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Integrating ESG Principles into Omni-Channel Retail: A Case Study of Reliance Sustainable Digital Transformation

Hemanathan M [1], Jeevarathinam M [2], Prema Anand B[3], Praveen Kumar S [4]
[1,2,3,]Assistant Professor, Department of Commerce, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu District, Tamil Nadu, India
[4,]Research Scholar Department of Commerce, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu District, Tamil Nadu, India

ABSTRACT
This study examines the integration of Environmental, Social, and Governance (ESG) principles inside the omni-channel business strategies of Reliance Industries Limited (RIL), the foremost corporate entity in India. With the increasing recognition of sustainability as a cornerstone of corporate success and RIL's announcement of an omni-channel marketing and distribution model, the company presents an exemplary candidate for future comparative case studies. The analysis examined how RIL integrates its omni-channel approach with ESG principles, hence enhancing stakeholder value to promote corporate social responsibility in both current and future settings. The study employed a mixed-methods research methodology, integrating quantitative analysis by Smart PLS-SEM with a sample of 300 replies, alongside qualitative studies through content analysis of corporate reports. The findings indicate that RIL's focus on ESG reflects a strong commitment that will enhance their market share, long-term sustainability, and stakeholder engagement; however, it exhibits only a moderate positive effect on stakeholder trust regarding the environmental strategy for non-omni-channel activities. The results underscored the practical limitations faced in fully leveraging the ESG framework within their omni-channel model, suggesting potential areas for enhancement. This study enhances the discourse on sustainable practices, underscoring the urgent necessity for organizations to redefine their operations in accordance with ESG criteria. The report concludes with recommendations for research avenues to further explore the integration of ESG principles into firms' omni-channel identities across various industries.
Keywords: *Environmental, Social, and Governance (ESG), Omnichannel Strategy, Digital Transformation, Stakeholder Engagement, Sustainable Retail*

INTRODUCTION

In the digitalization era, organizations are faced with increased expectations not only to deliver seamless customer experience but also to meet environmental, social, and governance (ESG) responsibilities. Omnichannel models, with multiple customer contact points being fused to result in an amplified experience, have become key drivers for a competitive edge (Verhoef et al., 2015). The convergence of omnichannel strategies and ESG values is an emerging but increasing area of research that requires further investigation, especially among megacorporation's in diverse industries. The term ESG has moved from corporate buzzword to a meaningful component of organizational strategic choice globally. Integrating ESG values into business models helps firms to reduce risks, comply with regulatory needs, and respond to rising stakeholder pressure for sustainability (Friede, Busch, & Bassen, 2015). Firms that embrace ESG values in operations exhibit superior financial and social returns compared to their peers in the long run (Clark, Feiner, & Viehs, 2015). However, there has been fairly limited research concerning the integration of ESG considerations in omnichannel customer programs, especially in fast-evolving markets like India. Reliance Industries Limited (RIL), through its retail and digital operations, such as Reliance Jio and Reliance Retail, offers a unique case for studying the integration. RIL has been recognized as a leader in sustainability reporting, net-zero emissions pledge leader, and digital growth leader and, thus, has become the market leader in ESG issues as well as in omnichannel transformation (Reliance Industries Sustainability Report, 2023). In the backdrop of the company's transition to digital sustainability, it is critical to analyze how environmental, social, and governance (ESG) goals are embedded in its customer

engagement interfaces and business strategies. While omnichannel behavior has widely been studied in customer experience and technology adoption contexts (Lemon & Verhoef, 2016), there exists a critical research gap in the literature at the nexus of these disciplines with social justice, environmental sustainability, and governance practices. The existing literature has the tendency to write about ESG or digital strategy in isolation; however, the real-world confluence of these variables is not well-studied by researchers (Kiron et al., 2017; George et al., 2020). The aim of this study is to fill this gap by examining how Reliance embeds ESG values in its omnichannel operations. Taking an in-depth case study research design, this study seeks to add to the existing pool of knowledge with respect to sustainable business practice, ethical digital innovation, and stakeholder-aligned strategies.

ESG Strategies and Sustainability at Reliance Industries

Reliance Industries Limited (RIL) has deliberately integrated its activities inside an ESG framework, which it characterizes as comprehensive sustainability and value generation for stakeholders. The RIL ESG framework encompasses four primary focus areas: sustainability, decarbonization, net-zero carbon objectives, and health, safety, and environment (HSE). These four focal areas are crucial to RIL's business resiliency and omnichannel digital transformation.

Sustainability

RIL's sustainability strategy is embedded throughout its value chain, promoting responsible growth and innovation through resource efficiency, renewable energy utilization, circular economy principles, and community development. Reliance considers long-term social and environmental returns via its initiatives aligned with the Sustainability Development Goals (SDGs). It has integrated digital technologies to obtain real-time sustainability indicators and environmental sustainability disclosures (ESG), aligning them with its omnichannel services that advocate for sustainable product sourcing, ethical supply chains, and green logistics throughout Jio and Reliance Retail.

Decarbonisation

Reliance is dedicated to diminishing the carbon intensity of its activities via a science-based decarbonization strategy. Reliance has established a comprehensive clean energy ecosystem encompassing hydrogen fuel, solar energy, and biofuels, supported by billions of dollars in infrastructure investments. Reliance intends to further its decarbonization efforts by enhancing energy efficiency through digital technologies, including the Internet of Things and Artificial Intelligence, applied across integrated data platforms and logistical systems. Reliance's decarbonization objectives encompass publicizing supply chain emissions and implementing digital customer awareness initiatives that promote low-carbon attributes, hence facilitating the integration of ESG into customer experience touchpoints.

Net-Zero Carbon Commitment

In accordance with India's national climate commitment, RIL has pledged to achieve net-zero emissions by 2035. This ambitious objective is bolstered by the New Energy and New Materials business, which continues to develop and expand product offerings in renewable energy ecosystems, energy storage, and decarbonized transportation. Reliance facilitates paperless transactions, eco-friendly data centers, and carbon-neutral delivery through enhancements in omnichannel operations. RIL's digital-first approach educates consumers, guarantees accountability for ESG practices, and reinforces sustainable activities across all digital and physical touchpoints.

Health, Safety & Environment (HSE)

RIL's Health, Safety, and Environment (HSE) standards constitute a comprehensive framework for employee welfare, technological safety, operational safety, and the health of surrounding communities. Reliance showcases its dedication to omnichannel engagement by integrating accessibility features for disadvantaged consumers and advocating for the ethical application of artificial intelligence (AI) inside its customer service team. Reliance engages in comprehensive health screening initiatives at the community level, occupational safety training, and environmental assessments. RIL has invested in digital dashboards to enable real-time monitoring of safety metrics, and its environmental, social, and governance (ESG) reports elucidate its governance procedures for health, safety, and environmental (HSE) activities.

INTEGRATION OF ESG PRINCIPLES INTO OMNI-CHANNEL PRACTICES :

Environmental Data

A. Sustainable Supply Chain and Logistics

Reliance Retail collaborates with waste management companies, such as Green Practices, to enhance waste management across various locations, having processed over 4.8 million tonnes of waste since 2019. It aims to minimize waste and landfills while integrating the tenets of a circular economy. Technology improves the efficiency of inventory, logistics, and supply chain operations, while collaborating with suppliers dedicated to sustainable practices. Greenhouse gas emissions have been monitored, and Reliance Retail has engaged with suppliers classified as high-risk concerning ongoing decarbonization initiatives. During the fiscal year 2023-24, evaluations were conducted for 2,255 suppliers, and the findings were utilized to propose remedial measures for the suppliers. Reliance will persist in leveraging collaborations to expedite advancements toward its Net Carbon Zero objective. It further employs e-bikes for certain deliveries.

B. Waste Reduction and Circular Economy

Reliance Retail is implementing waste management and circularity activities through the recycling of resources and the development of circular polymers. The Jamnagar complex has received ISCC Plus certification for the manufacture of circular polymers derived from plastic waste. Reliance Retail's Fashion and Lifestyle division incorporates sustainable materials, such as organic cotton and recycled polyester, in their offerings.

C. Energy Efficiency

Reliance Retail engages in equipment retrofitting and executes projects focused on energy optimization to decrease energy consumption. Reliance Retail employs renewable energy sources such as biomass and solar power, incorporating solar-powered warehouses into its operations.

II. Social Data

A. Inclusion and Accessibility

Reliance Retail is expanding into smaller towns and rural regions by integrating local businesses onto platforms such as JioMart. These collaborations and platforms seek to furnish resources for the empowerment of small businesses and farmers.

B. Customer Satisfaction

The appeal of the omnichannel proposal is based on "unlimited choice, value proposition, quality, and experience," while enhancing consumer happiness and loyalty. JioMart capitalizes on client demands and desires with its localized offerings.

C. Community Engagement and Development

The Reliance Foundation, the division responsible for the company's community and sponsorship development efforts, implements different activities aimed at community development, emphasizing education and health support. Reliance actively advocates for workplace diversity. Numerous community-oriented environmental projects, such as "Plant4Life," involve employees and actively engage local communities in tree planting activities. Reliance Retail collaborates with MSMEs to discover and augment their internal competencies about SME-level development activities at both store and community levels, facilitating their engagement with the community and fostering opportunities to improve their quality of life and that of their community. The investment for CSR development in FY 2022-23 amounted to ₹1,271 crore, allocated towards the execution of socially responsible projects aimed at fostering community support. Capital allocated to enhance supplier capabilities. Reliance is exclusively dedicated to enhancing design, value, and service, so ensuring that each client segment has equitable access to superior products. Reliance's CSR programs encompass Education, Health, Rural Development, Sports for Development, Disaster Response, and Women Empowerment.

D. Employee Well-being

Reliance Retail acknowledges the importance of employee well-being with our current initiative "We Care", which considers several aspects of well-being. We offer learning and development programs that

prioritize employee empowerment and progress to foster a high-growth work environment.

III. Governance Data

A. Robust Governance Structure

Reliance has established comprehensive governance initiatives, featuring a diverse Board of Directors and specialized committees addressing ESG issues, including the ESG Committee, which deliberates on climate-related risks, ESG strategies, and the execution of ESG policies.

B. Transparency and Reporting

Reliance adheres to ESG reporting frameworks, including SEBI's BRSR and BRSR Core, and transparently communicates stakeholder performance through the Business Responsibility and Sustainability Report (BRSR). Reliance discloses its environmental effect, social impact, and governance.

C. Risk Management

Reliance actively identifies and mitigates ESG issues. Reliance's risk management strategy considers the significance and materiality of stakeholder issues. This encompasses both physical and transitional climate change threats. Reliance prioritizes environmental management, regulatory adherence, and reputational concerns in its ESG risk assessment.

Customer Journey Stage	**Environmental (E)**	**Social (S)**	**Governance (G)**
Awareness / Discovery	Green advertising, digital sustainability content	Inclusive marketing, regional language ads	Compliance in digital campaigns
Purchase / Engagement	Paperless billing, eco-packaging	Accessibility features, ethical pricing	Secure payment gateways, data transparency
Post-Purchase / Support	Carbon-neutral logistics	Inclusive feedback channels	Transparent grievance redressal, AI governance

2. Literature Review and hypothesis Development:

2.1. underpinning theory

Incorporating ESG principles into omnichannel initiatives is increasingly vital for organizations such as Reliance as they pursue sustainable digital transformation. Figura et al. (2025) emphasize the significance of artificial intelligence in revolutionizing business models and advocate for startups to integrate AI to improve their value propositions and customer relationships, which are essential for implementing ESG metrics in omnichannel practices. Ilori et al. (2023) present a thorough ESG audit framework that highlights digital tools as a mechanism for accountability and demonstrates how integrated accountability in digital customer interactions can benefit Reliance's strategy. Adekomaya and Dhliwayo (2024) validate the assertions of this article by demonstrating that the integration of digital transformation and resilience fosters sustainability for small enterprises, which is particularly relevant for Reliance's omnichannel strategy. Li et al. (2023) increasingly discuss distinctive ESG indicators within the online marketplace context, presenting ESG as an integral component of a digital platform strategy that enhances stakeholder relationships, fosters trust, and generates non-economic value from a dual-purpose standpoint. The case studies by Ismayilov and Kozarević (2023) delineate several disruptions in fintech that relate to accessibility and governance, serving as benchmarks for the anticipated social inclusion and sustainability within Reliance's omnichannel initiatives. Collectively, these studies offer a framework for Reliance to integrate ESG pillars into its omnichannel initiatives, hence enhancing stakeholder involvement and generating revenue, indicative of sustainable practices.

2.2 ESG and Stakeholder trust, sustainability

Environmental strategies are emerging as a crucial element for enhancing stakeholder confidence in ESG-

oriented firms. Foley et al. (2024) contend that the erosion of faith in ESG may not stem from deficiencies in the frameworks themselves, but rather from ethical failures in their implementation. They advocate for a shift towards "just transition ethics," emphasizing that climate decisions should be decided transparently, ethically, and equitably, rather than solely pragmatically (Foley, 2024). Barbosa et al. (2025) provide empirical evidence that firms implementing circular economy strategies—such as waste reduction, resource repurposing, and the avoidance of unsustainable inputs—are more likely to enhance their reputation and stakeholder engagement in environmentally sensitive sectors, such as agribusiness. Jaiswal et al. (2025) similarly discovered via network sentiment analysis that environmental factors (including conservation, renewable energy, and eco-innovations) positively influenced stakeholder perceptions and investor sentiment online, affirming the regard in which stakeholders hold firms dedicated to environmental strategies. The objective is to elucidate that morally grounded and clearly communicated environmental initiatives foster trust across diverse stakeholder groups.

H1: Environmental Practices Positively Influence Stakeholder Trust

Social practices within ESG frameworks serve as crucial mechanisms for cultivating stakeholder trust, including that of consumers, through inclusive, equitable, and community-oriented initiatives. Rudianto et al. (2024) demonstrate a robust, positive correlation between social ESG ratings and investor trust, asserting that companies with equitable labor practices, proactive community involvement, and philanthropic endeavors implement stable dividend policies and exhibit enhanced financial performance, thereby fostering trust. Rudianto et al. propose that the extent of community social interaction influences customer trust in trust systems, such as fair labor. Rastogi et al. (2025) demonstrate the significance of social concerns in influencing consumer opinions of companies within the sustainable fashion sector. It is noteworthy that ethical labor practices, corporate diversity, and CSR initiatives exerted a more significant impact on stakeholder trust than the brand's socially responsible image or favorable word of mouth in molding customer trust perceptions, especially among Generation Z. Kim and Jeong (2025) elucidate that clubs in the professional sports sector are dedicated to social responsibility. When clubs engaged in socially responsible actions, such as fostering an inclusive fan experience and facilitating public service for youth participation, stakeholders developed more profound emotional connections inside the club ecosystem. These findings underscore that organizational social responsibility influences the enhancement of stakeholder relationships and trust when social efforts are included into the business communication strategy and overall corporate strategy. The realm of stakeholder trust is entirely contingent upon relational capital and trust with both enterprises and individuals, encompassing socially responsible behavior in connection to operational methods.

H2: Social Practices Positively Influence Stakeholder Trust

Governance elements are the foundation of ESG strategy and are essential for fostering stakeholder trust through accountability, transparency, and ethical leadership. Kulova and Nikolova-Alexieva (2023) assert that governance mechanisms, including board accountability, anti-corruption strategies, and stakeholder engagement, are crucial for cultivating trust and loyalty, especially in an era characterized by increased scrutiny regarding ESG matters. Agbakwuru et al. (2024) substantiate their findings by emphasizing that stakeholder trust, stemming from robust governance and ESG reporting, is augmented when governance disclosures are transparent. This transparency fosters stakeholder confidence and reduces information asymmetries, as such disclosures signal to investors the organization's commitment to integrity and compliance. Barbosa et al. (2025) illustrate that financial openness, adherence to ethical standards, and the practice of responsible leadership are governance characteristics that predict stakeholder impressions of the business and its trustworthiness. This body of work indicates that governance-related ESG actions reinforce regulatory compliance and, more significantly, cultivate stakeholder trust through the established connection between ethical decision-making and long-term value alignment.

H3: Governance Practices Positively Influence Stakeholder Trust

2.3 Moderate role digital and omnichannel transformation:

The moderating influence of digital and omnichannel transformation has become increasingly crucial in

comprehending the dynamics of contemporary retail behavior and technology adoption. Chawla, Verma, and Mittal (2025) emphasized that the digital ecosystem substantially influences the relationship between perceived risks—namely privacy, psychological, financial, and technological anxiety—and the attitudes of small shops towards the use of online-to-offline (O2O) platforms in India. Their findings emphasize that a strong digital ecosystem can reduce opposition and enable more seamless technology adoption in retail settings. Yang, Hu, and Chen (2025) investigated the impact of omnichannel integration and perceived digital value on brand trust, demonstrating that customer empowerment fosters trust development, but privacy concerns and perceived dishonesty serve as detrimental moderators. Their research underscores the necessity for psychologically congruent digital strategies to maintain brand confidence in multichannel environments. Natarajan and Veera Raghavan (2025) examined how integrated store service quality (ISSQ) elicits emotional responses that enhance memorable shopping experiences and consumer connection, hence promoting online brand advocacy behaviors. Their findings further indicated that the robustness of customer–store interactions favorably influences the attachment-behavior connection, highlighting the intricate effects of emotional and sensory factors in omnichannel environments. Reddy and Raju (2025) substantiated these academic viewpoints with contextual evidence, revealing practical deficiencies in digital engagement at Reliance Digital. They observed considerable satisfaction with in-store components, yet persistent challenges in online shopping and the efficacy of digital advertising, underscoring an incomplete omnichannel transformation. Collectively, these studies confirm that digital and omnichannel transformation significantly moderates customer attitudes, behaviors, and trust, particularly in emerging markets such as India.

H4: The relationship between environmental practices and SHE is Moderated by DT

H5: The relationship between social practices and SHE is Moderated by DT

H6: The relationship between governance practices and SHE is Moderated by DT

Research Gap:

Despite the growing emphasis on Environmental, Social, and Governance (ESG) principles within business strategy, there is a limited comprehension of the implementation of these ESG factors in omnichannel retail systems, particularly in emerging markets such as India. The majority of current literature concentrates on ESG implementation difficulties at the macro or company level, or examines digital transformation initiatives independently from the sustainability agenda. There is a paucity of integrative research documenting the incorporation of ESG into omnichannel initiatives, especially through real-world case studies of substantial Indian conglomerates like as Reliance, who are concurrently undertaking ambitious digital expansion and sustainability goals.

OBJECTVES OF THE STUDY:

- To examine the impact of integrating ESG (Environmental, Social, and Governance) principles on stakeholder engagement in corporate strategies
- To identify challenges faced by RIL in implementing ESG principles and their effects on operational strategies.

METHODOLOGY:

Sample and data collection

This study focused on stakeholders as the appropriate sample in investigating the integration of ESG practices on engagement during the digital transformation journey, in view of their increasing calls for transparency, ethical leadership, and sustainable business practices. Stakeholders such as customers, employees, investors, and community members have increased exposure to digital tools and increased sensitization to environmental and social issues, hence making them rich sources of data about evolving engagement trends. Their behavior and loyalty are usually reflective of changing attitudes and values, hence giving businesses useful information about the impact of ESG initiatives on stakeholder trust and alignment. In accordance with the objectives of the study, a quantitative approach was taken, with data collected

through a cross-sectional survey in mid-February to mid-April 2023. 460 participants were selected using a convenience sampling technique due to the unavailability of an appropriately well-specified sample frame. This technique is prevalent in analogous studies on ESG engagement, as seen in the studies by Al-Swidi et al. (2021) and Hanaysha et al. (2022). The survey questionnaire was conducted in Arabic, and in order to maximize consistency and accuracy, the original English version was translated to Arabic and back-translated to English by an independent third-party organization.

To ensure maximum response and accuracy of response, anonymity was promised to the respondents before they answered the questionnaire. This was to establish trust and facilitate free and hassle-free response to the questionnaire. Recruitment of participants was ethically grounded, and all the participants willingly agreed to participate in the study. Beforehand consent was sought, and participants were well briefed about the purpose of the study, methodology, potential risks and benefits, and their rights, including confidentiality and the right to withdraw at any point without penalty. Consent was both oral and written, depending on the preference of the participants. The study conformed to all ethical and regulatory guidelines pertaining to study of human participants, ensuring safety and voluntary participation of all parties involved.

Table 1. Sample characteristics.

Demographic information	Categories	Frequency	(%)
Gender	Male	264	86.2
	Female	42	13.7
Stakeholders	customers	142	46.4
	Employees	121	39.5
	investers	43	14.0
Age	20–30	162	52.9
	31–40	100	32.6
	41–50	30	9.8
	More than 50 years	14	4.5

Prior to disseminating the results of the questionnaire responses, all participants provided their informed consent. Participants were explicitly informed about the study's purpose and were permitted to answer or omit any questions at their discretion. Prior to participation, respondents received a comprehensive overview of the study's objectives, methodologies, potential risks and rewards, as well as their rights as participants. They were informed that their data would remain confidential and that they could withdraw from the study at any moment without repercussions. We obtained consent both in writing and verbally, according to individual preferences. The study adhered to all ethical and legal regulations governing researchinvolvinghumansubjects. The study included 460 individuals, of whom 355 provided responses. Of these, 306 replies were deemed full and suitable for data analysis. This sample size is adequate for PLS-SEM analysis, as indicated by Hair et al. (2018). Faul et al. (2007) provided guidelines for utilizing GPower* to determine the minimum sample size necessary for maintaining statistical power. Cohen (2013) proposed a statistical power of 80%, an effect size of 0.15, and a significance threshold of 5%. The analysis indicated that a minimum of 85 examples were required (see to Appendix 1). The final sample of 306 examples satisfies this criterion and also fulfills the stipulation that the sample size be a minimum of ten times more than the number of structural routes aimed at any latent construct in the structural model (Hair et al., 2011, p. 144). Table 1 presents the demographic data of the respondents.

MEASURES:

Prior to the initiation of data collection, steps were implemented to mitigate potential bias and enhance the reliability and validity of the instrument. This encompassed evaluations of face and content validity. A panel of four academic experts evaluated the questionnaire, offering input and suggestions to improve the relevance and clarity of the items. A pilot test was subsequently performed with five participants from

the target audience to ensure that all questions were comprehended as intended.The final questionnaire comprised two sections: the first collected demographic data, while the second evaluated the primary study components utilizing a five-point Likert scale (from 1 = strongly disagree to 5 = strongly agree). The ESG framework was assessed utilizing ten questions spanning three dimensions—environmental, social, and governance—derived from Moisescu (2015), Maignan (2001), and Tripopsakul and Puriwat (2022). Stakeholder engagement was assessed using three questions derived from Rich et al. (2010) and Kosiba et al. (2020). The evaluation of digital and omnichannel transformation (D&OCT) was conducted utilizing three elements sourced from Hossain et al. (2020). A comprehensive list of questionnaire items is included in Appendix 2.Harman's single-factor test indicated that a single component explained just 29% of the variance, much below the 50% threshold, suggesting that common method bias (CMB) was not a substantial issue. Additionally, in accordance with Fuller et al. (2016), collinearity diagnostics were performed utilizing the variance inflation factor (VIF) in SmartPLS. All VIF values were beneath the permissible threshold of 3, further substantiating the absence of multicollinearity or common technique bias in the dataset.

Data analysis and results

We employed the PLS-SEM methodology in SmartPLS 4 to examine the proposed model in this investigation, adhering to the procedures established by Ringle et al. (2005). Gelaidan et al. (2023), Goaill and Al-Hakimi (2021), and Goaill et al. (2023) discuss many advantages of PLS-SEM that contribute to its popularity in administrative research. This strategy is particularly effective with lower sample sizes (Henseler et al., 2009) and in research primarily focused on prediction accuracy (Al-Swidi et al., 2023, 2024). PLS-SEM exhibits superior statistical power compared to covariance-based SEM (CB-SEM), particularly in complex models with limited sample sizes. The PLS framework has two interdependent models: the "measurement model" and the "structural model." This work employed the PLS-SEM approach in SmartPLS 4 to examine the suggested model, following the protocols established by Ringle et al. (2005). The prevalent application of PLS-SEM in administrative research is attributed to its several advantages, as emphasized by Gelaidan et al. (2023), Goaill and Al-Hakimi (2021), and Goaill et al. (2023). This methodology is especially advantageous for limited sample sizes (Henseler et al., 2009) and in studies emphasizing predictive accuracy (Al-Swidi et al., 2023, 2024). PLS-SEM exhibits enhanced statistical power relative to covariance-based SEM (CB-SEM), especially in intricate models with limited sample sizes. The PLS framework has two interrelated models: the 'measurement model' and the 'structural model.'

MEASUREMENT MODEL

This stage entailed an assessment to determine the internal consistency of the scale items to ascertain their reliability. Table 2 and Figure 2 reveal that the constructions were dependable because their factor loadings were higher than 0.70. We employed confirmatory factor analysis (CFA) to assess the construct validity of the scale items. This encompassed both convergent and discriminant validity. Nunnally and Bernstein (1994) assert that for dependability to be satisfactory, Cronbach's alpha (α) and composite reliability (CR) must exceed 0.70. Also, "convergent validity" and "discriminant validity" were utilized to assess the construct validity.

TABLE 2 : Reliability and Convergent validity

Construct	Code	Loading	A	CR	AVE
E	E1	0.705	0.861	0.905	0.710
E2		0.914			
E3		0.921			
E4		0.810			
S	S1	0.948	0.934	0.949	0.884
S2		0.970			

S3			0.901			
G	G1		0.837	0.814	0.893	0.708
G2			0.841			
G3			0.846			
DT	DT1		0.862	0.858	0.858	0.779
DT2			0.894			
DT3			0.891			
STE		SHE1	0.880	0.848	0.855	0.765
SHE2			0.882			
SHE3			0.862			

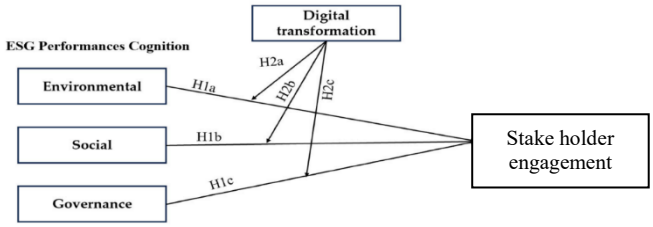

Figure 2. Measurement model.

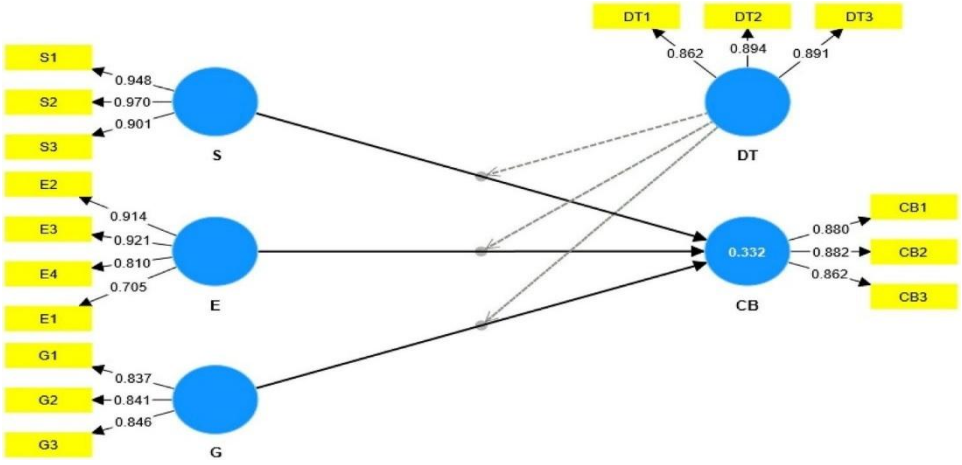

Table 3. Descriptive statistics and discriminant validity.

Construct	Mean	Std. devation	E	S	G	DT	CB
E	3.67	0.58					
S	3.63	0.62	.069				
G	3..75	0.62	.401	.249			
DT	3.45	0.55	.089	.290	.230		
SHE	3.45	0.57	.516	.266	.353	.179	

For convergent validity, the average variance extracted (AVE) for each construct must above the threshold of 0.50, as indicated by Hair et al. (2019). The research by Henseler et al. (2015) utilized the 'heterotrait–monotrait (HTMT)' approach to evaluate and validate discriminant validity. Kline (2011) recommends that values within the HTMT matrix should not exceed 0.90, especially concerning the constructs. Our analysis,

as illustrated in Table 3, revealed that the results did not surpass this level. Tables 2 and 3 illustrate that all criteria for loadings, reliability, and validity were met, thereby affirming the validity of the measurement models. The findings indicate that the model's constructs (see Figure 1) exhibit both convergent and discriminant validity.

Structural model

The assessment of the structural model included the evaluation of R2, effect size, and the predictive value of the model. Moreover, bootstrapping was employed to validate the research hypotheses. To test the validity of the assumptions and the appropriateness of the suggested model, the coefficient of determination (R2) was computed at an aggregate level. This statistic, as delineated by Chin (1998), offers insights into the model's predictability, with values of 0.67 signifying strong predictability, 0.33 denoting moderate predictability, and 0.10 reflecting weak predictability. The results indicate that the factors E, S, G, and DT together explain 33% of the variance in CB, categorizing it within the moderate range as illustrated in Table 4.

The influence of latent factors on the dependent variable has been assessed by f2 analysis, which complements R2 analysis (Chin, 1998), as illustrated in Table 4. Cohen (2013) utilizes f2 values (0.35, 0.15, and 0.02) to underscore the effect sizes.

Table 4. R^2, f^2, and effect sizes.

Construct	R^2	f^2	Effect size
CB	0.332		
E	–	0.149	Medium
S	–	0.055	Small
G	–	0.031	Small
DT	–	0.012	Small

Table 5. Model's predictive quality.

Total	SSO	SSE	Q^2
CB	918.000000	700.975	0.236

Table 6. Path coefficient.

H	Path	Coefficient	Standard error	*T*-value	*p*-Value	Result
H1	E → SHE	0.356	0.058	6.125	0.000	Supported
H2	S → SHE	0.207	0.058	2.840	0.005	Supported
H3	G → SHE	0.156	0.058	3.540	0.000	Supported
H4	E*DT →SHE	0.230	0.056	3.257	0.001	Supported
H5	S*DT → SHE	−0.036	0.071	0.646	0.120	Not supported
H6	G*DT → SHE	−0.088	0.056	1.553	0.519	Not supported

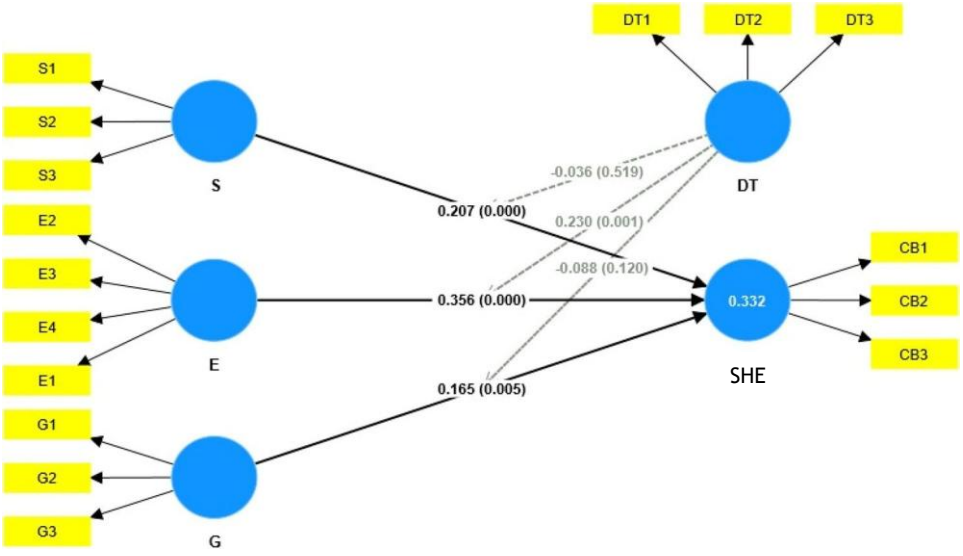

Figure 3. Structural model.

designate the magnitudes of the predictive factors as 'big, medium, and tiny' correspondingly. Thus, the variables S, G, and DT display minimal effect sizes (0.055, 0.031, and 0.012) on CB, while the variable E reveals a substantial effect size (0.149).

Moreover, Hair et al. (2019) propose that a positive cross-redundancy value (Q2) signifies robust predictive performance of the model. The results shown in Table 5 demonstrate that the Q2 value of the SHE (dependent variable) is 0.236, hence confirming the model's predictive efficiency.

The proposed relationships in the model were analyzed, as illustrated in Table 6 and Figure 3. The results demonstrate that the relationships (E→SHE) (β = 0.356, $p < 0.01$), (S→SHE) (β = 0.207, $p < 0.01$), and (G→SHE) (β = 0.156, $p < 0.01$) are positive and statistically significant, hence validating hypotheses H1, H2, and H3.

Alongside analyzing the linear routes of our suggested model, we explored the moderating effect of DT. The results demonstrate that ED exerts a positive and statistically significant moderating influence on the relationship between E*DT and SHI (β = 0.230, $p < 0.01$). Consequently, the evidence illustrated in Figure 4 substantiates hypothesis H4. Conversely, the routes (S*DT→SHE)

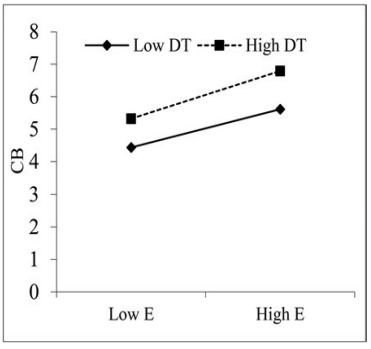

Figure 4. Moderating effect of DT in the E-SHE link.

($\beta = -0.036$, $p > 0.05$) and (G*DT→SHE) ($\beta = -0.088$, $p > 0.05$) were shown to be statistically insignificant. As a result, hypotheses H5 and H6 do not receive support.

CONCLUSION

This study enhances the existing literature on ESG-digital convergence by experimentally examining the

influence of ESG principles on stakeholder involvement within Reliance Industries' omnichannel strategy. A significant finding pertains to the enhancement of stakeholder engagement through corporate social responsibility (CSR) initiatives and digital ecosystems, particularly in relation to ESG efforts that improve stakeholder trust, transparency, and social responsibility. Furthermore, the integration of environmental transformation and ESG initiatives with digitalization offers the potential for superior stakeholder engagement. We address evidentiary deficiencies noted in the literature by providing a real-time Indian company case study on the incorporation of ESG changes inside a specific ongoing sustainability digital transformation. We demonstrate that Reliance excels in ESG and omnichannel solutions; yet, it has not fully harnessed the potential of digital transformation to influence social changes in the organizational and governance sectors.

Practical Implications:

Corporate Strategy: Organizations must integrate their ESG objectives throughout customer interactions in both physical and digital realms to ensure stakeholder alignment for sustained resilience.

Digital Investment: Concentrated investments in digital governance tools and socially inclusive AI technologies can enhance the comprehensiveness and efficacy of ESG practices.

Policy Makers: Regulators may utilize these findings to implement comprehensive ESG-digital disclosure frameworks to improve accountability.

Limitations and Future Research

The study employed a cross-sectional survey, primarily concentrating on a single business conglomerate in India, hence constraining the generalizability of the findings. Longitudinal investigations across several industries and geographical regions could validate the existing findings. Future research may investigate the impact of AI ethics, data privacy, and emotive design within digital ecosystems on the social and governance aspects of stakeholder trust.

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