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## THE IMPACT OF GREEN HRM PRACTICES ON ENVIRONMENTAL CONSCIOUSNESS

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| KEYWORDS   | ABSTRACT   |
|--|--|
| Green Human Resource Management, Environmental Consciousness, Sindh, Pakistan Article History  Date of Submission: 16-05-2023 Date of Acceptance: 27-06-2023 Date of Publication: 30-06-2023 | Green HRM refers to field of research that covers all aspects & procedures of HRM with the aim of achieving environmental sustainability, due to more than 50 years of global industrialization, several organizations have met significant environmental performance challenges. The study main objective is to determine effects of green human resource practices on environmental consciousness in the Pakistani cities of Kotri and Jamshoro. These practices include green training, green performance management as well as green employee participation. Data collection was done using a non-probability method called convenience sampling. A totalof 130 questionnaires was distributed in Archroma & Farhan Pharmaceuticals companies of Jamshoro & Kotri, and Karachi, Sindh, Pakistan after receiving 93 questionnaires, each one was carefully reviewed to ensure that they were filled out properly and could be used for analysis. SPSS 22 and Smart PLS software were used to analyze the data, which also helped to create the model and evaluate the study's hypotheses. Results showed that adoption of green HRM practices significantly improved environmental consciousness. In addition to offering theoretical & practical consequences, research avenues are recommended. Since, study was only done in the setting of Sindh, the findings may not be generalizable to another Pakistani province.  2023 Gomal University Journal of Research |
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#### INTRODUCTION

The entire globe is increasingly focused on environmental improvements and working to lessen the harmful effects of global warming. The practice of "green HRM" is crucial to minimizing the effects of the climate change. According to Mahdy, Algahtani and Binzafrah (2023), green HRM (GHRM) is use of HRM practices, such as hiring, selecting, training, compensating, developing, advancing firms' human capital, to inspire sustainable use of resources and environmentally friendly behavior within organizations. It is clear that GHRM is in demand right now and offers

variety of benefits that may be connected to sustainability and economy (Awwad Al-Shammari, Alshammrei, Nawaz & Tayyab, 2022). The potential benefits of GHRM include lowering carbon footprints through green construction, paperless workplaces, energy savings, recycling, and a decrease in waste (Ercantan & Eyupoglu, 2022). GHRM is crucial for promoting environmental awareness and lowering pollution. Environmental consciousness is included here as a variable to determine influence of GHRM on environmental consciousness since Pakistani citizens have low level of environmental awareness. Environmental consciousness is a component of a belief system that describes certain psychological aspects of an individual's tendency to act in a way that is friendly to environment (Leonidou, Gruber & Schlegelmilch, 2022). Scholars are focusing attention on how environmental consciousness will grow. Three aspects of Green HRM green training, green performance Appraisal and green employee involvementwere covered in this study.

These are the most crucial procedures for imparting in workers the sense of the environmental responsibility. Green training helps employees become more adaptable to change & understand the fundamentals of energy conservation and waste reduction at work (Jiang et al., 2022). The concept of green performance management, as per involves enabling employees to align their activities with organization's environmental objectives (Mohammed & Fisal, 2022). According to research conducted by Almeer and Almaamari, (2022), involvement of employees in green initiatives encourages their participation and promotes the generation of innovative ideas for environmental practices, Das and Dash (2022), research shows that green HRM departments support organizational environmental goals with hope that workers would support, accept, and work towards these goals. When environmental consciousness expands, it multiplies, fosters a feeling of accountability, introduces new ideas, innovations and technological advancements that help to protect the environment (Boiral & Paille, 2012). According to published research, green HRM is prevalent in industrialized economies than in developing ones. This research will contribute to theoretical, empirical aspects of GHRM in developing country like Pakistan and worst flood in 2022 hit areas like Sindh due to climate change (Adeel et al., 2022). Ercantan and Eyupoglu (2022), despite this recent surge in research in GHRM, but, its source, and when and how it effects employees', consciousness remains largely undefined. This paper expands our understanding of possible linkages amid specific GHRM practices such as green Training. green performance appraisal, and green employee involvement & their impact on Environment consciousness.

## **Research Gap**

It is advised that lots of the researchers look at this field of inquiry. Researchers determined the value and need of green human resource management practices for businesses and industries (Jam et al., 2020). Thus, in light of the extensive review of the literature, it was discovered that few researchers in Pakistan have focused on the crucial global issue of green human resource management and that adoption and awareness are thus dsomehow low (Chreif & Farmanesh, 2022). Consequently, this study strives to fill this research vacuum in the context of Sindh, Pakistan.

### **Research Objectives**

1. To determining the degree to which environmental consciousness is impacted by green HRM practices at Archroma and Farhan Pharmaceuticals companies of Jamshoro & Kotri, and Karachi,in Sindh, Pakistan.

- 2. To examine the correlation between green Training as well as the environmental consciousness.
- To explore the association between green performance evaluation and environmental consciousness.
- 4. To examine relationships between Green Employees' involvement and Environmental Consciousness.

#### LITERATURE REVIEW

The experience itself may be used to define consciousness, and anything that we can see or feel can serve as an example of awareness (Nixon, 2022). Consciousness is defined in the current study as awareness of the experienced phenomena. The need for environmental preservation is made more apparent to the employees through green training (GT), which also increases their ability to adapt to it (IjazBaig & Yadegaridehkordi, 2023). Thus, gaining the HR expertise and accomplishing sustainability objectives require green training. In this regard, employees get practical knowledge and conscious learning throughout training, and this conscious learning will assist the organization in accomplishing its green objectives (Ercantan & Eyupoglu, 2022). The study findings indicate that green training has impact on organizational green innovation. According to Tandon et al., (2023), it indicates that training gives employees possibilities and gets them interested in or looking forward to new solutions or methods to build their capacity to be environmentally conscious individuals. The study's findings indicate that green training has an impact on the organizational green innovation. According to Tomczak et al., (2022), it indicates that training gives employees the possibilities and gets them interested in or looking forward to new solutions or methods to build their capacity to be environmentally conscious individuals.

It has been shown that businesses with employees who have received greener training are more productive. Employees that receive green training may conserve energy, use the fewer natural resources, and work as efficiently as possible (Ali et al., 2022). In order to develop knowledge and proficiency of environmental organizations from all the accepted views, environmental training arose as a supporting activity (Nasir et al., 2023). Green training gives employees the chance to participate in environmental problem-solving while teaching them various working practices that decrease waste, ensure optimal resource utilization, conserve energy and prevent environmental deterioration (Shukla & Bankar, 2022), Islam et al. (2022), conducted a study using multiple-case study methodology and found that green learning and training are vital for enhancing corporate value. Shafaei and Nejati (2023), define "Green performance appraisal" as a process that evaluates and records the environmental performance of employees throughout their tenure in the organization and provides feedback on performance to reinforce exemplary behavior. Das and Dash (2022), research shows that the green HRMD support organizational environmental goals with hope that workers would support, accept, and work towards these goals. The employees' knowledge, competence, and abilities in environmental management are increased when they receive regular feedback on their environmental performance (Ahmad et al., 2023).

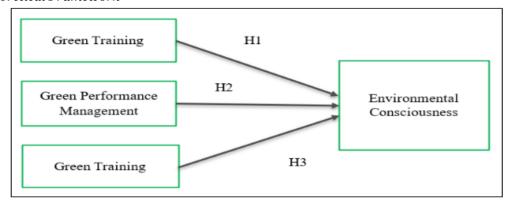
Environmental consciousness develops through performance appraisal and altering employee behavior and promoting employee learning of green tasks with greater zeal and excitement. To increase productivity, time evaluation must be made properly. Environmental performance is enhanced in terms of quality and value when environmental management is integrated into the performance management system (Tanova & Bayighomog, 2022). According to Shoaib et al.

(2022), the involvement of green employees promotes employee understanding of the ecological practices and participation in the new ecological practice initiatives. To increase their level of environmental consciousness and make them more responsive to achieving sustainable goals, the organization involved staff by giving them authority and power to decide how to approach or work to implement the green projects or practices within the organization (Shobhana et al., 2022). Forming green teams that are eager to engage freely in environmental activities and are of one mind and conscience to actively participate in proactive pollution control initiatives (Baroudi, et al., 2023). Therefore, it's imperative that employers empower their staff members to make decisions about the organization's green programs in order to promote environmental consciousness.

#### **Theoretical Framework**

Three GHRMpractice components are based on theoretical framework that demonstrates how these three aspects are connected to one another. Examining the relationship between GHRM practices and environmental consciousness was the main goal of the current study as present in framework.

Figure 1
Theoretical Framework



# **Hypotheses Development**

- > H1: Green Employees' involvement is directly and significantly related to Environmental Consciousness
- > H2: Green performance management is directly and significantly related to environmental consciousness
- > H<sub>3</sub>: The Green training is directly, positvly and significantly related to environmental consciousness

#### RESEARCH METHODOLOGY

The study was quantitative in nature. Both primary and secondary data used for this research secondary techniques to gather information from various sources like books, research papers, journals, publications, theses available in libraries and online. For primary data closed ended questionnaire were used to collect the data. A five-point Likert scale was used to rate question items, ranging from "strongly agree" to "strongly disagree," for employees from Archroma and Farhan Pharmaceutical companies selected from Jamshoro, Kotri and Karachi, Sindh, Pakistan.

Data was gathered from employee belonging to top-level, medium-level, first-line management using convenience sampling. The questionnaire was divided into two sections: the first asked participants for demographic details, and second examined how felt about variables for study green training, green performance management, green employee involvement & environmental consciousness.

The personal profile of the participants was determined by five items: gender, marital status, age group, qualificatio, and experience, while other 26 items were related to main components of the research study. The six items have been taken from the research of Daily et al. (2012) and Jabbour (2015) and used in the Green Training variable. Consequently, wfive questions in the Green Performance Management variable and five in Green Employees Involvement variable have been taken from studies by (Masri & Jaaron; 2017; Pinzone et al., 2016). Ten items for the Environmental Consciousness variable have been taken from the research by Hiramatsu et al. (2015), and Cronbach's Alpha of the GT (0.884), GPM (0.877), GEI (0.650), and EC (0.692). One hundred and twenty questionnaires were distributed, out of which 93 were completed and returned. Following this, all the questionnaires were meticulously scrutinized to ensure their accuracy and suitability for analysis. The data were analyzed using software like SPSS 22 and Smart PLS.

#### ANALYSIS AND RESULTS

The study employed Smart PLS Structural Equation Modelling to analyze the findings, develop the model and evaluate hypotheses. Results indicated that Green Performance Management, green employee involvement, green training had strong direct relations with environmental consciousness, thus confirming the research hypotheses. Cronbach's alpha coefficients for each element in study were above 0.7, demonstrating adequate internal reliability of the items used for investigating various observed variables. The reliability of the scales was confirmed by their alpha values, and all variables demonstrated high reliability. AVE values for Green Employee Involvement, Green Performance Management, and Environmental Consciousness were 0.235, 0.671, and 0.331, respectively, indicating good convergent validity. The diverging values for GT, GPM, GEI, and EC were 0.814, 0.826, 0.383, and 0.427, respectively, demonstrating good discriminant validity. Composite reliability was found to be at least 0.7, which was appropriate for the exploratory research, according to (Hair & Alamer, 2022). The R-squared was used to determine how much variability was explained by independent variables, and all variables had high levels of environmental consciousness composite reliability (0.845) with a square root of (0.949), Green Training compatibility reliability is (0.887) with a square root of (0.969), Green Performance Management compatibility reliability is (0.880) with the square root of (0.927), and Green Employee Involvement compatibility reliability is (0.347) with the square root of (0.469).

**Table 1**Cronbach's Alpha, AVE, Composite Reliability, Square Root and Divergent

| Variable                           | CA    | AVE   | Divergent | CR    | R-Square |
|------------------------------------|-------|-------|-----------|-------|----------|
| <b>Environmental Consciousness</b> | 0.690 | 0.331 | 0.427     | 0.845 | 0.949    |
| Green Performance Management       | 0.877 | 0.671 | 0.826     | 0.880 | 0.927    |
| Green Employee Involvement         | 0.625 | 0.235 | 0.383     | 0.347 | 0.469    |
| Green Training                     | 0.883 | 0.633 | 0.814     | 0.887 | 0.969    |

Out of 93 participants, 84.9% were male, making them the majority of the individuals that were targeted for data collection. 95.7% of employees were married, and 89 of them were married. In terms of age, majority of workers are over 50, with a frequency ratio of 48.4 and a percentage of 45%. The majority of workforce, or 38%, has a master's degree, and 48% has between 21 and 30 years of experience, according to demographic figures. Kotri and Karachi-based businesses that were targeted for data gathering responders' profiles are displayed in Tab 2, which is located under:

**Table 2** *Profile of the Respondents* 

| Demographics   | Categories       | Frequency | Percentage |
|----------------|------------------|-----------|------------|
| Gender         | Male             | 79        | 84.9       |
|                | Female           | 14        | 15.1       |
| Marital Status | Married          | 89        | 95.7       |
|                | Single           | 4         | 4.3        |
| Age            | 21 to 30         | 10        | 10.8       |
|                | 31 to 40         | 11        | 11.8       |
|                | 41 to 50         | 27        | 29.0       |
|                | 51 or above      | 45        | 48.4       |
| Education      | Bachelor         | 30        | 32         |
|                | Master           | 35        | 38         |
|                | MPhil/MS         | 22        | 24         |
|                | Ph.D.            | 6         | 6          |
| Experience     | Less than 1 year | 5         | 5          |
|                | 1-10 years       | 14        | 15         |
|                | 11-20 years      | 10        | 11         |
|                | 21-30 years      | 45        | 48         |
|                | 31-40 years      | 19        | 20         |

The numbers that describe how closely the variables are associated to each of the identified factors are known as the factor loading (Cross Loading). They go by the name factor variable correlations as well. Thus, from factor loading Environmental Consciousness (EC) items that consist of EC1 (0.063), EC9 (0.098), EC2 (0.508), EC8 (0.585), EC10 (0.512), EC3 (0.645), EC4 (0.743), EC5 (0.765), EC6 (0.834) and EC7 (0.835). The factor loading Green Employee Involvement (GEI) items that consist of the GEI1 (0.931), GEI2 (0.527), GEI3 (0.523), GEI4 (0.687) and GEI5 (0.796). The Green Performance Management (GPM) items consist of GPM1 (0.806), GPM2 (0.797), GPM3 (0.767), GPM4 (0.857), and GPM5 (0.865). Green Training (GT) items consist of GT1 (0.775), GT2 (0.802), GT3 (0.780), GT4 (0.853) GT5 (0.838), and GT6 (0.717). It shows that every construct has stronger in their own constructs also given in Tab 3.

**Table 3**Cross Loadina

| Variables | Environmental | Green Employee | Green Performance | Green    |
|-----------|---------------|----------------|-------------------|----------|
|           | Consciousness | Involvement    | Management        | Training |
| EC1       | 0.063         |                |                   |          |

| EC10 | 0.512 |  |
|------|-------|--|
| EC2  | 0.508 |  |
| EC3  | 0.645 |  |
| EC4  | 0.743 |  |
| EC5  | 0.765 |  |
| EC6  | 0.834 |  |
| EC7  | 0.835 |  |
| EC8  | 0.585 |  |
| EC9  | 0.098 |  |

**Table 3a**Cross Loadina

| Variables | Environmental | Green Employee | Green Performance | Green    |
|-----------|---------------|----------------|-------------------|----------|
|           | Consciousness | Involvement    | Management        | Training |
| GEI1      |               | 0.931          |                   |          |
| GEI2      |               | 0.527          |                   |          |
| GEI3      |               | 0.523          |                   |          |
| GEI4      |               | 0.687          |                   |          |
| GEI5      |               | 0.796          |                   |          |
| GPM1      |               |                | 0.806             |          |
| GPM2      |               |                | 0.797             |          |
| GPM3      |               |                | 0.767             |          |
| GPM4      |               |                | 0.857             |          |
| GPM5      |               |                | 0.865             |          |
| GT1       |               |                |                   | 0.775    |
| GT2       |               |                |                   | 0.802    |
| GT3       |               |                |                   | 0.780    |
| GT4       |               |                |                   | 0.853    |
| GT5       |               |                |                   | 0.838    |
| GT6       |               |                |                   | 0.717    |

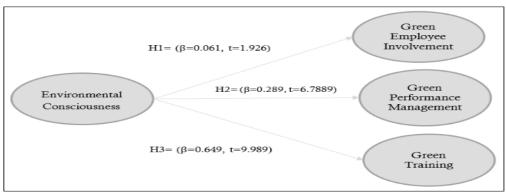
Hair et al. (2010) utilized bootstrap method by conducting 500 resamples to acquire estimates of standard deviations and statistics for path coefficients and loadings. As shown in Table 4, the path coefficient effect, total effects, beta, and T-statistic for each component of the dimensional model were presented, with most of the measurements having the loadings significantly higher than the ground. In marketing research, a T-statistic greater than 1.96 is considered significant, while for exploratory research, it is 1.65 (Hair et al., 2010). The results of Table 4 and Figure 2 reveal the significant associations between variables, wherein the Green Employee Involvement (GEI) exhibited a positive and significant relationship with Environmental Consciousness (EC) ( $\beta$  = 0.061). T-statistic greater than 1.96 is considered significant, while for exploratory research, it is 1.65 (Hair et al., 2010). Green Performance Management (GPM) displayed a positive and significant relationship with the Environmental Consciousness (EC) ( $\beta$  = 0.289), and Green Training (GT) had significant relationship with Environmental Consciousness (EC) ( $\beta$  = 0.649) in Archroma and Farhan Pharmaceuticals companies located in Jamshoro and Kotri, Karachi, Sindh, Pakistan.

**Table 4**Path Coefficient

| Variable  | Beta Path Coefficient | Total effects | T Statistics |
|-----------|-----------------------|---------------|--------------|
| GEI -> EC | 0.061                 | 0.061         | 1.926        |
| GPM -> EC | 0.289                 | 0.289         | 6.7889       |
| GT -> EC  | 0.649                 | 0.649         | 9.989        |

 $\beta$  coefficients measure multiple correlations of exogenous and endogenous factors (Zemlyak et al., 2022). According to Hair et al. (2010), values for t that are significant are 2.58 (p < 0.01), 1.96 (p < 0.05), 1.64 (p < 0.10), and 2.326 (p < 0.01). For purpose of supporting hypotheses, a two-tailed correlation uses a 0.01 value, and a one-tailed uses a 0.05 value (Keil et al., 2000). The study confirmed three hypotheses: direct, significant relationship between Environmental Consciousness (EC) and Green Employee Involvement (GEI) (t = 1.926, p = 0.05), between Environmental Consciousness (EC) and Green Performance Management (GPM) (t = 6.7889, p = 0.05), and between Environmental Consciousness (EC) and Green Training (GT) (t = 0.649, p = 0.05).

Figure 2
Theiretical Framework



#### DISCUSSION

The primary objective of study was to add to scant body of knowledge concerning employees' environmental consciousness already in existence. The goal of the study is to demonstrate how green employee engagement, green performance management as well as green training affect environmental consciousness in the firms under study. The findings of this study demonstrated a distinct and significant link between environmental awareness and employee engagement in green initiatives. Results supporting hypothesis. H1: Green Employees' involvement is directly and significantly related to environmental consciousness: This hypothesis states that employee environmental consciousness will increase when they actively participate in green projects and practices inside an organization. Thus, participating in environmental projects, volunteering for sustainability program, or the actively adopting ecologically friendly workplace practices are all examples of green involvement. Thus, according to the hypothesis, workers who participate in environmentally conscious wits would become more aware and concerned about environmental concerns.

H2: Green performance management is directly and significantly related to the environmental consciousness: According to this idea, integrating green practices into performance management systems can increase staff members' awareness of environment. The term "green performance management" refers to the incorporation of environmental sustainability objectives and targets into systems for the performance reviews, incentives and recognition. Organizations emphasize the value of sustainability and encourage staff to adopt environmentally friendly behaviors by integrating performance management with environmental objectives. According to the theory, workers who believe that their performance is assessed using green standards would be more ecologically aware. H3: Green training is directly and significantly related to the environmental consciousness: According to this theory, offering green training programmers to staff will raise their awareness of the environmental issues. In this connection, employees that participate in green training are informed about sustainability concepts, environmental challenges, and best practices.

Organizations may promote sense of responsibility and awareness of significance of sustainable practices by improving workers' knowledge and comprehension of the environmental concerns. According to the theory, personnel who undergo green training will be more environmentally concerned than those who do not. The Potential benefits of Green HRM practices on employees' environmental consciousness are often highlighted by these theories. They contend that active participation, performance management that is in line with sustainability objectives, and training initiatives help raise employees' understanding of, care for, & engagement with environmental concerns. Organizations may encourage a more sustainable and ecologically responsible work culture by raising environmental awareness among their workforce. Future researchers should also look into other facets of green human resource management, like knowledge sharing and sustainability. A variety of the tools and techniques, including qualitative research methods, indepth interviews, online forums, field experiments, and other approaches, were used to collect data.

#### CONCLUSION

The green employee engagement encourages staff to comprehend and take part in innovative ecological practice initiatives. If staff members are given power and duty to meet sustainable goals, level of environmentally conscious behavior increases. Employee perception of positive and high-level green practices, such as performance management, increases the amount of environmentally conscious behavior (Pham et al. 2018). Organization tactics, such as providing green chances for workers to increase their environmental awareness and gain new skills and information, might affect employee's talents. Green training helps staffs learn fundamentals of energy conservation and waste reduction at work, as well as how important environmental preservation is. It improves their capacity to adapt to change (Jabbour, 2015). With ongoing performance reviews and training, environmental awareness and consciousness will improve, and workplace standards will rise. The most progressive sector in Pakistan, the pharmaceutical business, is using GHRM procedures to promote environmental awareness. Individuals in Pakistan, and mainly in Sindh, lack knowledge about environmental concerns, notably GHRM practices.

Pharmaceutical companies are implementing these practices with name "green offices". Green human resources management increases productivity and fosters culture of improved employee engagement, both of which support businesses' efforts to run ecologically sustainable programs.

GHRM is crucial in helping people improve their abilities and knowledge while also developing sense of environmental responsibility. Potential benefits of Green HRM practices on employees' environmental consciousness are often highlighted by these theories. Even still considerable efforts are required to achieve the environmental target. With the aid of this study article, the researcher has sought to concentrate on the responsiveness and implementation of green HR practices in organizations. The emerging notion of green human resource management bears a great deal of relevance for both the organizations and employees. With these efforts, GHRM practices will gradually become more and more known to public. The current study has found that the implications may be divided into two groups: theoretical viewpoints and management perspectives. The potential consequences of this study are briefly explained in the section that follows.

## **Theoretical Implications**

The goal of the current study was to fill knowledge gap that existed about the influence of green human resource management on environmental consciousness. By collecting information from Archroma and Farhan Pharmaceuticals companies in Jamshoro and Kotri and Karachi, Sindh, Pakistan, study looked at relationships amid green training, green performance management, and green employee involvement with consciousness. A quantitative research methodology was employed, and SEM PLS was utilized, which is a standardized approach that is uncommon in Pakistan. The results of this study will disclose specific link between the research variables and the manner in which green human resource management affects environmental consciousness in these two companies. In this regard, study will identify how green training, green performance management and green employee involvement influence environmental consciousness in these organizations.

## **Managerial Implications**

Results of this study looked at a number of contributions to management practice in Pakistani businesses. The research's findings partially corroborate association between environmental consciousness and green initiatives, including green training, green performance management, and green employee engagement. The results imply that giving employees independence and power at work will make them feel accountable for the outcomes, which will ultimately inspire them to execute their jobs more effectively and increase employee participation. Feedback has been shown to have positive relationship with environmental consciousness; as a consequence, feedback about workers' work tends to be favorable when they are aware of outcomes of their labor.

#### **Future Directions**

In future studies, researchers should consider alternative research methodologies, in addition to the quantitative approach utilized in this study. The sample population for this research was self-selected, as it was funded independently. To increase the study's scope, future researchers may consider expanding sample size beyond the city level and encompassing the national level. Researchers may employ range of data collection techniques, including qualitative methods like in-depth interviews, online discussion boards, and field experiments. In this linking, future research should explore other aspects of green human resource management, like knowledge sharing and organizational citizenship behavior. Consequently, to establish the reliability of the study's findings, it is important to assess and review the scales as well as models utilized in the study.

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