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Does the Impact of Transparency and Disclosure on the Firm's Valuation Depend on the ESG?

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Abstract: The global economic crisis in 1997 significantly impacted all corporate firms. Measuring valuation is becoming increasingly important in corporate firm analysis. Transparency in disclosures enables a company to meet market expectations while also adhering to regulatory requirements. The study's primary purpose is to measure the impact of transparency and disclosures on the valuation of non-financial firms in India and explore the role of Environmental, social and Governance (ESG) as a moderator variable in determining the firm's value. Panel data regression is the methodology adopted for the data analysis in the study. Panel Data of seventy-six non-financial firms was collected for ten years (2011–2020). Market capitalization is considered as a proxy variable for the valuation. The study results indicate that transparency and disclosures (TD) have a negative and significant influence on the value of the firms. Inferring that a higher degree of TD reduces the firm value. At the same time, the interaction term of TD and ESG show a positive significant association. This finding implies that high ESG reduces the negative impact of high TD on the valuation.

Keywords: transparency; disclosures; non-financial firms; valuation; India



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1. Introduction

Transparency and disclosure are critical components of corporate governance and resolving information gaps (Srivastava and Rastogi 2010; Temiz 2021). Corporate disclosures help to bridge information gaps between external and internal stakeholders as an essential activity for stock markets. T&D piqued the interest of researchers following the global financial crisis in 1997 and the Enron and other European countries' financial scandals in 2000. (Sharif and Lai 2015; Mohammadi and Nezhad 2015). There is a universal agreement that one of the major causes of the Asian crisis was the lack of transparency in information disclosure by firms (Haat et al. 2008). It is empirically proven that when companies provide accurate and timely reports on their performance, they can gain the trust of their shareholders (Sharif and Lai 2015; Bhimavarapu and Rastogi 2020).

According to Bebchuk et al. (2009), T&D protects investors' rights, which Baumann and Nier (2004) agreed with because it reduces the risk associated with share prices. Corporate governance relies heavily on T&D policies (Aksu and Kosedag 2006). Transparency and disclosure can reduce information asymmetry and agency bottlenecks (Cheung et al. 2010; Bijalwan and Madan 2013). T&D is advantageous for improving corporate governance procedures and increasing operational efficiency (Lai et al. 2014). According to Bhimavarapu and Rastogi (2020), transparency and disclosures in reporting are well aware of investor mindsets; however, they conceal the truth by glazing the facts with opulent and impenetrable reports, causing even more confusion among investors.

The Indian stock market saw the first signs of the global financial crisis in January 2008. (Rastogi 2013; Athaley et al. 2020). According to Kanoujiya et al. (2021) and Bhimavarapu and Rastogi (2021), reducing asymmetrical information between the firm and stakeholders will help investors make conscious investment decisions and corporates develop investor retention strategies. Before making any investment decision, investors thoroughly read the entire set of reports on which they rely, including the company's financial statements and annual reports (Bhimavarapu et al. 2022).

The literature on corporate value and disclosures is highly inconsistent. Two types of literature are available on the relationship between TD and firm value. According to one study, disclosures positively impact a company's value. Another set of studies shows that disclosure does not affect a company's net worth or the firm's value. When discussing corporate disclosures, Charumathi and Ramesh (2020) used a tailored voluntary disclosure (VD) index for Indian listed corporations. They discovered a significant and positive correlation between VD and firm value. In another study, Temiz (2021) discovers evidence that providing information affects the firm value of Taiwan enterprises.

Truong et al. (2022) investigated the impact of TD on the value of companies listed on the Vietnamese stock exchange and discovered that the level of TD has a significant positive effect on firm value supported by Nguyen et al. (2021). Greater political transparency is associated with better operating performance, lower equity risk, and lower information asymmetry, according to Wang and Zhang (2022). Furthermore, political transparency is related to firm valuation. Mehmood et al. (2020) empirically demonstrated that good corporate governance (CG) practices related to disclosure and transparency contribute to a firm's enhanced monitoring strength, which positively affects firm performance. Rawal et al. (2022) demonstrated that FD and TD positively and significantly impact the firm's valuation. The authors also discovered evidence that TD significantly impacts the value of firms influenced by FD.

While discussing transparency, it is impossible to ignore the concepts of disclosures because transparency and disclosures are essential components of corporate governance (Srivastava and Rastogi 2010). Unlike previous studies, de Alencar (2005) discovered that corporate disclosure does not affect firm value. Bajic and Yurtoglu (2018) and Taylor et al. (2018) discovered that social disclosures in CSR disclosures are positively associated with increased firm value. In contrast, Sampong et al. (2018) on South African listed firms and Oktaviani et al. (2019) on Indonesian listed enterprises find empirical evidence that, despite their numerous benefits, social disclosures do not always increase firm value.

Although it is evident from the literature that there are studies dealing with the valuation of corporate firms (Chua et al. 2007; Charumathi and Ramesh 2020; Oktaviani et al. 2019), none of them have concentrated on knowing the moderating effect of TD on the valuation of the firm. Thus, the authors focus on this issue and report the findings supported by empirical evidence. Following identifying the issue, this study suggests empirically assessing how TD affects the value of non-financial firms listed in India by establishing the relationship between TD and valuation while moderated by the variable ESG.

The current study and its findings are unique. There have undoubtedly been numerous studies on how TD affects valuation. However, no study has attempted to link the relationship between TD and valuation using ESG as a moderator. One of the study's notable contributions is that it adds to the literature on listed non-financial firms in India.

The findings of the study have several important implications for administrators. Administrators should avoid exaggerating disclosures because it may add temporary value. In the long run, such behavior can backfire and be self-defeating. As a result, managers must exercise restraint and adhere to best CG practices regarding disclosures.

Following the introduction in the paper's first section, the remainder is organized, followed by the theoretical framework and hypothesis development. The paper's data, methodology, and results are discussed in the third and fourth sections by discussion in the fifth section. The paper is concluded in the sixth section.

2. Theoretical Background and Hypotheses Formulation

The current section of the paper is organized thematically; first, it highlights the theoretical concept that is used for the study using a conceptual model depicted in the figure; then, it discusses in detail the critical studies available in the literature, highlights the gaps identified, and formulates the hypothesis for the study.

Figure 1 portrays the approach adopted for the study to achieve the obtained results of the study. Figure 1 shows that the study has considered market capitalization as the proxy variable for determining the firms’ valuation. There are studies available on firm value in the literature. They are either empirical research on corporate disclosures that influence financial and non-financial firms or studies on the impact of corporate social responsibility disclosures on corporate governance.

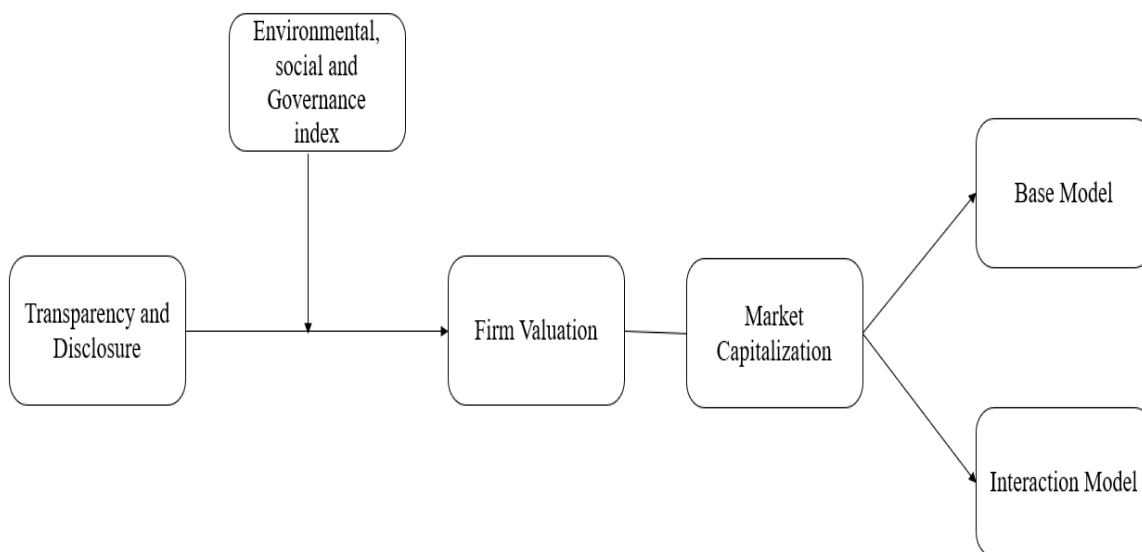


Figure 1. Conceptual model. Source: Author’s contribution. Note: Figure 1 explains the strategy adopted for achieving the empirical results for the current study.

However, there are no studies in the literature assessing the TD impact on non-financial firms while using ESG as the moderator. From this point of view, the study proves its novelty in the study conducted.

A firm valuation can be improved by reducing information gaps, providing accurate and timely information, and enhancing societal image through disclosure channels (Temiz 2021). Most studies in the literature have studied the influence of CG or ownership concentration on business valuation. Studies on CG, information disclosures, and their impact on performance and valuation yielded many outcomes. Categorizing the results of the studies on valuation present in the literature can be done in two categories.

According to one set of studies, disclosures positively impact a firm’s value (Charumathi and Ramesh 2020; Temiz 2021). Another set of studies demonstrates that disclosure has no effect (de Alencar 2005; Sampong et al. 2018; Oktaviani et al. 2019). Nautiyal and Kavidayal (2018) empirical findings say that Earnings per share explains only a small portion of price volatility. Economic value added is related to stock price performance in the previous and current years. According to Madhani (2020), CG has evolved and grown significantly over the last decade. Many countries have created CG codes, and the recommendations in these codes, which define “excellent” CG, help to increase transparency and disclosure.

The findings show that more significant incredible CG benefits from improved board governance do not have the same moderating effect across all firms because their motivations differ with dividends and various ownership structure mechanisms (Sulong and Nor

2010). Firms that strive for improved governance can reduce their capital costs, manage risks, increase investor trust, and increase company valuation (Madhani 2020).

Douglas and Meijer (2016) investigated how openness is required to create public value and discovered that more transparent public organizations scored higher on public value, mainly when information about the design and dynamics of their authorizing environment was released. Tiwari and Kumar (2015) identified key drivers that can add value to firms and concluded that, in addition to primary financial drivers, firms must pay more attention to strategic decisions because strategic decisions will provide firms with an advantage over competitors in emerging economies such as India.

According to Aboud and Diab (2018), firms listed in the ESG index have a higher value than unlisted firms. Furthermore, their findings show that the quality of ESG, as measured by a firm's relative rank in the ESG index, is positively related to firm value. Machmuddah et al. (2020) findings indicate that revealing corporate social responsibility positively and significantly impacts firm value and profitability and moderates the effect of CSR disclosure on firm value.

While working with manufacturing firms in India, Gill et al. (2013) discovered that the market recognizes selfish behavior by management and responds by lowering share prices and corporate profits. It is evident from the literature that studies have considered a sub-section of the indices like CSR disclosures, ownership concentration, and board and management disclosures. Neither of the studies has considered the complete T&D index and its impact on the firm's valuation. As Indian corporate firms differ from those in developed countries (Nashier and Gupta 2020), it is essential to investigate and provide new evidence about emerging markets (Temiz 2021). This motivates the authors to conduct the current study.

In addition, the uniqueness of this paper lies in its use of inimitable data of firms in India by using a customized T&D index. To the best of our knowledge, this is an exclusive paper that deals with the performance of Indian corporate non-financial firms as it checks for the complete index but not the sub-set of the indices. This study's main contribution is to provide evidence for India by using exclusive hand-collected firm-level disclosure data. The preceding discussion attests that the relationship between disclosures and value is perplexing and investigates new data to determine the relationship of transparency and disclosures with firm valuation. As a result, empirical tests are conducted to find the association between TD and the firm's value. Hence, the following hypotheses are constructed.

Hypothesis 1 (H1). *Transparency and disclosures positively impact firms' valuation while ESG enacts as the moderator variable.*

3. Data and Methodology

3.1. Finalizing the Sample and Sources of Data

The current study focuses on Indian non-financial firms. Top 100 companies are chosen from a pre-defined set of S&P BSE-100 indexes as of 3 October 2021 based on CMIE prowess over ten fiscal years, i.e., 2010–2011 to 2019–2020. The S&P BSE-100 index was chosen because it includes most of India's major companies across all sectors. As a result, the sample is thought to be representative. Because we limited our study to non-financial firms. The non-financial firms can be defined as the institutional units that are self-contained legal entities and market producers, with the primary activity of producing goods and non-financial services. We initially considered 80 firms from the non-financial sector; however, due to a lack of data for the balanced panel, we excluded four firms, resulting in a sample of 76 firms from various sectors. Authors have chosen Indian sample for the period from 2010–2011 to 2019–2020. The rationale behind the choice of sample is that India's corporate has passed through many regulatory changes in post reform period 2009. Hence, the exploration of fresh evidence is necessary to provide insights on firm valuation, ESG, and disclosures.

The annual reports in English or the native language and the CMIE Prowess database for corporate firms based in India were our study’s primary sources of information, which were thoroughly and meticulously analyzed. We searched the respective corporate website and other alternative sources such as MoneyControl.com, NDTV Profit.com, and BSE India sequentially to fill in the gaps in the primary source.

3.2. Variables Considered for the Study

Table 1 explains the variables considered for the current research study, descriptions, data sources, and literature support. Market capitalization is the dependent variable. *Td*, *esg*, and *td_esg* are exogenous variables considered for the base and interaction models of the study. The exogenous variable considered for the study is chosen to serve a purpose as the authors want to check the impact of TD on valuation. TD and ESG scores were obtained from the customized index to know a corporate firm’s level of TD (Arsov and Bucevska 2017) and environmental, social, and governance scores (Ramba et al. 2018). *l_sales* (lag of sales) is the control variable for all the models.

Table 1. Variable considered for the study.

Variable Name	Symbol	Measurement	Data Source	Literature
Market Capitalization	<i>mcap</i>	By multiplying the current market price of a firm’s share by the total no. of outstanding shares.	CMIE prowess/Annual reports	(Kumar and Shah 2009)
Transparency and Disclosure score	<i>td</i>	A score calculated using an unweighted methodology (taking value 1 if attribute present and 0 otherwise) from the self-made transparency and disclosure index	CMIE prowess/Annual reports	(Turrent and Ariza 2012; Arsov and Bucevska 2017)
Environmental, social, and Governance index	<i>esg</i>	A score calculated using a dichotomous method from the self-made ESG index. The firm’s final score is calculated using the number of attributes present divided by the total number of attributes.	CMIE prowess/Annual reports	(Jaaffar et al. 2019; Papoutsis and Sodhi 2020)
The interaction term of <i>td</i> and <i>esg</i>	<i>td_esg</i>	<i>td</i> as a moderator of the relationship between <i>esg</i> and <i>DV</i> measured by ($esg - \text{mean value of } esg$) \times ($td - \text{mean value of } td$)	CMIE prowess/Annual reports	(Panayi et al. 2021)
sales	<i>lsales</i>	Natural logarithm of sales	CMIE prowess/Annual reports	(Busru and Shanmugasundaram 2017)

Source: Author’s Compilation. Note: Table 1 describes the variables considered for the study.

3.2.1. Construction of TD Index

The current study adopts the studies (Patel and Dallas 2002; Aksu and Kosedag 2006; Arsov and Bucevska 2017) to create a customized T&D index. Using the S&P index’s compiled database as the foundation, we created a new customized index with four main categories and 145 attributes. The newly constructed T&D index includes a more modern set of attributes that were not given prominence in previous studies (Patel and Dallas 2002; Aksu and Kosedag 2006; Silva et al. 2008; Arsov and Bucevska 2017) but would be extremely valuable to stakeholders.

In addition to the three broad categories of the S&P index: (1) Board & Management Structures Processes; (2) Ownership Structure & Investor Relations; and (3) Financial Transparency and Information Disclosure; the newly constructed index introduced a fourth broad category of “Strategic, Environmental, Technology, and Website Disclosures”, emphasizing

the most recent attributes that are important in the current era. To construct the TD index, we used an unweighted methodology and a binary approach, i.e., zero in the absence of the attribute and one in the presence of the attribute, as is common in the literature on TD indices (Aksu and Kosedag 2006; Turrent and Ariza 2012; Arsov and Bucevska 2017; Kumar and Kidwai 2018).

3.2.2. Construction of ESG Index

Investors have recognized ESG elements as essential indicators for measuring firm valuation and risk management. Sudha (2015) claims that an emerging group of investors invests in companies based on their value system or ethical principles. Some investors avoid companies that have a negative impact on society, either directly or indirectly. Two ESG indexes are available in India; one is the S&P ESG index, launched in 2005 to measure the firm's social and governance responsibilities (Singh 2013).

Second The Thomson Reuters ESG index established in 2017 aims to measure the performance of the firms using ten themes. The current study considers the ESG index built by Thomson Reuters as the most comprehensive index in the industry (Ramba et al. 2018; Jaaffar et al. 2019). Even though we considered the ten themes presented by Thomson Reuters as the subcategories of our index, we customized and fixed our attributes to meet the necessities of the Indian investors. The score for each firm was calculated using dichotomous scoring.

3.3. Proposed Econometric Model of the Study

The method employed for testing expected hypotheses is panel data analysis. Pratheepan (2014) opined that panel data has advantages over the cross-sectional technique, commonly used in economic research. It enables the regulation of non-measurable factors and features that change over time rather than across companies (Hsiao 1985; Baltagi 2015). The base model investigates the linear association (Baltagi and Li 2002; Baltagi 2015), while the interaction model of the study investigates the interaction effect of the explanatory variables on each dependent variable representing the valuation of the corporate firms in India (Cheng 2007; Baltagi 2015). The results of the hypotheses framed are estimated using the equations listed below.

$$\text{lmcap}_{it} = \alpha + \beta_1 \text{td}_{it} + \beta_2 \text{l_sales}_{it} + u_{it} \quad (1)$$

$$\text{lmcap}_{it} = \alpha + \beta_1 \text{td}_{it} + \beta_2 \text{esg}_{it} + \beta_3 \text{td_esg}_{it} + \beta_4 \text{l_sales}_{it} + u_{it} \quad (2)$$

where ' α ' is a constant term, lmcap is used as a valuation proxy where $i = 76$ firms and $t = \text{ten years (FY 2010–2011 to 2019–2020)}$. u_{it} is the error term; where $u_{it} = \mu_i + v_{it}$ ($\mu_i = \text{represents the unobservable individual effect}$ and $v_{it} = \text{represents the remainder disturbance}$). Equations (1) and (2) represent the panel data regressions for the linear and interaction effects, respectively. lmcap is the dependent variable representative of firm value. td is main explanatory variable showing TD. esg is taken as another independent variable as moderating variable. td_esg is the interaction term incorporating TD and ESG as discussed in Table 1. l_sales is included in the model as control variable. 'it' signifies the firm i and time (year) t .

4. Empirical Results

4.1. Descriptive Stats and Correlation of the Study

Table 2 presents the descriptive stats and correlation of the variables considered for the study. The transparency and disclosure index (TD) has a mean value of 0.574 and a Standard deviation (SD) of 0.092, which describes that the non-financial firms in India have a modest level of transparency in disclosures. Table 2 shows that the exploratory variables td and esg ; td and td_esg were noted with a correlation of 0.7541 and -0.4951 , respectively, with perfect significant p -values of (0.0000). These significant correlations, however, have a value of less than 0.80. As a result, the problem of multicollinearity is limited (Wooldridge

2015; Baltagi 2015. It is evident from the correlation values, *td* and *esg* show a positive association, and the interaction terms *td_esg* and *td* show a negative association. The low standard deviations of all the independent variables show that the variables considered fit the model well as the firms do not vary much in terms of variables used in study.

Table 2. Descriptive Statistics and Correlation.

Descriptive Statistics and Correlation Matrix								
	<i>td</i>	<i>esg</i>	<i>td_esg</i>	<i>lsales</i>	Mean	SD	Min	Max
<i>td</i>	1				0.574	0.092	0.310	0.779
<i>esg</i>	0.7541 * (0.0000)	1			9.03	0.060	−0.185	0.152
<i>td_esg</i>	−0.4951 * (0.0000)	−0.4868 * (0.0000)	1		0.004	0.007	−0.004	0.043
<i>lsales</i>	0.1401 * (0.0001)	0.0899 * (0.0131)	0.0357 (0.3256)	1	9.47	1.47	4.11	13.3

Source: Author’s Compilation. Note: Values in the correlation matrix are correlation coefficients, and Values in parenthesis are *p*-values. * Significant at 5%.

4.2. Empirical Results Obtained from the Study

The base model is designed to investigate the linear relationship of the *td* and *esg* with *lmcap* as a proxy for valuation. In addition, the interaction model is considered to comprehend the interaction effect of the exogenous variables *td*, *esg*, and *td esg*. Table 3 displays the outcomes of these models. The diagnostics for both models show that the F-test for fixed effect and the Breusch-Pagan test for random effect are significant at 0.05. As a result, the Hausman test determines the appropriate effect for the models (Wooldridge 2015).

Table 3. Result of Regression Analysis (Static Panel Data Analysis).

	Base Model			Interaction Model		
	Coef	SE	<i>p</i> -Value	Coef	SE	<i>p</i> -Value
<i>Constant</i>	11.05 *	1.44	0.000	7.58 *	1.34	0.000
<i>td</i>	−5.81 *	2.68	0.031			
<i>dttd</i>				−7.44 *	3.47	0.032
<i>esg</i>				−0.020	1.38	0.988
<i>td_esg</i>				51.5 *	26.5	0.052
<i>lsales</i>	0.32 *	0.15	0.029	0.312 *	0.137	0.023
R-Square		0.0899			0.0574	
SE of Regression		0.4887			0.7241	
Note: No of observations (n)		760			760	
Degree of freedom		680			680	
F-test Fixed Effect		14.75 * (0.0000)			14.67 * (0.0000)	
Breusch and Pagan Test		995.12 * (0.0000)			1041.56 * (0.0000)	
Hausman Test		21.87 * (0.0000)			14.27 * (0.0065)	
Wald test for Heteroscedasticity ¹		3913.97 * (0.0000)			5001.78 * (0.0000)	
Wooldridge Autocorrelation Test ² AR (1)		2.203 (0.1420)			2.198 (0.1424)	

Source: Author’s Compilation. Note: ¹ The null of the Wald test of heteroscedasticity is no heteroscedasticity. ² The panel Wooldridge test of autocorrelation has a null of no autocorrelation (with 1 lag). SER denotes the standard error of the regression. Due to significant heteroscedasticity, standard errors are robust estimates. Either autocorrelation or both.

Hausman test is found to be perfectly significant at 0.05. It confirms that the fixed effect is appropriate for base and interaction models. Further, heteroscedasticity exists as the Wald test is significant at 0.05, but the Wooldridge test rejects the null of autocorrelation. The robust estimates are estimated due to the presence of heteroscedasticity (Wooldridge 2015; Baltagi 2015). Considering the connection *td* and *esg* with *lmcap*, the base model’s coefficient of *td* is −5.81 with a *p*-value. 0.031. The coefficient of *td* is negative and

significant; therefore, it is evident that transparency and disclosures inversely influence the firm’s valuation. The control variable *l_sales* is also found to be positively significant.

Similar to the preceding base model to explain the results of the interaction model, the exogenous variables *td* and *td_esg* are found to be significant at 0.05. Furthermore, to elaborate on the results, the coefficient of *td* is -7.44 with a *p*-value of 0.032, implying a negative association of *td* with the valuation of the firms. In contrast, the coefficient of interaction term *td_esg* is 51.5 with a *p*-value of 0.052, indicating a positive association of the interaction term to the firm’s valuation. This implies that *td* positively impacts the market capitalization (*lmcap*) under the influence of *esg*.

4.3. Elaborating Interaction Graph

An interaction graph helps to show the moderating variable’s impact on the association between the variables. In Figure 2, the orange line indicates the high impact, and the blue line indicates the low impact of the moderator variable *esg*. Figure 2 shows that when the *td* increases and the *esg* is high, a less steep plummet can be seen compared with the moderator variable’s low impact. Even though the interaction variable is positively significant as the exogenous variable *td* is negatively associated with the valuation proxy *lmcap*, thus the interaction graph justifies its impact on valuation.

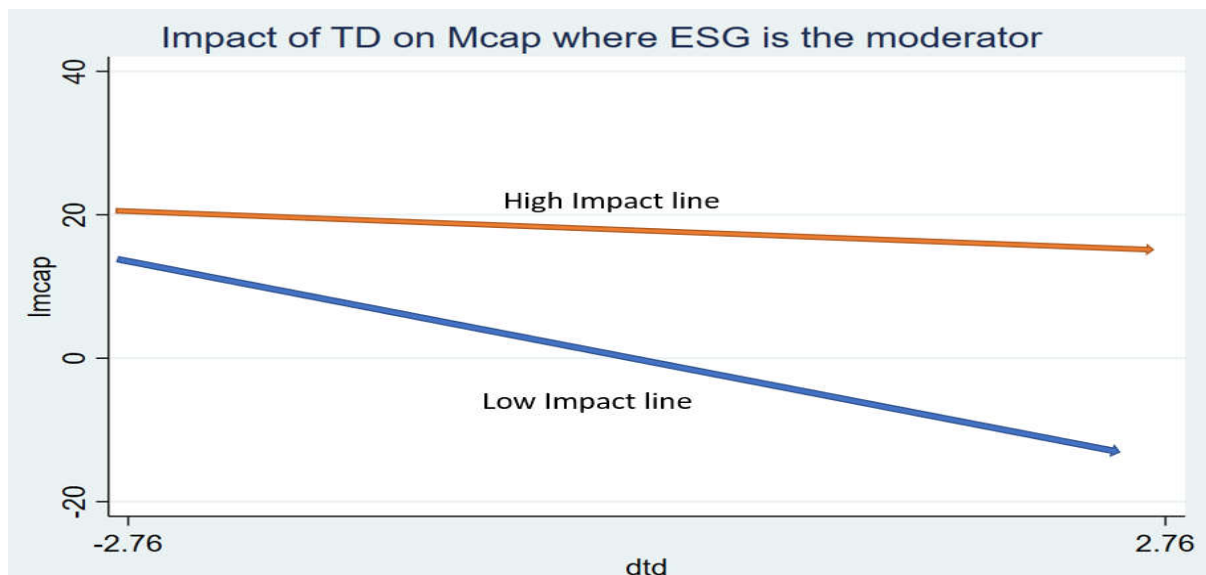


Figure 2. Interaction Graph. Source: Author’s Compilation. Note: Figure 2 elaborates the effect of *td* on the *lmcap* of the firms under the influence of moderator *esg*.

4.4. Results for Endogeneity Testing and Results’ Robustness

To confirm that the exploratory variables in the model are exogenous, the authors initiated the endogeneity test. The Durbin Chi-square and Wu Hausman tests are used for this. Table 4 displays significant *p*-values confirming the endogeneity issue to exogenous variables *td*, *esg*, and *td_esg*, with *lmcap* as the dependent variable (DV). All models produce similar results, whether the base or interaction effect model of TD on a firm’s valuation is used. A panel data simultaneous equation problem (panel data two-stage least square model) and an instrument variable of the third lag value of the possible endogenous variable are used to address the endogeneity issue. Furthermore, this study delivers the evidence by giving two models. Both the models reveal similar results that TD significantly affects firms value. Hence, this can be corroborated that the study’s findings are robust.

Table 4. Results of Endogeneity Test.

DV-Lmcap	Base Model	Interaction Model
Durbin Chi-2	22.3983 * (0.0000)	17.3566 * (0.0000)
Wu-Hausman Test	23.207 * (0.0000)	17.7396 * (0.0000)

Source: Author’s Compilation. Note: Value in () is *p*-value. * Shows a significant value at a 5% significance level. DV represents the dependent variable considered for the study.

5. Discussion on the Results Obtained from the Study

5.1. Discussion on Hypothesis Testing

The relationship between the TD and the valuation of the corporate non-financial firms listed in India is significant in the empirically tested interaction model. Therefore, it claims that the assumed hypothesis, TD positively impacts firms’ valuation while ESG acts as the moderator variable is accepted. This implies that even though TD individually holds an inverse relation with the valuation of the firms, but under the influence of ESG disclosures, it positively influences the firms’ valuation. This implies that higher level disclosure decreases firm’s value; however, if it reflects with more ESG practices then it increases firm’s value. These findings infer that TD’s role cannot be ignored regarding the valuation of corporate firms in India.

5.2. Comparing the Results with Previous Studies

The literature present on the current research topic has diverse evidence. One set of studies has found empirical evidence that corporate disclosure positively influences firm valuation (Tiwari and Kumar 2015; Douglas and Meijer 2016; Charumathi and Ramesh 2020; Madhani 2020; Temiz 2021). On the contrary, another set of studies found that disclosures have no impact on the valuation of the firms (de Alencar 2005; Sampong et al. 2018; Oktaviani et al. 2019). Most of the results support that disclosure is positively significant to the valuation of corporate firms.

The present study’s findings are quite startling as the individually *td* holds an inverse relation with the valuation of firms, whereas when the *td* interacts with the *esg* shows a positive influence on the firm’s valuation probing the significance of ESG disclosures in the current era corporate disclosures. As opined by Panayi et al. (2021), explaining the implications of the results of the interaction terms cannot be ignored. Considering the same as the interaction term *td_esg* is perfectly significant in the regression model applied; hence authors claim that *td* has a positive association with the valuation of non-financial firms listed in India. The current findings (TD has adverse impact on firm value) are different from earlier studies, may be due to the higher transparency in disclosure might include such information which is not beneficial for promoting firms value in sample firms. Additionally, when TD is moderated by ESG information it widely spreads the positive information for the benefit of firm’s valuation.

5.3. Contribution and Implications of the Study

This study’s empirical findings have significant implications for all corporate stakeholders, particularly policymakers, managers, and investors. The current paper’s regulatory conclusion for policymakers is to adapt to the circumstances and streamline transparency and disclosures in accordance with the current age shareholder requirements. The empirical results show that *td* has an inverse impact on valuation but has a positive association when combined with *esg* disclosures, demonstrating the importance of environmental, social, and governance disclosures. Investors may benefit the most from the current study’s findings regarding the most critical and significant implication that being transparent in disclosures and *esg* disclosures as an integral part of corporate disclosures leads to an improvement in the firm’s valuation.

6. Conclusions, Limitation, and Scope for Future Research

The literature strongly supports the belief that disclosures will impact corporate firms' valuation (Douglas and Meijer 2016; Madhani 2020; Temiz 2021). The current study's empirical results align with the facts proved in the literature. The authors aimed to determine the association between disclosures and the valuation of corporate firms in India. The study uses *lmcap* as the valuation proxy and *Isales* as the empirical study's control variable. To empirically test the framed hypothesis, the authors use the base and interaction models to test the linear and interaction association on the valuation of the firms.

The findings are distinct from previous research. It is discovered that TD has a significant negative association with the valuation proxy variable *lmcap* but has a significant positive association with Indian corporate firms when the variable *esg* acts as a moderator. The current study is not without flaws. The scope of the study is limited to the S&P BSE-100 index, which contains 76 non-financial companies in India. As a result, the findings cannot be generalized to small and medium-sized businesses or financial institutions. However, the findings provide insights for other similar emerging economies. Additionally, the authors believe that the comprehensive TD index they created may be useful beyond the current topic. It can lay the groundwork for future work in other emerging markets and comparative research among countries. The study opens door for further investigation on ESG, TD and firm value. As only market capitalization is taken as proxy for firm value; however, other firm valuation proxies can also be explored in future studies. More comprehensive indices of ESG and TD be developed including other contemporary features of the corporate in a particular economy. Only *lmcap* is taken as the valuation proxy in this paper; however, other strong proxies like ROA and ROE can also be considered in future studies.

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References

- Aboud, Ahmed, and Ahmed Diab. 2018. The impact of social, environmental and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies* 8: 442–58. [CrossRef]
- Aksu, Mine, and Arman Kosedag. 2006. Transparency and disclosure scores and their determinants in the Istanbul Stock Exchange. *Corporate Governance: An International Review* 14: 277–96. [CrossRef]
- de Alencar, Roberta Carvalho. 2005. Cost of equity capital and disclosure level in Brazilian companies. *Brazilian Business Review* 2: 1–12. [CrossRef]
- Arsov, Sasho, and Vesna Bucevska. 2017. Determinants of transparency and disclosure—evidence from post-transition economies. *Economic Research-Ekonomska Istraživanja* 30: 745–60. [CrossRef]
- Athaley, Chaitaly, Shailesh Rastogi, Akanksha Goel, and Venkata Mrudula Bhimavarapu. 2020. Factors Impacting Bank's Performance: A Literature Review. *Test Engineering and Management* 83: 7379–98.
- Bajic, Stevan, and Burcin Yurtoglu. 2018. Which aspects of CSR predict firm market value? *Journal of Capital Markets Studies* 2: 50–69. [CrossRef]
- Baltagi, Badi. 2015. *The Oxford Handbook of Panel Data*. Oxford: Oxford University Press. Available online: [https://books.google.co.in/books?hl=en&lr=&id=iHHDBAAQBAJ&oi=fnd&pg=PP1&dq=Baltagi,+B.+\(2015\).+The+Oxford+Handbook+of+Panel+Data.+Oxford+University+Press.&ots=bqgtEe4rAd&sig=0aL-BVVGyWEr5S5nq2tIPXk5-hg#v=onepage&q&f=false](https://books.google.co.in/books?hl=en&lr=&id=iHHDBAAQBAJ&oi=fnd&pg=PP1&dq=Baltagi,+B.+(2015).+The+Oxford+Handbook+of+Panel+Data.+Oxford+University+Press.&ots=bqgtEe4rAd&sig=0aL-BVVGyWEr5S5nq2tIPXk5-hg#v=onepage&q&f=false) (accessed on 25 November 2021).

- Baltagi, Badi H., and Dong Li. 2002. Series estimation of partially linear panel data models with fixed effects. *Annals of Economics and Finance* 3: 103–16.
- Baumann, Ursel, and Erlend Nier. 2004. Disclosure, volatility, and transparency: An empirical investigation into the value of bank disclosure. *Economic Policy Review* 10: 31–45.
- Bebchuk, Lucian, Alma Cohen, and Allen Ferrell. 2009. What matters in corporate governance? *The Review of Financial Studies* 22: 783–827. [CrossRef]
- Bhimavarapu, Venkata Mrudula, and Shailesh Rastogi. 2020. Valuation of Transparency—A Systematic Literature Review Paper. *Test Engineering and Management* 83: 9092–102.
- Bhimavarapu, Venkata Mrudula, and Shailesh Rastogi. 2021. Effects of Corporate Transparency: Literature Review and Research Agenda. *Empirical Economics Letters* 20: 283–323.
- Bhimavarapu, Venkata Mrudula, Shailesh Rastogi, and Jagjeevan Kanoujiya. 2022. Ownership concentration and its influence on transparency and disclosures of banks in India. *Corporate Governance*. [CrossRef]
- Bijalwan, Jyotsna Ghildiyal, and Pankaj Madan. 2013. Corporate Governance Practices, Transparency and Performance of Indian Companies. *IUP Journal of Corporate Governance* 12: 45–79.
- Busru, Showkat Ahmad, and G. Shanmugasundaram. 2017. Effects of innovation investment on profitability and moderating role of corporate governance: Empirical study of Indian listed firms. *Indian Journal of Corporate Governance* 10: 97–117. [CrossRef]
- Charumathi, B., and Latha Ramesh. 2020. Impact of voluntary disclosure on valuation of firms: Evidence from Indian companies. *Vision* 24: 194–203. [CrossRef]
- Cheng, Philip Y. 2007. The trader interaction effect on the impact of overconfidence on trading performance: An empirical study. *The Journal of Behavioral Finance* 8: 59–69. [CrossRef]
- Cheung, Yan-Leung, Ping Jiang, and Weiqiang Tan. 2010. A transparency Disclosure Index measuring disclosures: Chinese listed companies. *Journal of Accounting and Public Policy* 29: 259–80. [CrossRef]
- Chua, Choong Tze, Cheol S. Eun, and Sandy Lai. 2007. Corporate valuation around the world: The effects of governance, growth, and openness. *Journal of Banking & Finance* 31: 35–56.
- Douglas, Scott, and Albert Meijer. 2016. Transparency and Public Value—Analyzing the Transparency Practices and Value Creation of Public Utilities. *International Journal of Public Administration* 39: 940–51. [CrossRef]
- Gill, Amarjit, Nahum Biger, Harvinder S. Mand, and Neil Mathur. 2013. Earnings management, firm performance, and the value of Indian manufacturing firms. *International Research Journal of Finance and Economics* 116: 121–31.
- Haat, Mohd Hassan Che, Rashidah Abdul Rahman, and Sakthi Mahenthiran. 2008. Corporate governance, transparency and performance of Malaysian companies. *Managerial Auditing Journal* 23: 744–78. [CrossRef]
- Hsiao, Cheng. 1985. Benefits and limitations of panel data. *Econometric Reviews* 4: 121–74. [CrossRef]
- Jaaffar, Amar Hisham, Bakhtiar Alrazi, Say Keat Ooi, and Amanuddin Shamsuddin. 2019. Strategically-framed environmental disclosure index: A measurement approach of Malaysian public listed companies' corporate environmental reporting practices. *International Journal of Environmental Technology and Management* 22: 236–56. [CrossRef]
- Kanoujiya, Jagjeevan, Venkata Mrudula Bhimavarapu, and Shailesh Rastogi. 2021. Banks in India: A Balancing Act Between Profitability, Regulation and NPA. *Vision*. [CrossRef]
- Kumar, Sushil, and Anab Kidwai. 2018. CSR disclosures and transparency among top Indian companies. *International Journal of Indian Culture and Business Management* 16: 57–70. [CrossRef]
- Kumar, V., and Denish Shah. 2009. Expanding the role of marketing: From customer equity to market capitalization. *Journal of Marketing* 73: 119–36. [CrossRef]
- Lai, Shu-Miao, Chih-Liang Liu, and Taychang Wang. 2014. Increased disclosure and investment efficiency. *Asia-Pacific Journal of Accounting & Economics* 21: 308–27.
- Machmuddah, Zaky, Dian Wulan Sari, and St. Dwiarto UTOMO. 2020. Corporate social responsibility, profitability, and firm value: Evidence from Indonesia. *The Journal of Asian Finance, Economics, and Business* 7: 631–38. [CrossRef]
- Madhani, Pankaj M. 2020. Value Addition through Good Governance in Corporate Sector: Role of Disclosure and Transparency. Available online: File:///C:/Users/HP/Downloads/Value_Addition_Through_Good_Governance_i.pdf (accessed on 1 March 2022).
- Mehmood, Sajid, Muhammad Sajid Amin, Muneeb Ahmad, and Muhammad Umer Quddoos. 2020. Investigating the effect of disclosure and transparency on family firms' performance in Pakistan. *International Journal of Advanced Research in Engineering and Technology* 11: 1178–83.
- Mohammadi, Shaban, and Behrad Moein Nezhad. 2015. The role of disclosure and transparency in financial reporting. *International Journal of Accounting and Economics Studies* 3: 60–62. [CrossRef]
- Nashier, Tripti, and Amitabh Gupta. 2020. Ownership Concentration and Firm Performance in India. *Global Business Review*. [CrossRef]
- Nautiyal, Neeraj, and P. C. Kavidayal. 2018. Analysis of institutional factors affecting share prices: The case of national stock exchange. *Global Business Review* 19: 707–21. [CrossRef]
- Nguyen, Tran Thai Ha, Wing-Keung Wong, Gia Quyen Phan, Dang Thanh Minh Tran, and Massoud Moslehpour. 2021. Corporate valuation is spurred by information transparency in an emerging economy. *Annals of Financial Economics* 16: 2150011. [CrossRef]

- Oktaviani, Rachmawati Meita, Desy Tri Susanti, Sunarto Sunarto, and Udin Udin. 2019. The effect of profitability, tax avoidance and information transparency on firm value: An empirical study in Indonesia. *International Journal of Scientific & Technology Research* 8: 3777–80.
- Panayi, Evridik, Konstantinos Bozos, and Gianluca Veronesi. 2021. Corporate governance “bundles” and firm acquisitiveness. *Corporate Governance International Review* 29: 402–26. [CrossRef]
- Papoutsis, Aikaterini, and ManMohan Sodhi. 2020. A Sustainability disclosure index using corporate sustainability reports. *Journal of Sustainability Research* 2: 1–23.
- Patel, Sandeep A., and George S. Dallas. 2002. Transparency and Disclosure: Overview of Methodology and Study Results-United States. Available online: <http://repository.binus.ac.id/content/f0024/f002455955.pdf> (accessed on 13 January 2020).
- Pratheepan, Tharmalingam. 2014. A Panel Data Analysis of Profitability Determinants: Empirical Results from Sri Lankan Manufacturing Companies. *International Journal of Economics, Commerce and Management* 2: 1–9.
- Ramba, Monie, Corina Joseph, and Roshima Said. 2018. Advancing Sustainability via the Development of the Modified Environmental, Social and Governance Disclosure Index (MESGi) for Malaysian Public Listed Companies. *International Journal of Supply Chain Management* 7: 655.
- Rastogi, Shailesh. 2013. Long-term Association of Stock Markets of Different Nations: An Empirical Study. *Vision: The Journal of Business Perspective* 17: 303–13. [CrossRef]
- Rawal, Aashi, Shailesh Rastogi, Jagjeevan Kanoujiya, and Venkata Mrudula Bhimavarapu. 2022. Impact of transparency and disclosure (T&D) and financial distress (FD) on the valuation of banks in India. *Journal of Economic and Administrative Sciences*. [CrossRef]
- Sampong, Frank, Na Song, Kingsley Osei Boahene, and Kwame Ansong Wadie. 2018. Disclosure of CSR performance and firm value: New evidence from South Africa on the basis of the GRI guidelines for sustainability disclosure. *Sustainability* 10: 4518. [CrossRef]
- Sharif, Saeed Pahlevan, and Ming Ming Lai. 2015. The effects of corporate disclosure practices on firm performance, risk, and dividend policy. *International Journal of Disclosure and Governance* 12: 311–26. [CrossRef]
- Silva, Berta, Digna Azúa, Paola Díaz, and Verónica Pizarro. 2008. The influence of institutional investors on the transparency of the Chilean capital market. *Academia. Revista Latinoamericana de Administración* 40: 54–67.
- Singh, Ruhee. 2013. Standard & Poor’s environmental, social and governance (ESG) India index during and post-global financial crisis. *Global Journal of Management and Business Studies* 3: 1205–12.
- Srivastava, Vinay K., and Shailesh Rastogi. 2010. Corporate Governance: An Empirical Study of Indian Companies. *Gurukul Business Review* 6: 63–68.
- Sudha, S. 2015. Risk-return and Volatility analysis of Sustainability Index in India. *Environment, Development, and Sustainability* 17: 1329–42. [CrossRef]
- Sulong, Zunaidah, and Fauzias Mat Nor. 2010. Corporate governance mechanisms and firm valuation in Malaysian listed firms: A panel data analysis. *Journal of Modern Accounting and Auditing* 6: 2–19.
- Taylor, Joseph, Joseph Vithayathil, and Dobin Yim. 2018. Are corporate social responsibility (CSR) initiatives such as sustainable development and environmental policies value-enhancing or window dressing? *Corporate Social Responsibility and Environmental Management* 25: 971–80. [CrossRef]
- Temiz, Hüseyin. 2021. The effects of corporate disclosure on firm value and firm performance: Evidence from Turkey. *International Journal of Islamic and Middle Eastern Finance and Management* 14: 1061–80. [CrossRef]
- Tiwari, Ranjit, and Brajesh Kumar. 2015. Drivers of Firm’s Value: Panel Data Evidence from Indian Manufacturing Industry. *Asian Journal of Finance & Accounting* 7: 1–22.
- Truong, Loc Dong, Thai Xuan Le, and H. Swint Friday. 2022. The Influence of Information Transparency and Disclosure on the Value of Listed Companies: Evidence from Vietnam. *Journal of Risk and Financial Management* 15: 345. [CrossRef]
- Turrent, Guadalupe Del Carmen Briano, and Lázaro Rodríguez Ariza. 2012. Corporate Information Transparency on the Internet by Listed Companies in Spain (IBEX35) and Mexico (IPYC). *The International Journal of Digital Accounting Research* 12: 1–37.
- Wang, Jing, and Huilan Zhang. 2022. Political transparency, corporate governance and economic significance. *International Journal of Disclosure and Governance* 19: 49–66. [CrossRef]
- Wooldridge, Jeffrey M. 2015. *Introductory Econometrics: A Modern Approach*. Boston: Cengage Learning.