

Green HRM And Green Innovation In Indian Pharmaceutical Industry: Mediating Role Of Transformational Leader

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Abstract

The present study tried to find the relation between Green HRM Practices and Green Innovation in Indian Pharmaceutical Industry. Also, mediating role of Transformational Leadership has been investigated. Survey of 280 employees working in Indian Pharmaceutical firms is taken for study. The results showcased significant and positive impact of Green Motivation and Green Ability (factors of Green HRM) on Green Innovation. Also, Transformational Leadership significantly mediated the relationships as well. Further, Implication and Limitation were discussed.

Keywords: GHRM, Green Motivation, Green Ability, Green Innovation, Pharmaceutical Industry, Transformational Leader

Introduction

The topic of "innovation" is now trending in both academic and business circles. In today's increasingly competitive global economy, companies have come to recognise that they cannot succeed without actively pursuing and implementing new ideas for improving their operations (Tan & Nasurdin, 2011). Climate change and diminishing natural resources have forced businesses to become ecologically conscious as well as inventive (Petts, 1998). Businesses must give priority to environmentally friendly research and development (Song & Yu, 2018). Green innovation and green innovative behaviours should be encouraged across the business, but it's not always clear what steps should be taken to achieve this goal (Janszen & Janszen, 2000). Scholars have detailed how employees may have a major influence on helping their firms be creative (Kang & Lee, 2017), and they point out that leadership also plays a major part in this (Zheng et al., 2019). To be more specific, transformational leaders are more important and productive in reaching corporate goals because they motivate followers to take actions of their own rather than by using force (Choi, Kim, Ullah & Kang, 2016). Thus, one might argue that green transformative leadership will be more successful in promoting actions that will lead to environmental progress (Khalili, 2016).

Accordingly, HRM factors are also reported to play a considerable role in boosting employee behaviours and outcomes (e.g., Alfes, Shantz, Truss & Soane, 2013), and scholars have indicated that some organisations fail to become innovative due to a lack of ability and motivation among the employees in doing so (Singh et al., 2020), and so, the same could be perceived when it comes to green prospects. This research aimed to investigate the connections

between green HRM variables and Green innovation and the ways in which leadership might moderate the effects of these connections.

Literature Review and Hypothesis:

Green HRM and Green Innovation:

The emergence of "green HRM" is a direct outcome of the "green movement," which prioritises nonviolence, social justice, environmental protection, and economic fairness (Mozammel, 2019). A growing number of people value green possibilities (Ahmed et al., 2019; AlZgool et al., 2020). When it comes to people-related procedures and practises, green HRM is largely concerned with an internal set that involves personnel authorities working with top management to bring about environmentally friendly options (Zoogah, 2011). Green HRM therefore represents the company's commitment to environmental conservation. There is growing scholarly consensus on the human resource management (HRM) in general (Ahmed & Ogalo, 2019) and also underlined the prospective impact of green HRM on innovation in production (e.g., Singh et al., 2020). Here, many debates have been highlighted from the literature suggesting that the most important element in this prospect is for organisations to make efforts in hiring the right people with the right environmental values, by following green procedures, and then providing those employees with green training to enhance their green skills and the opportunity to apply those skills in the workplace (green ability). The second crucial HRM practise is to make sure it keeps track of the workers' environmental practises, evaluates their performance based on those practises, and rewards them for adopting green behaviours (green motivation) after they have implemented green skills and knowledge at work (Singh et al., 2020). As a result, the following were put to the test in this investigation:

H1: Green Ability has a significant relationship with green creativity in Indian Pharma industries.

H2: Green motivation has a significant relationship with green innovation in Indian Pharma industries.

Green Transformational Leadership

Research has shown that transformational leaders are crucial in motivating their teams to go above and beyond in their work. Leadership that transforms followers into their ideal selves does so by setting a good example (Hawkins, 2017). Leaders with a transformational approach are valued for their impact on organisational performance and beyond (Ng, 2017). This is since transformational leaders try to invigorate their teams via motivation. Leaders that set a good example in their actions inspire others to follow suit (Cekmeceliolu & zba, 2016). Transformational leadership has been shown to have a positive impact on organisations and communities (e.g., Atmojo, 2015) and same can be said for Green behavior and outcomes (Mittal & Dhar, 2016). According to the results of these research, a green culture and behaviours may be fostered among workers if their leaders model Green transformation leadership approach may also act as a damper on the overuse of green opportunities, allowing for more sustainable green results like green innovation (e.g., Singh et al., 2020; Chen, Chang & Wu, 2012); hence, we assumed that green transformational leadership may also help in boosting green HRM resources to further green innovation. As a result of this, we tested:

H3: Green Transformational leadership will significantly influence Green Innovation in Indian Pharma industries.

H4: Green transformation leadership will mediate significant relation between green ability and green innovation in Indian Pharma industries.

H5: Green transformation leadership will mediate the significant relation between green motivation and green innovation in Indian Pharma industries.

Research Method

Sampling:

An abductive research procedure (moving from observations to results) has been used in this study. Such an approach is suitable for studies where a particular framework is constructed for analysis, as it allows a better description of the phenomenon within the theoretical framework and allows that phenomenon to be considered from a new perspective. Over 280 employees of 10 Indian Pharmaceutical companies were surveyed.

Measurements:

To better understand green transformational leadership, we revised a 6-item measure originally developed by Chen and Chang (2013). Accordingly, For green HRM, we looked at work by Renwick, Redman, and Maguire (2013), which took into account green motivation and green ability. The last category is Green innovation; Chen, Lai, and Wen's (2006) four-item scale was used in this research to assess whether or not companies are using Green innovative practises in their manufacturing processes. Respondents were on a 7-point Likert scale, from "strongly disagree" (1) to "strongly agree" (7).

Results

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) using IBM SPSS 20.0 was done to investigate the dimensionality of the instruments used. principal component analysis (PCA) with varimax rotation was carried out. All four variables showed a unidimensional structural in PCA, with a factor loading of above .50 for each item under its respective variable (Table 2). In the process 4 items were dropped in total from the instruments used.

Table 2: Factor Loadings

Scale Items	Factor Loading
Green Motivation (AVE=0.62, CR= 0.82, α= 0.83)	
GM1	0.77
GM2	0.81
GM3	0.79
GM4	0.76
GM5	0.81
Green Ability (AVE=0.52, CR= 0.87, α= 0.86)	
GA1	0.71
GA2	0.72
GA3	0.85
GA4	0.88
GA5	0.78
Transformational Leader (AVE=0.58, CR= 0.89, α= 0.88)	
TL1	0.77
TL2	0.85
TL3	0.88
TL4	0.91
Green Innovation (AVE=0.59, CR= 0.87, α= 0.86)	
GI1	0.71
GI2	0.78
GI3	0.84
GI4	0.85

Note: AVE= Average Variance Extracted; CR= Composite Reliability; α = Cronbach Alpha

Confirmatory Factor Analysis

The means, standard deviations, and correlations of various variables under study are given in Table 3. The EFA results were used to conduct CFA on the measurement model. The following results were obtained for the fit indices: χ^2 /degree of freedom (df) = 2.51, NFI = .89, RFI = .89, TLI = .89, CFI = .92, and RMSEA = .044. These results indicate a good model fit. All measures reported a composite reliability (CR) value greater than .7, which establishes the reliability of the measures. The loadings of all the items were found to be significant, and no item was dropped. As per Anderson and Gerbing (1988), significant factor loading and high CR provide convergent validity; specifically, AVE should be above the .5 level but less than the CR value (Hair et al., 2012), which holds in this case (Table 2). For discriminant validity, the square root of AVE should be greater than the coefficients of correlation with other constructs (Fornell & Larcker, 1981); this can be confirmed from Table 2 and 3.

Table 3: Descriptive analysis and correlations

	Mean	S.D.	1	2	3	4
1.Green Motivation	3.15	.97	0.80			
2.Green Ability	3.43	.95	0.50**	0.75		
3.Transformational Leader	3.98	.88	0.32**	0.54**	0.82	
4.Green Innovation	3.15	.77	0.46**	0.57**	0.41**	0.75

Note: *= $p < 0.05$, **= $p < 0.01$, S.D.= Standard Deviation

Mediation Analysis

Mediation between Green Motivation and Green Innovation by Transformational leadership: The coefficients for both the relationship between green motivation and TL ($\beta = .40$, $t = 13.05$, $p < .001$) and between TL and Green Innovation ($\beta = .38$, $t = 8.19$, $p < .001$) showed positive results. The direct effect of Green Motivation on Green Innovation was found to be positive ($\beta = .25$, $t = 3.92$, $p < .01$). The bias-corrected estimate of the indirect effect of Green Motivation on Green Innovation was found to be significant ($B = .152$, 95% CI [.11, .27]). The Sobel test demonstrated a significant indirect effect (Sobel $z = 7.10$, $p < .001$). Therefore, mediation was supported.

Mediation between Green Ability and Green Innovation by Transformational leadership: The coefficients for both the relationship between Green Ability and TL ($\beta = .33$, $t = 7.16$, $p < .001$) and between TL and Green Innovation ($\beta = .32$, $t = 7.80$, $p < .001$) showed positive results. The direct effect of Green Ability on Green Innovation was found to be positive ($\beta = .13$, $t = 3.10$, $p < .01$). The bias-corrected estimate of the indirect effect of Green Ability on Green Innovation was found to be significant ($B = .11$, 95% CI [.07, .21]). The Sobel test demonstrated a significant indirect effect (Sobel $z = 7.36$, $p < .001$). Therefore, mediation was supported.

Discussion

To better comprehend relation between Green HRM and Green innovation Practices, this research has sought to experimentally assess relevant linkages. Previous research has shown that green HR opportunities may increase environmentally conscious actions (Singh et al., 2020; Ng, 2017). With these concerns in mind, the present research investigated the potential function of green motivation in stimulating green innovation. That's why it's so important for businesses to provide performance reviews that highlight employees' dedication to environmental protection, track their development in green initiatives, recognise their achievements in environmental management both inside and outside the company, and award them accordingly. With this, employees will learn environmental skills, which in turn boosts green innovation. Consequently, green innovation is bolstered when a firm recruits individual who care about the environment, prioritises green hiring practises, requires environmental training, and creates a welcoming workplace in which employees may put their training into effect. Simply put, these initiatives boost workers' contributions toward reducing pollution, use less resources in their job, and make an effort to create recyclable goods, all while reducing their carbon footprint. The research contributes to the growing body of knowledge on the subject

(e.g., Singh et al., 2019; Dranev et al., 2018). Given these findings, businesses that prioritise environmental protection and product innovation while also minimising wasteful resource use should adopt green HR policies (Singh, Del Giudice, Chierici, & Graziano, 2020).

In the same way as green environmental plans motivate people, create clear environmental vision, and make workers passionate about environmental objectives, green transformational leaders also help increase green innovation by encouraging staff to develop and share green ideas and practises. The empirical claims of Chen and Chen (2013) and Zhou, Zhang, Lyu, and Zhang are advanced by this (2018). Accordingly, the findings suggest that leaders who inspire with transformational vision have a significant impact on employee behaviour and outcomes (e.g., Ng, 2017; Jiang, Zhao, & Ni, 2017), green actions and encourages others to follow suit, which leads to green innovation. Henceforth, For executives with a transformative flair, the possibilities in the green industry are looking better than ever.

Simultaneously. This research sought to fill a significant knowledge gap by investigating mediating power of green transformational leadership between green human resource management (HRM) and green innovation. The association between green motivation and green ability and green innovation was shown to be significantly mediated by green transformation leadership. So, it seems that companies flourish when led by motivational individuals.

No earlier research was found that described the mediating effects of green transformational leadership. Therefore, the current research presents important findings for those interested in leadership and the environment. As a result of their ability to inspire and motivate others, transformational leaders may have a significant impact on the lives of those around them (Hackett et al., 2018). As a result, businesses should think about fostering company-wide green competency to spread environmentally conscious practises across the firm

Implications

Many practical suggestions have been advanced because of this research. Based on the results, businesses should prioritise green innovation by creating green HR policies and procedures. Here, much depends on corporate policies and the evolution of an all-encompassing green culture (Wehr, 2011) to foster a mindset of green innovation across the enterprise. A practical implication of the results is that the pharmaceutical industry should explore exploring techniques that might assist them enhance and/or deepen these partnerships. In this respect, it would be crucial to strategically foster a culture of support (Gürlek & Tuna, 2018) in order to guarantee keeping green HR, green leadership, and green innovation alive and well. For long-term success, this is equally crucial.

Limitations and Future Scope

Future researchers may highlight several important considerations. The current research started off in Indian pharmaceutical industry. This thus restricts the applicability of the findings. Therefore, it is recommended that future research expand its scope to include additional geographical areas and/or industries, such as the Hospitality and services. Cross sectional data has been used in all the scales in the study; future studies could dyads of managers and workers to increase the applicability of the results. Based on the findings of this study, researchers may want to explore the moderating various individual and organizational variables.

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