

Integrating Sustainable Management Practices to Enhance Real Estate Development Performance in Saudi Arabia*

ALSEAARI rawabi abdullah, ALSEAARI renad abdullah and Amani M. Hamza

Dar Al-Hekma University, Kingdom of Saudi Arabia

Correspondence should be addressed to: ALSEAARI rawabi abdullah, rawabialseaari@gmail.com

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Abstract

Companies in Saudi Arabia need to implement sustainable management practices because the real estate sector of the country grows rapidly and Vision 2030 creates ambitious development targets. The existing research about sustainability in the construction sector has studied different parts which include environmental social and economic elements instead of examining the complete system. The existing research needs better sustainability management models which connect to Saudi real estate practices because there shows a knowledge gap. This study aims to fill this gap by developing a framework that brings together sustainable development practices, institutional support, and performance outcomes. The research team conducted a survey which collected 247 valid responses from employees working at real estate development companies throughout Saudi Arabia. Organizations achieve better project results when senior management shows commitment to sustainability because it leads to higher project quality and better operational efficiency and financial success. The research shows that sustainable investments create essential business value while sustainability leadership frameworks enable Saudi Arabia to achieve its Vision 2030 goals. Real estate developers who implement sustainable practices will drive economic development while building an environmentally friendly and socially responsible future for their country. The study's findings demonstrate that companies should make sustainability their main business focus instead of viewing it as an optional element to consider. The sustainable management needs of Saudi Arabia will increase as the nation progresses, thus businesses must make sustainable practices their main focus area.

Keywords: Sustainability practices; Real estate development; Saudi Arabia; Organizational performance.

Introduction

In recent years, the construction and real estate sectors in Saudi Arabia have experienced tremendous growth. According to the national transformation plan, "Saudi Arabia Vision 2030," the total investment in ongoing projects exceeds \$1.5 trillion, and the value of completed projects has reached \$25 billion (Al-Saeed, 2023). These developments reflect the Kingdom's strategic direction toward sustainable development aligned with Environmental, Social, and Governance (ESG) principles.

Saudi Arabia has also attracted approximately US\$38 billion in new investments to support sustainable building projects and promote green building standards and practices (PwC Middle East, 2025). This demonstrates a strong national commitment to environmental sustainability and green construction initiatives.

Despite these advancements, there is still a noticeable gap between strategic ambitions and actual implementation in the adoption of green buildings. This gap highlights the need for stronger integration of sustainability practices within real estate development projects to ensure alignment with Vision 2030 objectives.

Therefore, this study focuses on examining the development of an integrated sustainable management framework to enhance the performance of real estate development projects in Saudi Arabia. It seeks to understand current practices, performance outcomes, and implementation challenges within the sector.

This study addresses the following research questions:

- How can an integrated sustainable management framework be developed to enhance the performance of real estate development projects in Saudi Arabia?
- What is the sample's opinion on sustainability practices followed by leading local and international companies and their impact on project and organizational performance?
- How do sustainable projects compare with conventional projects in terms of life-cycle costs, resource efficiency, and market value?
- What are the main obstacles facing Saudi companies in implementing sustainability, and how can international best practices be adapted?

In practice, many Saudi real estate development companies, particularly small and medium-sized enterprises (SMEs), still face challenges in integrating sustainability into their daily operations. These challenges include high initial costs, limited technical expertise, and low awareness of sustainability frameworks. In some cases, sustainability requirements are treated as optional rather than strategic priorities, leading to inconsistency in implementation across projects.

Literature Review

Theoretical Foundations of Global Sustainable Practices in the Real Estate Sector

Sustainable development is a fundamental principle that guides us in developing real estate worldwide to be modern, environmentally friendly, and to achieve a balance between economic, environmental, and social dimensions. It ensures the sustainability of resources and improves the quality of life for future generations (Shahid et al., 2024). Based on this definition, numerous studies have emphasized the importance of sustainability in urban planning, as it helps promote equity, protect the environment, and improve living standards (Alhazmi & Almahmoud, 2025). As a result of this importance, Environmental, Social, and Governance (ESG) standards have emerged as a basis for evaluating the extent to which sustainability is implemented, or more precisely, its success, within real estate institutions. A study by (Walacik & Chmielewska, 2024) highlighted the role of ESG standards in reducing energy consumption and enhancing transparency. Furthermore, Jadara Business Consulting (2025) confirmed that integrating ESG standards strengthens investor confidence and leads to long-term financial stability. Sustainability is no longer limited to performance alone. Environmental management is now a management approach that impacts the competitiveness of organizations (Eelager et al., 2025). In addition to environmental, social, and governance (ESG) frameworks, green building rating systems such as LEED, BREEAM, Estidama, and Mostadam provide practical tools that translate sustainability principles into measurable building practices. While AESG (n.d.) emphasizes its role in improving energy and water efficiency, and a study by Al-Sarif et al. (2021) indicates that these systems improve indoor environmental quality and occupant well-being, the challenge lies in the fact that the effectiveness of these systems depends primarily on local adaptation and compliance with regulations. Therefore, these standards alone do not guarantee consistent sustainability outcomes.

International standards such as ISO 14001, ISO 50001, and ISO 45001 help integrate sustainability into corporate governance systems. (Meinen & Franz, 2025) and this is confirmed by a study (2024) that the standards of the International Organization for Standardization (ISO) improve environmental monitoring and safety performance, while another study (2025) by (Wieteska-Rosiak) Management Consulting found that integrating these standards enhances risk management and operational efficiency. The application of circular economy principles has also received increasing attention in the real estate sector. Ecomena (2025) highlights the environmental benefits of reducing waste and reusing resources. (Wieteska-Rosiak, 2025) Business Consulting (2025) argues that circular economy practices achieve long-term economic benefits by reducing operational costs, and this theoretical basis highlights that sustainability needs an integrated approach that combines governance, environmental management and resource efficiency.

Empirical Evidence on Sustainable Practices in the Real Estate Sector Globally

Scientific studies consistently reveal a growing global trend towards adopting sustainable real estate practices. This is driven by increasing environmental awareness, regulatory pressures, and market demand for green

buildings. For example, a study by Zhang et al. (2011) found that financial considerations remain a major obstacle to sustainable real estate development due to high initial investment costs and volatile market demand. However, the study's findings indicate that integrating sustainability considerations during the early stages of a project significantly reduces long-term operating costs, thus improving project viability.

While financial constraints are considered major obstacles, Dharmaratna et al. (2026) emphasize that inadequate training, lack of technical expertise, and socio-cultural resistance remain critical barriers to sustainability adoption. Ali et al. (2025) found that companies implementing ESG (Environmental, Social, and Governance) standards achieved higher profitability and enhanced investor confidence. This suggests that sustainability adoption can yield tangible financial benefits when supported by effective governance mechanisms. Shahid, Sablfield, and Johansson (2024) identified conceptual and rhetorical gaps in current sustainability frameworks, particularly the absence of standardized methodologies applicable to different project types. While many frameworks focus on energy efficiency and lifecycle assessment, their practical application remains inconsistent due to cost constraints and a lack of technical expertise. This inconsistency highlights the need for sustainability frameworks to be adaptable to organizational size and project scope to achieve tangible performance improvements.

Kostache, Dumitrasko, and Manio (2021) highlight methodological complexity and limited information availability as key barriers for SMEs, while Setianingse, Wedjogo, and Wakil (2024) emphasize financial constraints, weak governance structures, and technological deficiencies. Taken together, these findings suggest that SMEs need simplified and scalable sustainability models rather than complex frameworks designed for large enterprises. This difference leads us to hypothesize that organizational capacity plays a mediating role in determining sustainability outcomes.

The Saudi and GCC Context

In the GCC region, the adoption of sustainable real estate practices has increased significantly, driven by climate change concerns, rising energy consumption, and regulatory shifts. A study by Khan et al. (2024) identified 46 categories of barriers affecting sustainability adoption in the GCC, including regulatory, economic, technological, and market-related constraints. Despite the region's strong financial capabilities, regulatory inconsistencies and cultural differences continue to pose challenges.

Saudi Arabia has intensified its sustainability initiatives within the framework of Vision 2030, which aims to diversify the economy and promote environmental sustainability. Beljassim (2025) found that governance reforms were the primary driver for adopting ESG (Environmental, Social, and Governance) standards in the Saudi financial sector. However, environmental and social components remained underdeveloped due to limited regulatory clarity and a lack of technical expertise. This disparity highlights the uneven application of ESG standards across sectors in Saudi Arabia. When considering mega-projects like NEOM, Roshan, and the Red Sea Project, which serve as practical examples of sustainable urban development, the Ziggurat Blog study (2024) highlights NEOM as a futuristic city integrating renewable energy and smart technologies. Knight Frank (2024) emphasizes Roshan's role in providing sustainable housing solutions, while the Red Sea Project embodies environmentally responsible tourism practices based on renewable energy and ecosystem preservation (Diligence Group, 2025). These mega-projects demonstrate a strong corporate commitment to sustainability, but this may not reflect the operational reality of smaller real estate developers.

Comparative evidence within the GCC indicates a disparity in sustainability adoption among real estate developers. Benchmarking studies show that Saudi SMEs perform competitively in pricing and social inclusion, but lag behind regional developers like Arada and Al Mouj in environmental, social, and governance (ESG) performance (Costar News, 2025). In addition, a study by Ifianti et al. (2025) notes that the adoption of environmental, social, and governance (ESG) standards varies considerably across regions, with developed markets exhibiting stronger regulatory frameworks and higher standards.

Research Gaps and Conceptual Framework

Despite the existence of a significant body of research on sustainable real estate development practices, significant research gaps remain. Many studies focus on large-scale projects and corporate-level sustainability initiatives, while empirical research on the implementation of sustainability by Saudi small and medium-sized real estate development enterprises (SMEs) is lacking. Furthermore, existing research often separates sustainability adoption from environmental and economic perspectives, failing to integrate these dimensions into a comprehensive management framework.

There are also differing views on the effectiveness of sustainability frameworks in improving corporate performance. Some studies identify financial constraints as the main barrier, while others highlight corporate resistance, technological constraints, and lack of expertise as major factors. These research gaps indicate the need for a comprehensive sustainability management framework that considers all organizational levels.

Therefore, this study aims to address these research gaps by developing and validating a comprehensive sustainability management framework specifically for real estate developers operating within the Saudi Vision 2030 framework. The proposed conceptual framework integrates sustainable development practices, institutional support mechanisms, and performance outcomes, providing a systematic approach to assessing the implementation of sustainable development across various institutional settings.

Methodology

Research Methods

This study employs a descriptive-analytical approach, a common methodology in management and sustainability research. The study is designed to evaluate the relationship between current sustainability practices and the organizational performance of a Saudi real estate development company. Quantitative analytical methods were used, with data collected through an online questionnaire on Google Drive. After data collection, the information was statistically analyzed and the hypotheses tested.

Study Sample

The study population consists of employees of a real estate development company in Saudi Arabia. The sample comprises professionals directly involved in the real estate development process. Specifically, this study focuses on employees in the following professions: project managers, civil engineers, architects, sustainability managers, contractors and subcontractors, and design and development professionals. Employees in the real estate development sector were selected due to their direct involvement in the design and implementation of sustainable development projects, thus providing valuable insights for the study.

This study employed a non-probability thematic sampling method to select participants with specialized professional knowledge and experience relevant to the research objectives. Thematic sampling was chosen because it targeted respondents directly involved in sustainable development activities within real estate development projects. This ensures that the collected data reflects the perspectives of experts in the field, rather than general opinions.

Five hundred questionnaires were distributed to potential participants from several real estate development companies in Saudi Arabia, covering Riyadh, Jeddah, the Eastern Province, and other major cities.

Of the distributed questionnaires, 247 valid responses were received, representing a response rate of 49.4%. This is a statistically acceptable rate for professional surveys, as previous studies indicate that response rates in professional surveys typically range between 20% and 30%. Therefore, the response rate in this study is methodologically reliable and sufficient for statistical analysis.

Data Collection Tools

This study employs a structured interpretation methodology developed based on tools proven in the sustainability and property management literature, particularly in environmental, social, and governance (ESG) practices, sustainability frameworks, and organizational performance research (Ali et al., 2025; Shahid et al., 2024; Ben Mahmoud et al., 2025).

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The questionnaire contains 40 questions:

1. Developing an integrated framework for sustainable management (10 questions)
2. The extent to which leading companies, both locally and internationally, implement sustainability practices (10 questions)
3. The economic impact of sustainability projects compared to traditional projects (10 questions)
4. Challenges facing Saudi companies in implementing sustainability and the possibility of adopting best practices (10 questions)

All questions were measured using the following five-point Likert scale:

- 1 = Strongly disagree
 2 = Disagree
 3 = Neutral
 4 = Agree
 5 = Strongly agree

Pilot Study

We conducted a pilot study with 30 participants from the target group to ensure the questionnaire's clarity, applicability, and reliability. Based on feedback from participants in the pilot study, we clarified the questionnaire's content and improved its wording to ensure the questions were suitable for the research objectives and easily understandable.

Data Analysis Methods

The following statistical methods were applied:

- Descriptive statistics (means and standard deviations)
- Pearson correlation analysis
- Regression analysis

Validity and Reliability

Table 1 shows the correlation coefficient between the score of each statement and the score of the sub-axis (n=30)

Axis	Developing an Integrated Sustainable Management Framework		The degree to which leading companies locally and internationally implement sustainability practices		The Economic Impact of Sustainability Projects Compared to Traditional Projects		Challenges Facing Saudi Companies in Implementing Sustainability and the Possibility of Adapting Best Practices	
statements	Correlation coefficient to dimension	Correlation coefficient to the axis	Correlation coefficient to dimension	Correlation coefficient to the axis	Correlation coefficient to dimension	Correlation coefficient to the axis	Correlation coefficient to dimension	Correlation coefficient to the axis
1	0.872**	0.781*	0.915**	0.902**	0.921**	0.847**	**0.773	**0.869
2	0.889**	0.796*	0.853*	0.772**	0.913**	0.875*	**0.873	**0.914
3	0.914**	0.808**	0.907**	0.866**	0.928**	0.841**	**0.908	**0.911
4	0.927**	0.887**	0.918**	0.859**	0.887**	0.792**	**0.917	**0.906
5	0.883**	0.829*	0.931**	0.918**	0.916**	0.889**	**0.893	0.812**
6	**0.765	*0.547	**0.930	**0.738	**0.835	**0.779	**0.898	0.773**
7	**0.920	*0.738	*0.844	**0.858	*0.883	*0.855	0.788**	0.756**
8	**0.915	**0.781	**0.913	**0.874	**0.845	**0.857	0.703**	0.695**
9	**0.924	**0.728	**0.917	**0.824	**0.786	**0.807	0.803**	0.869**
10	**0.884	*0.767	**0.925	**0.918	**0.892	**0.743	0.785**	0.857**

(* Correlation coefficient is significant at 0.05), (** Correlation coefficient is significant at 0.01)

The Pearson correlation coefficient between the scores of each statement and the overall score for the axis showed a high level of internal consistency. All correlation coefficients were statistically significant at the 0.01 and 0.05 levels.

Questionnaire Reliability

Table 2 shows the reliability coefficients of the questionnaire using Cronbach's alpha (n = 30)

Axis	statements	Cronbach's alpha coefficient
Developing an Integrated Sustainable Management Framework	10	0.88
The degree to which leading companies locally and internationally implement sustainability practices	10	0.86
Economic Impact of Sustainability Projects Compared to Traditional Projects	10	0.85
Challenges Facing Saudi Companies in Implementing Sustainability	10	0.91
Total	40	0.95

The Cronbach's alpha coefficient results showed high values for all questionnaire dimensions, ranging from 0.85 to 0.91. The overall reliability coefficient for the instrument was 0.95, confirming the questionnaire's high level of reliability.

Results

How can an integrated sustainable management framework be developed to enhance the performance of real estate development projects in Saudi Arabia?

Table 3 Descriptive analysis of Developing an Integrated Sustainable Management Framework

	Strongly agree	agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
My company has a clear vision regarding sustainability	40	20	10	15	5	4.3378	1.12893
There is a written sustainability policy that is implemented	35	25	12	15	3	4.1134	1.25398
Senior management supports sustainability initiatives	45	18	10	12	2	4.2024	1.22951
The company has a system to measure sustainable performance	42	20	11	10	3	4.1619	1.23552
Sustainability principles are integrated into decisions	38	22	15	12	3	4.1741	1.24860
Employees are trained in sustainability practices	40	20	10	15	5	4.1296	1.24589
The company can adopt an integrated sustainability framework	45	18	10	12	2	4.2186	1.18286
Applying a sustainability framework improves project quality	48	15	8	10	1	4.1943	1.17334
Integrating sustainability improves market competitiveness	46	18	9	10	2	4.1660	1.20331
Adopting a sustainability framework is feasible for the company	44	20	10	12	2	4.1741	1.19197

What is the sample's opinion on the sustainability practices followed by leading local and international companies (such as ROSHN, Red Sea Global, Diriyah, Emaar the Economic City, Skanska, and Lendlease) and their perceived impact on project and organizational performance?

Table 4 Descriptive analysis of The degree to which leading companies locally and internationally implement sustainability practices-

	Strongly agree	agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
The company is familiar with global sustainability initiatives	80	70	50	30	17	4.1215	1.21367
We study successful sustainability cases from leading companies	75	65	52	40	15	4.1012	1.17990
We adopt energy and water policies similar to leading companies	70	60	57	40	20	4.0607	1.24628
We use environmentally efficient building materials	80	60	50	40	17	4.1174	1.18527
Mechanisms exist to reduce carbon emissions	85	60	50	35	17	4.0648	1.21803
Smart energy management solutions are used	75	65	55	35	17	4.1174	1.18527
Project quality improved after applying sustainability	80	70	50	30	17	4.0891	1.20305
Sustainability practices reduced financial costs	78	68	50	33	18	4.0972	1.17851
Sustainability improved the company's reputation	80	60	55	35	17	4.0648	1.20797
We aim to meet global sustainability standards	85	62	50	30	20	4.0972	1.21252

What is the sample's opinion on the economic and operational performance of sustainable projects compared to conventional projects in terms of life-cycle costs, energy and water efficiency, and property market value?

Table 5 Descriptive analysis of The Economic Impact of Sustainability Projects Compared to Traditional Projects

	Strongly agree	agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
Lifecycle cost of sustainable projects is lower long-term	78	65	50	37	17	4.1457	1.19067
Sustainable buildings achieve higher energy efficiency	80	60	55	35	17	4.0810	1.16588
Sustainable buildings achieve significant water savings	75	62	55	40	15	4.0931	1.19085
Sustainability technologies reduce operating costs	78	65	50	37	17	4.0364	1.16290
Sustainable projects provide higher financial returns	80	62	55	35	15	4.0162	1.23291
Certified buildings attract more investors	75	65	50	37	20	4.0648	1.19784

Clients prefer environmentally certified properties	78	60	50	39	20	4.0607	1.21322
Sustainability increases property market value	80	62	50	35	20	4.0526	1.20688
Economic benefits outweigh initial costs	78	65	50	37	17	4.0688	1.19591
Investing in sustainability is essential for profitability	80	60	55	35	17	4.0567	1.22176

5. What are the main obstacles facing Saudi companies in implementing sustainability, and how can international best practices be adapted?

Table 6 Descriptive analysis of Challenges Facing Saudi Companies in Implementing Sustainability and the Possibility of Adapting Best Practices

	Strongly agree	agree	Neutral	Disagree	Strongly disagree	Mean	Std. Deviation
There are financial difficulties applying sustainability	78	62	50	40	17	3.0891	1.42001
There is a technical knowledge gap among employees	80	60	55	35	17	2.9960	1.34798
Current regulations do not support sustainability	75	65	50	40	17	2.9798	1.38942
Sustainability certification costs are high	78	62	50	37	20	2.9676	1.33700
There is a shortage of specialized sustainability suppliers	80	60	55	37	15	2.9555	1.36821
Some customers refuse additional sustainability costs	75	65	50	37	20	3.0000	1.36447
There is resistance to change within the company	78	62	55	37	15	2.9271	1.35953
Few partnerships between SMEs and large companies	80	60	55	37	15	2.9798	1.37767
It is difficult to adapt global practices to the Saudi context	78	62	50	37	20	2.9190	1.40032
Companies need greater government support	80	60	55	37	15	2.9312	1.36720

If a ready-made integrated sustainability framework were available, do you think applying sustainability in your projects would become easier?

Table 7 Frequency and Percentage Distribution of Responses to the Availability of a Ready-Made Integrated Sustainability Framework

Response	Frequency	Percentage
Yes	221	89.47%
Not sure	10	4.05%
No	10	4.05%
Total	247	100%

The table results show that the majority of the sample believe that the availability of a ready and integrated sustainability framework greatly helps in facilitating sustainability practices in projects, as 89.47% of the participants agreed with this, and this large percentage reflects a clear conviction and belief among those working in the real estate development sector in the importance of clear regulatory frameworks in supporting the application of sustainability, while we see that there is a limited percentage of participants who are uncertain (4.05%), while the same percentage opposed the idea.

Inferential Analysis

H1: There is a statistically significant positive relationship between senior management support and the company's success in adopting an integrated sustainability framework.

Table 8 Correlation between Senior Management Support and Adoption of an Integrated Sustainability Framework (H1)

Correlations			
		Senior management supports sustainability initiatives	The company can adopt an integrated sustainability framework
Senior management supports sustainability initiatives	Pearson Correlation	1	.858**
	Sig. (2-tailed)		.000
	N	247	247
The company can adopt an integrated sustainability framework	Pearson Correlation	.858**	1
	Sig. (2-tailed)	.000	
	N	247	247

** . Correlation is significant at the 0.01 level (2-tailed).

The results in Table (19) show a strong, statistically significant positive correlation between senior management support and the company's ability to adopt an integrated sustainability framework ($r = 0.858$, $p < 0.01$). This confirms the first hypothesis, highlighting the pivotal role of senior management in the successful implementation of sustainability.

H2: Companies that study and adopt global sustainability practices achieve greater improvements in project quality

Table 9 Regression Analysis of the Effect of Studying and Adopting Global Sustainability Practices on Project Quality (H2)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.250	.112		2.239	.026
	We study successful sustainability cases from leading companies	.611	.059	.600	10.360	.000

	We adopt energy and water policies similar to leading companies	.328	.056	.340	5.869	.000
Model	R	R Square	F	Sig.	Model	R
1	.917 ^a	.840	641.965	.000 ^b	1	.917 ^a

The regression results in Table 20 indicate that studying and adopting global sustainability practices has a significant positive impact on improving project quality. The coefficient of determination ($R^2 = 0.840$) means that the model explains 84% of the variance in project quality. Therefore, the second hypothesis is accepted.

H3: There is a positive relationship between the decrease in the periodic cost of sustainable projects and the increase in the financial return of the projects.

Table 10 Correlation between Commitment to Global Sustainability Standards and Financial Returns of Sustainable Projects (H3)

Correlations			
		We aim to meet global sustainability standards	Sustainable projects provide higher financial returns
We aim to meet global sustainability standards	Pearson Correlation	1	.801**
	Sig. (2-tailed)		.000
	N	247	247
Sustainable projects provide higher financial returns	Pearson Correlation	.801**	1
	Sig. (2-tailed)	.000	
	N	247	247

** . Correlation is significant at the 0.01 level (2-tailed).

Table 21 shows a strong, statistically significant positive correlation between adherence to global sustainability standards and increased financial returns for sustainable projects ($r = 0.801$, $p < 0.01$).

Discussion

The study's findings clearly align with several previous studies such as Mensah and Casadevall (2019), Shahid et al. (2024), Walacik and Chmielewska (2024), Meinen and Franz (2025), Ghanem and Al-Amr (2023), and Alhazmi and Almahmoud (2025), which have emphasized the crucial role of management commitment in achieving sustainability goals within real estate development organizations.. These findings are consistent with those of Ghanem and Al-Amr (2023) who explained that leadership support and strategic commitment are fundamental factors in the successful implementation of sustainability practices. When management actively promotes sustainability initiatives, provides the necessary resources, and integrates sustainability principles into organizational policies, employees become more willing to adopt sustainable practices in their daily work. The impact of this management support extends beyond simply improving operational processes; it also fosters a positive organizational culture that supports long-term environmental responsibility.

Furthermore, the study's results derived from the descriptive and inferential analysis of 247 valid responses across Saudi real estate development companies support those of Tsani and Najm (2021) and Salimiyan (2024), which demonstrated that adopting environmental, social, and governance (ESG) practices significantly contributes to improving the financial and operational performance of organizations. Participants in this study indicated that implementing sustainability leads to improved service quality, reduced operational inefficiencies, and enhanced overall project outcomes. This underscores that sustainability is no longer merely an environmental or social obligation, but a strategic investment that enhances the competitiveness of organizations and ensures long-term, sustainable profitability.

The findings of this study also align with professional reports from Oxford Business Group (2024) and PricewaterhouseCoopers (2025), which demonstrated tangible economic benefits from implementing sustainable building practices. These reports indicated that sustainable buildings can contribute to reducing energy and water consumption by 15% to 25%, in addition to increasing property market value by 10% to 12%. The current study

reinforces these indicators, showing that a significant proportion of participants believe sustainability initiatives help reduce long-term operating costs and increase the value of real estate assets. These findings highlight the economic viability of investing in sustainability, particularly in countries where energy and water efficiency is a national priority.

Furthermore, this study provides valuable insights into the challenges faced by small and medium-sized enterprises (SMEs) in adopting sustainability practices, and these findings are consistent with those of Ben Mahmoud et al. (2025), where they identified financial constraints, limited technical expertise, and a lack of local awareness as the most significant obstacles hindering the implementation of sustainability in these establishments. The study's findings also explained the reluctance of many small and medium-sized enterprises (SMEs) to adopt well-known international standards such as ISO 14001 and LEED certification, due to the high implementation costs and limited access to specialized technical expertise. This problem is particularly significant considering that these establishments are responsible for implementing approximately 80% of new housing projects, meaning that their weak adoption of sustainability standards significantly impacts the overall performance of the real estate sector.

The study also demonstrated the positive role of large-scale real estate projects, both local and international, in improving organizational performance and service quality. Major projects such as Roshn and Red Sea Global were identified as leading examples that have contributed to developing sustainability practices and improving operational efficiency. These findings align with those of studies by Co-Star News (2025) and Knight Frank (2024), which confirmed that clear management structures and substantial investments contribute to increased productivity, improved service quality, and enhanced attractiveness in the real estate market. These large-scale projects often serve as successful case studies that smaller companies can leverage to develop their own sustainability practices.

The descriptive analysis also revealed a high level of organizational readiness to adopt sustainability practices among real estate development companies in Saudi Arabia. Approximately 85% of respondents indicated that management clearly supports sustainability initiatives, while 80% confirmed that implementing sustainability contributes to improving the quality of services provided.

Regarding performance management systems, the results showed variations in the application of evaluation systems across different company sizes. Medium-sized companies recorded an implementation rate of 38.5% for performance evaluation systems, compared to 25.1% for large companies and 36.4% for small and medium-sized enterprises (SMEs). These findings suggest that while some performance monitoring mechanisms exist, there is a need to develop more structured evaluation systems that specifically focus on measuring sustainability outcomes and their impact on organizational performance.

Managerial Implication

The study's findings offer several practical recommendations that can be implemented by companies, real estate developers, and policymakers:

Senior leadership should spearhead sustainability initiatives by integrating sustainability goals into organizational strategies and decisions. The study demonstrated that senior management support increases the likelihood of implementing integrated sustainability frameworks by 85%.

Small and medium-sized enterprises (SMEs) should invest heavily in their employees by providing ongoing training on the latest technologies. This training should be integrated with any development initiatives. SMEs should also strengthen their partnerships with leading local and international companies to exchange expertise.

Financial and regulatory incentives should be provided to reduce the financial burdens associated with sustainability certifications and green technologies. Furthermore, clear national frameworks incorporating ISO, LEED, and Mostadam standards should be established to facilitate the adoption of sustainability throughout the project lifecycle.

Implementing sustainability standards leads to long-term energy and water savings, increases financial returns, and makes projects more attractive to investors and customers, thus contributing to the realization of Vision 2030 goals.

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