Research Article

Investigating the impact of green leadership on brand reputation in the hotel sector: The mediating effects of stakeholder engagement and sustainable practices

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ABSTRACT

In the context of increasing global concern for environmental responsibility, the hospitality industry faces growing pressure to adopt sustainable leadership practices. Green leadership has emerged as a critical factor in shaping how organizations are perceived, particularly in service-intensive sectors like hotels where brand reputation is closely linked to stakeholder perception.

This study aims to examine the impact of green leadership on brand reputation in the hotel sector, with a focus on the mediating roles of stakeholder engagement and sustainable practices. A quantitative research design was employed using a structured questionnaire distributed to employees in five-star hotels across Egypt. A total of 600 questionnaires were distributed using stratified random sampling, and 390 valid responses were collected. The data were analyzed using Structural Equation Modeling (SEM) with SmartPLS 4.0 to assess both direct and mediating effects.

The findings indicate that green leadership has a significant direct and indirect impact on brand reputation. Sustainable practices demonstrated a stronger mediating effect than stakeholder engagement. These results highlight the importance of operational sustainability and inclusive stakeholder strategies in reinforcing brand equity.The implications of the study are twofold: first, it provides empirical support for integrating green leadership in strategic brand management within hospitality; second, it offers a novel empirical model that advances the understanding of mediating mechanisms between leadership behavior and brand outcomes in emerging market contexts.

Keywords: Green leadership; brand reputation; stakeholder engagement; sustainable practices; hospitality industry

1. Introduction

In an era of intensifying climate change, environmental degradation, and growing consumer awareness, organizations especially those in the hospitality sector are under increasing pressure to integrate

sustainability into their operations and leadership strategies. The hotel industry is a significant contributor to environmental impact due to its high energy usage, water consumption, and waste generation[1]. At the same time, travelers are becoming more environmentally conscious, preferring brands that align with their values[2]. Studies have shown that hotels that demonstrate authentic environmental commitment enjoy enhanced brand loyalty and market competitiveness[3].

Several studies have emphasized the role of leadership in shaping organizational behavior and reputation. For instance, transformational leadership has been shown to influence employee attitudes and organizational outcomes positively[4]. Green leadership, as an extension of this framework, fosters environmental awareness and strategic sustainability initiatives, which can shape stakeholders' perceptions of the brand[5]. Prior research indicates that organizations led by environmentally conscious leaders tend to implement more consistent and credible sustainable practices[6]. Moreover, stakeholder engagement is widely recognized as a mechanism through which leadership translates into brand value, as transparent communication and involvement build trust and credibility[7]. When sustainable practices and stakeholder relationships are visibly aligned with leadership values, customers perceive the brand as authentic and trustworthy, enhancing brand reputation[8].

In the context of growing environmental awareness and global sustainability goals, green leadership has gained considerable attention as a key driver of organizational transformation. Rooted in transformational leadership theory, green leadership emphasizes the integration of environmental considerations into business decision-making and the cultivation of eco-conscious behaviors among employees and stakeholders[2,3]. It has been linked to improved organizational performance, enhanced stakeholder trust, and stronger brand identity, particularly as sustainability becomes a competitive differentiator in many industries[1].

Green leadership, rooted in transformational leadership, encourages employees to prioritize collective environmental goals over personal Interests[9]. This necessitates fostering an organizational culture of sustainability in which eco-friendly practices become inherent to the operation and decision-making processes[4]. Priority should thus be given by green leaders to stakeholder engagement, in acknowledgment of the fact that successful communication with customers, suppliers, and surrounding communities builds trust and loyalty in the brand[8].

Furthermore, green leadership must be distinguished by strong commitment to ethics and a long-term view on solving some of the most pressing issues the world faces today climate change and resource scarcity[6]. Fostering the truth of being truly committed to sustainability shows how much green leaders can influence the market perception of an organization in the present day[10].

Brand reputation becomes paramount in the marketplace as consumers become more aware of environmental issues[4]. A positive brand image encourages customer loyalty and sways brand name in the buying decision, with customers giving preference to companies they see as being environmentally responsible[2]. Those businesses that prioritize sustainability are at a competitive advantage. Enter the idea of green brand image, as consumers seek products aligned with their values, mainly in terms of environmental maintenance. Those companies are rewarded with selective customers willing to pay a premium for any product marketed as green[11]. To sustain such a competitive class, organizations must now build a reputation that appeals to this ascending market class[7]. Such commitment to sustainability fosters employee morale and attracts purposeful talent[12]. The firms demonstrating the green leadership can build consumer trust, which can translate into increased market share and profits[13]. This trust is further enforced with respect to reputation when a company indeed practices what it preaches in the sustainable retailing arena through

marketing and public relations[7]. A good story about sustainability within-and-through organizations would serve to create differentiation while contributing to the social and environmental good[12].

To adopt a green leadership perspective, one must appreciate approaches that promote sustainable processes, environmental stewardship, and social responsibility to organizations[5]. Green leadership is supposed to inspire followers toward eco-friendly behavior and embeddedness of sustainability in their organizations[2]. The green leaders champion programs for environmental sustainability towards the alignment of organizational goals within broader ones involving ecology[8]. That's really what they're saying about sustainability around innovation and encouraging new procedures to begin the new technologies that help us all reduce the environmental impact[11].

Green leadership takes transformation wherein employees are pushed to transcend their selfish interests in pursuit of a collective goal environmental[2]. This requires nurturing a culture of sustainability in the organization where such eco-friendly practices become mode of operation and decision making[11]. Stakeholder engagement is thus prioritized by green leaders since effective communication to customers, suppliers, and the communities around builds trust and loyalty toward the brand[14].

Green leadership should also exhibit a strong ethical commitment and a longer-term view toward solving some of the biggest problems facing the world today, such as climate change and resource scarcity[2]. Giving credence to the reality of being really committed to sustainability shows how much influence green leaders can have in shaping the market perception of an organization in the current age[14].

The main aim of this study is to examine the intertwined construct of green leadership and brand reputation and postulate that environmental stewardship offers a competitive advantage to a company[15]. In attempting to fill some of these gaps in existing literature, the research will consider the mediating role played by stakeholder engagement and sustainable practices in this relationship, as these dynamics will become ever-so-important for enterprises that seek to incorporate sustainability in their brand image and consumer loyalty[12]. Hence, while concentrating on green leadership, the intent of this study is to present a conceptual framework emphasizing environmental, as well as social and economic impacts, thereby providing an all-embracing view of how leadership styles may influence brand perception[16].

Another great application of this research would be directed toward a plethora of other stakeholders such as executives, legislators, and consumers on practical ways of inducing sustainable practices within socially responsible values[14]. By enabling the formulation of mechanisms to enhance stakeholder engagement through different green initiatives, the results will assist organizations as they tread the convoluted path of sustainability, market confidence, and customer loyalty[12].

Despite this growing body of literature, important gaps remain. First, most existing studies have explored these constructions in isolation or in manufacturing and technology contexts, with limited focus on the hospitality industry. Second, few studies have examined how green leadership enhances brand reputation through mediating mechanisms such as stakeholder engagement and sustainable practices. Finally, there is a noticeable lack of empirical research in emerging markets such as Egypt, where environmental leadership practices are still evolving and institutional pressures may differ.

To address these gaps, the current study investigates the impact of green leadership on brand reputation in the hotel sector, focusing on the mediating roles of stakeholder engagement and sustainable practices. Drawing on empirical data from Egyptian five-star hotels, this research aims to contribute both theoretically by testing a novel conceptual model and practically by offering actionable insights for hotel managers seeking to improve their brand image through sustainability.

2. Literature review

2.1. Green leadership

Green leadership refers to the process by which leaders influence followers toward achieving organizational goals that align with environmental sustainability[17]. This style of leadership incorporates environmental values into vision-setting, decision-making, and organizational behavior[18]. Unlike traditional leadership forms, green leadership explicitly integrates sustainability as a core strategic concern[19]. Scholars argue that it builds an ethical climate, motivates employee engagement in sustainability initiatives, and enhances corporate image through environmental commitment[20,21]. However, much of the existing research has centered on manufacturing and industrial settings, leaving a significant gap in the application of green leadership within service-based industries such as hospitality[22].

2.2. Stakeholder engagement

Stakeholder engagement is defined as the ongoing process of involving individuals or groups who are affected by or can affect organizational outcomes[23-26]. In a sustainability context, this means proactive communication and collaboration with customers, employees, suppliers, regulators, and the community to support shared environmental goals. Effective stakeholder engagement leads to higher transparency, trust, and mutual accountability[27,28]. In hospitality, engaging stakeholders in green initiatives can significantly influence brand perception and loyalty[29,30].

The involvement of stakeholders in initiatives adopting sustainability will help organizations realize the success of such programs[27]. Since different stakeholders gather as one, such as employees, consumers, investors, and the community, the organization stands to gain these inputs, which in turn benefit sustainability strategies. This holistic approach in turn ameliorates decision-making[27]. It improves collaboration, which will prove very important in creating the trust necessary for effective implementation of practices that are truly sustainable[29]. Despite its strategic importance, stakeholder engagement remains underutilized in many hospitality contexts, and few studies have empirically explored its mediating role between leadership and brand reputation.

2.3. Sustainable practices in organizations

Sustainable practices involve the integration of eco-friendly actions and policies into everyday operations. In the hotel industry, this includes energy conservation, waste management, eco-friendly sourcing, and water-saving technologies[31]. Organizations that implement such practices are perceived as socially responsible and forward-thinking, which positively influences their brand reputation[32]. Research has shown that sustainable practices are often driven by internal leadership and external stakeholder pressure[33]. However, the extent to which these practices mediate the link between leadership and brand outcomes needs further investigation[16].

2.4. Brand reputation

Brand reputation refers to stakeholders' overall perception of a company's credibility, responsibility, and quality based on accumulated experiences and communication [4]. In the context of sustainability, brand reputation is increasingly influenced by how an organization manages its environmental and social responsibilities [2]. A strong reputation enhances customer loyalty, attracts talent, and strengthens competitive positioning. Studies suggest that leadership styles that emphasize transparency and sustainability can significantly improve brand reputation [34].

2.5. Green leadership and brand reputation

Monfort et al.,[35] shown a strong relationship between leadership styles and brand reputation, especially in ethical and green leadership. Ethical leadership strengthens trust and loyalty among stakeholders, thereby enhancing a brand image[36]. Organizations headed by ethical leaders often embrace green initiatives that resonate with consumer values and the consequent impact on the brand value[37].

The role played by green transformational leadership in taking innovation to new heights and further developing its brand image cannot be neglected[38]. Transformational leaders encourage the group to adopt sustainable practices consonant with corporate social responsibility and, consequently, enhance the corporate image[4]. In the end, organizations recognized and highlighted for specific environmental efforts are positioned better to have innovative products succeed[35].

Institutional pressures also determine how organizations implement their green strategies. By effectively handling those pressures, leaders will, indeed, enhance environmental sustainability and improve perceptions among stakeholders[39]. Given that a vigorous green identity strongly drives consumer purchase behavior, it is vital to align corporate strategy with consumer sustainability expectations[36].

It is beneficial for establishing a good brand reputation in an eco-sensitive environment to create an engaging means of contact with stakeholders[39]. Because such knowledge leaves one open to study the relationship between styles of leadership and perceptions of stakeholders, it is important in terms of studying the effectiveness of leadership or organizational reputation[40]. The following hypothesis is formulated:

H1: Green leadership has a positive and significant effect on brand reputation.

2.6. Green leadership and stakeholder engagement

Green leadership has now become the essential factor for stakeholder engagement in sustainable development[41]. Leaders who endorse the notion of environmental responsibility and factor environmental values into their decisions earn the trust and participation of internal stakeholders and external ones like[42]. An ample study discovered that green leadership behavior greatly enhances employees' perception of the sustainable practices of the organization, which inevitably increases their participation in environmentally friendly initiatives[19]. It is in the synergy of the leadership values and the own stakeholder expectations that a culture of shared responsibility and collaboration can be cultivated. Furthermore, green leaders frequently provide updates on the organization's sustainability goals and accordingly inform stakeholders about developments and initiatives; this allowed the stakeholders to feel included and developed a sense of commitment towards sustainable initiatives[43]. In this way, stakeholder engagement has become much more fortified and attuned with the organization's long-term environmental goal[44].

Green leadership has been recently demonstrated to enhance stakeholder engagement through focusing on ethical practices and long-term ecological thinking[19,24]. The leaders who engage in environmentally responsible behaviors send out signals to stakeholders that, beyond mere compliance, the organization demonstrates a clear commitment to sustainability[42]. This spirit, in turn, increases stakeholders' willingness to co-create green strategies as well as to join in supporting basic sustainable innovations. Green leadership also nurtures the spirit of dialogue and inclusiveness in decision-making, which is vital for engaging in a diversity of stakeholder groups[43]. Engaging in an organization becomes even more intensely emotional and behavioral as stakeholders feel their views are listened to and their concerns addressed. Green leadership, therefore, acts as an enabler for meaningful stakeholder engagement at several levels[41]. The following hypothesis is formulated:

H2: Green leadership has a positive and significant effect on stakeholder engagement.

2.7. Green leadership and sustainable practices:

Green leadership finds a vital spot when it comes to promoting and institutionalizing sustainable practices within organizations. Those that act green give clear direction and create an image where ecological stewardship comes to life. Chen et al.[3] argue that green leadership should give a further push toward sustainable practices by developing a pro-environmental organizational culture[45]. It is instrumental in moving employees toward green behaviors, from conservation to waste reduction to sustainable innovation[46]. By folding sustainability into the everyday practice and business decision-making, green leaders facilitate the world's continuous journey toward environmental performance[47]. In this way, green leadership becomes a catalyst for achieving presentable and quantifiable pathways for sustainability[19].

Green leadership encourages sustainability, consistent application over the departments is done by green leadership in various ways. One way in which they articulate these motivations is through ethical reasoning based on environmental awareness and supportive practices of themselves and their[46]. This behavior helps institutionalize processes that follow green supply chain management, energy efficiency, circular economy, etc. Additionally, those green leaders will be engaged in innovation for sustainable technologies and practices very often[45]. Their influence leads to stronger organizational commitment toward environmental sustainability goals and advancing environmental performance. Green leadership is the strategy for the organization to successfully accompany and implement the sustainability practices[19]. The following hypothesis is formulated:

H3: Green leadership has a positive and significant effect on sustainable practices.

2.8. stakeholder engagement and brand reputation.

An engagement with stakeholders gradually is justly recognized as a strategy employed to win over the reputation of brands for the organization in question[48]. whether they are customers, employees, suppliers, or communities of decision-making and sustainability initiatives leads companies to establishing their credibility in these fields. According to Alhouti et al.[49] refer that organizations which engage stakeholders earn a trust that raises their public image and brand credibility. This trust then becomes an intangible asset for the brand in competitive markets. When stakeholders believe their voices are heard and their concerns mitigated, they will advocate for the brand. Therefore, the more these stakeholders are engaged, the stronger the brand reputation will become over time[4].

Recent research suggests that brands considered to be stakeholder-oriented stand a better chance of being seen as ethical, responsible, and trustworthy[7]. Stakeholders who engage in corporate social responsibility (CSR), environmental activities, and community programs expand stakeholders' positive impressions and loyalty to the brand[12].

This, in turn, means that positive experiences from their stakeholders would oftentimes foster brand advocacy through word of mouth, social media, and customer retention. Alhouti et al.[49] suggest that stakeholder engagement helps forge emotional bonds between the stakeholders and the brand reinforced in their reputation. Such bonds establish long-term reputational capital for the brand that will protect it during times of crisis and augment its competitive advantage[41]. So, stakeholder engagement is not simply a form of relationship; it is also a reputational asset[48]. the following hypothesis is formulated:

H4: Stakeholder engagement has a positive and significant effect on brand reputation.

2.9. Sustainable practices and brand reputation.

In the current environmentally conscious market, sustainability practices are increasingly considered a pillar of a positive brand reputation[50]. Companies that commit to an environmentally friendly practice, take

measures to reduce their carbon emissions, and support circular economy strategies communicate their responsibility and integrity to their stakeholders. Jung, & Gleim[51] have noted that organizations officially engaged in sustainability tend to enjoy higher trust and loyalty from consumers, thus further enhancing their brand reputation. These practices help the corporate meet regulatory and societal expectations but also help in constructing its identity as a progressive and ethical brand[52]. Brands that resonate with their consumers' environmental and social value-the younger generation-more so, are preferred, and, therefore, sustainable practices do directly contribute to fostering a good and strong brand image[50].

Evidentially, sustainability initiatives increase brand credibility, authenticity, and commitment-stakeholder perception. When organizations actively report and communicate their sustainability performance, they promote transparency and enhance their reputation capital[53]. With that, brands famous for sustainable innovation are more easily acknowledged as industry leaders, shifting media attention and earning the endorsement of stakeholders. According to Ghobbe, & Nohekhan[54] sustainable practices will generate a competitive edge by aligning with corporate identity to global sustainability aims. This alignment enhances relationships with stakeholders while protecting brand value during scrutiny and crises. Therefore, sustainability not only becomes a moral ramification of action but also becomes a business asset for brand reputation[52]. the following hypothesis is formulated:

H5: Sustainable practices have a positive and significant effect on brand reputation.

2.10. Stakeholder engagement mediates green leadership and brand reputation

Green leadership is important in starting sustainable practices, but usually, its effects appear to be seen much later as far as stakeholder involvement is concerned[42]. Leaders who model environmental responsibility will influence the behavior of stakeholders and ultimately instigate their support for sustainability efforts. Nguyen-Viet et al.,[34] show that green leaders motivate employees, suppliers, and communities toward co-commitment to environmental initiatives, they effectively sell the adoption and success of best-practice sustainable practices across the organization. Stakeholder engagement thus provides a channel into which the leader's vision becomes transformed into tangible action, within the organizational comprehensive overview[54]. Thus, it serves as a mediation mechanism which links green leadership with the actual, tangible results of sustainability[42].

Recent research shows that neither green leadership nor the other alone is enough to implement sustainable practices without engaging stakeholders. Those who promote strategies for sustainable performance are both contributors to and beneficiaries of sustainability and must, therefore, bring their participation into action for green strategies to be operationalized[34]. Thus, stakeholder buy-in is achieved. Leaders who make decision-making open and participatory increase the motivation of the stakeholder cohort to support green initiatives. As shown in Ghobbe, & Nohekhan[54] this concept, aside from improving the design and execution of sustainable practices, increases long-term commitment. Otherwise, green leaders are likely to turn lack of strategic foresight to great vision and tangible sustainability results. Stakeholder engagement thus mediates and amplifies the pathway from green leadership to sustainable practice[51]. The following hypothesis is formulated:

H6: Stakeholder engagement mediates the relationship between green leadership and brand reputation.

2.11. Sustainable practices mediate between green leadership and brand reputation

Green leadership presents a strategic vision to foster environmental responsibility and long-term sustainability. Leaders who profess green values inspire their organizations to adopt sustainable practices such as resource efficiency, waste minimization, and environmentally sound innovations[55]. According to Zhang et al.[19], these sustainable practices are the operational link through which green leadership produces outcomes. When sustainable practices are visible and consistent with what the stakeholders believe to be the

company's values and purpose, such practices build brand reputation since the company gets branded as credible, responsible, and future-oriented[50]. Hence, sustainable practices are the key mediating factors through which green leadership influences brand reputation[51].

Research evidence has emerged recently stating that green leadership cannot directly strengthen brand reputation unless supplemented by concrete sustainable actions[32]. As noted by Zhang et al.[19] sustainable practices, acting as evidence for leadership intent strengthens the credibility of the brand in the eyes of stakeholders. Such practices help organizations to remain attuned to stakeholder expectations, regulatory compliance, and global sustainability trends[34]. When customers and partners observe consistent environmental behavior, their perception of the brand improves substantially. Sustainable practices therefore convert the typically abstract virtues of green leadership into tangible brand advantages Ghobbe, & Nohekhan[54]. The mediation also illuminates how critical implementation is for sustainability leadership to reap reputational rewards[55]. the following hypothesis is formulated:

H7: Sustainable practices mediate the relationship between green leadership and brand reputation.

2.12. Stakeholder theory

Valentinov&Chia[56] refer to a stakeholder theory proponent, who emphasized taking into account interests of every stakeholder, and not only the shareholders, when referring to an organization. The theory stipulates that businesses, within their financial and economic esoteric actions, should extend value creation to employees, customers, suppliers, communities, and investors[57]. It negates the traditional view of profit maximization and advocates for ethical and inclusionary decision-making[56,58]. Long-term success, as argued by Freeman, is best attained when an organization tries to balance the needs and expectations of all its stakeholders[57]. This theory in support of transparency, accountability, and collaboration is essential in the present sustainability-driven environment[56,59]. It features in studies dealing with leadership, corporate responsibility, and brand reputatio[57].

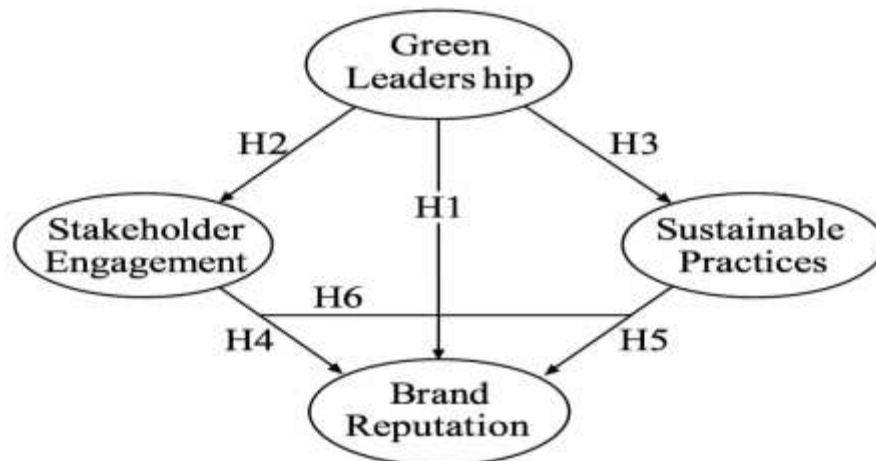The theoretical framework of the study is illustrated below in **Figure 1**.

Figure 1. The theoretical framework of the study.

3. Research methodology

3.1. Research design and approach

The study adopted a quantitative methodology, primarily relying on survey methods, to study the impact of green leadership on brand reputation. This methodology was suitable for establishing relationships

between key variables, including green leadership, brand perception, stakeholder engagement, and sustainable practices.

The measurement scales used in this study were adapted from previously validated instruments to ensure content validity and alignment with prior research. The key constructs used in this study are supported by the following indicators and dimensions, derived from established literature:

Variable	Indicators/Dimensions	References
Green Leadership	Environmental vision, ethical behavior, employee empowerment, innovation encouragement	Tran [60]
Stakeholder Engagement	Transparency, dialogue, collaboration, responsiveness	Fraussen et al., [30]
Sustainable Practices	Energy conservation, waste reduction, eco-friendly sourcing, resource efficiency	Onbhuddha & Ogata [62]
Brand Reputation	Trust, perceived quality, credibility, brand loyalty	Zhou et al., [4]

All items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Minor wording modifications were made to tailor the items to the hospitality industry while preserving their conceptual integrity.

The study was conducted in Egyptian hotels, which have demonstrated a strong commitment to sustainability initiatives and an increasing role of green leadership in their operations. A purposive sampling method was used to reach organizations actively involved in environmental and sustainability programs, increasing the engagement of organizations where green leadership is likely to have significant impacts on brand reputation. An online survey was also the most efficient method for data collection and provided respondents with flexible access to the survey.

Structural Equation Modeling (SEM) was conducted using AMOS, which is suitable for analyzing complex models involving mediation[62]. The mediating roles of stakeholder engagement and sustainable practices were also examined through structural equation modeling of the relationship between green leadership and brand reputation. Thus, the methodology not only measured the relationship between green leadership and brand perception in the context of Egyptian hotels but also uncovered the underlying mechanisms through which green leadership influences brand perception.

3.2. Sample selection and data collection methods

The measurement items were adapted from established, validated instruments in literature. The questionnaire was administered in English, as the target respondents (hotel employees in Egypt). This relationship was empirically tested through SEM, where green leadership was specified as an exogenous variable predicting brand reputation, both directly and through mediators. The data were collected from employees working in five-star hotels across Egypt. A total of 25 hotels were contacted and invited to participate in the study. These hotels were selected based on their visible commitment to sustainability or corporate social responsibility (CSR) initiatives. Approximately 600 employees were approached, and 390 valid responses were received, resulting in a response rate of 65%. The data collection took place over a period of three months, from January to March 2024, using structured self-administered questionnaires distributed in-person and through hotel HR departments. The study involved managers and employees from five-star Egyptian hotels. A total of 300 participants were approached to request their participation, particularly those involved in sustainability or corporate social responsibility initiatives. Data collection methods relied primarily on online surveys and semi-structured interviews. The objective of the surveys was to generate quantitative data on perceptions of green leadership practices and brand reputation, drawing on

established literature in the field of corporate sustainability and stakeholder engagement. The final sample size of 390 respondents is considered adequate for Structural Equation Modeling (SEM), as it exceeds the minimum recommended threshold. According to Hair et al.[62], a sample size of 200 or more is generally sufficient for models with up to 7 latent variables, especially when using PLS-SEM. Given the complexity of the proposed model and the number of observed indicators, the sample size meets the statistical requirements for valid and reliable analysis.

4. Results and findings

The assessment of the four-factor model, which includes: Green Leadership (GL), Stakeholder Engagement (SE), Sustainable Practices (SP) and Brand Reputation (BR), was carried out using Kock's[63] ten-fit indices, as detailed in Appendix (B). All the fit indices provide strong support for the model, confirming its value as a framework for understanding the relationships between these variables.

Table 1 presents the measurement properties of the four investigated constructs. Each construct includes multiple indicators with factor loadings ranging from 0.76 to 0.86, indicating good to strong relationships between indicators and constructs. Composite Reliability (CR) and Cronbach's Alpha (CA) values suggest good internal consistency across all constructs, with Green Leadership showing the highest reliability. The Average Variance Extracted (AVE) values range from 0.62 to 0.71, indicating moderate to good convergent validity. The variance inflation factor (VIF) values, which range from 1.90 to 2.35, are significantly lower than 3.3, indicating no issues with multicollinearity. Overall, Table (2) provides a clear summary of the reliability and validity of the constructions used in the study, confirming that the measures are both reliable and valid for the research. reliable and valid for the research.

Table 1. Item loadings, Cronbach alpha, CR, AVE, and VIFs.

Construct	Indicators	Loading	CR	CA	AVE	VIF
Green Leadership (GL)	GL 1	0.84	0.88	0.693	0.68	1.95
	GL 2	0.82				
	GL 3	0.85				
	GL 4	0.81				
	GL 5	0.79				
Stakeholder Engagement (SE)	SE 1	0.76	0.86	0.851	0.62	1.90
	SE 2	0.78				
	SE 3	0.80				
	SE 4	0.75				
	SE 5	0.77				
Sustainable Practices (SP)	SP 1	0.83	0.87	0.800	0.65	2.00
	SP 2	0.81				
	SP 3	0.79				
	SP 4	0.84				
	SP 5	0.78				
Brand Reputation (BR)	RB 1	0.85	0.89	0.937	0.71	2.35
	RB 2	0.88				
	RB 3	0.83				
	RB 4	0.82				
	RB 5	0.86				

"CR: Composite reliability; CA: Cronbach's alpha; AVE: average variance extracted; VIF: variance inflation factors ".

Table 2 presents the discriminant validity results based on the Fornell-Larcker Criterion. The diagonal values show that each construct's AVE is higher than its correlations with other constructs, which supports discriminant validity. For instance, the square root of AVE for GL is 0.82, which is greater than its correlations with other constructs (0.65 with SE, 0.60 with SP, and 0.66 with BR). Similar patterns are observed for SE, SP, and BR, where the diagonal values are consistently higher than the off-diagonal correlations, confirming that the constructs are distinct from each other.

Table 2. Discriminant validity results - Fornell-Larcker Criterion.

	GL	SE	SP	BR
GL	0.82	0.65	0.60	0.66
SE	0.65	0.79	0.62	0.67
SP	0.60	0.62	0.81	0.69
BR	0.66	0.67	0.69	0.84
"Off-diagonal elements are correlations, and diagonal elements are square roots of AVE"				

Table 3 presents the HTMT ratios and associated p-values for testing discriminator validity. The Heterotrait-Monotrait Ratio (HTMT), which should ideally be below 0.85 and not exceed 0.90, indicate that all constructions are distinct from one another. For instance, the ratio between GL and SE is 0.723, well below 0.90, while other ratios, such as between GL and SP (0.682) and GL and BR (0.741), also show good discriminant validity[64]. The p-values for all HTMT ratios are less than 0.05, further supporting the distinctiveness of the constructions. Overall, the results demonstrate strong discriminant validity.

Table 3. HTMT for validity.

HTMT ratios (good if < 0.90, best if < 0.85)	GL	SE	SP	BR
Green Leadership (GL)	■	0.72	0.68	0.74
Stakeholder Engagement (SE)		■	0.70	0.78
Sustainable Practices (SP)			■	0.82
Brand Reputation (BR)				■
P values (one-tailed) for HTMT ratios (good if < 0.05)	**GL**	**SE**	**SP**	**BR**
Green Leadership (GL)	■	<0.001	<0.001	<0.001
Stakeholder Engagement (SE)		■	<0.001	<0.001
Sustainable Practices (SP)			■	<0.001
Brand Reputation (BR)				■

4.1. Structural model and hypotheses testing

Table 4 lists the effect sizes (f^2) quantifying the strength of the relationships between constructs in the structural model. According to Cohen[65], the interpretations of effect sizes for the stated paths with $f^2 \geq 0.02$ denote a small effect, $f^2 \geq 0.15$ denotes a medium effect, and $f^2 \geq 0.35$ reflects a large effect. Green Leadership to Brand Reputation showed a small ($f^2 = 0.12$) so that green leadership has indeed had a very limited contribution on the brand reputation when assessed as an independent factor. Green Leadership to Stakeholder Engagement showed an effect of medium size ($f^2 = 0.25$), which means that environmentally oriented leadership practices greatly enhance stakeholder engagement. A relatively strong effect exists between Green Leadership and Sustainable Practices ($f^2 = 0.33$), which is nearly a large effect and thus green leadership is mainly driving sustainable operational behavior in the organization. Stakeholder Engagement to Brand Reputation is a medium effect ($f^2 = 0.18$), which emphasizes bringing stakeholders into the picture to support an environmentally positive brand image. Finally, the most considerable effect size is assigned to the

path from Sustainable Practices to Brand Reputation ($f^2 = 0.40$), which indicates a large effect. This means that establishing visible and measurable sustainability practices enhances tremendously the brand's credibility and public appeal.

Table 4. Effect sizes (f^2) for total effects.

Path	f^2 Value	Effect Size Interpretation
Green Leadership → Brand Reputation	0.12	Small
Green Leadership → Stakeholder Engagement	0.25	Medium
Green Leadership → Sustainable Practices	0.33	Medium to Large
Stakeholder Engagement → Brand Reputation	0.18	Medium
Sustainable Practices → Brand Reputation	0.40	Large

5. Discussion

This study aims to investigate the impact of green leadership on brand reputation in the hotel sector, with a specific focus on the mediating roles of stakeholder engagement and sustainable practices. Firstly, the results indicate a strong positive relationship between green leadership and brand reputation in the hospitality industry. Green leadership in hotels is the cornerstone of a hotel's reputation as a leading brand in environmental sustainability. The entire leadership process includes embracing sustainability best practices within the organization's cultural fabric of environmental responsibility. Through eco-friendly initiatives, these leaders reduce their carbon footprint and position their organizations at the forefront of sustainability, which earns them a competitive advantage and customer loyalty[35]. The results indicate green leadership indeed allows for the construction of a brand image because sustainability then easily merges with identity, and with it, advocacy from leaders on sustainability Douglas et al.[29] refers to that creates steps for their teams and adds credibility for the company with stakeholders. This is trust and loyalty with increased engagement from employees, customers, and investors. Intentional attempts at those sustainable practices imply that an organization is committed to the welfare of society, and that has become one of the most persuasive reasons for affecting consumers' purchasing behavior.

Secondly, Zhou et al.[4] refers that A strong green image can determine the position of a company in the market, and a top reputation for sustainability can create a competitive advantage by attracting eco-conscious consumers who prefer green products. Such a reputation becomes the main difference in a crowd and helps in creating lifelong customers by appreciating transparency and accountability. Lyulyov, et al.[42] refer that When organizations go in for their green initiatives, the bright side is there to see in brand image enhancement; good opinion attracts customer loyalty and new talent aimed at meaning-based workplaces. Leading sustainable practices goes beyond fulfilling requirements of law, leaders should recognize that such practices are strategic imperatives; these drive consumer attitudes and long-term business success. It is then clear that the establishment of a strong green brand image through authentic leadership will yield significant dividends because it keeps such organizations alive and competitive in a market that is ever changing.

The results also indicate the critical impact of stakeholder engagement, which extends beyond borders. They argue that leadership that engages stakeholders from external customers, employees, suppliers, and even investors in sustainability dialogue demonstrates openness and accountability to the public, enhancing the credibility of these organizations in promoting their commitment to environmental practices[41].

Thirdly, the study concludes that green leadership improves brand reputation by integrating sustainability into the organizational framework. This consists with He et al.[15] refer that fostering

collaborative stakeholder engagement and enhancing transparency regarding environmental objectives. Some organizations have set specific sustainability goals to demonstrate their commitment to environmental responsibility. When leaders make ambitious and achievable commitments and provide practical steps to demonstrate progress to stakeholders, trust develops among them. By increasing public understanding of environmental issues, brands that are truly committed to sustainability practices are more likely to garner a positive consumer reputation.

Whereas the present study found a significant positive relationship between green leadership and brand reputation, several past studies have shown weaker or non-significant results. For instance, according to Su et al.[66] in highly centralized organizations, the influence of green leadership on external brand images was restrained due to limited decision-making flexibility. Aldieri et al.[67] reported that green initiatives have little effect on reputation when there are no clear communication strategies for stakeholders to accompany them. Such contrasting findings may be explained by organizational context, industry standards, or stakeholder expectations.

5.1. Mediating effects of stakeholder engagement

The results indicate a limited impact of stakeholder engagement in linking green leadership to brand reputation. This may be due to the different nature of stakeholder engagement and the benefits of engaging in green policies with hotel establishments, which results in increased credibility for the establishment. It indicates the necessity of building a wall of trust with stakeholders. This is consistent with Romenti[48] refer that Constant reinforcement of such close relationships with stakeholders will also help reveal latent risks at the earliest possible stage and allow organizations to remedy the effects of those risks on sustainability challenges. Stakeholder involvement or participation is created through transparent communications that contribute to the establishment of sustainability dialogues, which will engender ownership in stakeholders, thus strengthening their commitment to eco-friendliness and improving the standing of the brand.

Thus, effective stakeholder engagement strategies are, therefore, imperative for the related organizations if such organizations want to derive advantages associated with green leadership without compromising their brand reputation.

5.2. Mediating effects of sustainable practices

The results found that sustainable practices had a significant mediating role to the link between green leadership and brand reputation. Thus, organizations with green leaders are likely to embrace the use of powerful sustainability strategies to gain better future reputations in their markets. This study also showed that there is a positive correlation between stronger commitments to sustainable practices and stakeholder perceptions of trustworthiness and accountability. This strengthens the importance of green leadership in promoting an organizational culture of environmental sustainability regarding brand image.

Results from this clearly demonstrate that a company practicing any form of sustainable initiative is doing more than complying with the ethical stipulations, as those efforts are designed to be further exploited as competitive advantages in the marketplace. Elshaer et al.[68] suggests that there is a tight cooperation between green leadership and brand reputation, and that sustainable practices are fundamental to enhanced organizational image. Corporate leadership is thus critical in shaping corporate identity and public perception in that a leader convinced of environmental stewardship enthuses public trust and increases ethical standing of stakeholders

Eriksson et al.[69] refer that Transparency is critical. By sharing initiatives toward sustainability with the public, a leader is likely to gain more accountability and loyalty among customers and employees. Thus,

serious improvements in brand reputation are possible as, through commitment to sustainability, organizations are better able to differentiate themselves.

The results indicate that Sustainable procedures, for instance, opting for green suppliers, also serve to influence the behavior of consumers; there is a growing tendency among consumers to prefer eco-friendly brands. By this bridge between green leadership and consumers, 'green citizenship' calls for well-specified sustainability policies that consider consumers' values[4]. Moreover, successful recognition as a sustainability frontrunner may offer strategic margins in attracting ethically driven consumers while earning 'investors' with an eye on long-term value[16]. Thus, green principles applied in business strategy also improve corporate performance while building brand image across markets[10].

5.3. Implications for organizations practicing green leadership

Green leadership can take hotels to new operational efficiency levels and master a more enhanced brand image, setting up their vision for future sustainable bases. In fact, hotel leaders induce a lifestyle of environmental responsibility among their staff-from the management level downwards-and attract similar guests by hiring only people who care about working at responsible, forward-looking establishments.

This is usually the case with sustainable use; their adoption usually entails cutting costs. A hotel that invests, for instance, in energy efficiency, water conservation, or waste reduction will generally have lower operating expenses. Therefore, much can be made of combining environmental consciousness with profitability. Open communication with stakeholders about sustainability initiatives fosters trust between guests and employees, while further enhancing the hotel's credibility with investors.

Sustainability outreach ties hotels into the very fabric of the communities they operate within, thus actively participating in environmental stewardship. These build good public relations in addition to improving the reputation of the brand. The benefits of green leadership go much further than financial gains-sustainable hotel managements are stronger in most economic conditions, and they are better able to adapt to rising consumer expectations in terms of accountability regarding the environment.

6. Recommendations for practice and strategy development

6.1. Enhancing stakeholder engagement initiatives

Based on the findings, it is recommended that hotel managers invest in leadership development programs focused on sustainability-oriented behaviors. Prior studies have emphasized the effectiveness of such training in shaping eco-consciousness[2,3].

Being holistic implies that hotels consider the interests of all stakeholders-who include guests, employees, suppliers, shareholders, and the local community-in strengthening further stakeholder engagement. Hotels can maintain transparency and consistency in communication by, say, making sustainability newsletters, digital updates, etc. Such communication ensures that stakeholders are aware of the hotel's environmental initiatives and developments. This opens a channel of trust, whereby stakeholders become partners in the sustainability process.

Another way for hotels to create stakeholder engagement is through the formation of advisory panels or working groups to address specific environmental challenges, giving stakeholders a voice and a seat at the decision-making table. Conspicuously acknowledging stakeholder contributions to sustainable processes or initiatives can also serve as a motivating factor for engagement and relationship building.

Ensuring training and capacity-building programs that provide stakeholders with sustainability principles is a significant factor in creating an alignment between hotel operations and stakeholder values.

Workshops and awareness sessions will provide partners and suppliers with practical instruments to foster the theme of sustainability in their operations.

The hotel that embeds stakeholder engagements within its business strategy enhances its stature as sustainability leaders while building a network of partners who share environmental concerns. Giving value to every voice that is heard through the sustainability process allows hotels to embrace long-term growth that is economically viable while re-establishing their profile as trusted leaders within the community and the industry.

6.2. Implementing effective sustainable practices

To engender a green image by exerting green leadership, hotels must translate their environmentally sustainable measures into a given practice. This exercise begins with attracting those personnel committed to environmental values and including continuous sustainability training in the hotel's human resource development strategy, usually referred to as Green Human Resource Management in Tourism. Importing personnel whose values match the green values of the hotel ensures that the sustainability goals pursued in the long term have alignment.

Hotels must clearly set performance indicators with some degree of linkage to environmental targets. Regular performance evaluations must include the assessment of employee involvement in green practices, thereby nurturing a work culture revolving around sustainability. Whilst building additional morale, recognition and reward schemes will translate their environmentally responsible efforts into higher levels of performance and guest satisfaction overall.

Successful sustainable operations in the hotel sector are predicted by strong stakeholder engagement. When employees participate in the development and implementation of green strategies, they feel a greater sense of ownership and are empowered to suggest innovative solutions. A workplace that endorses sustainable practices such as effective recycling channels and promoting energy-saving actions will assist in transitioning toward environmentally friendly behavior.

Last but not the least, effective and transparent communication is the backbone of good stakeholder engagement. Presenting the guests, employees, and general public with success stories of tangible evidence concerning the hotel sustainability initiatives builds a lot of trust. This also accepts that the hotel is an authentic responsible leadership in the industry.

7. Limitations of the study and future research directions

7.1. Study limitations

The limitations of this study primarily concern generalizability to the hotel industry. First, the study focuses on a particular geographic region, limiting its applicability to hotels elsewhere or in different contexts. The bulk of the sample was urban, which may not be fully representative of the scope of green leadership practices across different hotel types and locations. The main concern with such self-reported data is that it introduces bias in accurately assessing green leadership and brand reputation.

This type of design could also restrict the causality or long-term effects of findings. Future longitudinal studies would have further insights into how green leadership affects brand image over time. Lastly, this study has fail to consider the effects of market changes or environmental regulations in addition to neglecting to check for other potential mediators such as employee engagement or environmental management systems, which could be critical determinants shaping sustainable hotel practices.

7.2. Future research

The future research is to be carried out on green leadership and brand reputation in the hotel industry that are to look at broader contexts to acquire a deeper understanding of the evolving relationship between these two constructs. For this reason, longitudinal studies are necessary to observe the changes in green practices over time and their long-term impact on the hotel brand image, as these studies should be able to move beyond correlation and identify the causal relationship between these two dimensions. Researching hotels in non-metropolitan regions could provide unique challenges and strategies in implementing sustainability initiatives.

Also, including variables like organizational culture and external variables such as environmental regulations would provide more insight into stakeholder involvement in sustainable hotel operations. Mixed methods design that combines qualitative insights with quantitative data would give a fuller picture, particularly in understanding employee engagement in environmental programs.

8. Conclusion

This study's objective was to delve into how green leadership affects brand reputation in the hotel industry while considering the mediating roles of stakeholder engagement and sustainable practices. Results affirmed that hotel brand reputation is positively and significantly affected by green leadership and that this impact appears both directly and indirectly.

First, sustainable practices were found to be a strong mediator; they emphasized that operational environmental strategies are needed to uphold a hotel's brand image. Second, stakeholder engagement was said to serve as a partial mediator; therefore, the communication and involvement of stakeholders add to the credibility and transparency of green leadership initiatives.

The results conform to stress the need to align green leadership with internal practices and external perceptions to grow brand loyalty and trust. Furthermore, the findings demonstrate the contribution of leadership resources, such as ethical vision and sustainability culture, to the organizational reputation, hence supporting Conservation of Resources (COR) theory.

In practical terms, the study recommends investing in leadership development, environmental training, and communication strategies to hotel managers to ensure sustainability values are integrated throughout the organization. When mixed with authentic actions and inclusive stakeholder practices, green leadership can deliver hotels as responsible and competitive players in the hospitality market.

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Conflict of interest

The authors declare no conflict of interest.

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References

1. Begum, S.; Xia, E.; Ali, F.; Awan, U.; Ashfaq, M. (2021). Achieving Green Product and Process Innovation through Green Leadership and Creative Engagement in Manufacturing. J. Manuf. Technol. Manag. , 33, 656–674.
2. Hu, X., Li, R. Y. M., Kumari, K., Ben Belgacem, S., Fu, Q., Khan, M. A., & Alkhuraydili, A. A. (2023). Relationship between Green Leaders' Emotional Intelligence and Employees' Green Behavior: A PLS-SEM Approach. Behavioral Sciences, 13(1), 25. https://doi.org/10.3390/bs13010025.
3. Chen, S., Jiang, W., Li, X., & Gao, H. (2021). Effect of Employees' Perceived Green HRM on Their Workplace Green Behaviors in Oil and Mining Industries: Based on Cognitive-Affective System Theory. International Journal of Environmental Research and Public Health, 18(8), 4056. https://doi.org/10.3390/ijerph18084056.
4. Zhou J, Sawyer L and Safi A (2021) Institutional Pressure and Green Product Success: The Role of Green Transformational Leadership, Green Innovation, and Green Brand Image. Front. Psychol. 12:704855. doi: 10.3389/fpsyg.2021.704855.
5. Tosun, C.; Parvez, M.O.; Bilim, Y.; Yu, L. (2022). Effects of Green Transformational Leadership on Green Performance of Employees via the Mediating Role of Corporate Social Responsibility: Reflection from North Cyprus. Int. J. Hosp. Manag. 2022, 103, 103218.
6. Wu, L., Zhang, F., Zhang, Z. & Zhang, C. (2023). An environmentally friendly process for selective recovery of lithium and simultaneous synthesis of LiFe5O8 from spent LiFePO4 battery by mechanochemical, Journal of Cleaner Production, 396, 136504.
7. Widisatria, D.; Nawangsari, L.C. (202). The Influence of Green Transformational Leadership and Motivation to Sustainable Corporate Performance with Organizational Citizenship Behavior for the Environment as a Mediating: Case Study at PT Karya Mandiri Sukses Sentosa. Eur. J. Bus. Manag. Res. 6, 118–123.
8. Saleh, m., Elsabahy, H.E., Abdel-Sattar, S. (2024). Fostering green transformational leadership: the influence of green educational intervention on nurse managers' green behavior and creativity. BMC Nurs 23, 393. https://doi.org/10.1186/s12912-024-01991-0.
9. Jamshed, K.; Shah, S.H.A.; Majeed, Z.; Al-Ghazali, B.; Jamshaid, S. Role of Green Leadership and Green Training on the Green Process Innovation: Mediation of Green Managerial Innovation. J. Xidian Univ. 2022, 16, 66–72.
10. Amoako, K., Bonsu, G., Ampong, G., Gabrah, A. and Sedalo, G. (2025). "Conceptual framework: Green leadership enhances green customer citizenship behaviour". , , https://doi.org/10.1016/j.sftr.2025.100614.
11. Chang, T.-W.; Chen, F.-F.; Luan, H.-D.; Chen, Y.-S. (2019). Effect of Green Organizational Identity, Green Shared Vision, and Organizational Citizenship Behavior for the Environment on Green Product Development Performance. Sustainability , 11, 617.
12. Açikgöz, F. Y., Kayakuş, M., Zăbavă, B.-Ş., & Kabas, O. (2024). Brand Reputation and Trust: The Impact on Customer Satisfaction and Loyalty for the Hewlett-Packard Brand. Sustainability, 16(22), 9681. https://doi.org/10.3390/su16229681.
13. Song, R.; Shi, W.; Qin, W.; Xue, X.; Jin, H. (2024). Exploring Passengers' Emotions and Satisfaction: A Comparative Analysis of Airport and Railway Station through Online Reviews. Sustainability , 16, 2108.
14. Sarfraz, M., Ye, Z., Ozturk, I. & Ivascu, L. Fostering firm performance through the lens of environmental leadership and knowledge learning: a mediated moderation model. Environ. Sci. Pollut. Res. 30, 44657–44670 (2023).
15. He, W., Mushtaq, N. & Jan, L. (2024). Unlocking the dual black box of GHRMP & EGOC for sustainable environmental performance in developing economies: can green workplace behavior and green passion transmit the real change?. Environ Dev Sustain 26, 16025–16055. https://doi.org/10.1007/s10668-023-03286-x.
16. Enbaia, E., Alzubi, A., Iyiola, K., & Aljuhmani, H. Y. (2024). The Interplay Between Environmental Ethics and Sustainable Performance: Does Organizational Green Culture and Green Innovation Really Matter? Sustainability, 16(23), 10230. https://doi.org/10.3390/su162310230.
17. Baah, C., Opoku-Agyeman, D., and Acquah, I. S. K. (2020). Examining the correlations between stakeholder pressures, green production practices, firm reputation, environmental and financial performance: Evidence from manufacturing SMEs. Sustain. Prod. Consum. 2020:15.
18. Sellitto, M.A.; Camfield, C.G.; Buzuku, S. Green innovation and competitive advantages in a furniture industrial cluster: A survey and structural model. Sustain. Prod. Consum. 2020, 23, 94–104.
19. Zhang, W., Xu, F., and Wang, X. (2020). How Green Transformational Leadership Affects Green Creativity: Creative Process Engagement as Intermediary Bond and Green Innovation Strategy as Boundary Spanner. Sustainability 12:3841. doi: 10.3390/su12093841.
20. Huang S. Y. B., Ting C.-W., Li M.-W. (2021). The Effects of Green Transformational Leadership on Adoption of Environmentally Proactive Strategies: The Mediating Role of Green Engagement. Sustainability 13:3366. 10.3390/su13063366.

21. Muisyo, P. K., & Qin, S. (2021). Enhancing the FIRM'S green performance through green HRM: The moderating role of green innovation culture. Journal of Cleaner Production, 289, 125720. https://doi.org/10.1016/j.jclepro.2020.125720.
22. Obeidat, S. M., Al Bakri, A. A., & Elbanna, S. (2020). Leveraging "green" human resource practices to enable environmental and organizational performance: Evidence from the Qatari oil and gas industry. Journal of Business Ethics, 164(2), 371–388. https://doi.org/10.1007/s10551-018-4075-z.
23. de Vries, H., L. Tummers, and V. Bekkers. 2018. "A Stakeholder Perspective on Public Sector Innovation: Why Position Matters." International Review of Administrative Sciences 84(2):269–87. doi: 10.1177/0020852317715513.
24. Boon, J., J. Wynen, and C. Callens. 2023. "A Stakeholder Perspective on Public Sector Innovation: Linking the Target Groups of Innovations to the Inclusion of Stakeholder Ideas." International Review of Administrative Sciences 89(2):330–45.doi: 10.1177/00208523211043704.
25. Mikhaylov, A. (2021). Development of Friedrich von Hayek's theory of private money and economic implications for digital currencies. TERRA ECONOMICUS. 1. http://dx.doi.org/10.18522/2073-6606-2021-19-1-53-62.
26. Mikhaylov, A., Dinçer, H., Yüksel, S., Pinter, G., Shaikh, Z. (2023). Bitcoin mempool growth and trading volumes: Integrated approach based on QROF Multi-SWARA and aggregation operators. Journal of Innovation & Knowledge. 8(3). https://doi.org/10.1016/j.jik.2023.10037.
27. Burgers, J. H., A. Arundel, and G. L. Casali. (2024). "Effect of Knowledge Search Depth, User co-Creation and Moderating Factors on the Outcomes of Service Innovations by European Public Sector Organizations." Public Management Review 26(3):746–69. doi: 10.1080/14719037.2022.2118820.
28. Wang, M., Chang, T., Mikhaylov, A., Linyu, J. (2024). A measure of quantile-on-quantile connectedness for the US treasury yield curve spread, the US Dollar, and gold price. The North American Journal of Economics and Finance. 74. 102232. https://doi.org/10.1016/j.najef.2024.102232.
29. Douglas JA, Subica AM, Franks L, Johnson G, Leon C, Villanueva S, Grills CT, et al. (2020). Using Participatory Mapping to Diagnose Upstream Determinants of Health and Prescribe Downstream Policy-Based Interventions. Preventing Chronic Disease, 17:200123. https://doi.org/10.5888/pcd17.200123.
30. Fraussen, B., A. Albareda, and C. Braun. 2020. "Conceptualizing Consultation Approaches: Identifying Combinations of Consultation Tools and Analyzing Their Implications for Stakeholder Diversity." Policy Sciences 53(3):473–93. doi: 10.1007/s11077-020-09382-3.
31. Akhtar, S. , & Najar, A. H. (2020). Environmental sustainable practices in the hotels: From existence to implementation. Ecology, Environment and Conservation, 26(1), 111–116.
32. Abdelfattah, T., & Elfeky, M. (2021). Earnings management, corporate social responsibility and governance structure: further evidence from Egypt. International Journal of Accounting, Auditing and Performance Evaluation, 17(1/2), 173-?. https://doi.org/10.1504/IJAAPE.2021.117576.
33. lberton, A. , Kieling, A. P. , Lyra, F. R. , Hoffmann, E. M. , Lopez, M. P. V. , & Stefano, S. R. (2020). Competencies for sustainability in hotels: Insights from Brazil. Employee Relations: The International Journal, . 1–21. 10.1108/ER-01-2019-0093.
34. Nguyen-Viet, B., Tran, C. T., & Ngo, H. T. K. (2024). Corporate Social Responsibility and Behavioral Intentions in an Emerging Market: The Mediating Roles of Green Brand Image and Green Trust. Cleaner and Responsible Consumption, 12, 10017.
35. Monfort, A., López-Vázquez, B.& Sebastián-Morillas, A.(2025). Building trust in sustainable brands: Revisiting perceived value, satisfaction, customer service, and brand image, Sustainable Technology and Entrepreneurship, 4(3), 100105, https://doi.org/10.1016/j.stae.2025.100105.
36. Jalu, G., Dasalegn, G., Japee, G., Tangl, A., & Boros, A. (2024). Investigating the Effect of Green Brand Innovation and Green Perceived Value on Green Brand Loyalty: Examining the Moderating Role of Green Knowledge. Sustainability, 16(1), 341. https://doi.org/10.3390/su16010341.
37. Lin, J.; Lobo, A.; Leckie, C. (2019). The influence of green brand innovativeness and value perception on brand loyalty: The moderating role of green knowledge. J. Strateg. Mark., 27, 81–95.
38. Arham, Q.L.; Dwita, V. (2021). The Influence of Green Brand Benefit and Green Brand Innovativeness on Brand Loyalty with Green Brand Image as Mediating on (P&G) Brand Products in Padang City. In Proceedings of the Seventh Padang International Conference on Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2021), Padang, Indonesia, 29–30 May 2021; Atlantis Press: Amsterdam, The Netherlands, 2021; pp. 440–446.
39. Can, M.; Ahmed, Z.; Mercan, M.; Kalugina, O.A. (2021). The role of trading environment-friendly goods in environmental sustainability: Does green openness matter for OECD countries? J. Environ. Manag. 295, 113038.
40. Faisal, S. "Green Leadership in Strategic Brand Management." IGI Global Scientific Publishing, 2024. 181-192. Web. 8 May. 2025. doi:10.4018/979-8-3693-1781-5.ch011.
41. Banori, A., (2025). Synergy Between Sustainable Leadership and Stakeholder Management Towards Project Performance, Journal of Asian Development Studies, 14(1), https://doi.org/10.62345/jads.2025.14.1.18.

42. Lyulyov, O., Chygryn, O., Pimonenko, T., & Kwilinski, A. (2023). Stakeholders' Engagement in the Company's Management as a Driver of Green Competitiveness within Sustainable Development. Sustainability, 15(9), 7249. https://doi.org/10.3390/su15097249.

43. Habib, A.M. (2022). Does the efficiency of working capital management and environmental, social, and governance performance affect a firm's value? Evidence from the United States. Financ. Mark. Inst. Risks 2022, 6, 18–25.

44. Saleem, F.; Zhang-Zhang, Y.; Malik, M.I.; Allui, A. Revisiting Stakeholder Theory and Environmentalism: Evidence from an Emerging Economy. Sustainability 2020, 12, 8751.

45. Khan, R. U. Saqib A., Abbasi, M. A., Mikhaylov, A. and Pinter, G. (2023). Green Leadership, Environmental Knowledge Sharing, and sustainable performance in manufacturing Industry: Application from upper echelon theory, Sustainable Energy Technologies and Assessments. 57, 103315.

46. Piwowar-Sulej, K. (2021). Core functions of sustainable human resource management. A hybrid literature review with the use of H-Classics methodology. Sustain. Dev, 1–23.

47. Anwar, R., & Ahmed, J. (2020). Evaluating the moderating impact of family on the relationship between board independence and corporate social responsibility using propensity score matching. South African Journal of Business Management, 51(1), a1854. https://doi.org/10.4102/sajbm.v51i1.1854

48. Romenti, S., (2010). Reputation and stakeholder engagement: an Italian case study, Journal of Communication Management. 41(4). . 306-318, DOI 10.1108/13632541011090428.

49. Alhouti, S., Johnson, C. M., & Holloway, B. B. (2016). Corporate social responsibility authenticity: Investigating its antecedents and outcomes. Journal of Business Research, 69(3), 1242–1249.

50. Zhang, X. (2024). Sustainable Practices, CSR, and Brand Reputation: Influencing Purchase Intentions in Luxury Green Marketing. Journal of Education, Humanities and Social Sciences, 27, 480.

51. Jung, J., & Gleim, M. R. (2023). Exploring the nexus between sustainable marketing and customer engagement: A systematic review. Journal of Cleaner Production, 395, 136234.

52. Nohekhan, M., & Barzegar, M. (2024). Impact of Green Marketing Strategy on Brand Awareness: Business, Management, and Human Resources Aspects. arXiv preprint arXiv:2401.02042.

53. Mohammadi, E., Barzegar, M., & Nohekhan, M. (2023). The Green Advantage: Analyzing the Effects of Eco-Friendly Marketing on Consumer Loyalty. arXiv preprint arXiv:2312.16698.

54. Ghobbe, S., & Nohekhan, M. (2023). Mental Perception of Quality: Green Marketing as a Catalyst for Brand Quality Enhancement. arXiv preprint arXiv:2312.15865.

55. Elkhwesky, Z. , Salem, I. E. , & Barakat, M. (2021). Importance-implementation of disability management practices in hotels: The moderating effect of team orientation. Journal of Mediterranean Tourism Research, 1(1), 22–38.

56. Valentinov, V., Chia, R. (2022). Stakeholder theory: A process-ontological perspective, Systems Research and Behavioral Science, 31(3). 762-776. https://doi.org/10.1111/beer.12441.

57. Valentinov, V.& Roth, S. (2023). Stakeholder theory: Exploring systems-theoretic and process-philosophic connections. Systems Research and Behavioral Science, 41(2), 301-315. https://doi.org/10.1002/sres.2970.

58. Wang, Q., Guo, J., Li, R., Mikhaylov, A., Moiseev, N. (2023). Does technical assistance alleviate energy poverty in sub-Saharan African countries? A new perspective on spatial spillover effects of technical assistance. Energy Strategy Reviews. 44. 101047. https://doi.org/10.1016/j.esr.2022.101047

59. An, J., Mikhaylov, A., Chang, T. (2024). Relationship between the popularity of a platform and the price of NFT assets. Finance Research Letters. 64. 105057. https://doi.org/10.1016/j.frl.2024.105057.

60. Tran, N. K. H. (2023). An empirical investigation on the impact of green human resources management and green leadership on green work engagement, Heliyon 9(11), https://doi.org/10.1016/j.heliyon.2023.e21018.

61. Onbhuddha, R. & Ogata, S. (2024). The influence of stakeholder on a company's sustainable practice: Insights from the Japanese perspective". Journal of Cleaner Production .436. https://doi.org/10.1016/j.jclepro.2023.140402.

62. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3rd ed.). Sage Publications.

63. Kock, N. (2021). WarpPLS User Manual: Version 7.0. Laredo, TX: ScriptWarp Systems.

64. Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104.

65. *Cohen J. E. (1988). Statistical Power Analysis for the Behavioral Sciences. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc .*

66. Su, X., Xu, A., Lin, W., Chen, Y., Liu, S., & Xu, W. (2020). Environmental Leadership, Green Innovation Practices, Environmental Knowledge Learning, and Firm Performance. SAGE Open, 10(2). https://doi.org/10.1177/2158244020922909.

67. Aldieri L., Kotsemir M., Vinci C. P. (2019. Environmental innovations and productivity: Empirical evidence from Russian regions. Resources Policy, 1–9.

68. Elshaer, I. A., Azazz, A. M. S., Kooli, C., Alshebami, A. S., Zeina, M. M. A., & Fayyad, S. (2023). Environmentally Specific Servant Leadership and Brand Citizenship Behavior: The Role of Green-Crafting Behavior and Employee-Perceived Meaningful Work. European Journal of Investigation in Health, Psychology and Education, 13(6), 1097-1116. https://doi.org/10.3390/ejihpe13060083.
69. Eriksson, T.; Näppä, A.; Robertson, J. All for One and One for All: Encouraging Ecosystem Citizenship Behaviour to Strengthen Employer Branding. Scand. J. Manag. 2022, 38, 101211.