

MARKETING INFLUENCE ON ESG DISCLOSURE CREDIBILITY: THE MEDIATING ROLE OF INTERNAL ASSURANCE MECHANISMS AND MODERATING EFFECT OF REGULATORY PRESSURE IN PAKISTANI LISTED FIRMS

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Abstract

The Environmental, Social, and Governance (ESG) disclosure has rapidly emerged as a focal point of corporate responsibility and transparency. However, despite its growing prominence, a significant credibility gap exists as stakeholders often struggle to differentiate between the genuine sustainable performance of a company and the reputation-driven marketing communication. Addressing this gap, the present study explores the impact of marketing-motivated ESG-communication strategy on the credibility of ESG disclosures in Pakistan Stock Exchange (PSX)-listed companies. Specifically, the study investigates whether the internal assurance mechanism in terms of internal audit quality, sustainability committees, and board ESG oversight mediate the relationship between market-driven ESG communication and disclosure credibility. In addition, this study analyses the moderating influence of regulatory pressure arising from the Securities and Exchange Commission of Pakistan (SECP) and the Pakistan Stock Exchange governance codes on the marketing-to-credibility pathway. Based on the theoretical framework of Signalling Theory, Legitimacy Theory, Agency Theory and Stakeholder Theory, the study establishes a moderated mediation framework. Empirical analysis was based on the primary survey data with 312 senior executives, sustainability officers, and in-house auditors in 104 PSX-traded companies in six industries. The proposed hypothesis was tested by using structural equation modelling (SEM) and partial least squares estimation (PLS-SEM). The findings verify that marketing impact on ESG disclosure had a positive effect on credibility; however, the relationship was fully mediated by internal assurance systems. In other words, marketing-driven disclosure can only enhance credibility when it is supported by solid internal assurance systems. Moreover, the results show that regulatory pressure has a strong impact on the marketing assurance-credibility link, implying that more effective regulatory oversight can enhance the effectiveness of governance mechanisms

in providing assurances of ESG disclosures. Overall, the results challenge the common assumption that ESG marketing activities are typically engaged in by companies as a form of greenwashing by showing that they can indeed be used to generate legitimate credibility benefits.

INTRODUCTION

Environmental, Social, and Governance (ESG) disclosure has experienced a global rise and has fundamentally changed the nature of corporate responsibility. What was once voluntary and niche reporting primarily adapted by large multinationals to respond to activist investors has gradually evolved into a widely expected component of corporate transparency. Today, institutional investors, credit rating agencies, and regulators increasingly regard ESG information as a material component of traditional financial data disclosure. However, this rapid ESG reporting has not come without concern. As the volume of ESG disclosure continues to grow, questions related to integrity become more pronounced. Particularly, the difference between the identity of real sustainability performance and marketing stories used to develop corporate images has emerged as an increasing challenge to stakeholders throughout the investment chain. This phenomenon is often known by different names, such as greenwashing, impression management or symbolic decoupling.

Against this backdrop, the case of Pakistan offers a relevant context to observe this tension. The disclosure of ESG practices in the corporate sector in the country has been accelerating in the last decade, with the main incentive being the Securities and Exchange Commission of Pakistan (SECP) Code of Corporate Governance (2019) and the Pakistan Stock Exchange (PSX) Sustainability Reporting Guidelines. However, despite this regulatory push, the quality and credibility of discourse remain highly uneven. Independent analysis of sustainability reporting by PSX-listed companies revealed a clear divide, while some firms created comprehensive and data-driven disclosures, meeting all global reporting standards, including the Global Reporting Initiative (GRI) and the Task Force on

Climate-related Financial Disclosures (TCFD), and others rely on polished narrative heavy reports with limited quantifiable evidence. This diversity provides a natural setting to answer a critical question what makes ESG disclosures credible? More specifically it allows for an investigation how marketing communication policies and internal governance systems contribute to the credibility judgment.

To better understand this issue, it is important to situate it within current body of literature. The current body of literature regarding the credibility of ESG disclosures has evolved along three comparatively different streams. Firstly, based on the financial accounting and auditing studies emphasizing the role of external assurance, i.e. verification by third party auditing firms, as a key signal of credibility (Simnett et al., 2009; Kolk and Perego, 2010). Secondly, grounded in the sociological theory of organization and legitimacy theory, focuses on how the corporate disclosure strategies are in reaction to the organizational pressures and social expectations (Deegan, 2002; Suchman, 1995). Thirdly, emerging through the marketing and corporate communications studies, focuses on the impacts of the framing, tone, and strategic influence of the ESG stories on the stakeholders (Moosmayer et al., 2020; Seele and Gatti, 2017). However, despite these valuable contributions a critical gap remains. There is still a lack of consolidated framework that connects these perspectives, i.e. one that explains how ESG communication strategies interact with internal governance and assurance structures, and how this interplay is predetermined by the regulatory environment.

Building on the aforementioned gap, this study attempts to develop and empirically test an integrated framework to explain ESG disclosure credibility. More specifically, this study developed and test a moderated mediation model that had

three interacting constructs: (1) Marketing Influence on ESG Disclosure (MIED), which was the extent of ESG communication being strategically determined by the marketing and public relations functions; (2) Internal Assurance Mechanisms (IAM), which involved the internal audit quality, sustainability committee effectiveness, and board level ESG oversight; and (3) ESG Disclosure Credibility (EDC), which was measured using multiple stakeholder perspectives. SECP and PSX regulatory Pressure (RP) was the moderator. In principle, the model combines Signalling Theory (Spence, 1973), Legitimacy Theory (Dowling and Pfeffer, 1975), Agency Theory (Jensen and Meckling, 1976) and Stakeholder Theory (Freeman, 1984) to come up with a subtle set of predictions regarding how marketing-based ESG communication can result in actual credibility rewards.

This study contributes to the literature in five ways. First, it forms and confirms the initial psychometrically sound scale to assess the marketing impact on ESG disclosure in the new market environment. Second, the results show that the internal assurance mechanism totally mediates the connection between marketing and credibility and that the key contributor to credibility was not marketing sophistication, but governance infrastructure. Third, it demonstrates that the mediated pathway was moderated by regulatory pressure, which indicates that the effectiveness of internal assurance as a credibility-building mechanism differs depending on the conditions of institutional environment. Fourth, it leads to the sustainability accounting literature through the first large-sample empirical test of ESG disclosure credibility determinants in the listed firm sector in Pakistan. Fifth, it provides practical implications on the SECP, PSX board governance models, and firm-level sustainability governance model.

2. LITERATURE REVIEW

2.1 ESG Disclosure and the Credibility Challenge

ESG disclosure can be described as voluntary or compelled reporting by companies of the non-

financial data on their environmental effects, social activities, and governance arrangements (Eccles and Krzus, 2010). In recent years, the growing emphasis on sustainability and accountability has accelerated the evolution of such disclosure. Spurred by an unprecedented number of landmark frameworks such as the GRI Standards, the Sustainability Accounting Standards Board (SASB) protocols and the TCFD recommendations, the corporate sustainability reporting movement has produced a prodigy of ESG-related content in annual reports, standalone sustainability reports, integrated reports and on digital platforms. Despite this rapid expansion, concerns regarding the reliability of such disclosures have emerged. However, volume alone does not guarantee credibility. In this respect, Cho et al. (2015) report that companies that do poorly on environmental performance tend to provide longer and more elaborate environmental disclosures. Such an observation indicates that environmental disclosure by firms does not necessarily indicate transparency but is part of the impression management process. This raises an important question regarding the credibility of ESG disclosures. In essence, the idea of credibility in corporate disclosures can be understood as the accuracy and truthfulness of the information that is presented, in relation to the performance of the company (Mercer, 2004). As such, ESG disclosure credibility cannot simply be equated to either disclosure quantity or quality, since it is, by nature, perceptual. Building on this perspective, prior research has identified several factors influencing perceived credibility. Studies on the credibility of the ESG disclosures have also found multiple antecedents, such as externality assurance (Simnett et al., 2009), adherence to reporting frameworks (Hess, 2019), the quality of governance (Frias-Aceituno et al., 2014), and firm-level sustainability performance (Hummel and Schlick, 2016). Nevertheless, one potentially influential factor remains underexplored: the role of marketing communication strategies in shaping stakeholder perceptions of credibility

This gap becomes particularly relevant in emerging markets such as Pakistan. The practice of disclosure of ESG in Pakistan has developed unevenly. Preliminary empirical research reported a low quality of environmental and social disclosure in PSX-listed companies (Khan et al., 2013; Awan et al., 2021), which was partially due to the poor quality of regulatory enforcement and partially to the fact that business groups based on family ownership have low incentives to promote transparency. However, recent developments suggest a gradual shift. More recent evidence indicates that although there is some improvement, it is slow and inconsistent; the companies operating in highly regulated industries like banking, oil and gas, and cement have been taking the lead towards meaningful reporting due to regulatory pressure by the SECP (Mahmood and Orazalin, 2017). Thus, such a changing institutional environment leads to marked differences among companies concerning marketing and governance. Thus, the Pakistani case seems to be ideal to answer the research questions of this paper.

2.2 Marketing Influence on ESG Disclosure

The impact of marketing on ESG communications has been investigated in terms of two opposed paradigms. Firstly, the sceptical critical accounting literature and sustainability communications scholarship take an inherently cynical view of marketing's influence on the ESG disclosure process. Marketing intervention is seen as automatically distorting, since the professional communicators who have a vested interest in polishing the company's public image are likely to focus on the positive aspects of their actions, use aspirational language, and avoid negative disclosure altogether (Lyon and Maxwell, 2011; Bowen, 2014). In other words, any marketing-driven disclosure is seen as potentially indicative of greenwashing. Under such premises, one would expect that either there is a negative correlation between the marketing-related disclosure and credibility or, even worse, there is no correlation at all.

On the contrary, there is another perspective that stems from the theories of marketing and strategic communication that presents a more realistic approach. In this context, it needs to be noted that communication skills among professionals are not misleading but rather help to improve the presentation of sustainability information. According to Kim & Ferguson (2018), the well-designed, narrative and audience-oriented ESG information tends to have a better effect on stakeholders, despite controlling for the quality of information itself. Hence, one can conclude that marketing power can be viewed as a value-adding tool only under the assumption that information is correct and relevant.

However, regardless of these conflicting perspectives, there remains an unresolved empirical issue regarding this matter in the existing literature. The reason for this is that most studies in the past have neglected the importance of internal governance mechanisms in determining how marketing influences ESG disclosure credibility. To address this issue, we believe that the influence of marketing pressure varies depending on whether or not effective internal governance mechanisms are present in organizations. In other words, when internal controls and governance mechanisms, like internal auditing processes, exist within the organization, ESG disclosures through marketing are viewed as credible and sincere. On the contrary, the absence of governance mechanisms results in hollow marketing-based disclosures.

2.4 Regulatory Pressure and ESG Compliance in Pakistan

Regulatory pressure in the ESG disclosure context refers to the extent to which companies are subject to compulsory or quasi-compulsory reporting requirements, enforcement regulations, and institutional examinations by regulatory organisations and capital market authorities (Ioannou and Serafeim, 2012; Hess, 2019). In Pakistan, this pressure is primarily exerted through key regulatory bodies such as SECP and PSX. Specifically, board composition, audit committee, and disclosure requirements were

reinforced by the SECP 2019 Code of Corporate Governance. In addition, SECP 2021 ESG Guidelines for listed companies introduced sector-distinct disclosure expectations and encouraged, though did not mandate third-party assurance, representing one of the most substantive regulatory interventions to date.

Building on this regulatory context, the basic framework through which the regulatory pressure influences the firm's behaviour can be explained by using the Institutional Theory (DiMaggio and Powell, 1983). In particular, coercive isomorphism is the mechanism that organisations follow practices based on formal regulatory demands and pressures, predicting that the more organisations are regulated by SECP, the more they are likely to change substantive ESG governance practices, such as internal assurance investments. By contrast, mimetic isomorphism (imitating peers) and normative isomorphism (conforming to professional norms) may lead to more symbolic or superficial compliance. This distinction is important because the empirical studies from other emerging market settings indicate that higher regulatory pressure enhances better quality of governance interventions (Ioannou and Serafeim, 2012; Chauvey et al., 2015), although this relationship remains underexplored in the context of Pakistan.

Furthermore, critically, to this study, regulatory pressure not only influences the adoption of ESG governance structure but also determines its effectiveness in enhancing company credibility. In other words, strong regulatory oversight ensures that the internal assurance mechanisms are subject to external scrutiny by regulatory bodies, thereby incentivising their rigorous and substantive implementation. Conversely, in an environment characterised by weak regulatory supervision, firms may adopt similar mechanisms but operate them with less stringency, reducing their capacity to convert marketing-driven disclosures into credible and reliable information. This underscores the importance of establishing the relationships on the basis of a sound theoretical foundation, which is discussed in the next section.

2.5 Theoretical Foundations

Building on the preceding discussion, this study incorporates four supplementary theoretical perspectives in developing its conceptual model. Among these, signalling theory (Spence, 1973) provides the primary lens for explaining why companies invest in ESG disclosure and assurance. In the presence of information asymmetry, companies with genuine sustainability performance are motivated to signal their quality to investors and stakeholders through expensive and hard-to-imitate disclosure practices. In this regard, the internal assurance mechanisms are considered to be a credible signal as they require investments in governance infrastructure that may not be easily replicated by the low-performance firms that are interested in imitating the disclosure practices of the high-performing firms. Accordingly, unaccompanied marketing-driven disclosures lack credibility as they are neither sufficiently costly nor verifiable.

Complementing this perspective, Legitimacy Theory (Dowling and Pfeffer, 1975; Suchman, 1995), explained the broader institutional motivation of ESG disclosure. Companies disclose their ESG information not just to announce a quality but also to remain socially legitimate to show adherence to the current social norms, values, and expectations. In this context, marketing functions play a crucial role by framing and communicating corporate practices of sustainability in a manner that optimises their alignment with the expectations of the stakeholders. Importantly, regulatory pressure reshapes these expectations, thereby influencing the form and intensity of legitimacy-seeking disclosure strategies

From a governance standpoint, Agency Theory (Jensen and Meckling, 1976) which presents further justifications for the role of internal assurance mechanisms. The ESG disclosure issue can be viewed as a principal-agent problem where Principals face difficulties in verifying whether managerial ESG disclosures accurately reflect underlying performance. Therefore, internal assurance systems reduce the monitoring costs and align managerial actions with the interests of

the stakeholders, thus enhancing the accuracy and validity of the disclosed information. In particular, the board oversight quality emerges as a critical governance mechanism in addressing such principal-agent conflicts in corporate reporting.

Finally, extending the analysis to multiple audiences, Stakeholder Theory (Freeman, 1984) underpins the multi-constituent nature of ESG disclosure credibility. Firms communicate ESG information with diverse audiences with divergent interests and information requirements, including equity investors, debt providers, employees, customers, regulators, communities and NGOs, each with distinct expectations and information needs. Consequently, Credibility is not a unitary phenomenon but an aspect that was judged among the various stakeholder groups in different ways. This study incorporates this perspective by assessing credibility from both internal actors in governance and the external stakeholders.

Drawing on the above theoretical and empirical discussion, three key research gaps emerge that this study seeks to address. First, although the existing literature has extensively examined ESG marketing communication and the quality of ESG disclosure, it has not empirically tested the influence of marketing on ESG disclosure credibility nor the mediating effects of the internal assurance mechanisms on this relationship. Second, while the internal assurance mechanisms have been studied as direct predictors of disclosure levels, the mediating role played by them in the marketing-credibility relationship remains unexplored and theoretically underdeveloped. Third, the contextual variable of regulatory pressure had not been operationalised as a within-country moderating factor in the marketing-assurance-credibility, particularly in the context of a developing economy. Accordingly, this study addresses these gaps by proposing an integrated moderated mediation framework grounded in the context of Pakistani listed firms.

3. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1 Direct Effect: Marketing Influence on ESG Disclosure Credibility

The initial hypothesis was related to the direct correlation between the marketing influence on ESG disclosure (MIED) and ESG disclosure credibility (EDC). Signaling Theory hypothesizes that marketing investments in ESG communication have effective as positive signals of organizational ability and determination in the case they generate professionally crafted, narratively sensible, and stakeholder-directed disclosures. A company which was prepared to make significant investments in ESG communication was an indication that it believes in its core performance, as such investments in ESG communication would be expensive and reputational liabilities in cases where the investments are not supported by actual sustainability initiatives. Empirically, ESG communication sophistication had been empirically linked to positive associations with credibility assessment and ESG communication in North American and European settings (Du et al., 2010; Moosmayer et al., 2020).

The Legitimacy Theory puts a twist to this, since marketing-induced disclosure can be a form of legitimacy-seeking behaviour, and in that case the positive signal interpretation fails. Researcher assume the direct impact of MIED on EDC would be positive but small, as in the institutional setting of Pakistan, with moderate but increasing stakeholder sophistication, marketing investment in communication of ESG would be understood as a positive quality indicator than as a manipulation strategy, especially among the managerial and governance respondents who would form our key sample group.

H1: Marketing influence on ESG disclosure (MIED) will be positively associated with ESG disclosure credibility (EDC) among Pakistani listed firms.

3.2 Mediating Role of Internal Assurance Mechanisms

Researcher hypothesized our main theoretical contribution, which hypothesized that internal assurance mechanisms (IAM) moderate the correlation between marketing influence on ESG disclosure and ESG disclosure credibility. The mediation argument follows two steps, namely, MIED to IAM and IAM to EDC.

3.2.1 Marketing Influence on Internal Assurance Mechanisms

Researcher assume the existence of a positive impact of MIED on IAM. This forecast might seem paradoxical against the critical literature in which marketing participation had been described as antagonistic of sound governance. Researcher, however, refer to the literatures on organizational learning and dynamic capabilities to suggest that the marketing functions become more deeply involved into ESG communication, the more they need to be involved in the internal data systems, performance metrics and verification processes. The demand created by high marketing in ESG disclosure result in the organizational need of credible ESG information, which leads to a motivation of investment in the governance infrastructure or internal audit, sustainability committees, board oversight, which provides credible information. It was a demand-pull factor: marketing ambition stimulates the ability of governance. Companies with a strong commitment to advanced external ESG reporting have reputational risks in the event that such reporting was later revealed to be unreliable, which forms a strong incentive to support marketing functions to recommend in favour of, and cooperate with, internal assurance systems.

H2a: Marketing influence on ESG disclosure (MIED) will be positively associated with internal assurance mechanisms (IAM) quality.

3.2.2 Internal Assurance Mechanisms on ESG Disclosure Credibility

The Agency Theory forecast was quite obvious: efficient internal control lowers the information asymmetry and self-serving attitude of the

managers in non-financial reporting, resulting in disclosures that better reflect the actual performance and are, consequently, more believable to the stakeholders. The quality of internal audit also guarantees the reliability of ESG data pipelines, as well as the disclosure of material sustainability risk. The effectiveness of sustainability committee makes the sustainability governance a board-level issue, as opposed to an activity left at the discretion of the managers. Quality board ESG oversight would guarantee the integrity of the entire governance apparatus of the firm was in line with the integrity of sustainability reporting. The overall outcome of these three assurance mechanisms would be a positive significant correlation with the ESG disclosure credibility assessed by the stakeholders. **H2b:** Internal assurance mechanisms (IAM) quality will be positively associated with ESG disclosure credibility (EDC).

3.2.3 Mediation Hypothesis

H2a and H2b have the direct implication of the complete mediation prediction: the positive effect of the marketing influence on the credibility of positive ESG disclosures was mediated by and conditional on the quality of internal assurance mechanisms. Disclosures made due to marketing reasons and not marked by the robust internal assurance can only have superficial or no credibility gains, whereas disclosures made as part of a robust assurance infrastructure result in genuine credit gains since the governance infrastructure authenticates what was communicated. Depending on the intensity of the direct effects, Researcher anticipate mediation fully or partially.

H2c (Mediation): Internal assurance mechanisms (IAM) will mediate the relationship between marketing influence on ESG disclosure (MIED) and ESG disclosure credibility (EDC), such that the indirect effect of MIED on EDC via IAM was positive and significant.

3.3 Moderating Effect of Regulatory Pressure**3.3.1 Regulatory Pressure on Internal****Assurance Mechanisms**

It was hypothesized that coercive isomorphism (DiMaggio and Powell, 1983) causes that an increase in the regulatory strength of the SECP and PSX governance framework positively affected the quality of internal assurance mechanisms. Companies in an environment where governance faces increased scrutiny are directly penalized, and have compliance costs in addition to reputational costs associated with poor governance and are brought to bear, and provide powerful incentives to engage in serious, rather than token, investment in internal audit, and sustainability committees as well as board supervision. This forecast was backed up by cross-country data: the systematically higher the quality of domestic ESG governance in countries where such disclosures are mandatory, as compared to countries where they are voluntary in nature (Ioannou and Serafeim, 2012; Chauvey et al., 2015). In Pakistan even among sectors governed by disclosure provisions of SECP (banking, insurance, listed financial services) there was a measurably greater governance investment with other less stringently governed sectors.

H3a: Regulatory pressure (RP) will positively moderate the relationship between marketing influence on ESG disclosure (MIED) and internal assurance mechanisms (IAM), such that the MIED-to-IAM effect was stronger when regulatory pressure was higher.

3.3.2 Moderation of the Mediated Pathway

The theoretically most complicated prediction was about the moderation of the entire mediated pathway. Researcher hypothesise that the regulatory pressure would not only mediate the relationship between MIED and IAM, but also the overall indirect influence of MIED on EDC through IAM, a typical moderated mediation design (Hayes, 2022; Model 7 or similar in the context of SEM). The rationale was as follows: with a great deal of regulatory pressure, the chain between the marketing investment to internal assurance to the credibility was strengthened at

several points. Marketing-oriented disclosure aspirations have faced an institutional setting where (a) the governance was more sensitive to the marketing request of reliable information, (b) the various assurance systems within the firm are more stringent due to the regulatory accountability, and (c) the various stakeholders that evaluate credibility are more confident that the disclosed information had been subjected to the meaningful verification since they understand that the regulatory environment enforces it. At low regulatory intensity, every activity in this chain was frailer: marketing investment might fail to produce the identical governance favorable effects, internal assurance might be more ritual, and stakeholders might undervalue the credibility signals since they understand they are unlikely to be enforced.

H3b (Moderated Mediation): Regulatory pressure (RP) will moderate the indirect effect of MIED on EDC via IAM, such that the mediated pathway was stronger under conditions of high regulatory pressure.

3.4 Control Variables

According to the literature available, Researcher add the following firm-level control variables: firm size (log total assets), leverage (debt-equity ratio), profitability (return on assets), industry sector (six category dummy), firm age, board size, board independence, and the presence of external ESG assurance provider. Instead, these variables have been identified in previous research as predictors of quality and/or credibility of ESG disclosure and they need partialing to identify the effects of interest.

4. METHODOLOGY**4.1 Research Design and Target Population**

This study adopts a positivist ontological stance and a quantitative, survey-based design, using a cross-sectional design, complemented by secondary financial information from firms' annual reports. Primary data collection is justified because the main constructs of the study, which are marketing influence on ESG disclosure, internal assurance mechanisms, and ESG

disclosure credibility, are perceptual and process constructs of governance, which cannot be sufficiently measured using publicly available secondary data. The study follows a deductive approach, testing theory-driven hypotheses using empirical analysis. The targeted population comprised 554 firms listed on the Pakistan Stock Exchange (PSX) as of January 2024. After excluding firms with market capitalisation of less than PKR 1 billion and firms with less than five years of listing history, firms operating in the financial sector, the final population included 382 non-financial firms. The stratified purposive sampling ensured representation across the six industry sectors, including Cement and Construction Materials, Textile and Apparel, Oil, Gas and Energy, Pharmaceuticals and Healthcare,

Food and Consumer Products, and Information Technology and Telecommunications. Three respondents per firm were targeted, including the Chief Sustainability Officer, the Head of Internal Audit, and a senior Board Director in charge of governance, yielding 1,146 individual respondents. Data were collected from February to July 2024 using a structured questionnaire in the online survey with Qualtrics. After data quality screening (filtering out responses with more than 15 per cent of missing values, the time to complete response that was shorter than four minutes and straightlining), the final analytical sample included 312 complete three-respondent firm cases out of 104 PSX-listed firms, which was a firm response rate of 27.2 per cent. Table 1 shows sample descriptive statistics.

Table 1 Sample Characteristics: Firm and Respondent Profiles (N = 104 firms, 312 respondents)

Characteristic	Category	n (%)
Industry Sector	Cement & Construction	18 (17.3%)
	Textile & Apparel	22 (21.2%)
	Oil, Gas & Energy	16 (15.4%)
	Pharma & Healthcare	14 (13.5%)
	Food & Consumer	20 (19.2%)
	IT & Telecom	14 (13.5%)
Firm Size	Small (< PKR 5B assets)	31 (29.8%)
	Medium (PKR 5-25B)	48 (46.2%)
	Large (> PKR 25B)	25 (24.0%)
Firm Age	< 10 years	19 (18.3%)
	10-25 years	44 (42.3%)
	> 25 years	41 (39.4%)
Respondent Role	Sustainability / Corp Affairs	104 (33.3%)
	Head of Internal Audit	104 (33.3%)

	Board Director	104 (33.3%)
External ESG Assurance	Yes (3rd-party assurance)	38 (36.5%)
	No external assurance	66 (63.5%)

4.2 Measurement Instruments

Marketing Influence on ESG Disclosure (MIED)

Measurement instruments were developed using a validated multi-item scale on 7-point Likert scales (1 = Strongly Disagree, 7 = Strongly Agree). Marketing Influence on ESG Disclosure (MIED) was measured using five items capturing the extent to which : (1) to what extent the marketing/PR role influences the content of sustainability reports; (2) to what extent was ESG communication designed to increase brand reputation; (3) whether professional communications expertise was driven to the disclosure prioritization motive; (4) whether the ESG communication strategy was formally implicated with the overall marketing strategy; and (5) whether stakeholder mapping (a marketing technique) guides the disclosure. The construct demonstrates strong psychometric properties, Cronbach's alpha =.87; composite reliability (CR) =.89; average variance extracted (AVE) =.62. Unidimensionality was verified using exploratory factor analysis (EFA). .

Internal Assurance Mechanisms (IAM)

IAM was operationalised as a second-order reflective measure comprising three dimensions. Internal Audit Quality (IAQ, 4 items, alpha =.88) was an indicator of the extent, independence and competence of the internal audit role in non-financial reporting. Sustainability Committee Effectiveness (SCE, 4 items, alpha = .91) was used to measure the frequency of meetings, member independence, ESG expertise of the committee and the formal connection between committee product and disclosure product based on Liao et al. (2015). Quality Board ESG Oversight (BEOQ, 4 items, alpha =.86) assessed the quality of board-level review of ESG performance information, board approval of sustainability disclosures,

board ESG training, and incorporation of ESG in board-level KPIs, based on Velte (2017). The model fit was evaluated through a higher-order specification of PLS-SEM.

ESG Disclosure Credibility (EDC)

EDC was measured with A five-item scale adapted by Mercer (2004) and Cho et al. (2015), such as (1) the ESG disclosures reflect the actual sustainability performance of the firm; (2) the statements in sustainability reports can be verified; (3) the ESG disclosures are free of material misstatements or omissions; (4) the sustainability reports of the firm were trustworthy; and (5) the disclosed ESG information formed a reliable basis of decision making (Alpha = .91; CR = .92; AVE = .70). To reduce common error bias, data were collected from multiple respondent, MIED and IAM data were obtained through the Sustainability Officer and the Internal Auditor respondents respectively.

Regulatory Pressure (RP)

RP was measured using a four-item scale: (1) our firm had a high regulation procedure by the SECP on ESG disclosure; (2) our sustainability reporting practices are largely constrained by the regulatory requirement of PSX; (3) non-compliance with regulatory disclosure of ESG would be severely punishable to our firm; and (4) Researcher have a sector specific regulation of ESG reporting (Alpha = .84; CR = .86; AVE = .61.). Additionally, Items were supported by an objective regulatory intensity index as based on SECP sector-specific guideline stringency, which was applied as a sensitivity check..

4.3 Analytical Strategy

Structural Equation Modelling Partial Least Squares (PLS-SEM) with SmartPLS 4.0. PLS-SEM

was employed as the main analytical method. PLS-SEM was chosen over CB-SEM based on four reasons: (1) the research employs formative measures in the second-order IAM construct, more suitably estimated using PLS; (2) the relatively small sample size of the 104 firm-level observations was better supported by PLS, which requires lower sample sizes; (3) and, (4), the research was exploratory in some aspects, and PLS was more efficient to apply in a context of theory development (Hair et al., 2011). Following established guidelines (Hair et al., 2019). The outer measurement model was tested in terms of reliability (Cronbach's alpha, CR), convergent and discriminant validity (Heterotrait-Monotrait Ratio, HTMT <.85; Fornell-Larcker criterion). The inner structural model was tested through bootstrapped path coefficients (5000 repetitions), values of R-squared, effect sizes (f^2), and values of Stone-Geisser Q-squared predictive relevance. The product-indicator test of moderated mediation involves the interaction term (MIED x RP), and the conditional indirect effects are calculated at mean, +1SD and 1SD values of the moderator. To ensure robustness, the Common Method Bias (CMB) was tested through the single-factor test of Harman, the

total variance of the collinearity as a test of full-collinearity (VIF) (all the VIFs are less than 3.3), and the market variable method, with the age of a firm being taken as the theoretically irrelevant marker variable. All these were negative, with no signs of severe CMB.

5. RESULTS

5.1 Measurement Model Assessment

Table 2 shows the results for the measurement model, indicating high levels of reliability and validity for all variables. The factor loadings were above the threshold value of 0.70 (value range: .71-.93), and internal consistency was good with Cronbach's alpha values ranging from .84 to .91 and composite reliability from .86 to .92. The convergent validity was supported by AVE scores in the range of .61-.70. Moreover, discriminant validity was verified through HTMT values less than .85 (highest value = .78 between IAM and EDC) and the Fornell-Larcker criterion. In particular, the second-order IAM variable had high and statistically significant factor loadings for its three sub-variables (IAQ: .84, SCE: .88, BEOQ: .82). Thus, the reflective-reflective model is justified.

Table 2 Measurement Model: Reliability, Convergent Validity, and Discriminant Validity

Construct	Items	alpha	CR	AVE	Loadings	HTMT Max
MIED	5	.87	.89	.62	.76-.89	.64
IAM (2nd order)	12	.91	.92	.67	.71-.93	.78
- IAQ	4	.88	.90	.69	.78-.91	—
- SCE	4	.91	.92	.74	.82-.93	—
- BEOQ	4	.86	.88	.65	.71-.88	—
EDC	5	.91	.92	.70	.79-.92	.78
Regulatory Pressure	4	.84	.86	.61	.74-.87	.52

Note. CR = Composite Reliability; AVE = Average Variance Extracted; HTMT = Heterotrait-Monotrait Ratio (maximum value reported). All loadings significant at $p < .001$. IAQ = Internal Audit Quality; SCE = Sustainability Committee Effectiveness; BEOQ = Board ESG Oversight Quality.

5.2 Descriptive Statistics and Correlations

Table 3 below presents mean scores, standard deviations, and the correlation coefficient of the latent variables of the constructs under investigation. Mean score of 4.21 (Standard Deviation = 1.18) on 7-point rating scale indicated that ESG Disclosure Credibility scored moderately low. This is consistent with the current state of ESG governance in Pakistan, where companies are at a relatively early stage of development of their ESG governance practices. The Influence of marketing on ESG Disclosure

was high to very high (mean score of 4.68; Standard Deviation = 1.04). This indicates that the influence of marketing functions on ESG communication is high. The largest variance is found for the Internal Assurance Mechanism construct (Mean Score = 3.94; Standard Deviation = 1.34). This is a strong indication that the firms vary significantly in terms of quality of their governance practices. Regulatory Pressure was moderate (Mean Score = 4.12; Standard Deviation = 1.21).

Table 3 Descriptive Statistics and Latent Variable Correlations

Variable	M	SD	1	2	3	4	5
1. MIED	4.68	1.04	(.79)				
2. IAM	3.94	1.34	.52**	(.82)			
3. EDC	4.21	1.18	.38**	.61**	(.84)		
4. Reg. Pressure	4.12	1.21	.24**	.46**	.34**	(.78)	
5. Firm Size (log)	10.84	1.62	.18*	.29**	.22**	.31**	—

Note. * $p < .05$; ** $p < .01$. Values in parentheses on the diagonal are square roots of AVE. Correlations above the diagonal are zero-order Pearson r values.

5.3 Structural Model Results

Table 4 shows the findings from the structural model analysis, which includes path coefficients, t -values, p -values, and effect sizes. The results show that the model can predict a significant

amount of variation, since R^2 is 0.473 for IAM and 0.586 for EDC. Moreover, the Stone-Geisser Q^2 for IAM and EDC is 0.31 and 0.39, respectively, which is positive, indicating sufficient prediction accuracy of the model.

Table 4 PLS-SEM Structural Model Results: Path Coefficients and Hypothesis Tests

Path	beta	SE	t-stat	p-value	f2	Result
H1: MIED → EDC (direct)	.18	.07	2.47	.014	.04	Supported
H2a: MIED → IAM	.44	.06	7.82	< .001	.24	Supported
H2b: IAM → EDC	.53	.07	8.14	< .001	.31	Supported

H3a: MIED x RP -> IAM	.22	.08	2.89	.004	.07	Supported
Indirect: MIED -> IAM -> EDC	.23	.05	4.61	< .001	—	H2c Supported
Cond. Indirect (High RP)	.31	.06	4.88	< .001	—	H3b Supported
Cond. Indirect (Low RP)	.14	.06	2.17	.031	—	H3b Supported
Index of Mod. Mediation	.09	.04	2.24	.026	—	H3b Supported

Note. Bootstrap n = 5,000. All coefficients are standardized. f^2 = Cohen's f-squared effect size. Conditional indirect effects computed at +1SD (High RP) and -1SD (Low RP) of the regulatory pressure moderator. SE = standard error.

5.4 Hypothesis Test Results

The first hypothesis, H1, proposed a positive and direct effect of MIED on EDC and was confirmed ($\beta = .18$, $t = 2.47$, $p = .014$, $f^2 = .04$). The small effect size, however, indicated low practical significance, implying that marketing influence works via the governance channel. This is consistent with hypotheses H2a, H2b, and H2c, which all received strong support, with MIED positively influencing IAM ($\beta = .44$, $t = 7.82$, $p < .001$, $f^2 = .24$), IAM positively influencing EDC ($\beta = .53$, $t = 8.14$, $p < .001$, $f^2 = .31$), and mediation via IAM ($\beta = .23$, $p < .001$). The reduction in the direct effect of MIED on EDC from $\beta = .42$ to $\beta = .18$ proved partial mediation.

Moreover, hypotheses H3a and H3b indicate that regulatory pressure intensifies the above relationships. In terms of moderating, the moderating effect of MIED $\times$ RP ($\beta = .22$, $p = .004$) was significant, with more intense MIED $\rightarrow$ IAM relationships in high RP conditions. Hypothesis H3b was found to hold as moderated mediation was also confirmed (IMM = .09, $p = .026$), with more pronounced indirect effects of RP condition ($\beta = .31$ for high vs $\beta = .14$ for low). Finally, all hypotheses are found to be supported by the empirical findings. Regarding control variables, the size of a firm proves to have a positive influence on IAM and EDC, which

supports the resource-based view (firm size $\beta = .21$, IAM $p = .008$; firm size $\beta = .14$, EDC $p = .031$). Additionally, external ESG assurance positively influences EDC ($\beta = .19$, $p = .004$), suggesting its complementarity. Results of ANOVA test also suggest significant differences across industries ($F = 3.42$, $p = .007$), with the Oil & Gas sector performing better compared to Textile firms in all three studied aspects.

Results are robust after running robustness tests. Employing another SECP regulation index generated the same results ($\beta = .19$, $p = .008$). The interaction term was valid both when we used samples with and without external assurance, although the effect was slightly smaller when external assurance was involved. Lastly, by employing Board Director evaluations of EDC only, identical results were obtained.

56. DISCUSSION OF FINDINGS

This study explores the relationship between the impact of marketing influence on ESG disclosures and credibility in PSX-listed companies, by identifying IAM as a mediator variable and regulatory pressure as a moderator. The results have revealed a coherent theoretical framework, which shows that communication, governance, and institutional factors are combined to shape the process of ESG disclosure credibility.

Marketing influence positively affects ESG disclosure credibility, however, its impact is not significant. It implies that despite the benefits that may arise from professional communication and strategic narrative construction in terms of improving perceptions, the impact of marketing influence alone is relatively weak. In other words, marketing influence plays an essential role but it cannot be sufficient for ESG disclosures because sophisticated stakeholders can no longer be persuaded by symbolic communication only (Mercer, 2004; Cho et al., 2015). They need credible governance structures to consider ESG disclosures reliable.

However, it is the outcomes of the mediation analysis which form the key findings of this study. The positive correlation between marketing-oriented ESG disclosures and IAM implies that communications goals create internal motivation to align with institutional norms of governance. These findings extend legitimacy theory by proving how the process of transformation from symbolic to substantial legitimacy occurs (Suchman, 1995). It is significant since it disproves the widely-held assumption about the superficiality of ESG communications, illustrating that under specific circumstances, communications can become a driving force for governance change.

The IAM becomes the most important determinant for the credibility of ESG disclosures, highlighting the importance of governance over communications. This study's findings are coherent with the Agency Theory because sound internal controls lead to lesser information asymmetries in non-financial disclosures (Jensen & Meckling, 1976; Pizzini et al., 2015). Equally important, these findings are coherent with the Signalling Theory because the governance system serves as an expensive signal that cannot be easily copied by any other party (Spence, 1973; Connelly et al., 2011).

Moreover, the partial mediation effect adds to our understanding of the role played by governance and marketing by showing how the impact of marketing works mainly through governance and not the perceptions of credibility.

It should be noted that there is a significant difference between quality of disclosure and the credibility of disclosure (Cho et al., 2015). In particular, whereas communication makes ESG information clearer and more accessible, the credibility of the information remains tied to governance.

The effect of regulatory pressure as a moderating variable brings an essential aspect of institutions into consideration. According to the results, regulatory pressure enhances the positive correlation between marketing power and IAM, which shows that the governance reactions to ESG communication depend on the nature of the regulatory climate outside the company. Institutional theories (Scott, 2001) assert that regulatory forces like SECP convert voluntary compliance by firms into compulsory governance measures due to coercive pressures.

These findings are further supplemented by the moderated mediation, which illustrates the strength of this relationship when regulatory pressure is high. This implies that regulations not only affect the uptake of good corporate governance practices but also enhance the meaning attached to such governance-related information. This is because the existence of oversight institutions makes governance-related processes more credible in regulated settings. This study contributes to stakeholder theory (Freeman, 1984) by suggesting that institutional contingencies are an important part of stakeholder trust.

The control variables contribute to a deeper understanding of the results. The size of the firm is positively related to both good corporate governance and credibility in line with the resource-based theory (Barney, 1991) and existing research on corporate sustainability. Nevertheless, the less significant impact of the size variable in contrast to IAM implies that even smaller organizations could become credible by implementing good governance. The additional value of external assurance confirms previous studies, which have established that internal and external verification together increase credibility (Simnett et al., 2009). The industry differences

observed here indicate that industries facing greater regulation and global pressure demonstrate better ESG governance.

In general, this study adds value to ESG-related knowledge by revealing the fact that the credibility of disclosure is inherently a governance phenomenon resulting from the interplay between the organization's communication approach and institutional demands. Even though the ESG disclosure conducted for marketing purposes may serve as an enabler, it is the existence of strong internal assurance procedures, backed by regulation, that decides on the credibility.

6. CONCLUSION

The main aim of this study was to investigate the relationship between marketing-based ESG disclosure and the credibility of the disclosure by PSX-listed firms, emphasising the effect played by IAM as well as the role of regulation pressure as a moderator of this relationship. In doing so, the current study fills a conspicuous void in ESG disclosure studies, particularly with regard to the understudied South Asian setting, which lacks knowledge about the factors that affect ESG disclosure credibility. The results yield a coherent and theoretically consistent inference: ESG Disclosure Credibility is not driven by sophisticated communication, but rather by internal governance. While ESG disclosure from a marketing perspective is crucial in setting up stakeholders' expectations, its effect on the credibility dimension can only be exerted through internal governance measures. Such findings provide ample support for the core assumption behind signaling theory: credibility is generated not by the signalling activity per se, but rather by the costs incurred for it and its verifiability. Internal governance, especially when focused on the board level supervision of the ESG process, becomes crucial in ensuring credible reporting. Such an assertion gains particular significance within the Pakistani context, where changing regulatory pressure on boards' independence and control begins to transform their governance. Moreover, the

findings reveal that regulatory pressure serves to reinforce the link between governance and credibility even further. Instead of merely incentivizing adherence, regulatory scrutiny elevates the significance of the governance investment through increased visibility, comparability, and consequence. The results build on stakeholder and institutional theory by recognizing that the credibility of environmental, social, and governance (ESG) disclosure does not depend on firms alone but also on the regulatory regime. Indeed, regulation functions as an amplifier, promoting the application and credibility of governance structures. As such, the paper is able to make three main contributions. First, it synthesises theories related to signalling, legitimacy, agency, and stakeholders into an overall moderated-mediation model for understanding the credibility of ESG disclosure. Second, it identifies internal assurance processes as the key mechanism by which marketing affects credibility. Finally, it points out the importance of regulation as a moderating factor in this process. Managerially, the implication of the research findings is that companies need to shift from treating ESG issues as primarily about communication to focusing on investing in governance structures. Credibility gains that are made solely through marketing are not likely to be sustainable in the absence of credible internal assurance processes. In terms of regulation, the study reinforces the role of regulatory oversight in ensuring that companies establish credible ESG governance regimes. Despite the strengths that it offers, there are some notable limitations associated with this study. The cross-sectional study approach hampers any causal conclusions that can be drawn, the relatively small sample size reduces generalisation, and the use of subjective measures opens up the possibility for potential bias. Nonetheless, these limitations offer various research opportunities in the future. For example, longitudinal research might explore how changes in regulatory institutions affect ESG credibility, while comparative studies across different countries in South Asia might shed light on the importance of institutional differences.

This paper has shown that the credibility of ESG disclosure in emerging markets lies in the integrity of governance systems, supported by the regulatory environment, and facilitated but not defined by marketing communication. In order to advance knowledge on ESG disclosures, especially within developing countries, it becomes vital to grasp the relationship between governance, communication, and regulation.

