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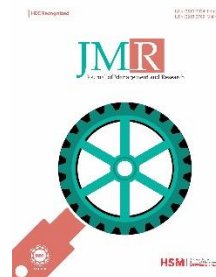|	
Title:	**Influence Of Spiritual Leadership on Green Behavior: The Mediating Role of Green HRM and the Moderating Role of Individual Green Values**
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Influence Of Spiritual Leadership on Green Behavior: The Mediating Role of Green HRM and the Moderating Role of Individual Green Values

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Abstract

Given the importance of fostering green behavior among employees in multinational corporations (MNCs), the current study aimed to determine how spiritual leadership influences employees' in-role and out-of-role green behavior. The data was gathered from MBA executives' programs with at least one year's experience working in the pharmaceutical industry. The sample size was 658 and PLS-SEM software was selected to perform the analysis. According to the findings, MNCs may develop in-role and extra-role green habits with the support of spiritual leadership and adopting green Human Resource Management (HRM) practices. Additionally, this relationship may be restrained by individual green values. Organizations can encourage to promote a culture of environmental sustainability by utilizing green HRM techniques, fostering spiritual leadership, and inspiring people to adopt green behavior through training programs and eco-friendly policies and practices. The results further emphasized that how crucial it is to include spiritual leadership in the creation and application of HRM practices. By doing this, companies may encourage a culture of sustainability and green behavior among their staff which can enhance both organizational performance and social responsibility. The current study added to the body of knowledge by providing new reasons to determine the relationship between spiritual leadership and staff members' environmentally friendly behaviors (both inside and outside the workplace). Due to environmental concerns, the corporate sector now has a larger role in protecting the environment.

Keywords: extra-role green behavior, green human resource management (HRM), individual green values, in-role green behavior, spiritual leadership

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Introduction

Due to increased public awareness regarding the harmful effects of environmental degradation, organizations, especially multinational corporations (MNCs) are becoming more interested to encourage the sustainable behavior within their workforce. The implementation of green HRM (Human Resource Management) practices is currently a top concern for businesses. Moreover, it is critical to understand the variables that tend to influence the employees' environmentally friendly behavior. One example of such an initiative is the formulation of certain rules, practices, and procedures within the organization. By incorporating environmental management into the core purpose of HRM, the HRM practices are concentrating on this objective and broadening its reach (Bissing-Olson et al., 2013). According to earlier research, the main purpose of HR is to assess and encourage employees' performance-related attitudes, behaviors, motivation, and knowledge (Pham et al., 2019).

Green HRM practices, such as reward plans, instruction, and communication, seek to raise motivation for understanding the environmental sustainability. Extra-role and in-role behaviors at workplace can be separated. Afsar et al. (2016) identified a variety of confounding factors between Green HRM and results including staff members' environmental awareness and organizational support as well as their involvement and environmental knowledge. More research should be conducted on moderating variables that are morally significant, such as the study's green values. However, consider them a possible mediator between environmental fervor and Green HRM (Gilal et al., 2019).

Individual green values have not been thoroughly investigated. Hameed et al. (2020) recognized the significance of these individual-level attributes. According to a study conducted on Supply-Value Fit (SVF), there is a connection between spiritual leadership and employees' environmentally conscious behavior. Green HRM plays a mediating function in this relationship and personal green values have a moderating effect. People within a company (that is, employees) evaluate the company's services in light of their own beliefs. People feel more satisfied when the rewards they obtain are more than their values (Edwards, 1996). These feelings may enhance perceptions of how effectively personal and organizational aspirations mesh (Muchinsky & Monahan, 1987).

The current study focused on the influence of spiritual leadership on individual beliefs and green HRM practices, particularly in developing nations, such as Pakistan. It also examined the relationship between spiritual leadership and environmentally friendly behavior in multinational organizations. The following are the research goals for this study:

1. To investigate the connection between spiritual leadership and environmentally friendly practices among MNCs' employees, operating in Pakistan.

2. To examine how green HRM practices mediate the link between spiritual leadership and environmentally friendly behavior among employees of MNCs operating in Pakistan.

3. To investigate how personal environmental beliefs affect the relationship between spiritual leadership and environmentally friendly actions among employees of MNCs, operating in Pakistan.

The following are the study's research questions:

1. How do MNC employees operating in Pakistan perceive spiritual leadership in terms of their commitment to environmental protection?

2. How much do green HRM practices mediate the link between spiritual leadership and environmentally friendly behavior among employees of MNCs operating in Pakistan?

3. How do MNC employees running business in Pakistan's link between spiritual leadership and environmentally friendly behavior differ in terms of their own personal green values?

The purpose of this study was to advance the understanding of sustainable leadership and management in organizations. Moreover, it also attempted to shed light on the elements that encourage sustainable behavior among staff members of Pakistani MNCs. It provided the results following a structural equation modeling study of the data by a third party. It introduced ideas, created hypotheses, described participants, processes, and measurements.

Underpinning Theory and Hypotheses Development

Supplies-Values Fit Theory (SVF)

Global environmental problems have emphasized to encourage ecologically friendly behavior at work. Activities that protect or improve the natural environment are referred to as "green behavior" (Dangelico & Pujari, 2010). Green workplace conduct can be divided into in-role and extra-role categories. Extra-role green behavior promotes environmental sustainability in addition to job responsibilities. In-role green behavior involves job-related acts, such as using energy-efficient equipment or reducing office garbage (Jabbour & de Sousa Jabbour 2016). In-role green behavior may reduce the environmental impact of an organization's operations, while extra-role green behavior can demonstrate an organization's commitment to environmental sustainability and influence other people's behavior (Zhu et al., 2021).

By matching corporate resources with employee values, the SVF theory improves organizational performance by increasing commitment, work satisfaction, and output. It encourages moral behavior and green HRM which is especially helpful in environmentally sustainable environments. The current study examined how spiritual leadership affects Pakistani multinational companies' behavior in terms of environment.

Social Exchange Theory

A popular paradigm is used to comprehend social interactions in organizations, notably in environmental management and sustainability, known as social exchange theory. Assuming that the workforce is in favor of environmental sustainability, it demonstrates how organizational citizenship behavior for the environment (OCBE) and environmental management practices are interrelated (Renwick et al., 2013). Additionally, the relationship between individuals' green behavior, which includes actions promoting environmental sustainability and green HRM practices, is examined using the social exchange theory (Lai et al., 2019). According to social exchange theory, green HRM practices include training, communication, and incentives that encourage employees to act sustainably.

By using the social exchange theory, it has also been proposed that organizational citizenship behavior (OCB) and spiritual leadership are associated (Deng et al., 2016). The relationship between organizational

behavior and leadership in Pakistan has been examined using the social exchange theory. This theory contrasts spiritual leadership—which emphasizes growth and well-being—with organizational citizenship behavior, entailing employee assistance.

According to Butt and Ahmad (2019), ethical leadership was found to be positively correlated with organizational commitment, extra-role behavior, and employee job satisfaction. The employees' psychological empowerment had a positive impact on the link between transformational leadership and creative work. Social exchange theory also offers a framework to comprehend how leadership styles relate to environmental and sustainability management in organizations.

Spiritual Leadership

Spiritual leadership encourages people to engage in eco-friendly behaviors and develops a spiritual work atmosphere. Leaders who put environmental concerns first encourage responsible behavior. They design intricate communication networks and demand highest moral standards. Employees frequently perceive spiritual leaders as their role models and businesses appreciate their acts and regard them as providers. The current study attempted to ascertain the influence of spiritual leadership on the actions of subordinates at work. Its study determined the relationship between employee environmental commitment and spiritual leadership since it is related to green innovation (Hussain & Afzal, 2023). According to the study, spiritual leadership increases employee environmental engagement which, in turn, increases green creativity.

Green HRM

In the current era, there is a growing demand for green HR procedures that focus on ecological organizational goals since these procedures aid businesses to integrate their organizational and human resource strategy. Green initiatives encourage staff to contribute towards the development of sustainable pro-social behaviors which is necessary for sustainable environmental policies to succeed (Boudreau & Ramstad, 2005) and this pro-social behavior must be sustained (Raut et al., 2020).

Therefore, GREEN HRM responsibilities include selecting candidates, providing training, fostering growth, motivating employees, and assessing the performance in order to meet ecological goals (Gilal et al., 2019;

Renwick et al., 2013). HR managers play an essential role in staff training, emphasizing environmentally friendly practices, and rewarding eco-friendly behavior. According to four-step GREEN HRM model (Milliman & Clair's, 2017), top-level management must have an environmental vision for environmental preservation. These people provide better work outcomes due to reduced environmental waste (Robertson & Barling, 2013), a stronger green culture (Muster & Schrader, 2011), greater pro-environmental attitudes (Gilal et al., 2019), and higher environmental performance (Saeed et al., 2019).

Green Behavior

Green behavior prevents or minimizes harm to the environment which may include both in-role and extra-role components (Steg & Vlek, 2009). Green behaviors that are both extra-role and in-role are crucial, since they are beneficial to organizations (Ramus & Killmer, 2007). As opposed to ERGBs, which are as basic as employee ideas to safeguard the environment, organizational anticipated behaviors are typically incorporated in the formal job descriptions of employees (Paillé et al., 2013). Green behavior, however, is dependent on several factors (Gilal et al., 2019). For green organizational approaches to be in line with the green purpose, both types of green behaviors are required. According to Li et al. (2023), psychological green atmosphere mediates the relationship between green HRM practices and employee in-role green behavior. Green HRM practices positively impact employees' in-role green behavior. It was discovered that spiritual leadership affected the potency of psychologically green environment-mediated regulated path between green HRM practices and employee in-role behavior.

Spiritual Leadership and Green Behavior

According to Fry et al. (2005), spiritual leadership has a favorable effect on a range of employee outcomes including work satisfaction, organizational commitment, and performance. However, little study has been conducted on how spiritual leadership affects the workplace's green behavior.

GREEN HRM practices, organizational support for environmental sustainability, and individual attitudes towards environment are all the factors that affect in-role green behavior (Renwick et al., 2013). Contrarily, organizational civic behavior, environmental awareness, and a sense of

personal environmental responsibility impact extra-role green behavior (Paillé et al., 2013).

Theoretical foundations, such as social exchange theory and resource conservation theory offer a helpful foundation to comprehend the connection between spiritual leadership and green behavior. The ideas of social exchange theory offer a greater possibility that employees would act positively when they feel that their leaders are interested in their welfare and professional development (Blau, 1964). According to the conservation of resources idea, people would make an effort to safeguard and conserve the resources that are valuable to them (Hobfoll, 1989). Employees are, therefore more inclined to adopt green behavior when they believe that their organizations and leaders are dedicated to environmental sustainability. A research conducted in 2023, assessed the value of spirituality in leadership for environmentally-friendly businesses. According to literature review, spiritual leadership can boost employees' feelings of joy, calmness, and contentment, which has a favorable impact on job satisfaction and a negative impact on absenteeism and attrition (Samul, 2020).

Hypothesis 1a: Spiritual leadership and employee in-role green behavior (EIRGB) have an interesting relationship.

Hypothesis 1b: Spiritual leadership has a significant relationship with (EERGB) employee extra-role green behavior.

GREEN HRM and Green Behaviors

Employees' behavior at their workplace is influenced by their comprehension of the organization's justification for implementing specific HRM practices (Nishii et al., 2008). Numerous studies have shown that green HR practices improve employee behavior, which, in turn, improves business ecological performance (Gilal et al., 2019). GREEN HRM may assist employees' eco-friendly behavior through HR techniques, such as developing competence, boosting motivation, and promoting employee involvement in environmental projects (Anwar et al., 2020). The adoption of environmentally focused hiring, training, and information-sharing practices has a significant impact on employees' green cognition (Renwick et al., 2013). The adoption of environmentally-friendly practices is encouraged through training which increases staff members' environmental protection competence, abilities, and knowledge (Pless et al., 2012). GREEN HRM practices have been shown to raise employees' green talents,

make them more aware of environmental concerns, and empower them to perform necessary activities in order to improve environment as a whole (Tang et al., 2018). The alignment of corporate and individual goals is another GREEN HRM practice (Harvey et al., 2013), who also mentioned reward systems and performance management.

Employees' performance and civic obligations play an essential role to achieve the organization's overall sustainable goals and organizations emphasize these behaviors as well (Norton et al., 2014). Green behaviors among employees were defined by Ramus and Killmer (2007) to include both in-role and out-of-role actions. Employees who work for organizations that support the environment have a reason to care about the environment and regularly go above and beyond the call of duty (Pinzone et al., 2019). It was frequently linked to liberating, empowering, and supportive feelings that these HRM practices generated (Ramus & Steger, 2000). According to the S-V fit theory (Edwards, 1996), recipients (workers) assess the resources offered by organization in light of their own values and feel justified when resources outweigh ideals. This theory can also be utilized to explain the suggested connection.

Less attention has been paid in the past to the impact of employee engagement on the implementation of practices and organizational rules (Nisar et al., 2021). According to Mohammad and Khassawneh (2022), employees who support green behavior should be involved at work and have no trouble in implementing the practices and regulations pertaining to green HRM. Green HRM policies and practices have a higher likelihood of engagement and play a significant role in promoting green behavior in employees. Employees are expected to be resourceful by adopting green and sustainable lifestyles in order to show appreciation for the resources that the organization provides for GREEN HRM (Hameed et al., 2020). The following hypothesis is based on the underlying S-V fit process, the theoretical framework, and data from other research as a result of GREEN HRM practices, value their employees' environmental behavior:

H2a. GREEN HRM positively effects employees' green in-role behaviors (EIRGB).

H2b. GREEN HRM positively effects employees' green extra-role behaviors (EERGB).

Green HRM's Mediating Role

Over the past ten years, GREEN HRM practices have garnered a lot of attention, however, more research is required to fully comprehend their impact on employees' green behaviors and work lives. The current study covered the evaluation of individual values to predict the effectiveness of GREEN HRM techniques in promoting employee green behavior. According to a previous study, GREEN HRM practices prove to be more successful when they are value-driven and respect the highest ethical standards. A leader who embodies these values is crucial for achieving desired outcomes and employees who share these moral values are more likely to perform successfully (Hameed et al., 2020).

The use of GREEN HRM strategies has been shown to encourage employees to operate in ways that are ecologically friendly in an expanding body of research (Renwick et al., 2013; Sharma et al., 2017). GREEN HRM practices can help to create awareness of environmental concerns among employees to foster a feeling of environmental responsibility along with providing chances to employees so that they may engage in ecologically sustainable behaviors (Sharma et al., 2017). Furthermore, GREEN HRM practices can encourage an organizational culture that prioritizes environmental sustainability (Renwick et al., 2013).

The relationship between leadership, great HRM, and employees' ethical behavior did not get enough attention in the past, despite the fact that ethical leadership and HR practices encourage ethical behavior. Due to the dynamic nature of businesses, sustainable practices must be adopted at all organizational levels (Robertson & Barling, 2017). Businesses are under a lot of pressure to support employees' environmental behavior (Hameed et al., 2020). Jeon and Choi (2020) determined how GREEN HRM practices mediate the relationship between spiritual leadership and environmental behavior in South Korean enterprises in a different study.

According to findings, GREEN HRM practices are used in Pakistani firms, organizations, and universities to moderate the relationship between transformational leadership and eco-friendly behavior. Additionally, it was discovered that in Pakistani organizations, GREEN HRM practices act as a mediator in the interaction between moral leadership and environmental sustainability.

According to other studies (Ahmad & Urmani, 2019), workers who have a high-value fit are more likely to show supportive attitudes and behaviors towards the company. According to Ahmad and Umrani (2019), these organizational components increase workers' motivation to support the company and its goals. It is expected that when employees develop a sense of congruence between their beliefs, leadership, and HRM processes, they would feel healthier and exhibit greener behaviors. In light of these factors, it is therefore hypothesized that:

Hypothesis 3a: GREEN HRM practices mediate the link between spiritual leadership and employee in-role green behavior.

Hypothesis 3b: GREEN HRM practices mediate the link between spiritual leadership and employee extra-role green behavior.

Individual Green Values' Moderating Effect

Individual green values impact both in-role and out-of-role green behavior (Paillé et al., 2013). Environmental values restrain China's pro-environmental behavior and Pakistan's banking sector's ethical leadership, demonstrating how green leadership, ethical behavior, and personal green ideals positively impact one another. To fully comprehend their influence, additional research is required. Hameed et al. (2020) highlighted the importance of personal values in their study on how to anticipate the association between green attitudes and behaviors. Individual reactions to organizational initiatives strengthen GREEN HRM techniques, enhancing the link between green ideals and employee outcomes, such as environmental excitement, psychological climate, and green citizenship behavior.

According to Ramus and Killmer (2007), a person's values greatly influence how hard they work to achieve organizational goals. The alignment of organizational and individual values may have a favorable impact on employees' behavior connected to their jobs.

The S-V fit theory by Edward (1996) says that individuals with high environmental values and high levels of good citizenship engagement are most suited to obtain environmental values from businesses (for instance, environmentally-friendly HRM practices). In order to identify employee antecedents' in-role green workplace behavior, the current study contributed sufficient literature on organizational behavior. The behavioral HRM research contended that green HRM practices rely on indirect mechanisms,

such as social and psychological processes, rather than having a direct impact on employees' work outcomes (Jiang et al., 2012). According to a prior study, an employee's attitude and actions towards their job and organization are positive when they feel that their values and those of the organization are compatible. It is acceptable to expect employees to feel comfortable and, resultantly, display green behaviors when they believe that green HRM practices are in line with company's values (Moin et al., 2021). Organizations that lack environmental values negatively impact employees and lead to unfriendly work practices. Green values promote alignment between people and environment. Moreover, such values also encourage sustainable behavior in personal and professional life. The following assertion was made in light of these justifications:

H4a: The strong correlation between GREEN HRM and green in-role conduct is moderated by individual green values.

H4b: Individual green values operate as a moderator in the link between GREEN HRM and GREEN extra-role conduct.

Figure 1
Conceptual Model
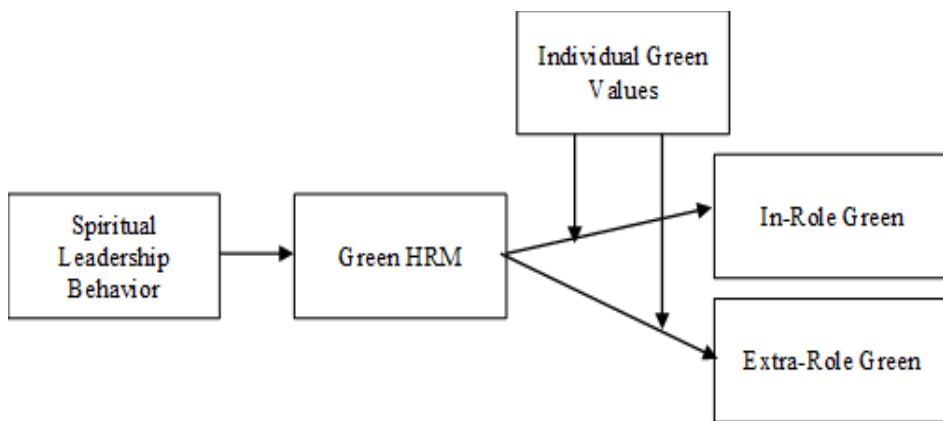
Method

Participants and Procedures

The current study examined how spiritual leadership affects the pharmaceutical sector's use of environmentally-friendly practices in Pakistan's multinational enterprises. The study also emphasized how crucial

eco-friendly HRM tactics are in the pharmaceutical industry since they support sustainable practices, advance corporate social responsibility, and raise staff morale. Additionally, the study investigated the link between personal environmental principles and spiritual leadership in the pharmaceutical industry. There were certain reasons to collect information from students studying in MBA executive program. Despite being the national language of Pakistan, the pharmaceutical industry requires excellent business judgement and a firm understanding of topics, such as marketing, operations, finance, and strategic management (Raja et al., 2004).

Operations, finance, and human resources professionals, as well as those with an interest in pharmaceutical marketing, market analysis, business development, and operations, can all benefit from an MBA graduate. A solid understanding of scientific and legal elements is also necessary for success in this field (Norton et al., 2014). Workers from leading international corporations, such as GlaxoSmithKline, Pfizer, Novartis Pharma, Sanofi-Aventis, Merck, Abbott Laboratories, AstraZeneca, Bristol-Myers Squibb, Bayer, and Roche were interviewed for this study by using a convenience sampling method. A standardized questionnaire evaluated the elements including personal beliefs, spiritual leadership, and green behavior. Only 658 out of 1000 online and in-person questionnaires, distributed between January and March 2023, produced informative responses. Respondents were informed of the anonymity of the survey in order to comply with the ethical norms (Islam et al., 2021).

Measures

Spiritual Leadership

A sixteen-item scale that included three aspects modified by Fry, Vitucci, and Cedillo scale was used to assess spiritual leadership. Altruistic love had six things and the dimensions included vision and hope/faith with five each. "I am committed to the vision of my organization," is one such example of a scale item.

Green HRM Practices

A six-item scale (Dumont et al., 2017) was used to evaluate GREEN HRM practices. 'My organization creates ecologically-friendly aims for its employees' is an example of a scale item'.

Individual Green Values

The current study measured individual green values by using the same six-item scale from (Steg et al., 2005) with minor adjustments.

Employee in-Role Green Behavior and Employee Extra-Role Green Behavior

A six-item scale, developed by Bissing-Olson et al. (2013), was used to evaluate both in-role and extra-role green behaviors.

Control Variables

A number of factors were taken into account that were shown to affect how individuals perceive ethical leadership (Gao & He, 2017), GREEN HRM (Davis et al., 2019), personal environmental attitudes (Abrahamse and Steg, 2009), and green behaviors (Dumont et al., 2017). These factors include gender, age, education, and work history.

Result

Table 1 analyzes the demographics of a sample of 658 people. Males constituted 65.66% of the population (432 people), while females constituted 34.34% (226 people). The majority of people were between 25 and 44 years of age, with 23.10% in this group and 22.48% in the other. The majority of people held a bachelor's degree, and only 13.37% and 29.18%, respectively, had doctoral degrees. With 42.26% (278 people) earning between Rs. 20,000 and Rs. 50,000, the group with the highest income belonged to those making between Rs. 50,000 and Rs. 80,000. 11 to 15 years of experience is the largest category, followed by 5 to 10 years, more than 20 years, less than 5 years, and 16 to 20 years.

Table 1
Demographic Information

Demographics	Frequency	Percentage
Gender		
Male	432	65.66%
Female	226	34.34%
Age		
18 to 24 years	96	14.59%
25 to 34 years	152	23.10%

Demographics	Frequency	Percentage
35 to 44 years	148	22.48%
45 to 54 years	136	20.67%
Above 54 years	126	19.16%
Education Level		
Diploma	124	18.85%
Bachelor	254	38.60%
Master	192	29.18%
Ph.D.	88	13.37%
Income Level		
20,000 to 50,000	196	29.79%
50,000 to 80,000	278	42.26%
Above 80,000	184	27.95%
Experience		
<5 years	126	19.16%
5 years - 10 years	138	20.97%
11 years - 15 years	156	23.69%
16 years - 20 years	110	16.72%
Above 20 years	128	19.46%

Table 2

Construct Reliability and Validity

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Extra-role Green Behavior	0.852043	0.895188	0.742898
GREEN HRM Practices	0.793409	0.853324	0.493486
In-role Green Behavior	0.887535	0.92655	0.808121
Individual Green Values	0.820247	0.862667	0.514002
Spiritual Leadership	0.906322	0.919113	0.416337

Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) are the three constructs whose reliability and validity measurements are shown in Table 2. The range of Cronbach's Alpha scores is 0.793409 to 0.906322, and a number greater than 0.7 denotes internal consistency. From 0.853324 to 0.919113, the Composite Reliability values range, with higher values suggesting stronger reliability. With values ranging from 0.416337 to 0.808121, typically above 0.4, AVE measures convergent validity.

Discriminant Validity

Table 3
Fornell-Larcker Criterion

	Extra-role Green Behavior	GREEN HRM Practices	In-role Green Behavior	Individual Green Values	Spiritual Leadership
Extra-role Green Behavior	0.862				
GREEN HRM Practices	0.136	0.702			
In-role Green Behavior	0.748	0.129	0.899		
Individual Green Values	0.104	0.702	0.094	0.717	
Spiritual Leadership	0.080	0.771	0.084	0.750	0.645

The correlation matrix shows a significant relationship between extra-role green behavior and in-role green behavior, indicating that voluntary environmental actions outside of job responsibilities and environmentally-friendly behaviors within designated roles are closely related. The adoption of environmentally responsible HRM practices by organizations may impact voluntary and work-related environmental behaviors. Green HRM practices have mild positive connections with extra-role green behavior and moderate positive correlations with in-role green behavior. A sixteen-item scale measuring the spiritual leadership showed weakly positive relationships with GREEN HRM practices and individual green values. It indicated that individuals with strongly held personal values may view organizational GREEN HRM practices favorably and engage in green behaviors. Spiritual leadership has only a small impact on employees'

involvement in environmental issues, as seen by its modest positive connections with the other categories, indicating limited influence on employees' engagement in environmentally-friendly behaviors and alignment with environmental values.

Table 4
Heterotrait-Monotrait Ratio (HTMT)

	Extra-role Green Behavior	GREEN HRM Practices	In-role Green Behavior	Individual Green Values	Spiritual Leadership
Extra-role Green Behavior					
GREEN HRM Practices	0.156				
In-role Green Behavior	0.843	0.150			
Individual Green Values	0.098	0.790	0.087		
Spiritual Leadership	0.095	0.793	0.090	0.272	

By utilizing the Heterotrait-Monotrait Ratio (HTMT), research construct discriminant validity was evaluated. The suggested values fell below 0.85. Extra-role green behavior and GREEN HRM practices have HTMT scores of 0.156 and 0.150, respectively, suggesting different components of the study. Additionally, evidence supported a special connection between GREEN HRM practices and in-role green behavior. However, the HTMT values across individual green values, spiritual leadership, and in-role green behavior do not surpass the 0.85 cutoff, indicating potential overlap or shared variance.

Table 5
Cross Loadings

	Extra-role Green Behavior	GREEN HRM Practices	In-role Green Behavior	Individual Green Values	Spiritual Leadership	VIF
AJV1	0.059	0.523	0.037	0.639	0.490	1.414
AJV2	0.030	0.493	0.023	0.620	0.498	1.491
AJV3	0.088	0.548	0.081	0.784	0.588	1.725

	Extra-role Green Behavior	GREEN HRM Practices	In-role Green Behavior	Individual Green Values	Spiritual Leadership	VIF
AJV4	0.077	0.522	-0.002	0.669	0.560	1.565
AJV5	0.071	0.554	0.070	0.782	0.589	1.773
AJV6	0.093	0.481	0.115	0.787	0.551	1.505
ALove1	-0.047	0.434	0.002	0.410	0.608	1.599
ALove2	0.078	0.559	0.063	0.534	0.629	1.609
ALove3	0.030	0.528	0.090	0.504	0.712	1.964
ALove4	0.019	0.565	0.063	0.490	0.689	1.821
ALove5	0.062	0.554	0.025	0.529	0.680	1.916
ALove6	0.096	0.565	0.076	0.490	0.696	1.877
ALove7	0.126	0.607	0.110	0.521	0.704	1.967
EXGB1	0.710	0.023	0.800	0.038	0.047	1.781
EXGB2	0.906	0.109	0.697	0.061	0.085	2.507
EXGB3	0.950	0.152	0.653	0.127	0.069	2.365
GREEN HRM1	0.058	0.726	0.053	0.498	0.607	1.538
GREEN HRM2	0.045	0.737	0.036	0.495	0.550	1.685
GREEN HRM3	0.031	0.679	0.046	0.445	0.524	1.446
GREEN HRM4	0.173	0.702	0.208	0.451	0.473	1.475
GREEN HRM5	0.165	0.754	0.172	0.551	0.596	1.590
GREEN HRM6	0.097	0.607	0.017	0.518	0.486	1.289
HPFT1	0.041	0.460	0.005	0.483	0.663	1.924
HPFT2	0.018	0.397	0.063	0.433	0.641	1.712
HPFT3	0.103	0.516	0.075	0.439	0.660	1.724
HPFT4	0.058	0.492	0.051	0.431	0.611	1.865
HPFT5	0.029	0.502	0.050	0.514	0.605	1.670
INGB1	0.639	0.087	0.871	0.047	0.065	2.391
INGB2	0.699	0.154	0.949	0.139	0.089	2.715
INGB3	0.691	0.076	0.874	0.018	0.062	2.622
Vis2	0.043	0.382	0.035	0.491	0.571	1.547
Vis3	0.045	0.472	0.041	0.475	0.583	1.622

	Extra-role Green Behavior	GREEN HRM Practices	In-role Green Behavior	Individual Green Values	Spiritual Leadership	VIF
Vis4	0.027	0.432	0.000	0.533	0.643	2.071
Vis5	0.054	0.376	0.090	0.455	0.608	2.140

The correlations between the items and their constructs are displayed in the cross-loading Table 5 with values above the cutoff. Items, such as extra-role green behavior, GREEN HRM, INGB2, and ALove7 showed strong connections, pointing to strong relationships. With items, such as ALove1 and Vis2, weaker relationships were discovered, indicating the possibility of discriminant validity. To better develop validity and link items with theoretical frameworks, more research is required. The absence of significant multi-collinearity in the VIF Table indicates that the variables are independent and trustworthy in the regression model.
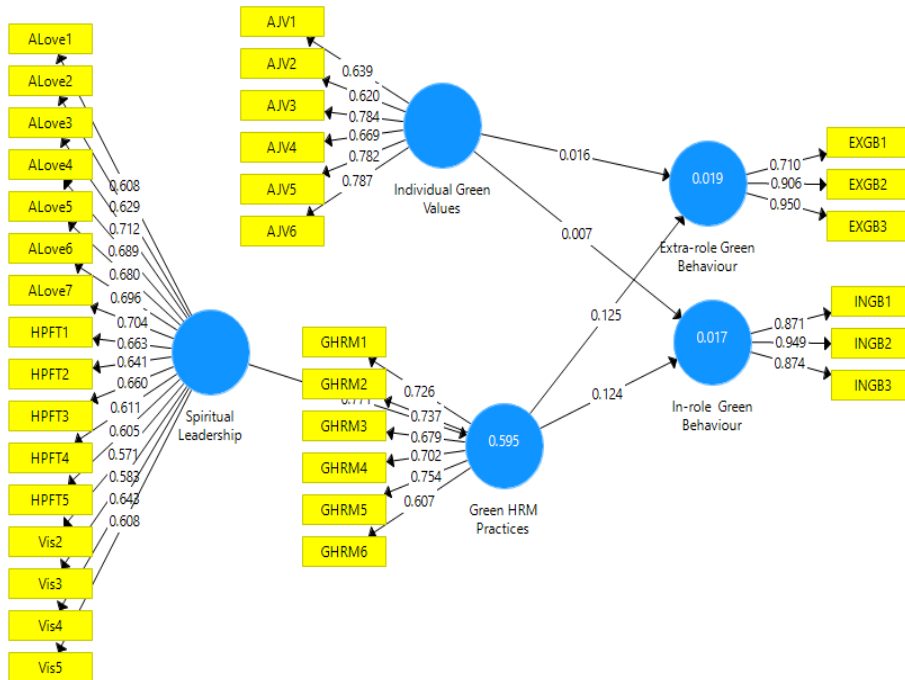
Table 6
R and *F* Square

	1	2	3	4	5	R^2
Extra-role Green Behavior						0.019
GREEN HRM Practices	0.081		0.795			0.595
In-role Green Behavior						0.017
Individual Green Values	0.130		0.219			
Spiritual Leadership		1.470				

According to the research, little impact size correlation exists between green HRM practices and extra-role green behavior. There is little correlation between personal environmental ideals and extra-role environmental behavior. The relationship between spiritual leadership and green HRM practices has a sizable effect size. While, only a weak association exists between in-role green behavior and personal green scores. There is a moderate correlation between in-role green behavior and green HRM practices. The findings also demonstrate the diverse degrees to which

various predictors contribute to the variance in outcome variables. R-Square values, which vary from 0.017 to 0.595, show how much of the variance can be accounted for by the predictors.

Figure 2
Graphical Representation

Hypothesis Testing

Table 7
Direct Effect

	Coefficients	Sample Mean	STDEV	*t* Stats	*p* Values
GREEN HRM Practices -> Extra-role Green Behavior	0.127	0.089	0.098	2.303	0.011
GREEN HRM Practices -> In-role Green Behavior	0.121	0.101	0.101	3.206	0.001

	Coefficients	Sample Mean	STDEV	t Stats	p Values
Individual Green Values -> Extra-role Green Behavior	0.017	0.065	0.125	2.140	0.016
Individual Green Values -> In-role Green Behavior	0.004	0.035	0.143	6.030	0.000
Spiritual Leadership -> GREEN HRM Practices	0.771	0.775	0.027	28.731	0.000

The findings of the relationships between the variables are shown in the Table, which demonstrates strong positive links for all hypothesized associations. Both extra-role and in-role green behaviors are positively impacted by green HRM practices ($t = 2.303$, $p = 0.011$ and $t = 3.206$, respectively). Both extra-role and in-role green behavior are positively influenced by individual green values ($t = 2.140$, $p = 0.016$, and $t = 6.030$, respectively). ($t = 28.731$, $p = 0.000$) Spiritual leadership significantly improves GREEN HRM practices. The significance and positive character of the hypothesized correlations between the variables are supported by these findings.

Table 8

Mediation Analysis

	Coefficient	Mean	STDEV	t Stats	p
Spiritual Leadership -> GREEN HRM Practices -> In-role Green Behavior	0.094	0.078	0.078	3.205	0.001
Spiritual Leadership -> GREEN HRM Practices -> Extra-role Green Behavior	0.098	0.069	0.076	4.294	0.000

According to the mediation analysis, Table 8 shows the findings regarding spiritual leadership, green HRM practices, in-role green behavior, and out-of-role green behavior. Each path is given its beta coefficients, sample means, standard deviations, *t*-statistics, and *p*-values. The results show that both paths have significant and advantageous benefits. Firstly, the

relationship between spiritual leadership, green HRM practices, and in-role green behavior has a coefficient of 0.094 (t = 3.205, p < 0.001), demonstrating that spiritual leadership has a strong and direct positive influence on in-role green behavior, which is then mediated by green HRM practices. Secondly, the relationship between spiritual leadership and extra-role green behavior, as mediated by GREEN HRM practices, shows a coefficient of 0.098 (t = 4.294, p = 0.000), showing a significant and direct beneficial effect of spiritual leadership on extra-role green behavior. The coefficient for the path from spiritual leadership to green HRM practices to extra-role green behavior (0.098) is noticeably larger than the coefficient for the path from spiritual leadership to green HRM practices to in-role green behavior (0.094), when comparing the specific effects. This shows that spiritual leadership affects in-role green behavior through the same mediator in a somewhat stronger way than it affects extra-role green behavior.
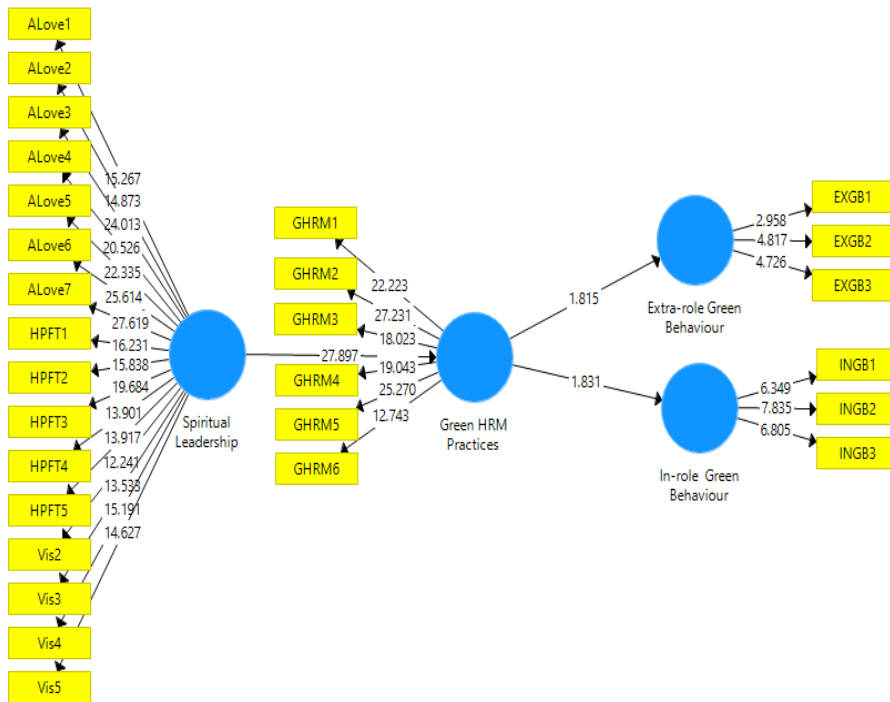
Figure 3
Moderation Analysis

Table 9

Moderation Analysis

|	Coefficient	Mean	STDEV	*t*	*p*
Individual Green Values -> Extra-role Green Behavior	-0.024	0.010	0.094	2.260	0.012
Individual Green Values -> In-role Green Behavior	-0.060	-0.022	0.110	3.547	0.000
Moderating Effect 1 -> Extra-role Green Behavior	0.010	0.011	0.059	1.968	0.025
Moderating Effect 2 -> In-role Green Behavior	-0.014	-0.017	0.063	2.226	0.013

Figure 4
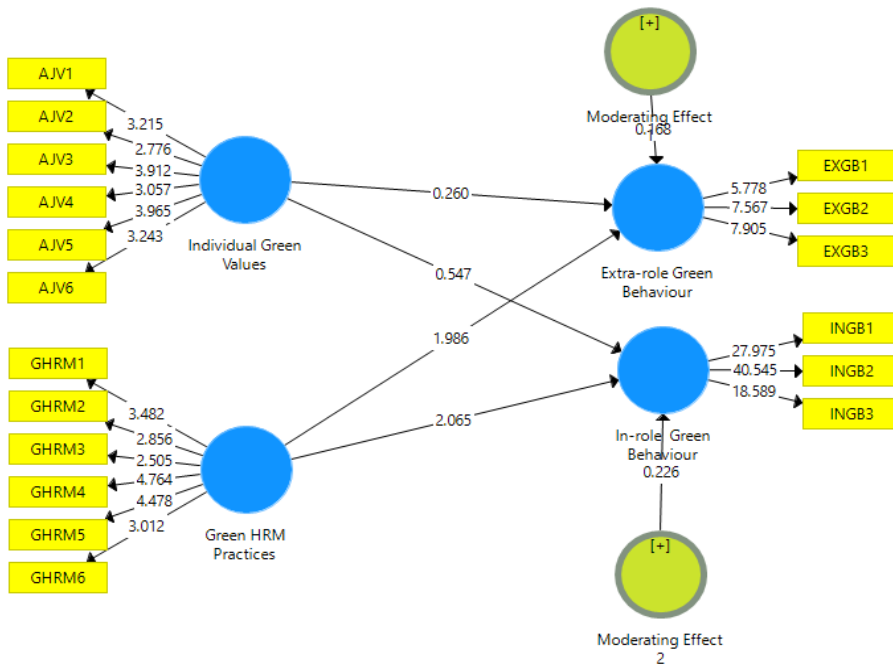
The results of a study conducted on moderation which focused on the moderating effect of individual green values on extra-role green behavior

and in-role green behavior, are presented in Table 9. For each association, the coefficients, sample means, standard deviations (STDEV), t-statistics, and p-values are shown. The study determined that both extra-role and in-role green behaviors were significantly moderated by individual green values. The coefficient of -0.024 ($t = 2.260$, $p = 0.012$) indicates that individual green values significantly influence the association with extra-role green behavior. Individual green values considerably moderate the link with in-role green behavior, as shown by the coefficient of -0.060 ($t = 3.547$, $p = 0.000$). The research also determined two additional moderating effects, with moderating effect 2 having a coefficient of -0.014 ($t = 2.226$, $p = 0.013$) on in-role green behavior and moderating effect 1 having a coefficient of 0.010 ($t = 1.968$, $p = 0.025$) on extra-role green behavior. These findings show that how strongly individual green values affect the connections between extra-role and in-role green behavior. This demonstrates how crucial it is to take individual opinions into account while promoting environmentally conscious behavior in organizations.

Figure 5
Overall Model
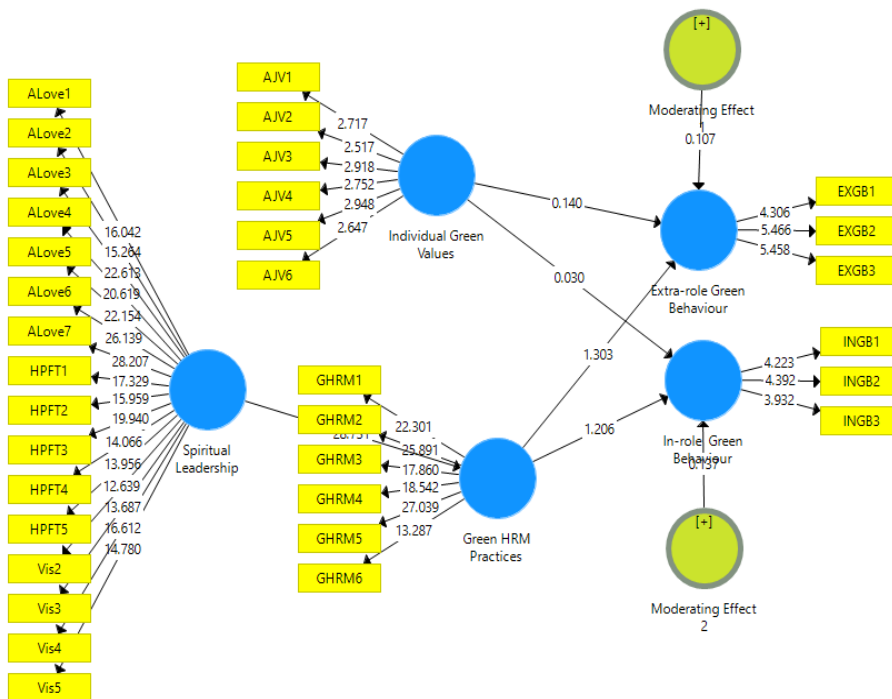
Discussion

The study showed that spiritual leadership has a substantial impact on green behaviors in Pakistani MNCs in the pharmaceutical sector. Green HRM practices promote an environmental sustainability culture and eco-friendly employee behavior. Due to its complex manufacturing processes, the pharmaceutical business has significant environmental problems. For a sustainable future, businesses are integrating ethical waste management techniques, green chemical procedures, and carbon emission reductions.

The findings are in line with those of earlier investigations to determine the connection between environmental sustainability and HRM practices (Khan et al., 2019). The study showed that GREEN HRM practices including employee involvement, training, and development, have a considerable impact on in-role behavior, which is closely related to work duties. Spiritual leadership and GREEN HRM tactics are needed to encourage environmentally friendly behaviors. By fostering spiritual leadership and GREEN HRM practices, businesses should promote an environmental sustainability culture.

Moreover, the study also investigated how spiritual leadership affects Pakistan's MNCs use of environmentally friendly practices, particularly in pharmaceutical sector. Additionally, the study emphasized the significance of green HRM strategies in promoting sustainability and corporate social responsibility despite difficulties in interviewing MBA executives for information. It implies that Pakistani MNCs can improve performance and social responsibility by fostering a sustainability culture through training initiatives and green policies. Despite these obstacles, the research design and aims should be justified.

Theoretical Implications

By offering new justifications for the relationship between spiritual leadership and employee outcomes' eco-friendly behaviors (in and outside of the workplace), the current study significantly added to the body of knowledge already in existence. Due to environmental concerns, the corporate sector now significantly contributes to environmental protection (Islam et al., 2019). Organizations have recently changed to green practices and activities in response to increased demands, despite the fact that there are a few empirical researches assessing the green effects of such practices (Dumont et al., 2017). A number of researches including those by Gilal et

al. (2019), assert that leadership plays an even less prevalent role in predicting GREEN HRM practices. One unique aspect of the current study is the examination of the connections among spiritual leadership, green HRM practices, and eco-friendly behaviors in both work and non-work environments. One unique aspect of the current study is the examination of the connections among spiritual leadership, green HRM practices, and eco-friendly behaviors in both work and non-work environments.

As previously mentioned, (Gilal et al., 2019; Hameed et al., 2020), individual-level factors also impact the effectiveness of organizational initiatives. By using the S-V fit theory, the current study investigated how personal environmental values affect employees' behavior in an environmentally friendly way and how GREEN HRM functions. In a ground-breaking experimental study, the significance of green ideals was emphasized as a moderating factor to determine the relationship between spiritual leadership and eco-friendly practices. This study intended to advance the understanding of GREEN HRM and its methods to resolve environmental issues inside enterprises. Green HRM plays a crucial role and makes a big difference in promoting green behavior at work (Islam et al., 2021). The study uses the well-known supplies-value fit theory to examine the moderating influence of spiritual leadership in the relationship between psychological green environment and employee in-role green behavior in the workplace. The study uses the well-known supplies-value fit theory to examine the moderating influence of spiritual leadership in the relationship between psychological green environment and employee in-role green behavior in the workplace (Edwards, 1996). Additionally, by detailing the process and providing evidence to support it by using S-V fit theory (Edwards, 1996), the current study provided a novel defense for the idea.

Practical Implications

According to the study, managers should exercise caution in how they present themselves at work, since moral behavior has a favorable impact on subordinates. Pakistani pharmaceutical workers might be inspired to develop lasting habits by spiritual leadership that emphasizes empathy and compassion. If you are in a leadership position, regardless of the corporate sector, it is expected to offer true spiritual care to the individuals you are responsible for leading (Papadopoulos et al., 2021). In Pakistani pharmaceutical MNCs, GREEN HRM practices and spiritual leadership

ideas can be used to encourage eco-friendly behavior, lessen negative environmental effects, improve corporate social responsibility, and increase employee enthusiasm. When it comes to the impact of GREEN HRM practices on specific work outcomes, the explanation still lags behind its consequences. Resultantly, the current study helped to expand the understanding of newly emerging subject of GREEN HRM from the perspective of current theories in the wake of the COVID-19 pandemic (Tuan, 2022; Renwick et al., 2013).

Limitations and Future Direction

The focus on MNCs, potential response bias, and self-reported metrics are only a few of the study's drawbacks. Future studies should examine the relationship between organizational culture and spiritual leadership, use objective metrics, such as energy consumption and trash reduction. Moreover, future studies should also take into account international applications and longitudinal studies, cultural values, employee moral concerns, and moral considerations.

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