonlinear nature of compensation-CSR relationship in the context of nonfinancial Indian companies. The present study is expected to provide some deep conceptual insights into this relationship and thus come out with suggestive policy recommendations for the corporate strategist and policymakers.

2. Literature review and hypothesis development

2.1 *Over-investment hypothesis*

Friedman (2007) in his study argued that the management of the firm invests in CSR due to selfish reasons such as enhancing reputation of the firm at the expense of interest of the firm's shareholders. Similarly, Barnea and Rubin (2010), taking inspiration from Jensen and Meckling's principal-agent theory (1976), hypothesized the overinvestment hypothesis reasoning that as CSR investments are considered as a chief agency relationship between senior executives and shareholders therefore the agents of the firm may over invest to enjoy the benefits from the activities. Thus, the overinvestment hypothesis puts forward a positive relationship between the executive power and compensation with the CSR activities of the firm. In similar line of studies, Berrone and Gomez-Mejia (2009) in their study of 469 US firms, finds a positive relationship between CEO pay and the environmental performance of the firm stating that good environmental performance increases the CEO compensation. Similarly, Mahoney and Thorne (2005) in their study of 90 publicly traded Canadian documents a positive relationship between CSR performance and compensation. In further extension to the previous study, Mahoney and Thorne (2006) states that executive salaries increase with CSR weaknesses, and bonus and stock options increase with CSR strengths thereby implying that executive compensation can be used as an effective tool to align the executives personal welfare agenda with the "common good" agenda of the firm and therefore resulting into more socially responsible activities. Likewise, Callan and Thomas (2011) in the context of listed US Firms, finds that CSR performance is a significant determinant of the pay of CEOs of the firm. Further extending their scope of the study by using a multiequation model, they find that the pay-for-performance relationship is significant positive and is also linked with social performance of the firms (Callan and Thomas, 2014). Furthermore, it is argued that companies uses compensation as an incentive tool by including explicit corporate social performance targets into the executive compensation plan (Maas, 2018) and in this manner keeping the CEOs responsible for the firm's sustainable performance (Maas and Rosendaal, 2016). It is also seen that firms with generously-remunerated executives remains under potential media scrutiny thereby pressurizing them to proactively undertake environment related matters to boost corporate legitimacy (Melis *et al.*, 2015). Rauf *et al.* (2019) favors the CSR performance related payment structure for the executives insisting that the increased incentive will motivate the executives to take up more socially responsible practices. Hubbard *et al.* (2017) in their study also proves that investment in CSR practices in the past results in better financial performance thereby boosting the CEO's career and therefore resulting in more compensation. The increase in remuneration motivates the directors of the firm to perform more CSR practices which ultimately results in enhanced shareholder's value (Razali *et al.*, 2019).

2.2 *Value-destruction hypothesis*

Another theoretical framework in regards to the CSR investment is the value destruction relationship which implies that the increased cost of CSR such as massive contributions, etc. leads to an economic disadvantage. In lieu with, the value destruction hypothesis, Jian and Lee (2015) find a negative association between the CEO compensation and the CSR investment of the firm, and the relationship is more prominent in firms with stronger corporate governance. Further dissemination proves that stronger corporate governance structures in the firms reprimands CEOs for over-investing in CSR by reducing their compensations. In similar context, rejecting the over-investment hypothesis, Li *et al.* (2016) finds that more powerful CEOs tends to invest less in socially responsible activities in the firm, though the CSR activities are supposedly linked to enhancing firm value. The study uses the total compensation of the CEO in proportion to the total compensation of the top-five executives in the company as proxy for the calculation of CEO power.

2.3 Hypothesis development

Various past literature have explored the issue and relationship of CSR and executive compensation (Amiot and Hallin, 2018; Hong *et al.*, 2016; Bian *et al.*, 2016; Dahlmann *et al.*, 2017), however the results seems to be equivocal. Thereafter reviewing a vast area of past literature, it is quite evident that the compensation-CSR relationship is very limitedly explored, especially in an economy like India. Thus, this study attempts to not only explore the said relationship but also to further move towards the predicted non-linear aspects of the variables by employing the generalized methods of moments (GMM) dynamic panel data estimation.

Thus, in light of the following, the study frames the following hypothesis in regards to the compensation-CSR relationship in the nonfinancial listed Indian firms:

- H. The relationship between executive compensation and CSR performance of the firms is nonlinear.

3. Data and methodology

3.1 Sample design

The study sample consists of strongly balanced panel data of 179 non-financial firms from the National Stock Exchange (NSE) 500 index for the study period of 2015–2020. The companies have been selected by excluding the financial companies and companies with inconsistent data to keep uniformity among sample in terms of the nature of operation and period covered. The data has been collected from financial database namely; 'Prowess' and 'Capitaline Plus' marketed by Capital Market Publishers Pvt. Ltd.

3.2 Description of variables

The study considers environmental, social and governance (ESG) score as the proxy for the CSR performance by the companies, the dependent variable of the study, as considered by previous literature like Giannarakis *et al.* (2016), Maas (2018) etc. The scores for each company ranges from 0.1 to 100 as per their ESG data disclosure. Every single data point is weighted according to their prominence, with the environmental data carrying greater weight than other disclosures, tailor made as per relevant to different industry sectors (Giannarakis, 2014). Executive compensation, the independent variable, is defined as total compensation of all the executive members on the board. The executive compensation comprises of all the elements such as salary, commission, perquisites and other benefits and any other allowances. In order to provide more relative significance to the result and to avoid any inconsistencies caused due to the absolute value of the variable, the study employs the ratio of executive compensation to net profit of the company as proxy for the independent variable of the study.

Certain other variables, such as board size (BS), number of board meetings in a year (NBMY), proportion of independent directors (Per_Id), Tobin's Q (TQ), current ratio (CR) and Size, that may influence the compensation-CSR relationship is used as control variables for the study. The total number of directors on the board is considered as BS (Shamil *et al.*, 2014), and the number of independent directors by the total numbers of director on the board is studied as the proportion of independent directors (Naseem *et al.*, 2017). The study takes TQ as a measure of profitability for the study (Mishra and Kapil, 2017) and current ratio as the measure of leverage (Pareek *et al.*, 2019). The natural log value of total assets is taken to calculate the size of the firm Pandey and Sahu (2017, 2019) etc.

3.3 Methodology and model specification

In order to explore the compensation-CSR relationship, the study uses fixed-effect regression with heteroskedasticity adjusted standard error approach. The selection of fixed effect model

is done after estimating all the befitting tests such as restricted-F test, Breusch-Pagan Lagrange multiplier test suggested by Breusch and Pagan's (1980) and Hausman test suggested by Hausman (1978). Furthermore, the study also executes GMM-based Arellano and Bond (1991) dynamic panel estimation to deal with the dynamism of the relationship and also considering the bias caused by potential endogeneity of the set of independent variables used in the estimation. The GMM-based dynamic panel data regression model assumes that lagged dependent variable and random disturbance term of the model are significantly correlated (Wintoki *et al.*, 2012) and therefore recommends taking one year lagged ESG as one of the independent variable to address the significant impact of some unobservable historical factors on the dependent variable (Wooldridge, 2009).

The study considers both the one step and two step estimator of Arellano-Bond (AB) dynamic panel data estimator considering the individual coefficients of one-step estimation with robust standard error to conclude meaningful inferences and Sargan statistic of two step estimation to check the overidentification restriction. The overall significance of the models is estimated by the Wald-chi² statistic and AB - test for first and second order autocorrelation for both the models. Therefore, the study draws robust and meaningful inferences by advancing from static to dynamic nature of the relationship and the removing issue of endogeneity.

The study, thus frames the following regression model to represent the relationship among the variables:

$$ESG_{it} = \alpha + \gamma_1 (EC) + \gamma_2 (BS) + \gamma_3 (NBMY) + \gamma_4 (Per_Id) + \gamma_5 (TQ) + \gamma_6 (CR) + \gamma_7 (Size) + \varepsilon_{it}$$

Here, ESG_{it} represents the CSR performance of i_{th} firm at time period t .

BS refers to the board size of the firm.

NBMY stands for number of board meeting held in a year.

Per_ID refers to the proportion of independent directors on the board.

TQ stands for Tobin's Q of the firm.

CR is the current ratio of the firm

Size refers to the firm size.

α depicts the constant term.

γ_1 to γ_7 denotes the coefficient of the independent and firm specific control variables.

ε_{it} represents the error term of the model.

4. Data analysis and findings

4.1 Summary statistics

Table 1 presents the descriptive statistics of the variables used in the study. As it can be seen, the average value for the executive compensation is observed to be 0.038% of net profit and the maximum value appearing to be 0.77. This figures indicates the fact that Indian firms pays there executives a moderately sufficient amount in relative to their net profits, in terms of salary, bonuses and other allowances. Further, the minimum value and the standard deviation of Executive Compensation (EC) as shown in Table 1 to be 0.00003 and 0.64 respectively emphasizes the significant variation in the pay structure among the sampled Indian firms.

Table 1.
Summary statistics

| Variable | Mean | Standard deviation | Minimum value | Maximum value |
|----------|--------|--------------------|---------------|---------------|
| EC | 0.038 | 0.64 | 0.00003 | 0.77 |
| ESG | 25.270 | 13.74 | 7.85 | 61.57 |
| BS | 10.21 | 2.65 | 3 | 18 |
| NBMY | 6.10 | 2.07 | 2 | 13 |
| Per_Id | 52.06 | 10.70 | 16.67 | 83.33 |
| TQ | 2.71 | 2.15 | 0.43 | 11.14 |
| CR | 1.66 | 0.97 | 0.29 | 6.29 |
| Size | 11.49 | 1.52 | 8.16 | 15.92 |

Source(s): Calculated by authors

As far as the CSR performance of Indian firms is concerned as proxied by the ESG disclosures of the companies, it can be seen that the firms disclose moderate information of their ESG activities as represented by the mean value of 25.27 and the maximum value of 61.57. The average value (52.06) of proportion of independent directors on the board of the firm signifies greater transparency and independency form the pecuniary relations and trade practices. The average value of TQ denotes the value generating ability of the firms to be 2.17 with a standard deviation of 2.15. It specifies that although the market values of Indian firms are more than two times of their book values on an average but the value generating ability varies considerably across the firms.

4.2 Test of multicollinearity

It is desirable to test certain properties of the dataset, such as multicollinearity, before moving forward to the mainstream panel data regression analysis to avoid spurious and erroneous results. Thus, the study employs variance inflation factor (VIF) and pair-wise correlation matrix (Table 2) for this purpose. Considering the normally-regarded criterion of the threshold value to be 10 (Gujarati, 2004), the maximum VIF value of 1.65 denotes that the data is free from multicollinearity. The pair-wise correlation matrix (Table 2) provides similar result of no serious multicollinearity between any pair of independent variables.

4.3 Results and findings

After testing for multicollinearity, the study goes for panel data regression analysis by choosing the best fitted model for the study among the three: Ordinary Least Squares (OLS), Fixed Effect Model (FEM) and Random Effect Model (REM). The restricted *F*-test statistic (20.24*), Breusch and Pagan's Lagrange multiplier (BP-LM) test statistic (1241.74*) are found

Table 2.
Pair-wise correlation matrix with variance inflation factor

| Independent variables | EC | BS | NBMY | Per_Id | TQ | CR | Size | VIF |
|-----------------------|-----------|-----------|----------|------------|----------|----------|-------|------|
| EC | 1.000 | | | | | | | 1.17 |
| BS | -0.0316 | 1.000 | | | | | | 1.13 |
| NBMY | -0.1292* | 0.1684* | 1.000 | | | | | 1.28 |
| Per_Id | 0.0488 | -0.1026* | -0.2080* | 1.000 | | | | 1.07 |
| TQ | -0.0351 | -0.0747** | -0.1651* | 0.0219 | 1.000 | | | 1.22 |
| CR | -0.0948** | -0.1004* | -0.0972* | -0.0537*** | 0.2932* | 1.000 | | 1.14 |
| Size | -0.2977* | 0.3110* | 0.4323* | -0.0837* | -0.3553* | -0.2189* | 1.000 | 1.65 |

Note(s): *Significant at 1% level, **Significant at 5% level, ***Significant at 10% level**Source(s):** Calculated by authors

to be significant at 1% level and Hausman test statistic (15.61^{***}) is found to be significant at 5% level and (Table 3). As per the test statistics, the FEM is found to be the most befitting regression model among the three for establishing relationship between the variables. However, both the Breusch-Pagan/Cook-Weisberg test and the information matrix test (White, 1980) suggest the existence of the heteroskedasticity property among the variables. Therefore to address this issue, the study applies robust standard errors (White, 1980) while running the regression models to generate best linear unbiased estimator results.

From the FEM results, it can be concluded that there exists a statistically significant and positive relationship between executive compensation and CSR performance of the firm measured by ESG score. Furthermore, the study also finds the existence of a nonlinear relationship between the executive compensation and the CSR performance of the Indian nonfinancial firms. While the coefficient for executive compensation [2.337759] is observed to be positive and significant at 1% level, the coefficient of its squared term EC-Squared [-16.58727] is seen to be significantly negative, thus asserting an inverted U-shaped relationship between the variables. Specifically, the executive compensation evidently has an initial positive effect on CSR performance of the firm up to a certain threshold and which the effect starts to become negative. Apart from that, the study also finds the number of board meetings to be significantly negatively related to the CSR performance of the firm whereas TQ (profitability), CR (liquidity) and size to be positively related.

Finally, the study undergoes the Arellano and Bond (1991) dynamic panel estimation which includes one-step and two-step estimations as presented in Table 4. The Arellano and

| Dependent variable | |
|--------------------|---------------------|
| ESG | |
| EC | 2.337759* (4.24) |
| EC-Squared | -16.58727* (-3.93) |
| BS | -0.06259 (-0.39) |
| NBMY | -0.36785*** (-2.32) |
| Per_Id | 0.0048514 (0.14) |
| TQ | 0.8321601* (3.95) |
| CR | 0.9312244*** (2.41) |
| Size | 8.161443* (10.50) |
| Intercept | -69.40897* (-7.70) |
| R ² | 0.3316 |
| Restricted F test | 20.24* |
| BP-LM test | 1,241.74* |
| Hausman Test | 15.61*** |
| Hetest | 35.74* |
| Imtest | 87.18* |

Note(s): i. Figures given in brackets are t-values
ii. Restricted F test is for choosing between OLS and FEM

$$F = \frac{R_{UR}^2 - R_R^2 / d - 1}{1 - R_{UR}^2 / n - (d+k)} \sim F_{[(d-1), (n-d-k)]}$$

Here, R_{UR}^2 stands for goodness-of-fit of the FEM, R_R^2 for goodness-of-fit of the OLS, d for the number of groups, n represents the total number of observations, and k represents the number of explanatory variables

iii. LM test is the Breusch and Pagan's (1980) Lagrange Multiplier test which offers selection between OLS and REM

iv. Hausman test is the Hausman (1978) specification test for selection between FEM and REM

v. Hetest is the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity

vi. Imtest is the Information Matrix test for heteroskedasticity (White, 1980)

*Represents 1% level of significance, **Represents 5% level of significance, ***Represents 10% level of significance

Source(s): Calculated by authors

Table 3.
Panel data regression
results

| Variables | One step estimates | | Two step estimates | |
|------------------------------------|---------------------------|---------|---------------------------|---------|
| | Coefficient | z-Stat | Coefficient | z-Stat |
| ESG _{it-1} | 0.0441305 | 0.09 | 0.2320435 | 0.60 |
| EC | 18.6206 | 2.01** | 19.85338 | 2.28** |
| EC-Squared | -49.83796 | -1.99** | -54.21089 | -2.33** |
| BS | -0.1661607 | -0.75 | -0.1794401 | -0.90 |
| NBMY | -0.1590632 | -1.00 | -0.1766192 | -1.19 |
| Per_Id | -0.0346745 | -0.84 | -0.0252291 | -0.65 |
| TQ | 0.0161504 | 3.05* | 0.1334514 | 0.48 |
| CR | 0.5260413 | 1.74*** | 0.5293249 | 1.82*** |
| Size | 6.372517 | 4.55* | 4.630001 | 1.31 |
| Intercept | -44.26954 | -1.16 | -28.85729 | -0.87 |
| Wald- χ^2 | 46.02* | | 47.43* | |
| Sargan Test for overidentification | | | 5.148951 ($p = 0.1612$) | |
| Arellano Bond Test for AR (1) | -0.28926 ($p = 0.7724$) | | -0.76992 ($p = 0.4413$) | |
| Arellano Bond Test for AR (2) | -0.95227 ($p = 0.3410$) | | -0.6617 ($p = 0.5047$) | |

Table 4.

Results of Arellano-Bond dynamic panel data model

Note(s): i. *Significant at 1% level, **Significant at 5% level, ***Significant at 10% level

ii. z-statistics in one step estimation are based on robust-standard error to control for heteroskedasticity and autocorrelation

Source(s): Calculated by authors

Bond (1991) dynamic panel estimation also tests for the validity of the instruments as well as the autocorrelation problem between the variables used in the model. The Sargan test used for estimating the problem of overidentification restrictions for overidentification statistic is found to be insignificant [5.15 ($p = 0.16$)] implying that our estimation models do not suffer from the same.

Also the AB test for first order (AR1) and second order (AR2) is found insignificant for both the version of GMM-model concluding that our models do not suffer from autocorrelation and thereby we can proceed to draw significant and meaningful inferences from the following estimates (Kathavate and Mallik, 2012). Further, the significance of both the models can be confirmed from the highly significant Wald- χ^2 statistics.

The results of one step estimation of AB dynamic panel data model signifies a nonlinear inverted-U shaped relationship of executive compensation with the ESG score. Where the coefficient of EC [18.62 (2.01**)] is found to be positive and significant, the coefficient of its squared term [-49.84 (-1.99*)] is found to be significantly negative. Also, the TQ (profitability), CR (liquidity) and size are found to be significant and positively related to the CSR performance of the firm as per the one step estimation of AB dynamic panel data.

Now, the study determines the threshold level of EC to conclude a more definite and concrete inference of this relationship. The study determines the thresholds as below:

4.3.1 Determination of threshold level of executive compensation. The threshold level of the independent variable can be calculated by using the following equation:

Threshold of independent variable = $-(\beta_1/2\beta_2)$, where β_1 and β_2 denote the coefficients of the independent variable and its squared term respectively.

Using this formula the threshold levels of executive compensation is determined and shown in Table 5:

The findings of the nonlinearity effect of EC on ESG are graphically presented in Figure 1. Thus, as shown in Figure 1, EC initially has a positive effect on the CSR performance of the firm, as measured by ESG, but after the threshold of 18.7% of net profit as per the robust regression estimates, EC starts exerting negative influence on the same.

5. Conclusion and policy implications

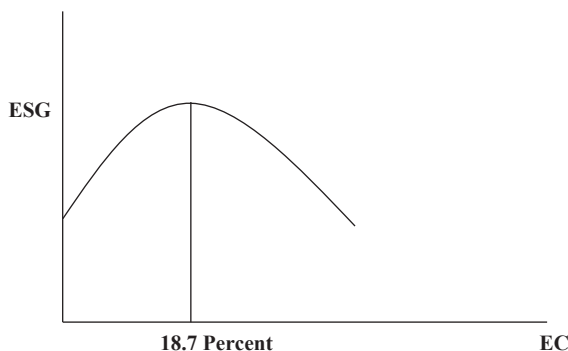
The study attempts to explore the relationship between the level of executive compensation and the CSR performance of 179 NSE listed non-financial Indian firms for the period 2015–2020 supplementing the existing literature. Thus, the study applying static as well as GMM-based dynamic panel data estimation technique confirms an inverted-U shaped relationship that suggests an increase in the level of executive compensation is found to positively affect the CSR performance until a threshold level of 18.7% of net profit suggesting a two-fold effect of the EC on the ESG score of the firm. Notably, the favorable impact of executive compensation on firm value goes in line with the over-vestment hypothesis (Barnea and Rubin, 2010) based on the agency theory that proposes that executives tend to over-invest in CSR activities, which acts as a major agency relationship between senior executives and shareholders, to build up their image as good executives in front of the shareholders as well as the public (Donaldson and Preston, 1995), thereby increasing their social reputation which ultimately leads them to better career opportunities and stronger negotiation power (Li et al., 2020). Also, the managers tend to involve themselves in CSR activities to resolve the conflicts among the stakeholders as per conflict resolution view (Harjoto and Jo, 2011). Furthermore, stakeholder theory states that executives are accountable not only to shareholders, but also to other stakeholders such as employees, customers, communities and governments (Ricart et al., 2005; Spitzbeck, 2009) and therefore obligated to act in the favor of the public welfare and environmental affairs of the community where they work as these activities affect their compensation structure (Milbourn, 2003).

Yet again, the positive impact of executive compensation on the actual CSR performance may be due to the fact that sustainable linked executive compensation contracts or CSR-targets linked incentives are becoming really popular in the corporate sector which incentivizes the executives to focus on the CSR performance of the company and ultimately pays them for the achieved benchmarked-CSR targets (Joubert, 2019). *“Linking senior executive compensation to ESG*

| Model | Independent variables | Dependent variable: ESG | |
|-----------------------------------|-----------------------|-------------------------|---------------------------------|
| | | Coefficient | Threshold $-(\beta_1/2\beta_2)$ |
| Fixed effect model | EC | 2.337759 | 0.070468 |
| | EC-Squared | -16.58727 | |
| Arellano-Bond one step estimation | EC | 18.6206 | 0.186811 |
| | EC-Squared | -49.83796 | |

Source(s): Calculated by authors

Table 5.
Determination of
threshold level of
executive
compensation



Source(s): Prepared by authors

Figure 1.
Threshold level of
executive
compensation
(Arellano-Bond one
step estimation)

outcomes forces the pace of change. Integral to the link with compensation is, of course, a strong focus on measuring ESG parameters that are material to operations and making transparent disclosures (Ranjan, 2022)". Therefore, the increased compensation ultimately works as a function of CSR performance (Malmendier and Tate, 2005; Friedman, 2007; Barnea and Rubin, 2010).

However, interestingly it is observed that, after a certain threshold level of executive compensation the CSR performance is getting adversely affected. This may be due to the cause that, when CEO of the firm is moderately less powerful, an increase in CEO power, determined with CEO pay slice, results to more involvement in CSR activities. However, after acquiring considerable power, the CEO becomes more entrenched and no longer participates or invests in CSR activities (Jiraporn and Chintrakarn, 2013). Moreover, after reaching a certain level, high-level demand of executives to attain promotion depends more on the realization of the economic goals, and hence they tend to reduce CSR investment under the constriction of resources (Li et al., 2020). Also as per upper echelon theory, constant increase in compensation leads to overconfidence in executives, resulting in underestimation of CSR role in hedging business risks and overestimation of the expansionary economic investment benefits (McCarthy et al., 2017).

The study also endorses the fact that profitable and larger in size firms have more resources to devote to social activities also the profitable companies enhances their media reputation and public image by indulging in more CSR performance thereby legitimizing their corporate image (Giannarakis, 2014). Also, the companies larger in size are at a better place to absorb the cost incurred during CSR expenses thus justifying the positive relationship between TQ and size with the CSR performance of the firm.

Thus, the study provides testimonials to the corporate strategists and policy makers in understanding that the effect of compensation is not always the same in regards to CSR performance of the firm. The findings provide significant practical implications to the board members, regulators and practitioners that publicly debate the importance of executives and their compensation structure in the CSR performances of the firms. Notably, it is quite evident that the monetary benefit motivates the executives to take up CSR activities up to a certain level, thus linking monetary compensation with quantitative CSR targets may play a continuous role in improving and incessant CSR performance of the concerned firms. The study, further in line with Nigam et al. (2018), recommends the firm to appoint representatives with environmental expertise on the board for linking the sustainable strategies with compensation structure to understand the advantages and disadvantages of the suggested strategies.

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