



# Influencing Employee Innovative Behavior Through Sustainable Business Practices: The Moderating Role of Transformational Leadership

Sahar Moh'd Abu Bakir <sup>1</sup>, Rami Hanandeh <sup>1</sup>, Amro Alzghoul <sup>1\*</sup>

<sup>1</sup> Associate Professor, Business Administration Department, Faculty of Business, Amman Arab University, Amman, Jordan

\* Corresponding Author: [alzghoul@aau.edu.jo](mailto:alzghoul@aau.edu.jo) / [Amr.zghool@gmail.com](mailto:Amr.zghool@gmail.com)

**Citation:** Abu Bakir, S. M., Hanandeh, R., & Alzghoul, A. (2024). Influencing Employee Innovative Behavior Through Sustainable Business Practices: The Moderating Role of Transformational Leadership. *Journal of Information Systems Engineering and Management*, 9(3), 28780. <https://doi.org/10.55267/iadt.07.14775>

## ARTICLE INFO

Received: 02 Jun 2024

Accepted: 19 Jul 2024

## ABSTRACT

The present study aims to extend this line of inquiry by investigating the influence of sustainable business practices about green marketing initiatives and GHRM practices on E Innovation. No less important is the role transformational leadership takes on in the interplay that this study tackles. 290 employees in the Jordanian telecommunication sector participated in the research using structured questionnaires. This was analyzed using structural equation modeling to examine relations among these constructs. These results were arrived at after discoveries that both green marketing initiatives and GHRM practices had a powerful positive influence on employee innovative behavior. However, transformational leadership was found to moderate these relationships and overcome the dark sides of implementation to enhance the positive effects of sustainable practices on innovation. However, all these insights could only generalize to the telecommunications sector in Jordan, and therefore, the need to give for further research in other contexts. This study contributes to the literature by empirically supporting TL as a facilitator for the fostering of innovation through sustainable practices; at the same time, the study acknowledges that the employment data using self-reports limits its findings and clarifies some explanations regarding specific statistical findings. The present study reinforces the need to implement business sustainable practices for fostering innovation, this time moderated by effective transformational leadership.

**Keywords:** Sustainability in Business, Organizational Innovation, Leadership Development, Environmental Initiatives, Workplace Creativity.

**JEL Classification:** M31, M12, O32, J24

## INTRODUCTION

Today's businesses increasingly embed sustainability along with core strategies, raising several questions about how to integrate smoothly environmentally-focused goals with overall corporate objectives. Sustainable development is significantly more than just green marketing outwardly; it also involves inward practices of paramount importance in terms of 'human resource management' and leadership (Obeidat, 2022). The urgency for green marketing, along with green human resource management, has been escalating over time, mainly owing to environmental stewardship and sustainable development (O'Donohue & Torugsa, 2016; Paillé, Chen, Boiral, & Jin, 2019). Green marketing Even refers to the marketing of those products and practices that are environmentally friendly to reduce the ecological footprint not only in its production and promotion but also in reclamation (H. Li, Li, Sarfarz, & Ozturk, 2022). At the same time, GHRM refers to the integration or implementation of sustainability within the human resource function of the organization to develop a green workforce through its recruitment training and development (Renwick, Redman, & Maguire, 2013).

Despite the increasing adoption of green marketing and GHRM practices to meet green standards, little is known regarding their joint impact on the employees' innovative behavior. Previous studies reveal that these sustainable practices have a positive relationship with employee engagement and, hence, innovativeness as well (S. Ali, Ali, Ashfaq, & Khalid, 2021; Dumont, Shen, & Deng, 2017). However, the mechanisms by which these practices drive innovation have remained incomprehensible, hence leaving a critical literature gap (Awan, Dunnan, Jamil, & Gul, 2023; Niazi et al., 2023). Moreover, little has been done in developing countries such as Jordan on how TL moderates between sustainable practices and innovation. TL is the style of leadership that motivates employees and makes them wish to perform more than what is expected of them and carry out innovative practices (Afsar & Umrani, 2020; Khalifa Alhitmi et al., 2023; Zhu, Tang, Zhang, & Wang, 2022).

This study tries to fill these gaps by examining how green marketing and GHRM practices influence employee innovative behavior specifically, TL's role in moderating this relationship. In so doing, it contributes evidence to the empirical literature on how sustainable practices, backed by transformational leadership, can help create a culture of innovation within organizations. These places a contribution to the existing literature as this research provides the analysis of differentiation and relationships of green organizational practices, transformational leadership, and innovation. Most importantly, it underlines the leadership role in developing the effectiveness of sustainable practices.

## LITERATURE REVIEW

### Sustainable Business Practices and Employee Innovative Behavior

It was proved that green marketing initiatives have a significant impact on employees' innovative behavior because of their inclusion in the organization. Businesses encourage these green initiatives to minimize their ecological footprint by producing, promoting, and reclaiming eco-friendly products at work. Consequently, when businesses actively engage themselves in green marketing, they send a very positive signal to employees whose environmental consciousness is increasing. Employees, as a result, become warriors in the service of organizational interests (Aboalghanam, Alzghoul, & Alhanatleh, 2024), contributing to possible ways of realizing company objectives with regard to going green. For example, Li et al. (2022) said green marketing might actually create an environment conducive for employees to indulge in innovative behaviors and assist in the efforts of their organization to achieve sustainability objectives.

Businesses have linked employee innovative behavior to green marketing initiatives, where they develop and promote products or services based on their environmental benefits. Menon and Menon (1997) suggest that green marketing can influence corporate environmental performance by motivating employees to innovate in ways that reduce environmental impacts. Polonsky and Rosenberger III (2001) corroborate this by positing that green marketing efforts enable an organization to communicate its commitment to sustainable development both externally and internally, thereby guiding employees towards innovative behavior that contributes to the firm's achievement of the sustainability goal. Arguably, green marketing has been at the forefront of the literature because it has the potential to make a difference in consumer behavior and organizational performance. It supports the development of product modifications, changes in the production process, packaging, and advertising, among other activities (Mahmoud, 2018). Today, consumers perceive green marketing as the implementation of strategies that meet their needs in an eco-friendly manner (Anggraeni & Islamy, 2022). Specific forces such as market opportunities, environmental legislation, operating efficiencies, and profitability propel green marketing (Muposhi, 2018). Furthermore, green marketing aims to promote environmental protection and reduce deterioration (Sah, 2016).

In the context of employee behavior, green marketing has been associated with innovative work behavior and employee engagement. For example, job demands are linked to more innovative work behavior when employees think that the relationship between effort and reward is fair (Janssen, 2000). Ariyani and Hidayati (2018) and Haholongan and Kusdinar (2019) suggest that TL and engagement at work predict innovative behavior, and that a positive organizational climate supports employees' positive displays of innovative behavior. Scholars have also extensively studied its correlation with consumer behavior. Scholars have classified green marketing strategies as influential in determining green buying behavior, and multinational companies have the potential to educate people on green buying behavior (Agustini, Athanasius, & Retnawati, 2019). The role of green marketing in light of consumer consumption behavior is another evolving aspect that has drawn the attention of various scholars based in developed countries (J. Govender & Govender, 2016). Green marketing has an impact on green consumer behavior, by investing in producing and promoting environmentally friendly products (Ćalasan, Slavković, & Rajković, 2021).

Recent research indicates that there is a linkage between GHRM practices and employee innovative behavior. Renwick et al. (2013) argue that GHRM practices environmentally friendly policies and practices aimed at sustainable use of resources within the organization. Furthermore, these practices will motivate employees to be engaged and enable innovative ideas in support of sustainability. Dumont et al. (2017) assert that GHRM practices positively influence employee creativity and innovation by fostering an environment that supports environmental problem solving. Similarly, Ali et al. (2021) supposedly affirm that all GHRM practices of recruitment, training, compensation, and performance appraisal are serving for environmental innovativeness in an organization. These findings are consistent with Li et al. (2023), who reported a significantly positive effect of GHRM practice on employees' green behavior. Above all, Wen, Hussain, Waheed, Ali, and Jamil (2021) remarked that GHRM practices have a central role in improving employee green behavior toward attaining green goals at the organizational level.

GHRM practices have a positive relationship with innovative employee behavior, in addition to environmental behavior. Ababneh (2021) emphasized that green behavior refers to innovative behaviors that go beyond formal job requirements. Furthermore, Opatha and Arulrajah (2014) suggested that GHRM is likely to align employees with the organization's environmental strategy for effective environmental management in all aspects of employment, training, appraisal, recruitment policies, reward systems, and terms and conditions of appointment. Researchers have studied both the generation and implementation of innovative ideas by employees, as well as the ideas themselves. X. Li and Ma (2017) thus criticize that employee innovation behavior first originates from individual problem identification, problem generation, and, following that, the implementation of innovative ideas. Moreover, X. Chen, Wang, and Xie (2022) established a direct positive relationship between the work environment and work well-being, highlighting innovative behavior as evidence.

Employees are increasingly recognizing GHRM practices for their positive impact on promoting pro-environmental behavior. Aboramadan (2020) further emphasizes that GHRM practices such as green recruitment, training and development, performance management, and empowerment have the potential to have positive impacts by inculcating pro-environmental behaviors among employees. Yusoff, Nejati, Kee, and Amran (2018) and Fawehinmi, Yusliza, Kasim, Mohamad, and Halim (2020) suggested that GHRM practices are factors that improve organizational environmental performance and determine individuals' personal moral norms in influencing the employees' green behavior. This perception is shared by S. Obeidat, Abdalla, and Bakri (2022) and Zibarras and Coan (2015), on the role of GHRM at the organizational level in attaining organizational goals as well as staying socially and ecologically sustainable and environmentally sustainable. The literature review regarding the impact of GHRM on employees' green behavior postulates that practices undertaken in GHRM do not only affect employees' in-role green behavior, but also affect their extra-role green behavior (Li, Abdalla, Mohammad, Khassawneh, & Parveen, 2023). In addition, multiple investigations have shown that GHRM practices influence firm performance by facilitating employee engagement in green behavior and inducing values that are consistent with the firm's green goals (Islam, Khan, Ahmed, & Mahmoodt, 2020; Du & Yan, 2022). However, the analysis of Iftikhar, Zaman, Rehmani, Ghias, and Islam (2021) shows the alignment of GHRM practices with service recovery and how these practices can lead to increased environmental concern. Chen and Wu (2022) reported that GHRM practices are crucial for employees in forming green awareness and implementing green behaviors and self-empowerment mediated by green TL. This is in line with Shafaei, Nejati, and Yusoff (2020) who focused on the proactive aspect of environmental sustainability studies and the strategies that companies use to achieve high performance in the innovation of their environmental practices.

H1: Green marketing initiatives (GMI) have a positive impact on employee innovative behavior (INB).

H2: Green HRM (GHRM) practices have a positive impact on employee innovative behavior.

### **The Moderating Role of Transformational Leadership**

It is therefore critical that TL function as a moderator of the relationship between sustainable business practices (green HRM practices and green marketing initiatives) and employees' innovativeness. According to Elrehail, Emeagwali, Alsaad, and Alzghoul (2018), TL entails a style of leadership wherein a leader increases the understanding of the followers regarding how crucial their tasks are and how crucial their dedication is to a greater group or organization rather than simply pursuing their personal interests. In short transformational leaders are distinguished by sustainable leadership where leaders are able to encourage and engage their employees to come up with creative solutions for issues around the environment (Robertson & Barling, 2013). For instance, transformational leaders who manage the organization's culture to be creative, take a risk and actively engaged in the sustainability challenges for the improvement of the organization seem to complement the green HRM practices and green marketing initiatives for innovative behavior amongst employees (Eisenbeiß & Boerner, 2013). Similarly, Chen, Yu, and Son (2014) conducted a study that further supported this moderating function. They found that TL is important for organizations that want to be more sustainable and motivate their employees

to be more innovative at work.

The impact of green marketing goes beyond immediate environmental benefits and organizational gains; it contributes to the creation of a green organizational identity that leads to employee innovation. Employees identify more with their organization as the leader in the environmental domain, and the higher such identification, the greater the innovative behavior exhibited by them. This sense of belongingness may encourage employees to actively participate in the organization's sustainability practices, with innovative practices and solutions that focus on corporate environmental as well as economic objectives. Mansoor, Farrukh, Lee, and Jahan (2021) also elaborated on how green TL and management initiatives can encourage the green creativity of employees, further illuminating that through leadership, a reinforcement in green organizational identification can stimulate workers' inclination toward green innovative behavior. This relationship between green marketing efforts, green organizational identity, and employee innovation highlights the potential impacts that sustainability practices can have on fostering a culture of innovation within organizations.

Therefore, TL is important in encouraging the innovative work of subordinates, especially in green marketing. Previous studies have also established that TL is positively correlated with employees' innovativeness (Afsar & Umrani, 2020; Alzghoul, Khaddam, Abousweilem, Irtaimah, & Alshaar, 2024a; Gumusluoğlu & İlsev, 2009; Hui et al., 2019; Fu, Zhang, Nie, & Li, 2021; Otair, Abualoush, Obeidat, & Bataineh, 2022; Y. Zhang, Zheng, & Darko, 2018). For example, this increased the correlation between the link between TL and the ability to increase the creativity of employees at the individual level (Afsar & Umrani, 2019; Gumusluoğlu & İlsev, 2009) and reinforce followers to support their leaders in the event of organizational change. Other research builds on the above and shows the effects of task significance and the innovation climate on the relationship between TL and innovative work behavior. Some other scholars identified other conditions that would have an impact on the relationship between TL style and innovation.

Within the same context, Hui et al. (2019) added that organizational innovation facilitated by TL depends on a positive attitude to change and openness to new ideas held at the organizational level. Fu et al. (2021) also affirmed that TL is associated with more employees' innovative behavior. Based on these findings, there is a robust ground for claiming that there is a positive relationship between innovative behavior among workers and TL. Literature also suggests the moderating effect of TL on the relationship between green marketing initiatives and employee innovative behavior (Cui & Wang, 2021; Du & Yan, 2022; W. Zhang, Sun, & Xu, 2020; Wang, Zhou, & Liu, 2018; Shah, Yu, Sukamani, & Kusi, 2021). Green TL further establishes a linear effect between exploratory green learning and radical green innovation (Cui & Wang, 2021). For instance, Du and Yan (2022) substantiated that the green organizational identity acted as a moderator within the positive relationship between TL and the personal initiative behavior of the employees, which in turn led them to take charge. The reviewed literature is indicative that TL, specifically in the realm of green initiatives, has a major influence on employee innovative behavior.

Numerous studies suggest the significance of this moderating influence, as TL appears to assist in regulating the connection between GHRM practices and employees' innovative conduct. Chen and Wu (2022) illustrated that GHRM practices could foster green employees' conscientiousness and then stimulate their green behaviors, while the green transformational leader positively influenced this process through green self-efficacy. Following up on these aspects, W. Li et al. (2023) reported that leadership behavior affected the strength of the moderated-mediated path between GHRM practices and employee green behavior. Moreover, Iftikhar et al. (2021) evidenced that the transformational leadership style moderates the influence of green HRM practices on employee environmental commitment. The fact that the TL style is more effective in having an impact on employee behavior and innovation is strongly made out by the authors. For instance, Suareski and Nawangsari (2021) have addressed the relationship between TL and innovative behavior with knowledge management. Similarly to this, Ariyani and Hidayati (2018) have documented a positive link between TL and creative behavior. On the other hand, Ogbonnaya and Nielsen (2016) have revealed that the relationship between TL and positive employee outcomes is contingent upon employees' perceptions of core job characteristics.

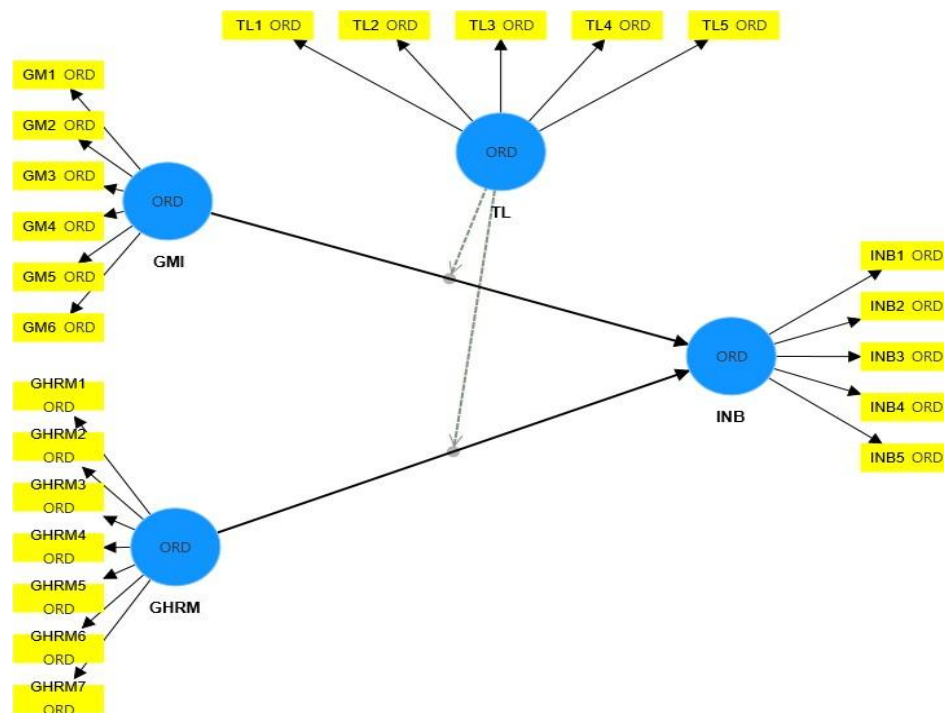
This literature upholds that GHRM practices and green marketing initiatives assume an important role in building up an organizational culture conducive to sustainability and innovation. These include applying human resource management policies and practices that encourage employees to contribute towards environmental friendliness. Not only do these policies and practices support ecological concerns, but their pro-environmental nature also stimulates employees' creativity towards innovative behavior, which is crucial for creating a competitive advantage and achieving sustainability goals. As a result, the literature indicates that TL moderates the advancement of GHRM and green marketing's effects on employee innovation. Green-HRM practices under the transformational leader enhance the support for the impact of green practice, which places great emphasis on the innovative behavior of employees as one of the new additions to accelerating the sustainable success of an

organization through vision, inspiration, and motivation. We expect this study to shed light on the intricate relationships between GHRM practices, green marketing initiatives, and employee innovative behavior, all under the influence of TL. To accomplish this goal, the researchers propose the following hypotheses:

H3: TL moderates the relationship between green marketing initiatives and employee innovative behavior.

H4: TL moderates the relationship between GHRM practice and employee innovative behavior.

The connection between the variables is manifested in **Figure 1**.



**Figure 1.** The Structural Model

## METHODOLOGY

This study's quantitative design aids in evaluating the connections between sustainable business practices in terms of (green marketing, GHRM practices, and employee innovative behavior) under the influence of TL as a moderator. This approach was adopted because it establishes objective measurements for statistical analysis and relationships between variables, thereby enabling the researchers to generalize to a broader population. Given this, firms that deal with telecommunications in Jordan can count all their employees, totaling 4,278, distributed among 3 companies with nearly equal staff. The majority of managers and supervisors in these companies hold a minimum baccalaureate degree, and they typically supervise and monitor their subordinates to ensure they carry out tasks according to their own methodologies. These simple indications suggest that the work typically involves either low cognitive complexity, limited freedom, or both. In this context, a simple random sampling technique was employed to select a sample that could accurately reflect the diversity in various departments and levels within the companies, and also to address fair representation of all employees, avoid any researchers' bias, furthermore obtain unbiased results.

Sekaran and Bougie (2016) suggested this sampling technique as the most suitable in the case of a large population. At 0.05 confidence the representable sample size of (4,278) population = (360), consequently the researchers were able to reach out to 360 employees from the population through email invitations to participate in the study; 290 responded, resulting in a response rate of approximately 80.5%. The questionnaire encompassed measures for green marketing, green HRM practices, employee innovative behavior, and TL, fully capturing their assessment dimensions. The study's measures were borrowed and adapted for use as follows (6 questions) measured green marketing scale of Vilkaite-Vaitone, Skackauskiene, and Diaz-Meneses (2022), (7 questions) utilized to measure green HRM practices by Alnajdawi, Emeagwali, and Elrehail (2017), 5 items for employee innovative behavior from Alzghoul, Khaddam, Alshaar, and Irtaimah (2024b), and TL—a 5-item scale from Elrehail et al. (2018). These sources were proved to be valid and reliable and consequently, the borrowed

questions can be considered valid and reliable as so.

The responses were anonymized, to adhere to the ethical standards on confidentiality and privacy of participants. The researchers were precise in getting consent from every participant and securing the anonymity and confidentiality of their responses in accordance with ethical guidelines on research conduct.

The collected data were analyzed using structural equation modeling with partial least squares (SEM-PLS 4). This analytical technique ensures robustness in assessing sophisticated models, defined in this context as those with mediating and moderating effects, and its suitability in exploratory research contexts where theoretical frames are still evolving. SEM-PLS will generally provide an in-depth look into the hypothesized relationships within the context of the core variables under study.

### Sample Distributions

The demographic analysis of the participants in this study depicts a varied cross-section sample belonging to the workforce in Jordan's telecommunication sector (**Table 1**). Male participants make up a higher percentage (56.96%) than female participants (43.04%), indicating a relatively equal gender representation, potentially providing insight into gender-specific responses and attitudinal variables towards green HRM practices and marketing. The rankings exhibit a strong representation of generational diversity, with (43.88%) belonging to (41-50) years old, (28.69%) of the participants are between (31-40) years old. That may elucidate why, in this category, people with long work experience could potentially respond positively to sustainability imperatives. **Table 1** also shows that (17.30%) were less than 30 years old, finally (10.13%) of the respondents were above 50.

Most of the respondents (91.13%) had university degrees; distributed to (54%) had bachelor's degrees and (37.13) had postgraduate degrees; pointing to a well-educated sample who could be quite aware of green practices. The 6-10 years' experience band, which dominates at 60.34%, represents an age range of employees who have been familiar with the company's culture and practices for a significant period, potentially shaping their perception and attitude towards green initiatives. This demographic diversity will enhance the study's relevance. It enables a broad understanding of attitudes towards GHRM, green marketing, TL, and innovative behavior in a cross-section of diversified demographics.

**Table 1.** Demographic Information

| Variable                   | Frequency | Percentage |
|----------------------------|-----------|------------|
| <b>Gender</b>              |           |            |
| Male                       | 166       | 56.96      |
| Female                     | 124       | 43.04      |
| <b>Age</b>                 |           |            |
| Less than 30 years         | 50        | 17.30      |
| 31-40                      | 84        | 28.69      |
| 41-50                      | 127       | 43.88      |
| More than 50 years         | 29        | 10.13      |
| <b>Educational level</b>   |           |            |
| Associate degree (Diploma) | 26        | 8.87       |
| Bachelor's degree          | 157       | 54.0       |
| Postgraduate degree        | 107       | 37.13      |
| <b>Year of service</b>     |           |            |
| Less than 5 years          | 51        | 17.72      |
| 6-10 years                 | 175       | 60.34      |
| Over 10 years              | 64        | 21.94      |

## RESULTS

The study tests psychometric properties of latent variables related to GHRM practices, green marketing initiatives, employee innovative behavior, and TL within the constructs present in the study of sustainability in the Jordanian telecommunications industry, as shown in **Table 2**. Outer loadings indicate strong and significant relationships between each item and the corresponding latent variable. These results indicate that the items chosen for each construct represented the conceptual domain of their respective latent variables. Values greater than the acceptable threshold of 0.7 for Cronbach's alpha, from 0.85 to 0.90, indicate very high internal consistency among the constructs according to Hair, Hult, Ringle, and Sarstedt (2022). Such a high level of

internal consistency ensures that the items included in the measurement of any one latent variable measure the same underlying concept, thereby increasing the constructs' overall reliability. Similarly, the constructs' composite reliability (CR) scores range from 0.89 to 0.93, confirming their reliability and assuring acceptable accuracy of the sample.

The Average Variance Extracted (AVE) values range from 0.62 to 0.68 in all constructs, which is above the minimum benchmark of 0.5 according to Hair et al. (2022). This proves good convergent validity, i.e., their respective latent constructs had the ability to predict the most variance in the observed variables. Therefore, the values of AVE suggest that the constructs are sufficiently distinct and well-defined, accounting for a significant portion of the variance within their respective indicators. **Table 2** displays results that confirm consistency, reliability, and validity for measuring GHRM practices, green marketing initiatives, employee innovative behavior, and TL. This robust measurement foundation serves as a precursor for further analysis of the relationships between these two constructs, providing applicable and meaningful insights into the impact of green practices and leadership on employee innovation in a context such as telecommunications in Jordan.

**Table 2.** Psychometric Properties

| Latent Variable               | Factor Loadings Range | Cronbach's Alpha | Composite Reliability | AVE  |
|-------------------------------|-----------------------|------------------|-----------------------|------|
| Green HRM Practices           | 0.75 - 0.85           | 0.88             | 0.91                  | 0.65 |
| Green Marketing Initiatives   | 0.70 - 0.82           | 0.85             | 0.89                  | 0.62 |
| Employee Innovative Behaviour | 0.78 - 0.88           | 0.90             | 0.93                  | 0.68 |
| Transformational Leadership   | 0.72 - 0.86           | 0.87             | 0.92                  | 0.64 |

**Table 3** shows heterotrait-monotrait ratio (HTMT) values between the constructs of GHRM practices, green marketing initiatives, employee innovative behavior, and TL. This will provide very clear details about the discriminant validity of the research model displayed in **Figure 1**.

The importance of discriminant validity lies in ensuring that the questions construct accurately measures and interprets their true differences. The HTMT criterion offers a relatively new way of measuring discriminant validity, it has been the most reliable until now. The HTMT value for GHRM practices and green marketing initiatives is 0.457, suggesting there is adequate diversity between employee perceptions in relation to HRM green initiatives and green marketing activities. Understanding the unique contribution of the GHRM and marketing departments in promoting sustainability within the organization requires this disentanglement. Likewise, the HTMT value between GHRM practices and employee innovative behavior is 0.551, and it is 0.593 between GHRM practices and TL. These values indicate that employees' innovation behavior and perceptions of TL qualities differ from their perceptions of GHRM practices. This distinction will be important because it will allow an analysis of how GHRM practices specifically designed with sustainability in mind interact with wider organizational behaviors and styles of leadership to influence innovation.

In the same way, the interactions between green marketing initiatives and the remaining constructs reveal strong discriminant validity, bearing HTMT values of 0.487 with employee innovative behavior and 0.514 with TL. Ringle, Sarstedt, Sinkovics, and Sinkovics (2023) pointed out that If the value of HTMT is lower than 0.90, then discriminant validity has been confirmed between the measured (variables) constructs.

These results clearly demonstrate that employees can interpret marketing strategies aimed at promoting sustainability, their own innovative behaviors, and the adopted leadership styles. This perception will enable a detailed look at how marketing activities may motivate or assist innovation and leadership within the company. Finally, it revealed a strong distinguishable relationship between employee innovative behavior and TL, with a value of HTMT = 0.602. This shows that while innovative behaviors and TL characteristics complement each other in terms of promoting a sustainable workplace, they still represent divergent sides of organizational dynamics. Furthermore, the values of HTMT demonstrate the independent validity of the constructs in the study, indicating their ability to capture distinct dimensions related to the research phenomena. Such validity is critical for the integrity of this study's findings, as it ensures that the relationships and effects identified are meaningful and precise to the constructs defined.

**Table 3.** HTMT Results

| Concepts                        | 1     | 2     | 3     | 4 |
|---------------------------------|-------|-------|-------|---|
| 1 Green HRM Practices           | -     |       |       |   |
| 2 Green Marketing Initiatives   | 0.457 | -     |       |   |
| 3 Employee Innovative Behaviour | 0.551 | 0.487 | -     |   |
| 4 Transformational Leadership   | 0.593 | 0.514 | 0.602 | - |

### The Results of Hypothesis Testing

**Table 4** manifests the results of H1 and H2 as follows: Hypothesis (1) H1 results show that green marketing has a direct, significant, and positive effect on how innovative employees are, as shown by a beta coefficient ( $\beta$ ) of 0.432. The effect is supported at the level of  $p < 0.01$ , sustained by a t-statistic of 9.600, showing strong empirical support for the relationship. Green marketing initiatives have an R-squared of 0.187, which suggests that they account for 18.7% of the variance of employee innovative behavior, and hence marketing efforts towards sustainability affect innovative behavior among employees. The effect size ( $f^2$ ) of 0.256 categorizes this relationship as below moderate importance, further reinforcing the need to incorporate green principles into marketing efforts to foster innovative thinking and behaviors.

Similarly, the results of (H2) confirm the positive impact of green HRM practices on employee innovative behavior. The beta coefficient is 0.485, with a t-stat of 10.104 and a p-value of  $0.00 < 0.01$ , indicating that there exists a significant and robust relationship. Green HRM practices explain about 23.4% of the variance in employee innovative behavior, as indicated by an  $R^2$  value of 0.234. In this regard, HRM practices that focus on environmental sustainability not only lead to a greener workplace but also are crucial in promoting creativity and innovation among employees. An effect size of ( $f^2$ ) at 0.307 indicates a moderate to large effect, further supporting the idea that sustainable HRM initiatives serve as key drivers for innovation in organizations.

**Table 4.** Hypothesis Testing (Direct Effects)

| Hypothesis   | $\beta$ | SD    | t      | $\rho$ | $R^2$ | $f^2$ | Decision  |
|--|---------|-------|--------|--------|-------|-------|-----------|
| H1 Green Marketing Initiatives-> Employee Innovative Behaviour | 0.432   | 0.045 | 9.600  | <0.01  | 0.187 | 0.256 | Supported |
| H2 Green HRM Practices-> Employee Innovative Behaviour         | 0.485   | 0.048 | 10.104 | <0.01  | 0.234 | 0.307 | Supported |

**Table 5** displays the results of moderation related to H3 and H4 as follows: Hypothesis H3 green marketing initiatives have a positive impact on innovative employee behavior, moderated by TL. It is important to test the results of an indirect effect because the beta value = (0.312), the standard deviation (SD = 0.029), and the t-statistic (10.758) all meet the significance level at  $p < 0.01$ . The 95% CI of this interval, from 0.255 to 0.369, doesn't include zero, so there is strong evidence for the mediating role of TL. This would indicate that green marketing initiatives are not only directly associated with employee innovation, but also indirectly through enhancements in the nature of TL. This suggests that when companies venture into green marketing, they can attain elevated leadership quality in the future, promoting even more innovative behavior among employees. Personal values that inspire and foster an environment for innovation align with organizational sustainability goals.

Hypothesis H4 also tested the moderating effect of TL on the relationship between GHRM practices and employee innovative behavior. The findings supported the existence of an indirect relationship with a beta of 0.297, SD = 0.031, and t-value = 9.581, significant at  $p < 0.01$ . The findings strongly support the moderation role of TL, with a confidence interval of [0.236, 0.358]. GHRM practices contribute to innovation promotion, not only directly, but also through their impact on the development of TL within an organization. In other words, integrating sustainability into HRM practices aims to empower leaders, who can then pass on these innovative behaviors to their followers.



**Table 5.** Hypothesis Testing (Indirect Effects)

|    | <b>Hypothesis</b>   | <b><math>\beta</math></b> | <b>SD</b> | <b>t</b> | <b><math>\rho</math></b> | <b>CI</b>      | <b>Decision</b> |
|----|---|---------------------------|-----------|----------|--------------------------|----------------|-----------------|
| H3 | Green Marketing Initiatives -><br>Transformational Leadership -><br>Employee Innovative Behaviour | 0.312                     | 0.029     | 10.758   | <0.01                    | [0.255, 0.369] | Supported       |
| H4 | Green HRM Practices-><br>Transformational Leadership-><br>Employee Innovative Behaviour           | 0.297                     | 0.031     | 9.581    | <0.01                    | [0.236, 0.358] | Supported       |

## DISCUSSION

The aim of this study was to investigate how a company's sustainable business practices in terms of green marketing initiatives and GHRM practices affect employee innovative behavior, as well as the moderating role of TL in these relationships. This study attempts to fill this gap with empirical evidence highlighting how organizational sustainable practices, along with creative leadership style, contribute to building and reinforcing innovation in employees' minds and behavior. The study's findings support the initial hypothesis by indicating that green marketing initiatives (H1) and green HRM practices (H2) have a positive and significantly associated impact on employee innovative behavior. This supports the findings of Alnajdawi et al. (2017) when they posited that green HRM practices improve an organization's sustainable performance and citizen environmental behavior. These findings support previous works by Vilkaite-Vaitone et al. (2022) which also revealed that the impact of green marketing on corporate innovation motivation is highly significant. Such findings further underscore the fact that the incorporation of sustainable issues in the fundamental aspects of business operations might be used as an effective tool to trigger a stream of innovative changes toward a competitive edge. In addition, the results of this analysis indicated that green marketing initiatives and GHRM practices for sustainability, both positively contribute to the enhancement of an innovative organizational culture. This further highlights the importance of combining the environmental sustainability initiative with the core business operations of an organization in a manner that goes beyond the space of green stewardship while focusing on the centrality of the initiative for innovation and creativity of the workforce.

TL also moderates the relationships between green marketing initiatives, green HRM practices and employee innovative behavior (H3 and H4). This basically means that going green fosters effectiveness and a positive leadership style is an important moderating factor that in return affects positively employee innovation. Elrehail et al.'s (2018) findings, which concluded that TL positively influenced innovation and emphasized knowledge sharing, verify the above finding. Additionally, this study's results support the findings of Alzghoul et al. (2024b) by demonstrating that employees expect TL to enhance the impact of green initiatives in fostering innovative behavior. The results indicate that TL, or one that supports and motivates employees to achieve long term goals, is very important when using green projects as innovative instruments. This consequently highlights the importance of tailoring leadership development towards the cultivation of TL qualities, which enable leaders to leverage green practices as motivators for innovation. The supported hypotheses underlie the role of TL as a critical element in explaining the relationship between green organizational practices and employee innovative behavior.

## CONCLUSION

This research aimed to explore the dynamic relationship between green marketing activities, green HRM practices, and their contribution to driving employee innovative behavior while paying special attention to the moderating effect of TL. The results of this study provide strong, empirical evidence of the positive impact of green marketing and HRM practices on fostering innovation within the workforce. These results embrace the idea of sustainability as part of the overall organizational operational strategies, which in turn promote innovative thinking and behaviors among the employees. The current study highlights that the transformational nature of leadership strengthens this relationship, as charismatic and intellectual leaders inspire, motivate, and exemplify sustainability principles to their subordinates, thereby amplifying the potential of green practices to foster innovation. This way, they serve as great environmental stewards, helping develop the organizational culture along with practices such as innovation for better sustainability and the competitive interests of the organization as a whole.

This research finding would have numerous implications for both practitioners and researchers. This

research practically sheds light on the need for the implementation of green practices for those in leadership and managerial positions, as well as how the cultivation of traits of TL assists as a strategy to promote innovation to meet sustainability goals. In light of this evidence, investments in sustainability initiatives and leadership development programs appear extremely likely to pay off for companies wanting to boost employee innovation and tap new sources of organizational success in the globally competitive marketplace. For researchers, the present study contributes to the emerging corpus of literature in connection with sustainability in business, leadership, and innovation management, thus setting the stage for further research in these knowledge areas. This suggests that further investigation is necessary to uncover the fundamental ways in which green practices and TL can collaborate to shape innovation in diverse industries and cultural settings.

## IMPLICATIONS

### Practical Implications

Business practices that can be incorporated into operational strategies in organizations include green marketing initiatives and GHRM practices. Green marketing allows businesses to improve their environmental performance while at the same time enabling employees to come up with innovative ideas. Additionally, this strategy is in line with the increasing demand by consumers for green products and services, a factor that eventually enhances market competitiveness. Moreover, GHRM practice can better create an organizational environment characterized by sustainability, with higher levels of employee engagement and innovation. Those employees who often feel that their company is committed to environmental sustainability try to exhibit innovative behaviors that would drive an organization toward attaining its competitive advantage in the marketplace. In this context, TL plays a very critical moderating role that enriches the salient positive effect of sustainable practices on innovation. Leaders with transformational qualities would be able to inspire and motivate employees to embrace green practices and innovate. Therefore, such styles of leadership will thwart probable challenges that may be involved in implementing sustainable practices through an organizational culture that is conducive and innovative. As such, through this approach, organizations can achieve enhanced employee performance and innovation for business success and sustainability in the long run.

### Theoretical Implications

This research contribution considers how sustainable business practice and employee innovative behavior combine under the moderating influence of transformational leadership to make significant theoretical contributions to organizational behavior and leadership literature. It emphasizes conduits through green marketing and GHRM practices as conduits in connection with fostering innovation. It suggests that such practices not only enhance environmental performance but also increase the creativity and innovation of the employees. The framework is, therefore, going to improve the understanding of the mechanism through which sustainable practices influence organizational outcomes and, hence, offer a very fertile ground for further studies on sustainability and innovation in organizations. The research also highlights the moderating role of transformational leadership within these linkages; therefore, this nuanced understanding of how different leadership styles influence the efficiency of sustainability practices. Accordingly, this research will add to the literature about leadership by revealing that transformational leaders can accentuate the positive impact of sustainable practices on employee innovation. This confirms that leadership development programs in organizations are targeted at fostering transformational qualities so that the organization may fully reap the benefits brought about by sustainability initiatives.

## LIMITATIONS

Though this study gives several useful findings, several limitations still have to be acknowledged. Only using self-reported data from employees in the Jordanian telecommunication sector limits the generalizability that may arise with the results. Self-reporting may further induce biases where measures related to innovative behaviors and sustainable practices enacted by the participants' organizations could be overestimated. Furthermore, this study cannot examine changes over time since it is cross-sectional and, therefore cannot remodel a whole idea of how sustainable practices and transformational leadership paraphernalia influence innovation. Another limitation is that the focus is on a single industry and geographic region, which may not reflect the diversity of practices and outcomes in different sectors or cultural contexts. Such future research must take a longitudinal approach and include several industries and regions if generalizability is to be increased. Other moderating and mediating

variables, for instance, organizational culture and employee motivation, ought to be presented for subtler explanations of the underlying mechanisms driving the observed relationships.

### **FUTURE DIRECTIONS**

Future research could delve deeper into the psychological mechanisms that may explain the moderating effect of TL between green practices and innovation, such as employee motivation and engagement, or even the role of organizational culture. There would be an opportunity to conduct more studies under a comparative approach between countries and related sectors. The sampling of industries and geographic regions should be maximally diverse to generalize findings, understand context-specific influences, and identify how different elements in the contexts shape or moderate the effects of sustainable practices and transformational leadership. Greater reliance on objective performance measures and multisource data, including peer review, could reduce biases associated with self-reported data, thus highlighting an accurate picture of how green practices impact employee innovation.

### **CONFLICT OF INTEREST**

The authors declare that there are no conflicts of interest associated with the publication of this paper.

## REFERENCES

- Ababneh, O. (2021). How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7), 1204-1226. <https://doi.org/10.1080/09640568.2020.1814708>
- Aboalghanam, K. M., Alzghoul, A., & Alhanatleh, H. (2024). An analysis of service quality and complaint handling in the Jordanian healthcare sector: Implications for TQM and customer retention. *Innovative Marketing*, 20(1), 51-65.
- Aboramadan, M. (2020). The effect of green HRM on employee green behaviors in higher education: The mediating mechanism of green work engagement. *International Journal of Organizational Analysis*, 30(1), 7-23. <https://doi.org/10.1108/ijoa-05-2020-2190>
- Afsar, B., & Umrani, W. (2020). Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. *European Journal of Innovation Management*, 23(3), 402-428. <https://doi.org/10.1108/ejim-12-2018-0257>
- Agustini, D. H., Athanasius, S. S., & Retnawati, B. B. (2019). Identification of green marketing strategies: Perspective of a developing country. *Innovative Marketing*, 15(4), 42-56. [https://doi.org/10.21511/im.15\(4\).2019.04](https://doi.org/10.21511/im.15(4).2019.04)
- Ali, S., Ali, A., Ashfaq, K., & Khalid, J. (2021). Green human resource management and environmental innovativeness. *International Journal of Sustainable Development and Planning*, 16(6), 1117-1130. <https://doi.org/10.18280/ijstdp.160613>
- Alnajdawi, S., Emeagwali, O. L., & Elrehail, H. (2017). The interplay among green human resource practices, organization citizenship behavior for environment and sustainable corporate performance evidence from Jordan. *Journal of Environmental Accounting and Management*, 5(3), 171-184. <https://doi.org/10.5890/JEAM.2017.09.001>
- Alzghoul, A., Khaddam, A. A., Abousweilem, F., Irtaimah, H. J., & Alshaar, Q. (2024a). How business intelligence capability impacts decision-making speed, comprehensiveness, and firm performance. *Information Development*, 40(2), 220-233.
- Alzghoul, A., Khaddam, A. A., Alshaar, Q., & Irtaimah, H. J. (2024b). Impact of knowledge-oriented leadership on innovative behavior, and employee satisfaction: The mediating role of knowledge-centered culture for sustainable workplace. *Business Strategy & Development*, 7(1), e304. <https://doi.org/10.1002/bsd2.304>
- Anggraeni, R., & Islamy, T. N. (2022, January). Does green advertising matter to purchase intention?. In *Brawijaya International Conference on Economics, Business and Finance 2021 (BICEBF 2021)* (pp. 244-251). <https://doi.org/10.2991/aebmr.k.220128.032>
- Ariyani, N., & Hidayati, S. (2018). Influence of transformational leadership and work engagement on innovative behavior. *Etikonomi*, 17(2), 275-284. <https://doi.org/10.15408/etk.v17i2.7427>
- Awan, F. H., Dunnan, L., Jamil, K., & Gul, R. F. (2023). Stimulating environmental performance via green human resource management, green transformational leadership, and green innovation: a mediation-moderation model. *Environmental Science and Pollution Research*, 30(2), 2958-2976.
- Ćalasan, V., Slavković, R., & Rajković, J. (2021). Application of green tools in green marketing. *Serbian Journal of Engineering Management*, 6(1), 72-77. <https://doi.org/10.5937/sjem2101073c>
- Chen, T., & Wu, Z. (2022). How to facilitate employees' green behavior? The joint role of green human resource management practice and green transformational leadership. *Frontiers in Psychology*, 13, 906869. <https://doi.org/10.3389/fpsyg.2022.906869>
- Chen, X., Wang, H., & Xie, M. (2022). Employee innovative behavior and workplace wellbeing: Leader support for innovation and coworker ostracism as mediators. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1014195>
- Chen, Y. S., Yu, J., & Son, J. (2014). Beyond leader-member exchange (LMX), creativity, and green performance: The moderating role of psychological empowerment. *Journal of Business Ethics*, 123(3), 423-438. <https://doi.org/10.1007/s10551-013-1803-2>
- Cui, R., & Wang, J. (2021). Shaping sustainable development: External environmental pressure, exploratory green learning, and radical green innovation. *Corporate Social Responsibility and Environmental Management*, 29(3),

481-495. <https://doi.org/10.1002/csr.2213>

Du, Y., & Yan, M. (2022). Green transformational leadership and employees' taking charge behavior: The mediating role of personal initiative and the moderating role of green organizational identity. *International Journal of Environmental Research and Public Health*, 19(7), 4172. <https://doi.org/10.3390/ijerph19074172>

Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human Resource Management*, 56(4), 613-627. <https://doi.org/10.1002/hrm.21792>

Eisenbeiß, S. A., & Boerner, S. (2013). A double-edged sword: Transformational leadership and individual creativity. *British Journal of Management*, 24(1), 54-68. <https://doi.org/10.1111/j.1467-8551.2011.00791.x>

Elrehail, H., Emeagwali, O. L., Alsaad, A., & Alzghoul, A. (2018). The impact of transformational and authentic leadership on innovation in higher education: The contingent role of knowledge sharing. *Telematics and Informatics*, 35(1), 55-67. <https://doi.org/10.1016/j.tele.2017.09.014>

Fawehinmi, O., Yusliza, M., Kasim, W., Mohamad, Z., & Halim, M. (2020). Exploring the interplay of green human resource management, employee green behavior, and personal moral norms. *Sage Open*, 10(4). <https://doi.org/10.1177/2158244020982292>

Fu, N., Zhang, T., Nie, X., & Li, M. (2021). Research on the influence of leadership style on employee innovation behavior in agricultural science and technology enterprises. *E3s Web of Conferences*, 235, 01020. <https://doi.org/10.1051/e3sconf/202123501020>

Govender, J., & Govender, T. (2016). The influence of green marketing on consumer purchase behavior. *Environmental Economics*, 7(2), 77-85. [https://doi.org/10.21511/ee.07\(2\).2016.8](https://doi.org/10.21511/ee.07(2).2016.8)

Gumusluoğlu, L., & İlsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of Business Research*, 62(4), 461-473. <https://doi.org/10.1016/j.jbusres.2007.07.032>

Haholongan, R., & Kusdinar, D. (2019, February). The influence of participative organizational climate on innovative behavior. In *5th Annual International Conference on Management Research (AICMaR 2018)* (pp. 92-96). <https://doi.org/10.2991/aicmar-18.2019.21>

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.). Thousand Oakes, CA: Sage.

Hui, L., Nazir, S., Wang, Q., Asadullah, M., Khaqan, Z., & Shafi, A. (2019). Influence of transformational leadership on employees' innovative work behavior in sustainable organizations: Test of mediation and moderation processes. *Sustainability*, 11(6), 1594. <https://doi.org/10.3390/su11061594>

Iftikhar, U., Zaman, K., Rehmani, M., Ghias, W., & Islam, T. (2021). Impact of green human resource management on service recovery: Mediating role of environmental commitment and moderation of transformational leadership. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.710050>

Islam, T., Khan, M., Ahmed, I., & Mahmood, K. (2020). Promoting in-role and extra-role green behavior through ethical leadership: Mediating role of green HRM and moderating role of individual green values. *International Journal of Manpower*, 42(6), 1102-1123. <https://doi.org/10.1108/ijm-01-2020-0036>

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287-302. <https://doi.org/10.1348/096317900167038>

Khalifa Alhitmi, H., Shah, S. H. A., Kishwer, R., Aman, N., Fahlevi, M., Aljuaid, M., & Heidler, P. (2023). Marketing from leadership to innovation: A mediated moderation model investigating how transformational leadership impacts employees' innovative behavior. *Sustainability*, 15(22), 16087.

Li, H., Li, Y., Sarfarz, M., & Ozturk, I. (2022). Enhancing firms' green innovation and sustainable performance through the mediating role of green product innovation and moderating role of employees' green behavior. *Ekonomika Istrazivanja-economic Research*. <https://doi.org/10.1080/1331677x.2022.2142263>

Li, W., Abdalla, A., Mohammad, T., Khassawneh, O., & Parveen, M. (2023). Towards examining the link between green HRM practices and employee green in-role behavior: Spiritual leadership as a moderator. *Psychology Research and Behavior Management*, 16, 383-396. <https://doi.org/10.2147/prbm.s396114>

Li, X., & Ma, L. (2017, July). Research on the relationship between critical thinking and employee innovation behavior. In *2017 International Conference on Sports, Arts, Education and Management Engineering (SAEME 2017)* (pp. 96-99). <https://doi.org/10.2991/saeme-17.2017.20>

Mahmoud, T. (2018). Impact of green marketing mix on purchase intention. *International Journal of Advanced*

- and *Applied Sciences*, 5(2), 127-135. <https://doi.org/10.21833/ijaas.2018.02.020>
- Mansoor, A., Farrukh, M., Lee, J. K., & Jahan, S. (2021). Stimulation of employees' green creativity through green transformational leadership and management initiatives. *Sustainability*. <https://doi.org/10.3390/su13147844>
- Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: The emergence of corporate environmentalism as market strategy. *Journal of Marketing*, 61(1), 51-67. <https://doi.org/10.1177/002224299706100104>
- Muposhi, A. (2018). Green marketing trek: Drivers, challenges and future directions in emerging markets—A systematic literature review. *Journal of Economics and Behavioral Studies*, 10(1), 112. <https://doi.org/10.22610/jebis.v10i1.2094>
- Niazi, U. I., Nisar, Q. A., Nasir, N., Naz, S., Haider, S., & Khan, W. (2023). Green HRM, green innovation and environmental performance: The role of green transformational leadership and green corporate social responsibility. *Environmental Science and Pollution Research*, 30(15), 45353-45368.
- O'Donohue, W., & Torugsa, N. (2016). The moderating effect of 'green' HRM on the association between proactive environmental management and financial performance in small firms. *International Small Business Journal*, 34(8), 998-1016. <https://doi.org/10.1177/02666242615595714>
- Obeidat, A. M. (2022). The impact of business intelligence in crisis management: The strategic vigilance as an intermediary variable in Jordanian insurance companies. *International Journal of Business Information Systems*, 41(3), 342-359.
- Obeidat, S., Abdalla, S., & Bakri, A. (2022). Integrating green human resource management and circular economy to enhance sustainable performance: An empirical study from the Qatari service sector. *Employee Relations*, 45(2), 535-563. <https://doi.org/10.1108/er-01-2022-0041>
- Ogbonnaya, C., & Nielsen, K. (2016). Transformational leadership and positive employee outcomes: The mediating role of employees' perceptions of core job characteristics. *Journal of Work and Organizational Psychology*, 32(3), 164-174. <https://doi.org/10.1016/j.rpto.2016.09.002>
- Opatha, H., & Arulrajah, A. (2014). Green human resource management: Simplified general reflections. *International Business Research*, 7(8). <https://doi.org/10.5539/ibr.v7n8p101>
- Otaif, M., Abualoush, S., Obeidat, A., & Bataineh, K. (2022). Improving firm's innovation performance through transformation leadership and knowledge sharing: The moderating role of absorptive capacity. *Case Study Jordan*, 11, 1693-1709.
- Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2019). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 157(3), 715-736. <https://doi.org/10.1007/s10551-017-3667-1>
- Polonsky, M. J., & Rosenberger III, P. J. (2001). Reevaluating green marketing: A strategic approach. *Business Horizons*, 44(5), 21-30. [https://doi.org/10.1016/S0007-6813\(01\)80055-1](https://doi.org/10.1016/S0007-6813(01)80055-1)
- Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14. <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Ringle, C.M., Sarstedt, M., Sinkovics, N., & Sinkovics, R.R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, 48, 109074. <https://doi.org/10.1016/j.dib.2023.109074>
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders' influence on employees' pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176-194. <https://doi.org/10.1002/job.1820>
- Sah, D. (2016). Impact of green marketing on green consumer behaviour. *CVR Journal of Science & Technology*, 10(1), 95-97. <https://doi.org/10.32377/cvrjst1019>
- Sekaran, U., & Bougie, R. (2016) *Research methods for business: A skill-building approach* (7th Ed.). Hoboken, NJ: Wiley.
- Shafaei, A., Nejati, M., & Yusoff, Y. (2020). Green human resource management. *International Journal of Manpower*, 41(7), 1041-1060. <https://doi.org/10.1108/ijm-08-2019-0406>
- Shah, A., Yu, J., Sukamani, D., & Kusi, M. (2021). How green transformational leadership influences sustainability? mediating effects of green creativity and green procurement. *Journal on Innovation and Sustainability Risks*, 11(4), 69-87. <https://doi.org/10.23925/2179-3565.2020v11i4p69-87>

- Suareski, A., & Nawangsari, L. C. (2021). Transformational leadership, knowledge management, and employee innovative behavior: A literature review. *Management Science Letters*, 11(1), 235-242. <https://doi.org/10.5267/j.msl.2020.9.009>
- Vilkaite-Vaitone, N., Skackauskiene, I., & Díaz-Meneses, G. (2022). Measuring green marketing: Scale development and validation. *Energies*, 15(3), 718. <https://doi.org/10.3390/en15030718>
- Wang, X., Zhou, K., & Liu, W. (2018). Value congruence: A study of green transformational leadership and employee green behavior. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01946>
- Wen, J., Hussain, H., Waheed, J., Ali, W., & Jamil, I. (2021). Pathway toward environmental sustainability: Mediating role of corporate social responsibility in green human resource management practices in small and medium enterprises. *International Journal of Manpower*, 43(3), 701-718. <https://doi.org/10.1108/ijm-01-2020-0013>
- Yusoff, Y., Nejati, M., Kee, D., & Amran, A. (2018). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, 21(3), 663-680. <https://doi.org/10.1177/0972150918779294>
- Zhang, W., Sun, B., & Xu, F. (2020). Promoting green product development performance via leader green transformationality and employee green self-efficacy: The moderating role of environmental regulation. *International Journal of Environmental Research and Public Health*, 17(18), 6678. <https://doi.org/10.3390/ijerph17186678>
- Zhang, Y., Zheng, J., & Darko, A. (2018). How does transformational leadership promote innovation in construction? the mediating role of innovation climate and the multilevel moderation role of project requirements. *Sustainability*, 10(5), 1506. <https://doi.org/10.3390/su10051506>
- Zhu, J., Tang, W., Zhang, B., & Wang, H. (2022). Influence of environmentally specific transformational leadership on employees' green innovation behavior—A moderated mediation model. *Sustainability*, 14(3), 1828.
- Zibarras, L., & Coan, P. (2015). Hrm practices used to promote pro-environmental behavior: A UK survey. *The International Journal of Human Resource Management*, 26(16), 2121-2142. <https://doi.org/10.1080/09585192.2014.972429>