

**The role of Green Human Resource Management (GHRM)  
in promoting green innovation**

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**Abstract:**

The literature on green innovation (GI) has evolved and changed over the past few decades due to the broad and vibrant uses of this field, as well as the promotion of environmental awareness and the provision of green practices and products. The aim of this article is to provide an overview of the role of green HRM in promoting green innovation and to discuss green HRM practices and dimensions of green innovation.

**Keywords:** Green Human Resource Management, Green Job Analysis, Green Recruitment and Selection, Green Training and

Development, Green innovation, Green Process Innovation, Green Product Innovation.

### 1. Introduction

In the late 80s and early 90s, the success of an organization was energetically dependent on aggrandizement of economic value. In addition, increasing the interest in environmentalism worldwide in the literature (**Copenhagen, 2009**) who discussed the alarming effects of pollution and excrement of toxic chemicals and wastage by the industries.

Furthermore, the governments and non-governmental organizations (NGOs) around the world constituted policies and practiced regulations to oppose or even overturn this negative effect (i.e., desolation of natural resources and effects on human life) of industrial pollution (**Shrivastava & Berger, 2010**) in 1993 the term “Green Business” was coined and spread by the scientist Schott and Fischer. They have edited one of the most deliberate academic literatures on green business. Green business is also known as smart business. Therefore, green business can be expressed as business exercises and practices that are employed to be eco-friendly.

Going Green means cherishing and promoting the preservation of earth’s natural resources apart from fostering the safeguarding of the organization’s human resources. Green Business means converting gratuitous expenses into conspicuous profits. The

main object of green business is to support rendering better services to organization's customers. As well as, it is more beneficial to organization's employees (i.e., workforce) (**Halawi & Zaraket, 2018**)

## 2. Green Human Resource Management Practices

**Mampra (2013)** identified green human resource management as *"The use of human resource management policies to promote the sustainable use of resources within businesses and improve the cause of the environment that increases employee confidence and satisfaction."* In the same year, (**Jabbour, 2013**) introduced GHRM concept as the science is concerned with the systematic, planned alignment of typical human resource management practices with the organization's environmental goals.

The researcher considers GHRM as the application of all functions of human resource management but in green approach due to ensuing in more efficiency, effectiveness, and reduced amount of wastage in resources. Initially, the main purpose of GHRM is to promote green concept by internal practices and policies. GHRM practices were defined from the academic databases (e.g., Google Scholar, Emerald, Springe, Scopus, Taylor & Francis, Wiley and Science Direct).

As for the practices of GHRM (**Cherian & Jacob, 2012**) mentioned that recruitment, training, employee motivation, and rewards are important practices of GHRM. In addition to (**Mehta**

**& Chugan, 2015)** confirmed organizations are embracing GHRM practices such as green recruitment, training, appraisal and reward management. This has helped to create and promote a sustainable green environment in the organization.

Three years later came the study of **(Ali, Paul, Moktadir and Kabir, 2019)** were they pinpointed the six practices of GHRM: Green Job analysis Green recruitment, Green selection, Green performance evaluation, Green training and development, Green reward management, and Green employee relations.

Therefore, research have advocated for a more focused study of the most common GHRM practices in Egyptian Green Star Hotels (GSH) namely: Green Job Analysis, Green Recruitment and Selection, and Green Training and Development.

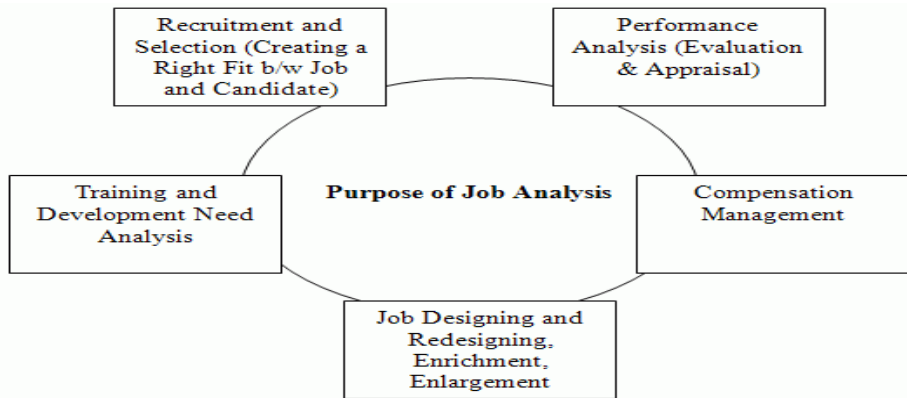
## **2.1 Green Job Analysis**

Initially, it is very important for most Human Resource professionals to know the specifics of the job. Therefore, Information about jobs and their requirements are composed through a process known as job analysis. Besides, job Analysis process is considered the backbone of the most human resource practices, wherein a number of functions can be rendered.

In general, job analysis is expressed as the process of collecting and scrutinizing information about job descriptions and specifications, in addition determining the qualifications needed to perform the job efficiently. Moreover, **(Muaf and Wijayani,**

2015) defined Job analysis as the process that includes the gathering data activities, which is pointedly concerned with job description, job specifications, and job standards.

Figure 1: The Purpose of Job Analysis



Source: The Purpose of Job Analysis, theintactone.com 2019

However, (Juneja, 2015) affirmed that Job analysis process plays a fundamental role in organizations, which is how the organization uses job analysis data in Workforce planning, Performance analysis, Recruitment and selection, Training and development, Compensation management, Health, safety and security, Employee/labor relations and Risk management as illustrated in (Figure 1).

## 2.2. Green Recruitment and Selection

**Opatha (2015)** stated green recruitment and selection as the hiring of employees with knowledge, skills, and behaviors related to environmental management systems. Following that came the work of **(Sobih, 2019)** who defined green recruitment as the process of attracting green candidates for job applying. Job advertisements and job calling must express certain environmental values.

Additionally, **(Jackson, 2011)** wrote that green recruitment and selection is considered a key component in GHRM practices. Besides the study of **(Shaaban, 2019)** who stated that green recruitment ensures that new hires are familiar with the green policies that will support the effective green human resource management within the establishment. The company applying online recruitment process they apply green recruitment as part of reducing carbon footprint.

**Halawi & Zaraket (2018)** introduced their own perspective of green recruitment and selection , they stated that while recruiting, organizations need to follow some important tasks (e.g., let job candidates use green criteria when applying for jobs i.e. Online application , inform applicant the green job descriptions, Green organizational objectives and strategies, use of green interview criteria, and select employees who are Green aware)

Attracting high quality staff is a key HR challenge in the talent war, also building and maintaining a pro-environment organization requires employees who are willing to participate in environmental management (EM) activities therefore, green selection process should done accurately. **Jabbour (2010)** mentioned that the selection process aims to select the ideal candidate from the list of potential candidates for a position. According to **(Renwick, 2015)** selection criteria should include environmental interest and concern.

### **2.3 . Green Training and Development**

As mentioned in the work presented by **(Zoogah, 2011)** Training and development is an activity that focuses on developing the knowledge, skills, and attitudes of staff and prohibits the deterioration of knowledge skills and attitudes related to executive management. The green training program is one that includes all the knowledge, activity, and skills that aim to teach the employee how to reduce all waste, an appropriate way to use the organization's resources,

Moreover, training gives the employee the opportunity to become more involved in solving problems related to the environment. Additionally, the study of **(Wong, 1998)** who confirmed that green training programs can provide a better understanding of the importance of environmental protection In

addition, the work of (Liebowitz, 2010) who proposed that HR management can offer leadership evolution workshops to help managers and administrators develop their front wheel skills, soft skills, green behavior, and collaboration. It can also be used as a tool to show the impact of bad behavior and attitude towards the environment.

**Govindarajulu & Daily (2004)** pointed out that the success of the Green training depends on how appropriate the training is for the employees. They argue that insufficient training is likely to lead to staff who are unwilling and unmotivated to participate in green activities. Therefore, it is critical that organizations provide the technical assistance and necessary resources. The following figure illustrate the effective workplace training

**Figure 2: the effective workplace training**



**Source:** Reprinted from ebrary.net (2023)



Lean implementation: applications and hidden costs 2023

**Teixeira (2012)** commented, “green training is one of the most important tools to develop human resources and facilitate the transition to a more sustainable society”. Besides (**Jabbour, 2013**) confirmed the most effective impact on environmental awareness among employee was through environmental training. It was also responsible for creating the culture to promote green practice in organizations.

### 3. Green Innovation

Green Innovation can also name Eco-innovation it can be defined as eliminating ecological hazards including waste and the detrimental impacts of material exploitation (**Castellacci and Lie, 2017**). After two years, came the study of (**Wang, 2019**) who defined Green Innovation as developing green products, procedures, and services to strike evenness between commercial growth and ecological conservation.

Beside the definition of (**Li and Long, 2019**) who stated that In order to obtain the objectives of limiting ecologically harmful emissions, continuously enhancing utilization, and economic development, green innovation relates to the innovation of product design and production procedures by taking biological influences and power usage in the manufacturing and exploitation of products into consideration.

On the other hand, despite the fact that green innovation has been characterized as a beneficiary criterion for organizational performance that balances commercial growth and ecological conservation, there are academics who disapprove of this assertion or who have reservations about Green Innovation. They are still worried about the "non - recoverable costs" that green finance entails, (**Wang, 2019**).

To demonstrate, the approach that green innovation concentrates on finding fresh and improved solutions to lessen ecological constraints is where it most strongly approaches broader creativity. Additionally, it has a "multiple negative externalities effect," which has favorable ripple benefits and environmental benefits. As a result, businesses seek government subsidies rather than investing on their own (**Ershadi, 2019; Awan, 2022**).

Moving to types of eco-innovation, six different categories of eco-innovation are defined by the Eco-Innovation Observatory (**EIO, 2013**): organizational, process, product, marketing, social, and systems. Table (1) shows the descriptions of categories of eco-innovation. Therefore, eco-innovation encompasses all forms of organization. Eco-innovation is impacted by a number of obstacles that limit its performance and enablers that promote its adoption since it is new to the environment in which it functions, as we outline in the following sections.

**Table (3-1) Descriptions of Categories of Eco-Innovation**

Type	Description
Organizational eco-innovations	New management attitudes, which include training projects, eco-design programs and initiatives that aim at eco-innovative outcomes
Process eco-innovations	The goal is to optimize the use of natural resources and to recover productions in postuse state to reduce the environmental impacts caused by them
Product eco-innovations	Aims at product development, by thinking in the whole life cycle, so that they generate the least amount of waste possible, seeking greater durability, repair, reuse and recycling
Marketing eco-innovations	The goal is to use eco-design, through recyclable labels and packages. And to work with shapes that make the product more attractive to consumers
Social eco-innovations	Follows the changes, and encourages modifications in the ways of consumption, taking into account consumers' opinions for developing the products
System eco-innovations	Through a macro vision, it influences all previous eco-innovations, since the result affects all levels

**Source: Arulrajah, A., Opatha, H., and Navaratne, N., (2016), link between green performance and organization green performance Employee Green Performance of Job: A Systematic Attempt towards Measurement**

Academic interest in green innovation has gradually increased in recent years. The earliest academic community gradually focused on the green behavior of enterprises through the study of green development and became interested in the green innovation behavior of enterprises (**Liet al., 2018**).

With the development of green technology, green innovation has been used to promote the efficiency of saving energy and meet environmental protection requirements (**Borsatto and Amui, 2019**). Innovative technologies, products, and services, organizational structures, and management methods can be part of an enterprise's strategy for sustainable development (**Tari and GarciaFernandez, 2020**).

### **3.1. Dimensions of green innovation**

There are two dimensions of green innovation: green management innovation and green technology innovation, which are described below:

**1. Green Product Innovation:** green product innovation suggests modifying current layouts by incorporating non -toxic materials or disposable components to reduce the negative ecological impact of waste disposal and increase energy efficiency (**Lin, 2013**).

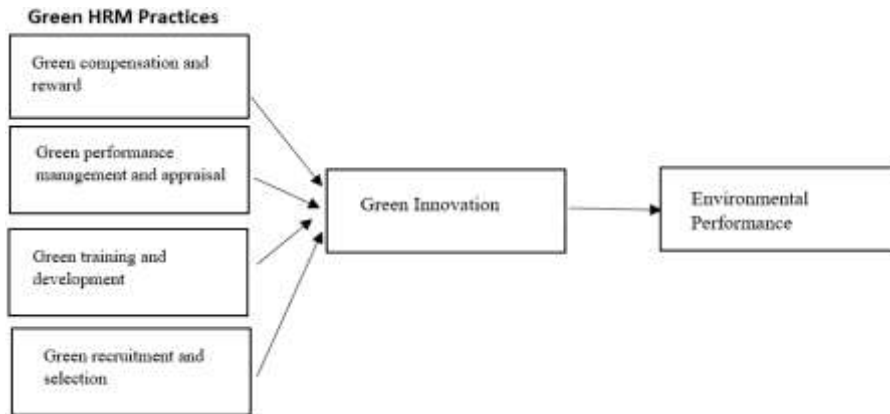
**2. Green Process Innovation:** green process refers to a set of manufacturing procedures that have the lowest detrimental impact on the ecosystem. Organizations that want to maintain a competitive edge in a globalized market must innovate on the organizational and technical fronts (**Li, 2019**).

One way to promote organizational efficiency and effectiveness through green innovation was to use fewer raw materials, generate less wastewater, and use less energy (Liu, 2020). Eventually, green innovation is a difficult endeavor that could result in higher inefficiencies and lost performance without workforce participation and information sharing.

#### **4. The link between GHRM and green innovation**

The researcher indicates the importance of general green training and job-specific green training, and education-integrated programs as well as implementing an environmental framework in the workplace in fostering Green Innovation in two segments green product innovation which suggests modifying current layouts by incorporating non -toxic materials, and Green Process Innovation, which defined as a set of manufacturing procedures that have the lowest detrimental impact on the ecosystem.

**Figure 3: The link between GHRM and green innovation**



**Source: Ku. K., Iqbal. KH., Shuja. I., Zaman. A., Pradana Mahir,, (2022) Impact of Green HRM Practices on Environmental Performance: The Mediating Role of Green Innovation**

Furthermore, the researcher discloses the relevance of applicant green awareness, green employer branding, and green hiring criteria in fostering Green Innovation in two segments green product innovation which suggests modifying current layouts by incorporating non -toxic materials, and Green Process Innovation, which defined as a set of manufacturing procedures that have the lowest detrimental impact on the ecosystem. Findings mentioned above are aligning with previous studies by (Song W., Yu H., & Xu H., 2020). Who emphasized that green recruitment improves the success of the organization's green management since recruiting greener employees leads to their

engagement in environmentally friendly activity. Nevertheless, the findings of (Anwar N., Mahmood N. H. N., Yusliza M. Y., Ramayah T., Faezah J. N., & Khalid W., 2020).

## 5. Conclusion

This research aimed to study and analyze the role of green human resource management practices in promoting t green innovation. Therefore, the researcher adopted three green human resource management practices, which are green job analysis, green recruitment and selection, and green training and development, and studied their impact on the dimensions of the green innovation, which are green product innovation and green process innovation.

Alongside, the effect of green job analysis on green employees' result was analyzed. In other terms, the research interpreted the role of job description and job specifications in influencing Green Innovation and employees' behavioral outcomes Likewise, the research clarified the role of green recruitment and selection in promoting green product innovation and green process innovation.

Eventually, anaalyzing the role of green training and development on enhancing green product innovation and green process innovation. Nevertheless, By encouraging creative

behavior from employees, green human resource management (HRM) is one tactic that not only enables businesses to be socially and environmentally conscious, but it can also strengthen an organization's brand identity and increase profitability (**Nejati et al., 2017**).

This conclusion is in line with the findings of previous research by (Fang , Shi, Gao, and Xiayun L, 2022) who affirmed the link between GHRM practices (i.e. green job analysis) and environmental sustainability by emphasizing green innovation. Additionally, the findings of studies by (Sobaih A. E. E., Hasanein A., & Elshaer I., 2020) and (Muisyo P. K., & Qin S. 2021) is compatible with the result of the third hypothesis who affirmed that GHRM practices are particularly significant for fostering green workforce innovation and that green innovation can contribute to employees' additional-role behavior. The researcher expounds the positive relationship between green job analysis and the green employee. The reason is that job analysis through job description creates new green jobs that push the employee to innovate new green practices. Green job specifications include green capabilities that help the organization select innovative minds.

The researcher interprets the positive impact of green recruitment and selection on green employee behavior. Through



the recruitment and selection process, the hotel attract applicants interested in the green side of work by highlighting this in the content and method of job advertisements and then select employees who have innovative minds enable them to innovate modern green practices that benefit the work environment.

## **6. Recommendations**

1. Recruiting department could use the following recruitment techniques to fostering green behavior; internal employees' enhancement and recruitment; Internally recruitment is an efficient hiring technique since it ensures that available roles are filled with individuals who are familiar with and appreciate your business. Furthermore, establish a solid employer's brand; effectively establishing the business as a desirable location for workers is the aim there. Nevertheless, establish a campaign for worker recommendations (i.e. referral program). A traditional recruitment technique used by a lot of companies, employee referral programs are a potent tool for utilizing the coworkers' connections in the sector. By suggesting competent individuals and attesting to their qualifications and expertise, such initiatives motivate staff members to assist the organization in filling Vacancies.

2. Promote advances in artificial intelligence (AI); should be utilized for the automation the onerous and repeated steps.

Therefore, the hotel can employ it in streamline the hiring procedure. That promotes green innovation. For instance, AI might be employed to examine previous job specifications in order to develop the greatest versions available going forward. Alternately, AI scanners can be used to evaluate CVs and resumes to assist identify the most qualified candidates

**3.** The researcher recommends the hotels use the most advanced training techniques with a purpose of developing green innovation, which are: **E**Learning: Specifically in the aftermath of a pandemic whereby staff members are distant and unable to participate live training meetings eLearning (i.e. online training) has emerged to be one of the increasingly popular ways for staff development. Staff can take classes online while relaxing in their own houses. Additionally, **V**ideo Training: It is simpler for staff members to keep save material when it is presented in a simple layout, and training videos allow for on-demand calling at any point of time. As well as, **P**eer-to-**P**eer Learning: Staff can explore innovative thoughts and collaborate with others upon the similar task using this form of training. Hotels may develop better staff that collaborate effectively by giving them the chance to share and learn from others.

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