THEME

ESG Integration: Redefining value in a changing world

Unrealized Potential: The Need for ESG Integration in the Valuation of Indian REITs

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Abstract

Indian Real Estate Investment Trusts (REITs) have been gradually gaining status as practical investment vehicles. But with the overall shift for sustainable investment strategies, the integration of Environmental, Social, and Governance (ESG) factors into the valuation of REITs becomes essential. This paper explores the complex relationship between ESG and the valuation of Indian REITs, an area with inadequate literature despite its growing significance. Exercising a survey approach, interviews were conducted among a range of valuation professionals involved in the REITs to understand insights about their views on ESG integration, challenges, and inferences on REIT attractiveness. This paper presents a follows a qualitative design, purposive sampling, and thematic analysis. Contextualizing the study, it provides brief narratives about four prominent REITs in India i.e., Embassy, Mindspace, Brookfield, and Nexus. The results showed a mixed landscape. While many acknowledged the increasing importance of ESG factors, the actual assimilation differs, with emphasis on environmental factors. The study also stressed the need for regulated ESG assessment tools for the Indian circumstances. This research, through its findings, aims to augment the discussion on ESG-integrated REITs in India, indicating a new age for sustainable real estate investments in India.

Keywords: Indian REITs, ESG, Valuations, Real Estate, Sustainable Finance

1 Introduction

Real Estate Investment Trusts (REITs), since their establishment, have reformed the global real estate industry, offering an exceptional blend of property investment and stock market liquidity. With its real estate heritage and growing financial markets,India too, over recent years, has shown an increasing inclination for this

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investment class. The emergence of REITs in the Indian market has not only democratised access

to high-value real estate assets for retail investors but has also introduced the industry with transparency and professionalism. This paper examines the intricate relationship between ESG factors and the valuation of Indian REITs, an area that lacks comprehensive literature despite its growing significance.

1.1 Background

On 01 April 2019, India witnessed its first REIT as Embassy Office Parks REIT (Embassy REIT) [1]. Since then, three more REITs named Mindspace Business Park REIT (Mindspace REIT), Brookfield India Real Estate Trust (Brookfield REIT) and Nexus Select Trust REIT (Nexus REIT) have been listed on the Indian stock exchange [2]. More developers like Godrej Properties, RMZ Group, DLF, Panchshil Realty, and K Raheja Corp are planning to explore the capital market through REITs [3].

Snapshots of the Indian REIT portfolios are discussed in Table 1. The comparison has been done from the compiling of various industry reports [4], [5], [6], [7], [8], [9], [10] and [11].

Embassy REIT

Embassy REIT was listed on Indian Stock Exchange on April 1, 2019. It made history as it was the first REIT in India. It is a joint venture between the Embassy Group and Blackstone. These are two major players in Indian real estate and investment management domain. Embassy REIT primarily focuses on a diverse portfolio of office spaces, hospitality, and infrastructure like solar power plants. Their portfolio includes quality office spaces catering to top multinational. These assets are known for their strategic locations, modern amenities, and sustainable features.

Mindspace REIT

Mindspace REIT was the second REIT in the Indian market after Embassy. It is another significant player in the Indian REIT landscape. Sponsored by K Raheja Corp and Blackstone, Mindspace REIT focuses on commercial real estate, including office spaces and business parks. The REIT's portfolio of 32 million sft comprises high-quality and sustainable commercial properties across various cities of South and West India.

Brookfield REIT

Brookfield REIT brings the global expertise of Brookfield Asset Management into the Indian real estate market. Brookfield is renowned for its focus on quality assets, sustainable development, and long-term value creation. The REIT's portfolio focuses on office assets including Special Economic Zones in North, West and East India. Brookfield emphasizes a disciplined investment approach, targeting assets with growth potential and value enhancement. With a global reputation for sound investment strategies, Brookfield REIT enhances the credibility and stability of the Indian REIT market.

Nexus REIT

Nexus REIT adds a unique dimension to the Indian REIT landscape. As part of the Nexus Property Management group, the REIT focuses on strategic and opportunistic investments in the retail sector. The REIT's portfolio includes a diverse range of high-quality retail malls across India.

Table 1. Snapshot of the listed REIT entities in India

	Embassy REIT	**Mindspace REIT**	**Brookfield REIT**	**Nexus REIT**
IPO	01 April 2019	07 August 2020	16 February 2021	19 May 2023
Total Portfolio	45 million sft	32 million sft	18.7 million sft	9.8 million sft
Completed Portfolio	34.3 million sft	28.8 million sft	14.3 million sft	9.8 million sft
Asset class	Office, Hospitality, Solar Park	Office	Office	Retail, Office and Hospitality
Hotel keys	1,614	-	-	354
No. of properties	12	10	5	17
Green building	100%	77%	74%	100%
Occupancy	86%	89%	84%	96%
Location	Bengaluru, Pune, Mumbai, and NCR	Mumbai, Hyderabad, Pune, and Chennai	Gurugram, Noida, Mumbai, and Kolkata	Amritsar, Chandigarh, New Delhi, Udaipur, Mysuru, Bengaluru, Chennai, Mangaluru, Hyderabad, Ahmedabad, Indore,

				Navi Mumbai, Pune and Bhubaneswar
No. of tenants	230	185+	148	2800+ tenants/stores
WALE*	6.6 Years	6.8 Years	7.9 Years	5.7 Years
Leverage	28%	17.9%	32%	-

Source: Authors' compilation from various Indian REIT websites and annual reports mentioned in the reference.
* *Weighted Average Lease Expiry*

1.2 Rationale of the Study

The global financial landscape has seen a significant change with the increasing importance of ESG considerations by the corporates. As sustainable practices become central to investment decisions, the integration of ESG factors in valuation processes gains traction. Recognizing this shift, our research probes into the evolving landscape of Indian REITs, shedding light on the potential implications of ESG integration.

Motivated by the transformative impact of REITs in India and the growing significance of ESG factors globally, this research seeks to unravel the untapped potential lying at the intersection of these two phenomena. The motivation behind our study lies in the unexplored territory of ESG integration in the valuation of Indian REITs. As investors increasingly prioritize sustainable and socially responsible investments, understanding the potential benefits of ESG integration becomes paramount.

1.3 Research Objective

This study is based on the following key objectives: 1) to analyse the current valuation practices of Indian REITs, 2) to understand the challenges towards the ESG valuations of Indian REITs.

As per the REIT regulations issued by SEBI, the valuation of the REIT has to be done at least once every six months [12]. The valuation of REITs is fundamental for its credibility and market performance. It is influenced by various factors going from inherent asset values to wider economic markers. In India, the complex nature of the real estate landscape, described by diverse asset types, variable regional dynamic contrast, and distinct regulatory structures, adds layers of intricacy to this valuation process. With the soaring global importance of sustainability, the integration of ESG factors into the valuation process is becoming necessary, encouraging a re-examination of usual methods.

This paper navigates the landscape of Indian REITs, dissecting their growth trajectory, valuation challenges, and the evolving role of ESG factors in shaping the future. Through expert interviews and industry data analysis, the aim is to chart a course towards a sustainable and investor-friendly REIT environment in India.

A snapshot of the valuations of the Indian REITs is captured in Table 2. The comparison has been done from the compiling of various industry reports.

Table 2. Summary of the valuation of Indian REITs

REIT	**IPO Date**	**Valuation – 31 March 20 (INR MN)**	**Valuation – 31 March 21 (INR MN)**	**Valuation – 31 March 22 (INR Mn)**	**Valuation – 31 Dec 22 (INR Mn)**
Embassy REIT	01 April 19	331,683	466,051	493,674	514,141
Mindspace REIT	07 Aug 20	NA	246,167	263,996	280,265
Brookfield REIT	16 Feb 21	NA	114,801	160,360	163,729
Nexus REIT	19 May 23	NA	NA	NA	234,993*

Source: Authors' compilation from various Indian REIT websites and annual reports mentioned in the reference.

This paper investigates deep into the space of Indian REITs, exploring their growth track, the difficulties involved in their valuation, and the growing role of ESG factors in the formation of its future. Through an inclusive analysis of expert interviews and industry data, this research aims to outline the course for a sustainable and investor-friendly REIT environment in India.

The subsequent sections, will embark on a comprehensive exploration towards: Section 1) Introduction; Section 2) Literature review; Section 3) Research gap; Section 4) Research Methodology; Section 5) Stakeholders' Interview Findings and Analysis; and Section 6) Conclusion. This refined introduction seeks to captivate readers' attention, providing a nuanced understanding of the research's background, objectives, problem statement, significance, and scope.

2 Literature Review

Globally there is research available on the context of ESG in relation to valuations of the REITs. But in India, the focus on ESG is still in its early days. There is limited literature available on this subject. Recently REITs like Embassy REIT, Mindspace REIT and Brookfield REIT have started to release their ESG reports. However, there are no mandatory governing standards to declare the ESG data. That is why there is variation in the ESG parameters which are published by these REITs. As per the research conducted by [13], the sustainability agenda is skewed more toward the notion of corporate philanthropy than environmental issues in Malaysia. There are significant challenges in terms of making sustainability a driving force. Sustainability still requires awareness in the real industry [14].

[15] evaluated the criteria through which the sustainability of commercial property can be assessed. They studied the existing literature to establish a series of sustainability criteria and then used focus groups and interviews with industry operators to establish the relevance and potential significance of each criterion to property investment worth.

[16] studied the potential link between the sustainability of a property asset and its investment worth. A set of parameters quantifying the impact of that functional performance on rental growth and depreciation were developed.

[17] studied the dimensions of design and its impact on the built environment. In this study, a sample of 150 was surveyed and analysed through correlation, regression, and partial least square method. The study suggested a positive correlation between elements of design and well-being aspects.

As per the research conducted by [18], transparency on sustainability measures correlates to better financial performance. A better GRESB score provides better returns on equity. It suggested that investing in ESG measures pays off in better financial results.

Whereas the results of the study conducted by [19] had a contrary outcome. They also studied the impact of ESG factors on the financial performance of REITs in terms of its valuation, cash flow and risk. Data from GRESB was analysed during the Covid period of 2019 – 2021. They concluded that the REITs having higher ESG scores have lower firm value and lower operating cash flow. It means that the management has overinvested in the ESG activities.

On a similar theory, [20] conducted research specific to Australian REITs. They found that the REITs with lower CSR ratings deliver better financial results. However, CSR might be effective in delivering better risk-adjusted returns during the period of economic crises.

[21] also researched the ESG parameters of Australian REITs. It uses the Markov chain method for prediction. This research studies the closing price interval between 10 days of 18 Australian REITs. It was concluded that the price fluctuations are

random and there is no direct relationship between ESG performance and the REIT stock price.

[22] investigated the data LEED and Energy Star-certified buildings of the REIT portfolio and studied the share of green assets within the REIT portfolio. From 2000 to 2011. They concluded via a regression model that there is a positive relation between the green portfolio and the financial performance of the REIT. However, there is no direct correlation between the greenness and the abnormal stock returns. REITs with higher green portfolios have consistent returns.

[23] studied the relationship between corporate social and environmental performance for the listed real estate entities in the United States between the 2003 – 2010. They studied seven different dimensions of ESG. It resulted that companies with higher ESG concerns have lower market value.

As per [24], in submarkets of the United States, the buildings which are green-certified achieve a higher rent and capital value. These buildings provide advantages like better occupier benefits, lower holding costs and lower risk premiums.

It was researched and concluded that the benchmarks for ESG need improvement for real estate investments [25]. This study included interviews of sixty real estate professionals. The focus was to understand the ESG benchmarks that need improvement. Improvement in the GRESB score and task for climate-related financial disclosures were concluded as significant initiatives. Europe and Australia were the leaders in ESG benchmarks as per this study.

Breaking the ESG factors, [26] tested the ESG scores of REITs with the returns provided by the stocks. It was revealed that environmental ratings have a negative relation with the stock return. Whereas the social and governance rating has a positive relation with the REIT returns in the stock market. It resulted that the institutional investors do not value the investment in the environmental initiatives. They have a higher focus on social and governance ratings.

Specific to the G (Governance) aspect of ESG, [27] studied the governance parameters of 220 REITs. It concluded that the REIT valuation is positively related to the governance level of the REIT. This paper extended its experiment to 5000 listed entities. The outcome was similar where the better governance standards resulted in the better financial performance of the company.

A study conducted by [28], studied the relationship between green grade A office buildings and the market value of those buildings. It was suggested that the green buildings have the potential to provide better financial returns for the investors.

On a slightly different spectrum, [29] evaluated the relationship between ESG performance and the cost of cost of capital. It was concluded that those REITs which have a higher segment of green buildings enjoy a lower bond spread in the secondary market.

[30] conducted an exploration of the role of the neighbouring environment on adolescent mental health. They studied data on 3683 kids from the age of ten- to fifteen years old. They investigated the role of neighbourhood greenspaces and air pollution in mental health. It concluded that fear of being a victim of crime was a consistent predictor of mental health and behaviour, indicating the essential role of young people's subjective experience of their neighbourhoods for their mental health and well-being.

Market research conducted by [31] advocated the pricing of carbon within building valuations.

Most research activities in this field have primarily focused on mature real estate markets. The United States, Europe, and Australia, with their established REIT infrastructures and matured regulatory frameworks, have been at the forefront of such studies. Mature markets having spotted the value of sustainable investments early on, have delivered thorough research analysing the relationship between ESG factors and REIT performance, its valuation, and investor outlook. However, when we shift our focus to emerging markets like India, the literature appears rather thin. There is a lack of in-depth ESG studies related to Indian REITs. Primary literature often hints upon the regulatory environment, or general market trends but stops short of diving deep into ESG incorporation into valuations of REITs in the Indian context.

3 Research Gap

This research seeks to address several critical gaps in the current literature pertaining to Indian REITs and the integration of ESG principles. Firstly, it responds to the limited focus on Indian REITs by providing an in-depth analysis tailored to the local context, offering insights into market dynamics. Secondly, it contributes to the lack of comprehensive studies on ESG integration in Indian REITs by examining the extent to which ESG factors are incorporated into decision-making processes. The study also aims to capture diverse perspectives from the valuation domain, offering a holistic view of challenges and opportunities associated with ESG integration. Additionally, the research addresses the incomplete coverage of ESG metrics by meticulously analysing the specific metrics adopted by Indian REITs. By incorporating emerging trends in ESG reporting and standards, the study ensures relevance in the dynamic landscape. Finally, the research comprehensively explores both challenges and opportunities linked to ESG integration, aiming to equip stakeholders with a realistic understanding of the complexities involved in fostering sustainable practices within Indian REITs.

4 Research Methodology

The research methodology employed in this study is designed to provide a nuanced understanding of the ESG integration in the valuation of Indian REITs. The qualitative research design utilises a structured questionnaire to gather in-depth insights into the perceptions and experiences of key stakeholders in the valuation domain.

4.1 Research Design

The study adopts a qualitative research design, acknowledging the importance of exploring the intricate dynamics of ESG integration in the context of Indian REITs. This design allows for a comprehensive examination of the multifaceted aspects and diverse perspectives surrounding ESG considerations in real estate valuation. While the interviews were designed to gather opinions on the subject matter, they were not constrained in time, permitting a comprehensive assessment of each expert's viewpoint. On average, each interaction lasted between 30 to 40 minutes. The choice of a method was adapted based on the ease of the respondents, with some interviews performed face-to-face and others via Google Forms. The insights and responses shared by the experts are important to this study and are recorded herein. To maintain clarity and privacy, each interview has been denoted as 'Rn', where 'n' signifies the respondent's designated number. The structured interview method was chosen as it makes sure that specific questions applicable to the research are addressed while also offering experts the flexibility to elaborate on their views and experiences easily.

4.2 Population and Sampling

To ensure the study's relevance and accuracy, the population considered experts from the valuation domain. The sampling technique employed is purposive, enabling the selection of twelve participants based on their specific experiences and expertise related to ESG integration in Indian REIT valuation. In Figures 1 and 2, the graphical representation the overview of the respondent’s profile.

4.3 Sampling Technique

The purposive sampling method is chosen deliberately to ensure that participants have relevant and insightful perspectives on ESG integration in Indian REIT valuation.

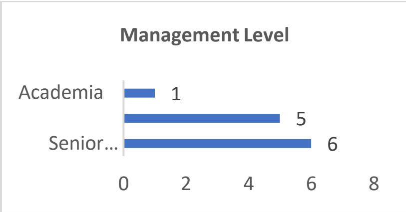

Fig. 1. Respondents' Profile -Management level

Source: Author

Fig. 2. Respondents' Profile -Experience Level

Source: Author

4.4 Questionnaire design

Questionnaire objective

The primary objective of the structured qualitative questionnaire is to elicit detailed and nuanced responses from participants regarding the ESG integration in valuation of Indian REITs. This aims to provide a comprehensive understanding of the multifaceted dimensions of ESG considerations in the valuation of Indian REITs.

Structure of the Questionnaire

The questionnaire is designed with a thoughtful mix of open-ended and closed-ended questions. Including both closed-ended questions, which allowed for clear classification and evaluation of responses, and open-ended queries, which assisted qualitative understandings, the questionnaire was intended to tap into the experience of valuation experts.

Pilot testing

A pilot study was conducted with a smaller sample of participants to ensure the clarity, relevance, and appropriateness of the questions. This iterative process allowed for refinement and validation of the questionnaire before its full-scale implementation.

Variables and Measures

The formulation of questions is grounded in specific variables chosen for their relevance and significance to the research study. Variables include demographic information, participants' experiences with Valuations, ESG integration, challenges encountered, and suggestions for improvement.

Data collection

The distribution method involves reaching out to a diverse set of stakeholders in the field of valuation of Indian real estate sector.

Data analysis

Thematic analysis is employed to identify, analyse, and interpret patterns, themes, and trends within the qualitative data. This method enables a robust exploration of the diverse perspectives expressed by participants.

Ethical considerations

The questionnaire design adheres to ethical principles, ensuring participant anonymity and confidentiality throughout the data collection and analysis process. This approach safeguards the privacy and integrity of the participants.

Validation and Reliability

The research design incorporates measures to enhance the validity and reliability of the collected data, including the iterative pilot testing process and the application of thematic analysis as a rigorous analytical approach.

Limitations

Acknowledging the inherent constraints, the questionnaire design recognizes potential limitations such as participant bias, external factors influencing responses, and the qualitative nature of the study. Also, the number of respondents were limited to twelve. These limitations are transparently communicated to maintain the integrity of the research findings.

5 Stakeholders' interview findings and Analysis

5.1 Valuation Methodologies

In the domain of real estate valuation, two prominent methods wield significant influence: the Income Approach and the Market Comparison Approach. Delving into these methodologies provides a foundational understanding that enhances the reader's comprehension of the intricacies involved in assessing the value of real estate assets.

The Income Approach, also known as the income capitalization approach, is a valuation method that centers on the income-generating potential of a property. It is particularly pertinent when evaluating income-producing assets, such as commercial properties or those within the ambit of REITs. As a part of the income approach, Discounted Cash Flow (DCF) involves estimating future cash flows generated by the property and discounting them to their present value. This method provides a comprehensive view of the property's financial performance over time.

The Market Comparison Approach, commonly known as the sales comparison approach, draws parallels between the subject property and recently sold comparable properties. In this approach, comparable properties are assessed with similar characteristics, such as size, location, and amenities. The prices at which these comparable properties are sold serve as benchmarks for estimating the subject property's value.

A considerable majority of the respondents highlighted their knowledge of the 'Income approach' to valuation. This method's domination is apparent from its state in seven out of the twelve responses. The income approach, rooted in insight into the future revenue projection of real estate assets, seems to be the pillar of many valuation practices in the industry. On the contrary, the 'Market comparison approach' was highlighted by one respondent. This method, while less prevalent among our respondents, influences comparable from the market to decide the value of the real estate asset. Its lone mention indicates it might be a secondary consideration for many or combined with other approaches. An important observation is the four respondents who specified their understanding of 'All of the above' approaches. This feedback highlights the adaptability of some valuation professionals who leverage a more thorough toolkit, mixing both income and market comparison methods based on the nature and requirements of the asset under attention.

The data underlines the supremacy of the income approach in the real estate industry. However, the presence of multi-method experts and their shared insights emphasize the industry's flexibility and the likely value brought by a varied practical assessment. This diversity in capability provides a strong institution when considering the integration of ESG aspects into valuation traditions, given the diverse perspectives from which an asset's value can be assessed.

5.2 Valuation Variables

In the intricate landscape of real estate valuation, numerous factors converge to shape the perceived worth of a property. These factors span across different domains and play a pivotal role in influencing valuations. Here, we delineate and elucidate the key factors falling under distinct categories, shedding light on their significance in the dynamic realm of the real estate industry.

- Income-Related Factors: The stability and predictability of rental income are crucial considerations. Properties with consistent and reliable rental income often garner higher valuations due to reduced risk for investors.

- Market-Related Factors: The interplay between supply and demand dictates market conditions. Understanding these dynamics aids in gauging the property's competitiveness and attractiveness within its market.
- Property-Specific Factors: The location remains paramount. Proximity to amenities, transportation hubs, and desirable neighbourhoods contributes significantly to a property's value. Also, the state of the property, including its maintenance and any recent upgrades, directly influences its perceived value.
- Economic and Macro Factors: The overall economic climate of a region affects property values. Stable economic conditions generally foster a conducive environment for real estate appreciation.
- ESG Factors: Increasingly relevant, eco-friendly features and sustainable practices contribute positively to a property's value. Energy-efficient systems and environmentally conscious designs align with contemporary ESG considerations. Transparent governance structures and ethical business practices enhance a property's reputation and long-term value.

In examining the responses provided by the valuation professionals regarding the key considerations they prioritize in their practices, various patterns and preferences become marked. Out of the twelve responses, all twelve stressed the significance of 'Income-related factors', indicating that likely revenue streams remain the foundation stone of most valuation exercises. Eleven respondents highlighted the importance of 'Market-related factors', implying the significance of current market trends and comparable in the valuation practice. Nine professionals included 'Property-specific factors' in their valuation, indicating the value of the fundamental qualities of the asset. Seven emphasized the weightage of 'Economic and macro factors', implying the wider economic circumstances' in guiding valuations. Intriguingly, three respondents mentioned 'ESG factors'. One of them nuanced this by adding that ESG elements influence the building's capability to generate rents or decide capitalization rates.

While established considerations like earnings prospective and market trends continue to lead the valuation environment, there is a visible shift, although promising, towards integrating ESG parameters. This equilibrium between tried-and-tested practices and evolving theories proposes a promising outlook for the valuation industry, specifically in the framework of redefining value in our changing world.

5.3 ESG Integration in REIT Valuation

REITs form a crucial segment of the real estate industry, serving as investment vehicles that own, operate, or finance income-generating properties. In recent times, the integration of ESG considerations in the valuation of REITs has gained significant discussion. This contextual exploration aims to elucidate the primary objectives, importance, benefits, opportunities, scope, challenges, and limitations associated with the integration of ESG principles into the valuation framework of REITs. By aligning financial objectives with ESG criteria, investors and stakeholders seek to create value not only in monetary terms but also in contributing positively to environmental and social outcomes. This integration is driven by the need to foster responsible and ethical practices within the real estate sector.

The importance of ESG integration in REIT valuation lies in its potential to mitigate risks, enhance reputation, and attract a growing cohort of socially conscious investors. Beyond financial gains, REITs incorporating ESG principles can contribute to broader sustainability goals, supporting environmental conservation and social welfare initiatives. The scope of ESG integration in REIT valuation encompasses a multifaceted approach. Beyond financial metrics, the assessment includes environmental impact, social responsibility, and governance practices. The scope extends to evaluating a REIT's commitment to energy efficiency, community engagement, ethical governance, and diversity, providing a holistic view of its overall sustainability performance.

In exploring the magnitude of ESG integration in the valuation practices in use by specialists, the findings exhibit an image that is both insightful and symbolic of the current real estate industry environment. From the twelve experts queried, a majority, indeed eight, explicitly replied with 'No', indicating that ESG factors are not fundamentally incorporated into their valuation methods for REITs. Two respondents shared indecision with "Don't know / Can't say", perhaps indicating either the promising or uncertain nature of ESG integration within practice. Faction, that is two of the experts, supported that 'Yes', ESG integration does participate in their valuation methodology, casting light on a promising shift in industry practices.

While the primary sentiment leans towards the non-integration of ESG factors in REIT valuation, there is an undercurrent of change. The presence of positive reactions, connected with the slice of ambiguity, points out the progression in progress. It indicates both the challenges and prospects that lie ahead for a more inclusive, ESG-integrated valuation backdrop.

While the integration of ESG in REIT valuation presents numerous opportunities, challenges persist. These include the lack of standardized metrics, varying stakeholder expectations, and the potential for increased reporting burdens. Additionally, limitations arise from the subjective nature of certain ESG criteria and the evolving regulatory landscape, necessitating a balance between compliance and flexibility.

5.4 The ESG Equation

The ESG Equation serves as a comprehensive framework for integrating non-financial considerations into the traditional valuation model for REITs. It recognizes that a REIT's true value extends beyond financial metrics and incorporates environmental, social, and governance dimensions. By assigning quantitative values to these qualitative factors, the ESG Equation seeks to provide a holistic assessment of a REIT's overall performance.

When diving into how ESG considerations find their way into the valuation process, the experts contrasted reactions that reveal a mix of approaches and, in many cases, the lack of ESG considerations. Out of the twelve professionals, a considerable number, six denoted "Not applicable", implying that ESG factors do not feature in their valuation outline. Three respondents emphasized "Risk assessment and scenario analysis" as how ESG considerations are integrated, steering to a more holistic evaluation methodology. Two experts mentioned that "ESG factors get captured in buildings' ability to generate rents or cap rates", demonstrating a direct correlation involving ESG and property value. Finally, two of the experts brought up "Direct adjustments to cash flows or income" as their method, signalling a material financial incorporation of ESG factors.

It is apparent that while a chunk of the industry is not integrating ESG into their valuation approaches, there is a promising regiment that is knitting ESG details into the valuation methodology, whether through direct financial adjustments, risk evaluations, or property value calculations. The varied feedback highlights the industry's emerging phase, directing a slow but steady movement towards an ESG-augmented valuation culture.

5.5 The green predominance: ESG factors taking the limelight in valuations

The phrase ESG brings to the forefront multiple components. But when it comes to which of these is viewed as most important in valuations, our evaluated professionals showed a clear incline. A sizable majority of the respondents, nine out of twelve, emphasized the "Environmental" considerations as the most instrumental in their valuation processes. This underlines a keen interest in the physical world, sustainability, and the prospective risks and rewards related to the environment. On the other hand, "Governance" stood out for the remaining three experts, indicating the weight they place on organizational ethics, structure, and leadership in guiding value.

While governance has its advocates, the environment seems to be the leading force driving ESG factors in valuation. It is a recognised sign of the times and the improving prominence of sustainable methods and their evident results on real estate valuations.

Few of the Environmental aspects which are gaining significant importance in the ongoing discussion are listed as follows:

- Green Investing: It is characterized by a focus on environmentally sustainable and socially responsible practices, has become a prominent trend in the real estate industry. Investors are increasingly seeking opportunities that align with ESG principles, reflecting a broader societal shift towards sustainable and ethical investment strategies. In the context of REITs, this trend has catalysed a re-evaluation of traditional valuation models, necessitating the incorporation of ESG considerations into investment decisions.
- ESG Metrics and Reporting Standards: The adoption of standardized ESG metrics and reporting standards has become a cornerstone in evaluating a REIT's sustainability performance. Various frameworks, such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and Task Force on Climate-related Financial Disclosures (TCFD), provide guidelines for disclosing ESG-related information. REITs are increasingly embracing these standards to enhance transparency, comparability, and accountability in reporting their non-financial performance.
- Industry Initiatives and Practices: The real estate industry has witnessed a surge in ESG-related initiatives and best practices. Collaborative efforts, industry benchmarks, and certification programs, such as Leadership in Energy and Environmental Design (LEED) for green buildings, exemplify the commitment to sustainable development. REITs, recognizing the importance of aligning with these initiatives, are integrating ESG practices into their operations and property portfolios.
- Regulatory Landscape: The regulatory landscape surrounding ESG in real estate, both globally and regionally, has evolved significantly. Governments and regulatory bodies are increasingly emphasizing the integration of ESG considerations into business practices. Compliance with ESG regulations is becoming a key determinant of a REIT's long-term viability and resilience in the face of changing market dynamics.
- Investor Preferences and Expectations: As investor awareness and consciousness regarding ESG issues grow, so do their preferences and expectations. Investors are inclined towards REITs that demonstrate a commitment to sustainable practices, ethical governance, and positive social impact. Understanding and meeting these expectations not only enhance a REIT's attractiveness but also contribute to long-term value creation.

5.6 ESG tools in valuation

When the scope of valuation was examined, specifically regarding the use of explicit ESG assessment methods, the responses were clear. All twelve interviewees responded with a sincere "No" when inquired about the application of any distinct tools designed for ESG evaluation in valuation. This unanimous response brought forth some insightful thoughts.

As ESG factors become more crucial in modelling investment outcomes, there is an apparent and imperative need for the development and acceptance of dedicated ESG evaluation tools specific to valuation purposes. The integration of ESG considerations into real estate valuation has been facilitated by the emergence of dedicated platforms designed for seamless ESG data integration. These platforms play a pivotal role in enhancing the valuation process by aggregating, analysing, and visualizing ESG metrics. In the contemporary real estate landscape, professionals rely on these platforms to gain comprehensive insights into the sustainability performance of REITs. These platforms act as centralized repositories, collecting data on various ESG dimensions, including energy efficiency, carbon footprint, social impact, and governance practices. By providing real-time data analytics, these tools empower valuation professionals to make informed decisions, aligning their assessments with the growing demand for sustainable and responsible investments. Literature in this domain emphasizes the transformative impact of these platforms on the real estate valuation process, highlighting their role in shaping the future of ESG integration. Also, ESG rating agencies and indices stand out as indispensable tools in the contemporary real estate valuation landscape. These entities assess companies, including REITs, based on their environmental, social, and governance practices, generating standardized metrics that contribute to the valuation process.

5.7 Perception of ESG impact on REIT attractiveness

The role of ESG integration in influencing the attraction of a REIT for prospective investors proved to be a topic obtaining diverse ideas. Out of the twelve industry specialists consulted, a significant majority (six respondents) voiced a strong conviction that heightened ESG integration certainly has the potential to positively impact the identified merit and allure of a REIT. Interestingly, five professionals walked the line of ambiguity, indicating a "Maybe" to the suggestion, indicating that while ESG might have an influence, it is conditional on various elements.

This range of beliefs highlights the changing nature of ESG in the REIT valuation process. While there is a concentrated inclination towards the definite impact of ESG integration, the real estate industry seems poised for a phase of evaluation, recognizing, and subsequent acceptance of ESG as a fundamental determining factor of REIT value and appeal.

5.8 Challenges in ESG Integration within REIT Valuation

Including ESG aspects in the REIT valuation process seems to exhibit a distinctive set of challenges. An analysis of expert opinion implied that the primary issue faced by many is the "Data Challenges", cited by eight respondents. These challenges mainly relate to the consistency, availability, and reliability of ESG-related data. Closely following this were the "Methodological Challenges", indicated by seven experts, which rotate around the obstacles in preparing a standard methodology or process that takes ESG impacts effectively. Additionally, "Lack of awareness" was also a persistent theme, highlighted by six experts, indicating that there is a knowledge gap in the industry about ESG's value and its role in valuations. "Regulatory & Policy Challenges" and "Resource & Skill Challenges" were other notable problems, each being identified by three experts.

The feedback shows an image of an industry at a crossway, accepting the potential of ESG but struggling with a mix of operational, informational, and institutional hurdles. As the sector progresses, addressing these challenges directly will be important to fully leverage the advantages of ESG integration.

5.9 Anticipating the Future

When it comes to the advancement of ESG integration within REIT valuations, various themes develop from the response of industry experts. A noticeable viewpoint, articulated by experts, revolves around the enhancement of awareness. There is a felt need for the industry to move past plain acknowledgement and enthusiastically introduce the importance of ESG considerations. This includes both a general understanding of the benefits and a commitment to employ new technologies that aid in the successful integration of the ESG context. Another expert refined the environmental outlook, promoting a keen emphasis on energy intake and trying towards zero emissions. While identifying those certain aspects, like governance, are consistently applied across REIT assets owing to regulatory skeletons, this feedback stresses the value of a pointed, issue-specific approach within the ESG range.

A few insights drawn from the responses are:

- Over the past few years, there has been a rising interest from investors regarding the sustainability attributes of properties. It is not yet a conventional valuation consideration, but it is gaining footing.
- Many clients highlight the importance of governance in REITs, suggesting that well-administered REITs might hold a more stable long-term valuation.
- Valuation experts need more coaching and resources on how to precisely consider ESG components.
- While the idea of incorporating ESG is praiseworthy, the ground realities of getting dependable ESG data for real estate assets, specifically older ones, are deterring.

Some of the interesting insights from the respondents on specific arguments is highlighted in Table 3.

Table 3. Some interesting insights from the respondents

Valuation Aspect	**Respondent (R1-R12)**	**Response**
Valuation methodology	R1	Given the complex nature of real estate assets we deal with, being restricted to one approach can be limiting.
Valuation variables	R2	ESG isn't just a buzzword. It's gradually shaping the way we view real estate assets and their long-term projections
ESG integration in REIT valuation	R4	There is a developing acceptance of ESG's role, but its methodical incorporation is the challenge.
ESG equation	R8	For many properties, mainly in the urban landscape, ESG factors are already prompting rent values.
The green predominance	R9	Many clients stress the importance of governance and transparency in REITs, signifying that well-governed REITs might have a more stable long-term valuation.
ESG tools in valuation	R10	While ESG is gaining traction, we are still at the emerging state when it comes to embedding it into our valuation practices via standardized tools.
Perception of ESG impact on REIT attractiveness	R1	ESG is still a promising concept in our industry. Over time, as understanding increases, its impact on REIT attractiveness will become evident.
Challenges in ESG Integration within REIT Valuation	R11	Every organization seems to have a distinct attitude to ESG valuation. A general approach would make things a lot simpler.

Source: Authors' compilation from the responses received from the respondents.

As REITs continue to shape the real estate topography, these insights could pave the pathway for a more sustainable and informed industry track.

6 Conclusion

This research paper through a survey intends to reveal the shades of ESG integration within the valuation of the Indian REIT market. This study has laid the base of the recognition of the ESG elements in the REIT valuations. Quite a few respondents stressed the pressing requirement for data sourcing, methodological advances, and the advancement of ESG-specific skills. Despite these challenges, there remains a fundamental agreement that the integration of ESG elements holds the potential to considerably influence the recognized value and attractiveness of REITs.

Furthermore, an important point of breakthrough was the prominence of environmental influences in the ESG matrix. This coverage is coherent with the global trajectory, which is gradually heading towards environmentally conscious investment practices. However, the focus on environmental concerns over social and governance aspects displays a section for further consideration.

The findings also highlighted the absence of a regulated frame for ESG assessment, a gap that offers both a challenge and an opportunity. The present state thus paves the way for the beginning of tools designed for the valuation needs of the Indian REIT market.

It is necessary to recognise the limitations of this study. This survey was done within a limited time. It may not attain the dynamic changes of the ESG model within the Indian REIT context. Also, the results, affected by the viewpoints of the respondents, might be motivated by influences or information gaps.

This research lays the base for future studies. It offers stakeholders like policymakers and investors a perspective to recognise the trail of ESG integration in Indian REITs. Also, the interpretations drawn can guide the development of a strong guidelines for a sustainable and responsible real estate market in India.

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