

An Empirical Study of Green HRM and Its Impact on Employee Well-being and Performance

A Thesis submitted to the

UPES

For the Award of

Doctor of Philosophy

in

Management

By

Aparna Chaudhary

July 2025

Supervisor

Dr. Deepak Bangwal



Department of General Management

School of Business (SOB)

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Dehradun- 248007: Uttarakhand, INDIA

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*With the blessings of the Almighty,
I dedicate this thesis to my parents, my daughter and my family
for their unconditional love, steadfast support, and constant encouragement*

DECLARATION

I declare that the thesis entitled “An Empirical Study of Green HRM and Its Impact on Employee Well-being and Performance” has been prepared by me under the guidance of Dr. Deepak Bangwal, Assistant Professor (Senior Grade), School of Business, UPES. No part of this thesis has formed the basis for the award of any degree or fellowship previously.



Aparna Chaudhary

SAP ID 500065506

School of Business

UPES

Dehradun-248007, Uttarakhand

CERTIFICATE

This is to certify that Aparna Chaudhary has prepared her thesis entitled “An Empirical Study of Green HRM and Its Impact on Employee Well-being and Performance”, for the award of PhD degree of the UPES, under my guidance. She has carried out the work at School of Business, UPES.



Supervisor

Dr. Deepak Bangwal

Assistant Professor (SG)

School of Business, UPES

ABSTRACT

In recent years, environmental problems such as air pollution, climate change, and loss of natural resources have become serious threats to human health and the planet. These challenges have pushed governments, businesses, and individuals to take responsibility for protecting the environment. As part of this shift, many companies are now accepting Green Human Resource Management (GHRM) practices to make their operations eco-friendlier. GHRM is a set of rules, systems, and activities in a company that encourage employees to behave in environmentally friendly ways. One important part of GHRM is Green Training and Development (T&D), which involves teaching employees how to work in ways that save energy, reduce waste, and protect nature. Another important part is Green Pay and Reward (GPR), where companies give financial or non-financial rewards to employees who support green practices—this could be bonuses, recognition, or simple appreciation. A Green Workplace means creating an office or work environment that is healthy, energy-efficient, and environmentally responsible. This not only helps the planet but also makes employees feel good physically and mentally. Employee Well-being means how happy and satisfied employees feel in their lives and work, including their health, comfort, and emotions. Employee Performance refers to how well employees do their work and help the company reach its goals.

GHRM is a way of managing employees that focuses not only on business goals but also on protecting the environment. It includes hiring people who care about sustainability, training them in green practices, rewarding environmentally friendly actions, and creating a healthy and sustainable workplace. The study aims to understand how these GHRM practices affect employee well-being, how happy, healthy, and satisfied employees feel at work and their job performance, which is how effectively they complete their tasks and contribute to the company's goals.

This research was conducted with employees working in four LEED-certified organizations in India, which are companies recognized for being environmentally friendly. These organizations include ITC Maurya (New

Delhi), Suzlon Energy Ltd., Six Senses Vana (a wellness retreat), and Olympia Technology Park. A total of 350 employees participated in the survey. The study used a questionnaire to collect their views on various aspects of green HR practices. The questions were based on five key areas: green T&D, green P&R, green workplace, employee well-being, and employee performance. All answers were rated by a structured Likert scale with five response categories, ranging from “strongly disagree” to “strongly agree.” Results were analyzed using a method called Structural Equation Modeling (SEM) with the help of AMOS 27.0 software, which helped check the relationships between green practices and employee outcomes. The study found that GHRM practices do have a positive effect on employees. When companies use green practices, employees feel more valued, healthier, and more motivated. In turn, this leads to better job performance.

This study is important for both business and environmental reasons. From a business point of view, it shows that green HR practices help companies build a workforce that is more satisfied, healthier, and performs better. From an environmental point of view, it proves that companies can protect the planet while also helping their employees grow. The study also used two popular theories to support its findings. The Job Demands-Resources (JD-R) Theory explains that when employees are given the right support (like green training or a healthy workplace), they feel less stressed and do better at work. The Social Exchange Theory (SET) suggests that when companies invest in their employees and show that they care (such as by promoting environmental responsibility), employees return that care by working harder and staying loyal. In simple words, when companies do good for the planet and their people, employees respond positively.

In conclusion, the research clearly shows that GHRM practices are not just about protecting the environment, they also lead to happier, more engaged, and better-performing employees. It encourages more companies to treat green HRM as a smart investment rather than a cost. The study fills an important gap in research by showing how green HR policies work in real-world companies, especially those that are already committed to sustainability. It also gives useful

suggestions for organizations that want to make a difference, not only to the planet but also to the people who work for them.

Keywords: Green HRM, Green HRM practices, Green Pay and Reward, Green Training and Development, Green Workplace, Well-Being, Employee performance, LEED

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The pursuit of a Ph.D. is indeed a long and challenging journey, filled with moments of exhaustion and uncertainty. Yet, it is also a deeply fulfilling experience, marked by the achievement of significant milestones. This endeavor is not one that can be accomplished in isolation, it demands the unwavering guidance, support, and encouragement of many individuals.

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LIST OF ABBREVIATIONS

S.No.	Abbreviations	Full Form
1	AMOS	Analysis of Moment Structures
2	ASV	Average Shared Variance
3	AVE	Average Variance Extracted
4	C.R	Critical Ratios
5	CFA	Confirmatory Factor Analysis
6	CFI	Comparative Fit Index
7	CIPD	Chartered Institute of Personnel and Development
8	CSR	Corporate Social Responsibility
9	EEW	Energy-Efficient Workspace
10	EM	Environmental Management
11	EMP	Employee Performance
12	EMS	Environmental Management System
13	EPF	Employ Performance
14	EWB	Employee Well-being
15	GFI	Goodness of Fit Index
16	GHRM	Green Human Resource Management
17	GPR	Green pay and reward
18	GTD	Green Training and Development
19	GWP	Green Workplace
20	HR	Human Resource
21	HRM	Human Resource Management
22	ISO	International Organization for Standardization
23	IT	Information Technology
24	ITC	Indian Tobacco Company
25	JD-R	Job-Demands-Resource theory
26	KPIs	key Performance Indicators
27	LEED	Leadership in Energy and Environmental Design
28	NFI	Normed Fit Index
29	P	Significance Levels
30	P&R	Pay and Reward
31	RMSEA	Root Mean Square Error of Approximation
32	SEM	Structural Equation Modeling
33	SEM	Structural Equation Modeling
34	SET	Social Exchange Theory
35	T&D	Training and Development
36	TLI	Tucker-Lewis Index
37	USGBC	U.S. Green Building Council

CHAPTER 1

INTRODUCTION

1.1 Preamble

A multitude of administrative management domains have confronted serious environmental performance difficulties, a byproduct of over five decades of global industrialization (Billig et al., 2022; Darvishmotevali & Altinay, 2022). Additionally, precautionary measures related to chemicals contribute to mitigating a range of problems, for example, climate change, environmental damage along with the release of myriad contaminants contaminating the air plus seas, as well as auditory and visual pollution, and possibly wildlife extinction. These manufacturing practices pose a threat to the global ecosystem, economic as well as social well-being, due to their detrimental environmental impacts. This critical situation necessitates heightened public consciousness, around green issues such as emission reduction, composting, and the adoption of renewable technologies like solar, wind, and hydropower. Recent times have seen an increased focus on environmental initiatives across various sectors, spurred by the perils of environmental challenges. This has led to initiation of training and retraining of employees focused on green performance (Johar et al., 2020; Ecer et al., 2021). The majority of pivotal components regarding sustainable capabilities are Green Human Resource Management (GHRM).

The importance of GHRM is growing these days and its popularity is rising in business scenarios. Many researchers are focusing their studies in the area of GHRM. Many scholars (“Wehrmeyer, 1996; Madsen & Ulhoi, 2001; Ramus, 2001, 2002; Fernandez, Junquera, & Ordiz, 2003; Govindarajulu & Daily, 2004; Brio, Fernandez, & Junquera, 2007; Jabbour & Santos, 2008; Massoud, Daily, & Bishop, 2008; Renwick, 2008; Stringer, 2009; Berrone & Gomez-Mejia, 2009; Jabbour, Santos, & Nagano, 2010; Zollo et al., 2013; Jackson et al., 2014; Boxall

et al., 2016; Guerçi et al., 2016; Roscoe et al., 2019; Yong et al., 2020”) established it as a prominent theme in recent research, as global interest of environmental management along with sustainable development continues to increase. In recent times, GHRM involves not only understanding environmental challenges but also the social and economic well-being of businesses and employees in a broad context. (Aftab et al., 2022; Bahuguna et al., 2023).

For the organizations that intend to integrate operations with environmental protection, GHRM has become an integral part of their strategy. While previous research has thoroughly examined numerous aspects of green HRM, there is still a substantial lack of understanding in knowing how specific GHRM practices, such as training and development, pay and reward systems, and workplace settings, impact employee well-being and performance. As businesses increasingly recognize the need for sustainable practices, it is critical to investigate how these green HRM techniques may be effectively integrated to not only improve environmental outcomes but also have a beneficial influence on the workforce. This study intends to bridge the gap by exploring the correlations between green HRM practices and employee well-being, eventually contributing to the performance of the employee.

1.1.1 Definition of GHRM

To begin with the concept, the definition of Green Human Resource Management (GHRM) needs to be understood. Several authors have provided varying definitions for this term. Below are a few examples of definition provided by scholars:

Ramus (2001): GHRM prevails the incorporation of environmental concerns with HRM activities, encompassing the recruitment along with selection of environmentally conscious employees, their training and development based on green issues, and the integration of sustainability principles into performance appraisal and reward systems.

Berrone and Gomez-Mejia (2009): GHRM involves the application of HRM practices, which further back the development and utilization of environmentally friendly practices, technologies, and behaviors in the workplace, contributing towards the establishment's ecological sustainability.

Jabbour, Santos, with Nagano (2010): GHRM mentions the acceptance of HRM practices that prioritize the alignment towards the establishment's goals with environmental sustainability objectives, including employee involvement, communication, training, and the creation of a green work culture.

Muster and Schrader (2011): GHRM refers to the integration of environmental concerns, keen on HRM policies, practices and strategies with the purpose of promoting sustainability, environmental responsibility, plus green initiatives within organizations.

These definitions highlight the central theme concerning GHRM, which involves mixing environmental considerations, engrossed HRM practices, fostering sustainability, promoting eco-friendly behaviors, and aligning organizational goals with ecological objectives.

Green HRM is concerned about practices that promote energy efficiency and protection of natural resources, thereby reducing carbon footprint and enhancing environmental sustainability. The green practices include green printing, eco-friendly staff id cards, job sharing, virtual meetings and interviews, recycling at work, work-from-home options, online training, energy-smart offices, green payroll systems, carpooling initiatives, public transport support, eco-friendly company vehicles, flexible working hours, digital filing systems, paperless onboarding, healthier, greener workspaces, green travel incentives, smart waste management, carbon offset programs, energy-saving habits, collaboration tools for remote work, sustainable events, eco-friendly uniforms, CSR for the environment, sustainability workshops, saving water at work, remote work for sustainability, remote work policies for sustainability, green canteen practices.

1.1.2 History of GHRM

Green HRM is a fairly new idea that has developed as people and businesses have become more alert of the need to protect the environment. It involves using HR practices to support the responsible use of resources and help businesses act in more environmentally friendly ways.

The concept of GHRM has developed over time ranging from 1970 to till date,

1. Growing Environmental Awareness (1970s–1980s)

In the 1970s, more people started to care about the environment. Some of the indicators that emphasised the importance about sustainable green practices were the oil crisis along with rising industrial pollution. Companies began to understand that their actions had an impact on the planet and that they needed to act more responsibly.

2. Starting Green Practices (Late 1980s–1990s)

Business started incorporating green practices in their operations during this period. Initially the objective was to follow the environmental rules. Later on it has grown into corporate social responsibility (CSR), when companies started feeling responsible for the environment and society.

3. Green HRM Begins (2000s)

During this period the environmental sustainability became a part of routine in the organizations with the support of HR function.

- Recruitment started to focus on people with green skills and knowledge.
- Training programs began to include sustainability topics.
- Companies encouraged employees to take part in green activities and behave in more eco-friendly ways at work.

4. Green HRM Becomes Established (2010s–Now)

Since 2010, Green HRM has become a more organized and necessary part of the business. The examples of green practices towards this approach are:

- Offices started using less paper and more energy-saving designs.
- Waste reduction and recycling efforts became normal.
- Environmental goals were added to job roles, performance reviews, and rewards systems.

Several factors helped Green HRM to grow:

- Laws and regulations: Governments introduced rules that required businesses to meet certain environmental standards.
- Stakeholder expectations: Customers and investors began to favour companies that cared about the environment.
- Competitive advantage: Green practices help companies save money and improve their public image.

The growth of green HRM can be attributed to both external pressures along internal awareness towards the global need for environmental sustainability. Environmental sustainability is an essential component of HR strategy now, which helps in changing employees' attitudes to support companies in achieving the environmental sustainability objectives.

1.1.3 LEED Certification:

One of the leading certification programs for green efforts is LEED (Leadership in Energy and Environmental Design), it is recognized across the world. It evaluates and certifies buildings and other structures on the basis of their environmental friendliness and sustainability. LEED was launched by U.S. Green Building Council (USGBC) in 1998, with an objective to encourage environmentally friendly design, construction, and operation of buildings. The

framework of LEED assessment considers structural and operational factors, such as water conservation, energy efficiency, usage of sustainable materials, indoor air quality, and site development.

LEED certification is available for a range of building types, including commercial, residential, and institutional structures. The certification process includes a detailed assessment of a building's environmental features. The final rating is based on the number of points the building earns across different categories. There are four LEED certification levels that a building can achieve: Certified, Silver, Gold, and Platinum.

LEED certification has grown in significance within the construction industry as a way to demonstrate a commitment to sustainability and environmental responsibility. It is also recognized by governments and other organizations as a way to encourage and promote sustainable building practices.

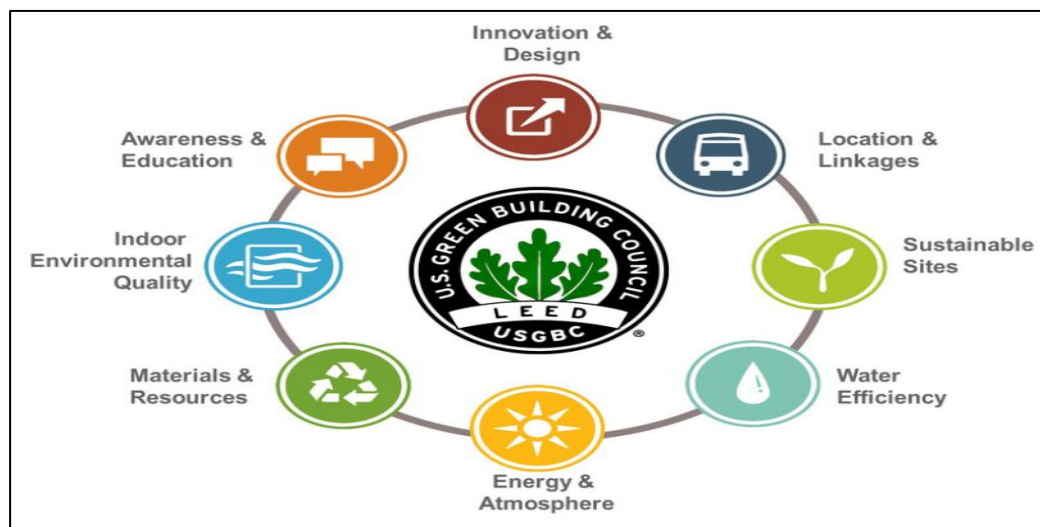


Figure 1.1: Components of LEED certification

Source: Internet ("<https://dtorr.in/blog/what-is-leed-certification-for-the-hotel-industry-in-india-to-follow-sustainable-practices>")

Some of the companies in India that have achieved LEED certification for their buildings are listed below:

1. Suzlon Energy Ltd, Pune, Maharashtra- LEED Platinum
2. Infosys Technologies Ltd, Mysore - LEED Platinum

3. Godrej Green Building Consultancy, Mumbai - LEED Platinum
4. Wipro Technologies Ltd, Pune - LEED Platinum
5. ITC Limited - ITC Maurya (Hotels Division), New Delhi - LEED Platinum,
6. Oberoi Realty Ltd, Mumbai - LEED Platinum
7. Genpact Limited, Gurgaon - LEED Platinum
8. Aditya Birla Centre for Community Initiatives and Rural Development, Mumbai - LEED Platinum
9. Mahindra & Mahindra Ltd, Pune - LEED Platinum
10. CII-Sohrabji Godrej Green Business Centre, Hyderabad - LEED Platinum
11. Embassy Manyata Business Park, Bangalore - LEED Platinum
12. Six Senses Vana- A Wellness Retreat - LEED Platinum
13. Olympia Technology Park represented LEED gold-certified buildings

1.1.4 GHRM and LEED

GHRM and LEED are two related, unique concepts that are concerned with environmental leadership and sustainability in the construction sector. GHRM refers to the methods and strategies used by companies to motivate their employees to work in an environment friendly and sustainable ways. This includes providing training on eco-friendly practices, providing support for green activities at work, and linking sustainability goals to employee performance reviews and rewards. U.S. Green Building Council (USGBC) developed the Leadership in Energy and Environmental Design (LEED) certification program to promote sustainable and environmentally friendly building practices. The process of LEED evaluation is based on the alignment on building design and operations with environmental sustainability. It looks at things like site planning, indoor air quality, use of sustainable materials, water saving, and energy efficiency. Although GHRM and LEED are different ideas, they are related because both support sustainability and environmental responsibility in the construction industry. Companies can adopt GHRM practices to motivate their employees to act in environmentally friendly ways.

The LEED certification for the buildings also demonstrates a commitment to responsibility towards environmental sustainability.

1.2 Background of the study

The influence of awareness on environment sustainability has grown significantly in the practices across industries, in recent years. This awareness has given growth to the concept of GHRM, which integrates environmental management into HR practices to promote sustainability within organizations. GHRM involves a number of green practices, which aim to align the organization's human resource strategies with its environmental goals.

(a) Green T&D ("Training and development")

(b) Green P&R (Pay and Reward) systems

(c) Creation of Green Workplaces.

Green training and development are aimed at providing employees with the knowledge and skills necessary to support the organization's environmental objectives. Organizations can enhance employee engagement and commitment to green practices. Similarly, green pay and reward systems offer incentives to employees to adopt environmentally friendly practices, which helps in further incorporating sustainability into the organizational culture. The establishment of green workplaces, which involves eco-friendly infrastructure and operations, also plays an important role in reducing the organization's negative environmental footprint.

The adoption of GHRM practices is not only governed by the requirement to comply with environmental regulations but also by the awareness that these practices lead to improved organizational performance. GHRM practices have been related to enhanced employee well-being as they promote a healthier plus more sustainable work environment. Employee well-being is a crucial factor for employee performance. Employees who feel supported and valued are more likely to show better levels of productivity, creativity, along job satisfaction.

The study is to explore the influence of GHRM on employee well-being in addition to employee performance. The study also intends to provide an understanding regarding effective integration of green practices into HR strategy to achieve both environmental sustainability and enhanced organizational performance goals.

1.3 Business problem

Environmental depletion is a challenge today as it is impacting the quality of life on planet Earth. As a result, it has become necessary to adopt green practices in all business operations so as to ensure environmental sustainability. Organizations have started realizing the importance of adopting GHRM practices to achieve this goal. However, adopting GHRM has a major challenge of overcoming employee resistance, which is due to a lack of awareness and training. Moreover, the understanding of organizations, on the influence of GHRM practices is limited. GHRM practices involve training and development, green pay and reward, and the workplace. Also, the balance between organizational performance and employee well-being needs to be investigated.

1.4 Research Need

There is a scarcity of research linking the field of HRM and environmental management (Wehrmeyer, 1996). The Millennium Ecosystem Assessment, (2005) declared that “human actions are depleting Earth's natural resources and putting such strain on the environment that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted”. “We know that we need to act, but we don’t, due to inertia, denial, and dislike of sacrifice” by (Oskamp, 2000). Habitually, people do not voluntarily change their attitude and behavior, if they do not feel an instant, obvious benefit to them (De Young, 2000). This propensity suggests that a source of authority may need to be enlisted to encourage individuals to make socially beneficial behavioral changes.

Owners can be a source of strong positive authority plus leadership (Li & Hung, 2009). If we work for a green-minded owner, we might be expected to carpool,

recycle, compost, rethink product designs, reduce water, electricity, along material usage. This raises questions such as:

- Do these green T&D, green P&R, and green workplace at work become a part of our life?
- Can green HRM practices positively affect employee well-being? Can employee well-being further impact employee performance and the growth of the organization?

Apart from many studies done by various social scientists on green HRM, less research has focused on the linkages between green HRM & individual training and development, pay and reward, and workplace on employee well-being. More research needs to be conducted to identify how green HRM practices play a specific role in individuals' training and development, pay and reward, and workplace on the employee well-being, and further how it drives employee performance.

Research connecting the fields concerning human resource management (HRM) plus environmental management is scarce (Paillé et al., 2013; Wehrmeyer, 1996). According to the Millennium Ecosystem Assessment from 2005, "human activities are depleting the earth's natural resources and placing enormous environmental stress on the planet, making it impossible for the ecosystem to support future generations." Due to inaction, denial, and a distaste for making sacrifices, even if we are aware that we should act, we don't (Oskamp, 2000). Mostly, individuals do not wish to make imperative changes in their point of view and efforts if they do not immediately show a wholesome profit/gain to them (De Young, 2000). This predisposition shows that in order to motivate people to adopt socially advantageous behaviour changes, an origin of authority might be required.

According to Li and Hung (2009), our employers can provide us with positive authority and leadership. We might be required to recycle, carpool, compost, rethink product designs, plus use less water, power, along materials if we work for an environmentally conscious company. This raises the question, "Do these

green pay and reward systems, training and development, and green workplace at work become a part of our life?” Can green HRM practices positively affect employee well-being? Can employee well-being further impact employee performance for the growth of the organization?

Apart from many studies done by various social scientists on green HRM, inadequate studies have been done on the linkages to GHRM & individual training and development, pay and reward, workplace, on employee well-being. Additional research needs to be done to identify in what way green HRM practices have a specific importance in individuals' training and development, pay & reward, along with workplace, on employee well-being, and further how it drives employee performance.

1.5 Overview of Methodology

A quantitative approach was used in the research. Sample respondents are employees working in four LEED-certified companies. Three aspects of GHRM were considered for the study, viz. T&D, pay and reward, and workplace. A questionnaire on a 5-point Likert scale was used for the purpose of collecting data. The data was subjected to reliability and validity tests. The questionnaire was adopted from three related studies and was modified to suit the needs of the present research. The collected data was subjected to analysis using structural equation modelling using AMOS 27.0 software. On the basis of the analysis, a measurement model and a structural model were developed and tested for goodness of fit. The analysis led to the testing of hypotheses.

1.6 Summary

This chapter has laid the foundation of research by describing the background of the study and the research need. The chapter has also introduced GHRM as a means of enhancing employee well-being and performance. The key objectives of any organisation are performance and employee welfare. The actions of organisations are focused on these two objectives. One of the measures of employee welfare is the perception of the employees about their well-being. In the light of this fact, employee well-being and performance were selected as key

dependent variables in the study. The basic concept of GHRM has been explained along with its history ranging from 1970 to till date. The chapter has also introduced LEED certification and its association with GHRM. The chapter has also defined the business problem, and an overview of the methodology has been given.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter explores the available literature in the area of GHRM. Literature was reviewed under four themes relevant to the study. The themes were identified as GHRM (Green Human Resource Management) & its Effects, GHRM practices, employee well-being & performance, and theoretical premise: Job-demands-resource theory (JD-R) and social exchange theory (SET). A total of 301 research papers were studied for the purpose of review. This chapter illustrates the outcome, findings and gaps of existing literature in the area under study. The chapter also narrates the research problem, research objectives, and research questions.

It is clear that merging Environmental Management with Human Resources Management is imperative. Research has shown that implementing practices intertwined with the environment, human resources, and work-life balance can enhance environmental outcomes. Studies examining the interplay between Human Resources Management along with environmental considerations have revealed that HRM can enhance the standard plus value concerning environmental performance (“Jackson et al., 2012; Renwick et al., 2013 & 2016; Sharma & Gupta,2015; Tang et al., 2017; Ren et al., 2018; Kim et al., 2019”). Various Green HRM practices manage to motivate along with engage employees toward contributions regarding the endeavors undertaken by their organization as part of the pursuit of environmental sustainability. However, the study on green performance remains in its nascent phase, and the scholarly publication on this topic is limited (Zhang et al.,2019; Rubel et al.,2021).

2.2 Go Green

While the word "Green" might be interpreted in various ways depending on the context, to those passionate about the environment or nature enthusiasts, it denotes spaces enriched with vegetation, trees, fresh atmosphere, and pristine resources. In a broader sense, "Green" refers to anything related to the natural world or ecological surroundings.

Organizations are becoming increasingly cognizant of environmental sustainability's significance. A "Green Workplace" is defined by its environmental consciousness, resource optimization, and responsibility toward societal well-being (Sathyapriya et al., 2014; Dubey et al., 2017). To achieve these goals, many firms are using suitable human resources management (HRM) practices towards motivating and engaging their employees. Studies indicate that implementing such practices can result in improved environmental performance and can support businesses in realizing their sustainability goals (Paille et al., 2013).

It is right to say Going green not only implies preserving the planet's innate resources but also advocating for the safeguarding of individual assets such as loved ones, social circles, way of life, and local communities. Green HRM emphasizes preserving human capital, ensuring equilibrium between work and personal life, and nurturing familial relationships. It requires adopting sustainable life changes that help individuals to live in harmony with the environment.

To achieve this objective, individuals must raise their environmental awareness and modify their behavior, mindset, and routines to reduce actions that harm the environment. Every step taken by a person towards the sustainability of the environment improves the health of our planet. Every change in our daily habits paves the way for a sustainable work-life balance and a greener environment for future generations.

2.3 Green Human Resource Management (GHRM)

GHRM represents the fusion concerning eco-conscious HR strategies and actions, aiming for judicious resource utilization. This synergy not only boosts operational efficiency and diminishes waste but also positively reshapes job-associated mindsets (Margaretha & Saragih, 2013). It involves applying HRM policies and practices that support sustainability and encourage the responsible use of organizational resources (Zoogah, 2011; Marhatta & Adhikari, 2013; Chaudhary, 2020; Kim et al., 2022).

The goals of GHRM practices are twofold: to build a "green" mindset among employees and to promote environmental responsibility as the benefit concerning individuals, society, communities, as well as the planet as a whole (Opatha & Arulrajah, 2014; Hameed et al., 2020). The HRM department plays a key role in supporting sustainability by embedding GHRM strategies into its structure, with the aim of improving environmental performance (Bangwal & Tiwari, 2015).

This perspective highlights how GHRM integrates environmentally conscious HR efforts with sustainable resource management (Mousa & Othman, 2020). These approaches help organizations operate more efficiently, reduce waste, improve employee attitudes, support better work-life balance, lower operational costs, and enhance employee retention and performance. Built upon this concept, positing that GHRM initiatives include flexible working hours, digital filing, carpooling, role-sharing, video conferencing, web-based interviews, recycling programs, remote working, online training, and energy-optimized workplaces, not only diminish employees' environmental impact but also bolster organizational outcomes (Sakhawalkar & Thadani, 2015). Underscored the notion that GHRM involves applying HRM strategies to optimize the use of organizational assets in tandem with championing ecological sustainability (Oyedokun, 2019). Consequently, GHRM shows a vital part in aligning the establishment's green objectives with the HRM processes concerning hiring, recruitment, training, compensation, development, plus advancement of its human capital. It also focuses on cultivating a green workforce which values,

understands, along with actively participates in green initiatives (Anlesinya along with Susomrith, 2020).

For successful implementation of green HRM within a company, factors like green training and development (GTD), pay and reward systems, along with an energy-efficient workspace (EEW) are deemed crucial. These factors represent green HRM as a whole, and their implementation can bolster employee performance through improved employee well-being.

Green HRM acts as a key character in offering training and development opportunities, synchronizing the firm's green stewardship goals, and evaluating and incentivizing eco-friendly actions. It is becoming increasingly important for corporations and both the private and public sectors to engage in green HRM activities to curtail ecological harm and preserve the ecosystem for both present plus forthcoming generations. Green practices refer to actions taken to support sustainability and reduce harm to the environment. Energy conservation involves using energy-efficient appliances, turning off lights with electronic devices when they are not in use, additionally adopting renewable energy sources such as wind and solar power. Waste reduction focuses on reducing, reusing, and recycling materials to cut down on waste and save resources. Water conservation involves using water wisely—through efficient irrigation systems, low-flow fixtures, and timely repair of leaks. Green transportation means choosing eco-friendly ways to travel, such as public transport, carpooling, biking, or walking instead of driving alone. Sustainable procurement is about buying products and services that are environmentally friendly—such as items made from recycled materials or those that use less energy. Eco-friendly practices also include using green cleaning products, cutting down on paper use, and planting trees or other vegetation. Green design involves planning buildings and spaces that use sustainable materials, save energy, and support a healthy environment. Overall, green practices are key to promoting sustainability, reducing environmental impact, and protecting resources for future generations.

2.4 Effects of GHRM

According to Renwick et al. (2008), a procedural framework for GHRM (Green Human Resource Management) emphasizes the collaboration between human resource management functions and a company's environmental actions. The authors argue that HRM activities can be more effective when supported by strong green credentials. For example, top-performing graduates often consider a company's environmental record and reputation when choosing where to work. In addition, green performance standards can be incorporated into performance management and appraisals, whereas the establishment of eco-friendly information systems plus assessments can enhance the ecofriendly performance regarding the company (Maxwell et al., 1997).

The sound HR framework has a crucial part in driving the performance of green policies within an organization. Employees can also be a valuable source of ideas for environmental management and enhancing green initiatives. A survey conducted on HR-professionals revealed that only 23% of them considered themselves responsible for environmental issues, while 46% believed that HR should facilitate these issues and 23% felt that they should assist others in dealing with them (Brockett, 2006: 18).

Furthermore, crafting an environmental report can serve as a potent instrument to support managers and employees in adopting Green HRM practices. Such a report ought to encompass a declaration of intent, established goals with accompanying progress indicators, a comprehensive impact evaluation, and policy guidelines on domains like transportation, energy optimization, flexible working, plus recycling ("CIPD, 2007a: 3-4; Davies & Smith, 2007: 29"). Wehrmeyer (1996: 15) underscores the significance of grasping the nuances of work attitudes, intrinsic job motivations, plus interpersonal rapport in laying the groundwork for a thriving environment.

When examining the perspectives of HR managers concerning GHRM, there might be varied opinions. These differences can often be attributed to their

initial roles, potential future paths, or both. A clearer breakdown is depicted in Figure 2.1

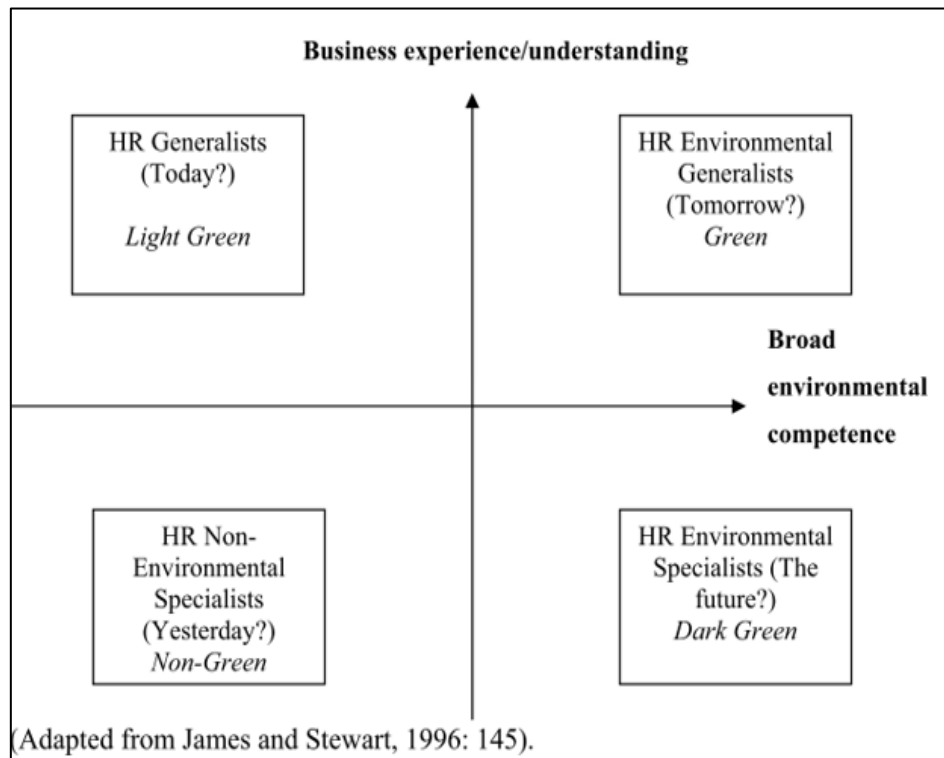


Figure 2.1: Shades of green- A typology of HR environmental executives

A primary responsibility regarding HR environmental leaders is toward seeking out connections that can help solve problems, modify the status quo, furthermore, implement environmental policies to get the complete support of the personnel. Parker and Wehrmeyer, 1996: 163 Additionally, to improve the firm's environmental conditions, HR has the capability to blend HRM with Environmental Management (EM) in areas like training, job evaluation, minimizing status disparities, and so on. (Rothenberg, 2003), (Jia et al., 2025)

To understand the performance effects of integrating HRM and environmental initiatives, measurement precision is crucial. To comprehend HRM's involvement, it is crucial to grasp both "hard" and "soft" performance factors. The adoption of environmental management by the company has performed better as a result of personnel functions (Wagner, 2011; Dubey et al., 2017; Stefanelli et al., 2019; Islam et al. (2025)).

Revenue generated per employee and financial metrics (such as profit margin plus asset profitability) are considered to be the "hard" performance dimensions, which are also considered as long-term predictors of a firm's competitiveness. For example, research and development costs and patent counts are performance indicators for innovation activity and success. This measurement has an economic influence on high-performance work systems plus a significant relationship to particular sets of HRM practices. To enhance the overall impact of HRM practices, it is sort of suggested that "soft" performance dimensions ought to be provided (Wagner, 2011). The aspect regarding "soft" performance is that those economic advantages from environmental actions could be anticipated. Employee happiness, retention, and recruitment are identified as the key indicators of "soft" performance. As an illustration, Egri and Hernal (2002) listed employee turnover and employee morale as the most pertinent performance measurements to perceive "soft" organizational gains connected towards HRM. Additionally, HRM integration concerning environmental operations, such as the use of specific training programs and environmental performance indicators, can be used to assess an organization's environmental performance. This could improve a company's success overall “Daily & Huang, 2002; Daily et al., 2007; Jabbour & Santos, 2008b; Renwick et al., 2008; Liboni et al., 2019;Stefanelli et. Al., 2019; Tawfik et al. (2025)”.

2.5 Green Management Initiatives

The belief that a company's past economic performance guarantees its future success is no longer valid. Instead, prioritizing social and environmental responsibility and minimizing ecological footprints can greatly assist in strengthening the company's economy along with financial outcomes. This has led to the rise of fresh strategic problems named green management or corporate environmentalism, which gained popularity in the 2000s plus focuses on developing strategies for environmental management to offset industrial expansion which protect future generations' access to nature (Lee, 2009).

Green management refers to the course by which establishments develop strategies to manage their environmental impact and mitigate the negative

effects of rise in industry, thereby this approach effectively ensures the preservation of the natural setting for subsequent generations (Daily & Huang, 2001; Dubey et al., 2017). The aforementioned notion holds substantial significance not just as a pivotal strategic concern for businesses, but also in the context of multinational firms that function on a worldwide level. This is due to the potential for their activities to exert a noteworthy influence upon the environment (Banerjee, 2001).

To enhance environmental sustainability within organizations, a range of HRM policies and practices known as "green HRM" use resources in a sustainable manner. These initiatives contribute to increasing attention to business actions that include an adverse environmental effect, including global warming. The implementation of numerous programs that pay attention to corporate social responsibility in the social sphere is part of green HRM. These programs include promoting sustainable ways to get to work (such as public transport, car sharing, cycling), providing training on energy and resource consumption saving working methods. It is imperative to provide employees with education regarding climate change and other environmental concerns. Additionally, a thorough examination of employee benefits should be conducted to identify and eliminate any environmentally detrimental practices, such as the provision of unnecessary high-powered company vehicles.

To summarize, GHRM refers to how corporate management internally interacts and influences the organizational environment (Lee and Ball, 2003). This means using ideas like product stewardship, pollution prevention, along with business social responsibility (Pullman et al., 2009; Siegel, 2009), which go beyond just following the rules.

Business firms have a substantial impact on our environment furthermore cannot be separated from it. They have the primary responsibility for most carbon emissions that have occurred in previous time periods (Liu, 2010). In order to mitigate environmental harm, it is authoritative for businesses to priorities' the development concerning non-toxic plus environmentally responsive products, while also exploring novel technologies that can

effectively reduce the consumption of finite natural resources. This objective can be accomplished by means of the use of biotech products, as well as alternative energy sources (Stefanelli et al., 2019; Liu, 2010; Ozen and Kusku, 2008). Businesses may play an important role in preventing ecological degradation along with fostering sustainability by doing so.

2.6 Practices of GHRM

The GHRM practices introduced by Renwick, Redman and Maguire (2008) are broken down into easily digestible sections that begin with a member of staff arrival into an organization plus continue through the worker departure. The adoption of Green Practices enables individuals to concurrently demonstrate environmental responsibility (Ramachandaran et al., 2024), achieve financial prudence, and attain practical utility. The aforementioned examples exemplify commendable instances of Green HRM practices that organizations can adopt in order to mitigate their ecological footprint and foster sustainability (Kamboj & Eronimus (2024)).

1. Green Printing

This involves simple changes like using recycled paper, printing on both sides, and choosing ink cartridges that can be refilled or recycled small actions that add up to big savings on waste. This involves simple changes like using recycled paper, printing on both sides, and choosing ink cartridges that can be refilled or recycled small actions that add up to big savings on waste.

2. Eco-Friendly Staff ID Cards:

Organizations are now choosing sustainable materials for staff ID cards and ensuring they're properly disposed of when no longer in use.

3. Job sharing:

Letting two employees share one full-time role not only supports work-life balance but also helps reduce commuting and the company's overall carbon footprint.

4. Virtual Meetings and Interviews:

Instead of traveling for every meeting or interview, many companies now use video calls. It's cost-effective, saves time, and cuts down emissions.

5. Recycling at Work:

Setting up recycling bins and encouraging employees to properly sort waste like paper and plastics makes the office more eco-conscious.

6. Work-from-Home Options:

Allowing employees to work remotely even part of the time reduces car travel and lowers energy use in the office.

7. Online Training:

Using digital platforms for training sessions helps cut travel and paper use, making learning more sustainable.

8. Energy-Smart Offices:

Switching to LED lights, using energy-efficient heating and cooling, and turning off equipment when not in use are all simple ways companies are saving energy.

9. Green Payroll Systems:

By going paperless, payroll becomes more efficient and eco-friendlier, cutting down on paper waste.

10. Carpooling Initiatives:

Encouraging team members to share rides not only builds camaraderie but also cuts down on traffic and pollution.

11. Public Transport Support:

Some companies actively promote the use of buses and trains as greener commuting choices.

12. Eco-Friendly Company Vehicles:

When providing transport for staff, more businesses are opting for hybrid or electric cars.

13. Flexible Working Hours:

Flexi-work policies give employees control over when and where they work, which reduces travel and supports well-being.

14. Digital Filing Systems:

Replacing stacks of paperwork with electronic files saves both space and resources.

15. Paperless Onboarding:

From offer letters to training materials, onboarding is moving online making it quicker and cleaner.

16. Healthier, Greener Workspaces:

Offices are being designed with more natural light, indoor plants, and eco-friendly furniture to create a space that supports both people and the planet.

17. Green Travel Incentives:

Some companies now reward employees who bike to work or drive electric cars—a great way to encourage sustainable choices.

18. Smart Waste Management:

Separating recyclables, composting food waste, and rethinking how much waste is produced are key steps many companies are now taking.

19. Carbon Offset Programs:

Employees are encouraged to take part in eco-projects, like planting trees or supporting clean energy efforts, to help balance out their carbon use.

20. Energy-Saving Habits:

Turning off unused lights, using motion sensors, and switching to energy-saving devices are habits that help reduce power use at work.

21. Collaboration Tools for Remote Work:

Apps like Zoom, Teams, or Slack let people work together no matter where they are—cutting down the need for travel and in-person meetings.

22. Sustainable Events:

Whether online or in-person, events are being planned with eco-awareness—think digital invites, reusable décor, and minimal plastic use.

23. Eco-Friendly Uniforms:

Some organizations now provide staff with uniforms made from organic or recycled fabrics—sustainable and stylish.

24. CSR for the Environment:

Staff are encouraged to join environmental clean-ups, tree-planting events, or climate awareness campaigns as part of the company's broader social responsibility.

25. Sustainability Workshops:

Interactive sessions on climate change, green habits, and eco-friendly practices help educate and involve employees in sustainability.

26. Saving Water at Work:

Installing water-efficient taps, fixing leaks quickly, and encouraging reusable bottles are simple ways to conserve water in the office.

27. Remote Work for Sustainability:

Installing water-saving devices, encouraging reusable bottles, and monitoring office water usage.

28. Remote Work Policies for Sustainability:

Formal policies that allow remote work not only help with flexibility but also cut energy and travel-related emissions.

29. Green Canteen Practices:

From using biodegradable cutlery to offering plant-based meals, company canteens are getting a sustainable makeover.

2.7 GHRM Certification

A GHRM certification is a professional qualification in Green Human Resource Management, a growing field that combines sustainability with HR practices. Earning this certification shows that an HR professional is skilled in creating and applying environmentally friendly strategies, policies, and initiatives that not only help the planet but also support business success.

2.7.1 ISO 14000

ISO 14000 is a series of environmental management standards designed to assist companies:

- I. Reducing the unpleasant effects concerning their operations (procedures, etc.) on the environment (i.e., manufacturing unfavorable alterations to the land, water, or air).
- II. Complying accompanied by environmental laws, rules, plus requirements.
- III. Constantly enhance the specified areas.

Before the ISO 14000 series was developed, businesses willingly designed their private environmental management systems (EMSs), which made it difficult to compare the environmental consequences of different companies. As a direct consequence of this, the ISO 14000 standard series was created. The International Organization for Standardization (ISO) provides a definition of an Environmental Management System (EMS) as an integral component of a comprehensive management system. This system encompasses several elements such as planning activities, organizational structure, responsibilities, practices, procedures, processes, plus resources. Its purpose is to facilitate the development, implementation, achievement, and maintenance of an environmental policy. An EMS also contains "resources for developing, achieving, implementing, along with maintaining the environmental policy."

Part concerning the ISO 14000 family is the ISO 14001 standard, It functions as the foundational collection regarding requirements used by organizations in the creation plus execution of successful environmental management systems (EMS). ISO 14004, a complementary standard within the same series, provides more comprehensive guidance on environmental management by offering additional principles for the effective execution concerning an Environmental Management System (EMS). The primary objective of the ISO 14000 series of standards is to furnish realistic instruments for enterprises and organizations across many sectors seeking to effectively address their environmental obligations.

Standards regarding ISO 14000 were created using a voluntary approach to environmental control. One of the standards in this collection is the ISO 14001 standard, which provides directions as developing either improving an EMS. ISO 9001 standard, and its predecessor, ISO 9000, are globally recognized benchmarks for quality management. ISO 9000 provided the foundational framework for ISO 9001, serving as a model for its internal organization, has a lot in common and can both be put into practice simultaneously. Similar to ISO 9000, ISO 14000 serves as a tool for internal management as well as a way for businesses to show their clients and customers how serious they are about protecting the environment.

2.7.2 ISO 50001 Standard for energy management

The International Organization for Standardization (ISO) has formulated a set of standards and accompanying usage instructions that have been established as a globally recognized standard. The primary objective of this standard is to facilitate the implementation of a methodical approach inside an organization to attain ongoing enhancement of energy performance. This encompasses several aspects such as energy efficiency, energy security, and energy utilization along with consumption. The established guidelines delineate the necessary criteria for the establishment, execution, sustenance, and enhancement of an energy management system.

The intent of the standard is towards providing assistance to businesses in continually reducing the amount of energy they consume, as well as their energy expenses and their emissions of greenhouse gases.

The ISO 50001 standard, which can be used by any organization regardless of its size, industry, or location, was first published by the ISO in June 2011. In August 2018, the ISO 50001:2018 second version was made available.

The ISO 14001 Environmental Management System (EMS) plus the ISO 9001 Quality Management System are encompassed within the system's 2018 edition.

Obligation to "improve the subsequent energy performance plus the EnMS " (clause 4.2.1 c) is a key component of ISO 50001. The additional standards (ISO 9001 plus ISO 14001) mentioned above both call for enhancements to the management system's efficacy, but not toward the standards of the products/services (ISO 9001) or the environment (ISO 14001). Even if the standards are not necessary at this time, the standards, it is envisioned that an organization will improve both quality and environmental performance by applying ISO 9001 and 14001 together.

Therefore, by requesting that a company demonstrate how it has improved its energy performance, ISO 50001 has significantly raised the bar. There are no predetermined quantifiable targets; instead, each organization sets its own goals

and develops a strategy to meet them. An organization has a greater probability of experiencing some real financial gains with this planned strategy.

The focal objectives of the standard are toward continuously improving energy-related performance, efficiency plus to look for ways to use less energy. This scientific approach will aid organizations in developing systems and procedures. With systematic energy management, businesses can realize their potential for increased energy efficiency. They will considerably aid in preserving the ecology and the climate in addition to saving money, for instance by drastically lowering CO₂ emissions. Particularly at the management level, it is important to inform staff members of the possible benefits of the standard for both long- and short-term energy management. Opportunities for cost savings and advantages in the marketplace can be found by the business. A boost in the business's reputation would also be quite advantageous.

2.7.3 Leadership in Energy and Environmental Design (LEED)

The green building certification scheme is internationally recognized and widely adopted. The USGBC (U.S. Green Building Council), organization which is a non-profit, has developed a series of grading systems that pertain to the planning, construction, utilisation, and maintenance of environmentally sustainable residences, communities, and structures. This initiative is undertaken with the aim of assisting building owners and operators in cultivating resourcefulness and promoting environmental consciousness. In the year 2015, the number of LEED-certified structures exceeded 80,000, while the count of individuals holding LEED certification surpassed 100,000. The majority of LEED-certified structures are located in major American cities. In order to account for the laws and environment specific to that nation, LEED Canada has created a distinct grading system.

Various governmental agencies on the state, local, along with specific federal levels within the United States require or promote the attainment of LEED certification. Several instances of this include tax incentives, exemptions from zoning regulations, discounts in fees, and expedited permitting processes. For-

rent LEED office buildings typically have higher rents, higher occupancy rates, and lower capitalization rates, according to studies.

Rather than measuring performance, LEED is a design tool that places more emphasis on energy modelling than on actual energy use. Its lack of climate specificity and point scoring method, which can encourage bad design choices plus make energy conservation the weakest aspect of the evaluation, have both drawn criticism. It has also been criticism for the "LEED brain" phenomena, which sees building growth driven by the positive public relations of LEED certification.

As a sustainable development approach, the green building movement is quickly becoming essential Prakash (2005). A healthy building that uses resources sustainably is what Kibert (2007) refers to as a "green building."

Eco-based ideas are effectively applied. The term "green" has developed into a slang phrase used in the building construction industry to suggest high environmental requirements, according to the LEED-EB Reference Guide (2006).

In order towards being an economically successful, ecologically responsible, and wholesome place to work and live, performance buildings pioneered.

2.8 Green training and development

Ahmed et al. (2020), findings indicate that this functioning concerning green human resource management practices significantly influences the overall performance associated with organizations, particularly within the food industry. Employee training and development play a key task within the accomplishment of the sustainability targets of an organization (Carter et al., 1998; Joshi and Dhar, 2020). Specifically, "green training" refers to a form concerning training one empowers workforce to effectively tackle ecological challenges faced by the organization (Teixeira et al., 2016). Teixeira et al.'s investigation suggests that receiving green training greatly improves an employee's knowledge, abilities, and competences for achieving environmental

goals. Previous studies on green management practices that positively affect employees' attitudes, competencies, and skills for environmental protection have been conducted by various researchers (Govindarajulu and Daily, 2004; Jabbour, 2013). According to these findings, green training should be integrated as a critical organizational activity to help employees develop environmentally conscious attitudes and skills. The present literature thus ropes the potential impact towards green training continuously fostering relevant abilities along with skills among personnel. (Jabbour, 2013; Govindarajulu and Daily, 2004). According to a study, green-training programs at sustainable businesses produce workers that are more knowledgeable, competent, and equipped to contribute to environmental protection than their non-sustainable counterparts (Perron et al., 2006). (Jabbour, 2013) Similar findings from another study in the Spanish automotive industry show that staff with green training are more technically capable of handling environmental challenges (Bai and Sarkis, 2010). These skilled workers help a company find creative ways to improve organizational performance without having their commercial activities have a harmful impact regarding the environment Claver (2007). Additionally, a study of hotels that host visitors demonstrates that staff participation in socially plus environmentally responsible behaviour is encouraged by green training. (Srivastava and Shree, 2019). It is principally due to green training equips workers with its knowledge to think beyond eco-efficiency and towards a resilient future.

Each organization must adapt to changing conditions to survive with the competitive market. Even more crucially, though, is for each organization to resist those changes, which may be accomplished through training and development. Green training additionally helps to check a drop in green management knowledge, skill along with attitudes (Zoogah, 2011; Jawahar et al., 2012; Akkermans & Tims, 2017; Stefanelli et al., 2019). Training, in conjunction with development initiatives, has a key part in emphasizing the enhancement regarding employee knowledge and abilities, particularly in relation to specific and valuable expertise. Staff members who participate in green training and development programs learn how to work in a way that

minimizes waste, makes goods employing resources, conserves energy, plus addresses other environmental problems. It also gives staff members the opportunity to participate in solving green problems (Zoogah 2011; Jabbar and Abid, 2015; Indregard et al., 2018; Ojo et al., 2020). Perron et al. (2006) conducted investigation using the method concerning numerous case studies alongside discovered that green training and development programs is able to aid toward increasing corporate value. Similar to Daily et al. (2007) conducted a survey of 437 workers was undertaken, the outcome suggests that environmental training was directly related to the development of an effective green management system. Many businesses provide their personnel environmental training. One example of a firm is The Land Rover Group. The Land Rover Group offers job-specific green training to its recruits. To educate its workforce about environmental issues, they have regular briefings and distribute newsletters. At all locations, environmental practice boards, major objectives, and environmental policy were displayed. They support staff members in developing fresh concepts that lessen the causes of environmental degradation. Taking into account the crucial role that one's knowledge base plays in achieving career progress.

2.8.1 Green Training and Development plus employee well-being

Green Training and Development (T&D) can lead to favourable outcomes for employee well-being by promoting environmental awareness, skill development, and a sense of purpose, along with satisfaction in contributing to sustainability efforts.

Green Training and Development programs focus upon instructing employees about eco-management, waste reduction, energy usage, plus creating environmental understanding within the company (Tang et al., 2017; Adjei-Bamfo et al., 2019). These initiatives enhance employees' understanding, along with understanding belonging to environmental concerns, fostering a significant sense of liability and connection toward the environment.

By participating in GT&D, employees acquire the skills needed to identify, solve, and prevent environmental problems, which can result in a feeling of

empowerment and increased self-belief (Tang et al., 2017). GT&D programs positively influence employees by boosting their confidence and ability to handle environmental challenges. These programs also help employees find purpose in their roles, making their work feel more meaningful and satisfying.

When employees engage in eco-friendly practices that align with their personal values, they tend to feel more connected to their jobs and experience greater job satisfaction (Al-Swidi et al., 2021; Pham et al., 2019).

GT&D programs also encourage a supportive and inclusive workplace by involving everyone in green initiatives. This shared focus promotes teamwork, strengthens relationships, and helps build a positive work environment, all of which contributes to employee well-being (Saputro and Nawangsari, 2021; Rasmussen et al. (2024)).

Studies have shown that when employees feel good at work, they are more satisfied, more engaged, experience less stress, and enjoy better physical and mental health (Grant et al., 2007; Diener, 2000). By promoting environmental awareness, developing skills, and giving a clear sense of purpose, GT&D programs play a key role in supporting these positive outcomes.

Overall, including Green Training and Development (GT&D) programs in employee training can boost well-being by building environmental awareness, improving skills, giving a sense of purpose, and creating a positive workplace culture. By prioritizing employee well-being in the context of sustainability, organizations can create win-win circumstances that benefit both of the workers plus the environment (Islam et al. (2025)).

2.9 Green pay and reward

Public plus corporate organizations from all over the world are looking for green initiatives to lessen the factors that contribute to environmental lose also toward enhance the Employ Performance (EPF) (“Choi et al., 2013; Wang & Mao, 2013; Zou et al., 2015; Pellegrini et al., 2018”). Therefore, taking active green initiatives in the early stages is necessary to meet the difficult task facing a

company's success, survival, plus corporate reputation (Melo & Garrido-Morgado, 2012; Cormier & Magnan, 2013; Qi et al., 2013). According to the collected works (Renwick et al., 2008; Mandip, 2012; Islam et al., 2020; Al-Minhas et al., 2020; Rubel et al., 2021) the fourth theme—pay and reward system—indicates that producing firms conduct whole of the monetary transactions—including pay and rewards—through e-banking. Monetary plus non-monetary reward along with payment systems were developed as two sub-themes of this larger theme. In order to improve the EPF, numerous organizations offer salaries and benefits to their employees. Employees may receive monetary compensation and benefits (such as bonuses and cash incentives) or non-financial ones (such as gratitude). But this brings up an important point: Why do workers engage in green activities to increase EPF or reduce the causes of environmental degradation? Some employees have an innate desire to improve EPF because they believe it would improve their quality of life. However, some workers put a lot of effort into enhancing EPF because they think that maximizing profits through monetary awards is the most prudent course of action from an economic perspective. According to Berrone (2009) and Roscoe et al. (2019), shown the favorable connection relating income with benefits, as well as employee performance (Russo & Harrison, 2005; Conyon & He, 2011). According to Coombs and Gilley (2008, 2009), Cordeiro and Sarkis (2009), and Berrone (2010), businesses in the United States, leaders are incentivized and recognized for their efforts in implementing green initiatives. Businesses such as Dupont give financial rewards to managers and upper management for their dedication to environmental sustainability. Employees that behave green are rewarded with awards by companies such as Neste Oil in Europe (Massoud et al., 2008; Ramus, 2002). When creating monetary rewards, it can be quite challenging to impartially and openly assess green behaviors along with employee performance (Fernandez et al., 2003). Employees that help achieve the green aim and objectives may also be eligible for non-cash rewards like recognition, gift cards, paid time off, plus vouchers, 2004 Govindarajulu and Daily. There is evidence to suggest that GPR is the most successful strategy for encouraging employees to contribute to the Employee Provident Fund (EPF) out of all the other green human resource

management (GHRM) practices, 2002, Ramus and 2019, Roscoe et al. According to Phillips, 2007 research performed by CIPD/KPMG in the United Kingdom, just eight percent of companies in that country offer financial or non-financial incentives for environmentally responsible behaviour or green initiatives among their staff. An organization that provided incentives in the form of GPRs for its personnel was found to have greater interest from them in adopting green practices. The corporation, such as Dow Chemical, awarded an employee who had a novel green proposal (Cordeiro and Sarkis, 2008; Berrone, 2009). Employee commitment to the environment was increased by these GPRs taking the shape of non-monetary rewards like supervisor assistance with appreciation through letters of honour and medals (Ramus, 2001; Stefanelli et al., 2019).

2.9.1 Green pay and reward along with employee well-being

Green pay plus reward practices can positively impact employee well-being by recognizing and incentivizing employees' environmentally friendly behaviors and contributions to sustainability.

Green pay and reward practices refer to an integrated framework includes both monetary plus non-monetary benefits strategically implemented toward effectively recruit, retain, plus stimulate people in order to enhance their contributions to the organization's environmental aims (Ahmad, 2015). These practices can include both financial and non-financial rewards.

Financial rewards examples: additional benefits that may be provided to employees include pay increases, monetary bonuses, and exclusive discounts on eco-friendly products, can provide tangible recognition for employees' green efforts (Al-Minhas et al., 2020). These rewards not only acknowledge employees' contributions but also demonstrate that the organization values their commitment to environmental sustainability. Financial rewards can enhance employee well-being by providing a sense of financial security plus satisfaction.

Non-financial rewards play an important part in enhancing employee well-being plus promoting a constructive work environment. These rewards can include

recognition and praise for green achievements, organizing special events or ceremonies to celebrate employees' environmental contributions, giving extra holiday time off or gifts, offering promotional opportunities by Al-Minhas et al. in 2020. These non-financial rewards contribute to employee well-being by fostering a feeling about appreciation, belonging, together with pride in what they do.

The quality of work life, positive effect, plus job satisfaction are all strongly correlated with employee well-being (Ryan and Deci, 2001; Lu, 2001). When employees' own values and environmental concerns are in line with their work, green pay and reward practises can increase job satisfaction. When employees feel that their efforts to promote sustainability are recognized and rewarded, it increases their sense of job satisfaction plus overall well-being (Grant et al., 2007).

Green reward programs do more than just recognize employees—they actually make work more meaningful. Research shows that when companies reward eco-friendly actions, employees feel genuinely proud to work for an organization that cares about the planet (Galabova & McKie, 2013). This sense of purpose translates to higher engagement and overall happiness at work.

It's a powerful cycle: studies reveal that the more employees get recognized for sustainable choices, the more motivated they become to create positive change (Yusliza et al., 2019). And when people feel their daily work aligns with their personal values, they experience deeper job satisfaction—what psychologists call 'value congruence' in the workplace.

At their core, these programs build workplaces where people feel good about their contributions. As the data shows, that emotional connection leads to healthier, more productive teams all around. By providing fiscal and non-fiscal rewards, organizations demonstrate the individual's dedication towards sustainability along with fostering a positive work culture that enhances job satisfaction, engagement, and a sense of purpose. By aligning employees' values

and actions with their work, green pay and reward practices contribute to overall employee well-being and organizational success.

2.10 Green workplace

The limited body of research conducted by Rashid & Zimring (2008), Zhang & Altan (2011), Kamaruzzaman et al. (2011), Rashid et al. (2016) focuses towards the advantages concerning implementing environmentally friendly practices in the workplace, specifically in relation to individual economic, health, along with emotional well-being. Hui et al., (2015), Gou et al. (2013), pertinent study, it was noted that occupants, including organization plus workers, perceiving along with evaluating the purpose of green workplace surroundings. As a result, evaluating the effectiveness concerning green workplace surroundings. Improved psychological benefits, improved health, and better job satisfaction are all benefits of green workplaces (Kato et al. 2009; Forsythe & Wilkinson, 2015; Gou, 2016). Parallel projects may involve the development of new, inventive concepts along with tactics that will aid employee performance as well as the advent regarding innovative power resources toward meeting societal needs. Other researchers by Gou et al. (2013), Newsham et al. (2013), Byrd & Rasheed, (2016) found employee happiness is higher due to the design of the workplace, including Green Building Council Australia (GBCA) (2013). According to studies by Monfared & Sharples (2011), Deuble & John (2012), Daniel et al. (2014), and Wu (2015), employees who work in green environments report higher levels of satisfaction, a more optimistic outlook, and a stronger motivation to protect the environment. The most apparent and admirable aspect of a company may be its green workplace. Green workplaces can also send a message to everyone, including employees, about the company's authority, brand excellence, strength plus joy. Multiple investigations have been conducted by “Leather et al. (2003), Lee & Brand (2005), Frontczak et al. (2012), Kim & de Dear (2013), Schiavon & Altomonte (2014), Byrd and Rasheed (2016), along with Paille and Valeau (2020)”, workers who are happy in their workplace produce better results, outcomes, and levels of productivity. According to Carlopio (1996), employee job satisfaction and organizational EPF are both positively correlated with workplace satisfaction among

employees. As a result, we view the green workplace as a crucial component of GHRM, as well as it is essential to understand the relationship among an EPF and green workplace.

2.10.1 Green workplace and employee well-being

The green workplace, characterized by ecologically green practices along with a promise towards reducing organization's ecological footprint, can improve employee's morale and well-being.

The green workplace creates a more enjoyable and healthy work atmosphere that could contribute to improving the well-being of employees. Fulfilling eco-friendly measures for instance proper trash management, efficient energy use, and natural lighting can enhance the physical workspace and reduce exposure to harmful substances and pollutants (Kaplan, 2012). This can lead to better indoor air quality, reduced health risks, and increased employee comfort, all of which positively influence well-being.

Green workplaces often prioritize employee health and wellness by promoting active and sustainable commuting options. Encouraging walking, cycling, carpooling, or the use of public transportation can not only reduce carbon emissions but also contribute to employees' physical fitness along with well-being (Chen et al., 2015). Providing amenities such as bike racks, showers, and designated walking paths further support employee well-being by facilitating healthy transportation choices.

Green workplaces also tend to emphasize the use of natural elements and biophilic design principles. Incorporating elements such as plants, green spaces, and access to natural light has been demonstrated to have favorable impacts on employees' well-being, including reduced stress levels, increased productivity, and improved mood (Browning et al., 2014; Tawfik et al. 2025). These aspects of the green workplace impact towards creating more pleasant as well as calming work conditions.

Additionally, green workplaces often cultivate a mindset of environmental responsibility along with sustainability. This can lead to a view regarding mission plus commitment including employees, as they feel their work is contributing toward a notable effect (Bakker et al., 2012). Employees who perceive their organization as environmentally responsible may experience higher job satisfaction and psychological well-being (Paille and Valeau, 2020).

Furthermore, green workplaces may provide opportunities for staff members to get involved in and contribute to sustainability projects. Engaging workers into account while making decisions about environmental practices and encouraging them to contribute ideas and suggestions can enhance their sense of empowerment, job satisfaction, and overall well-being (Jackson et al., 2012).

Overall, the green workplace promotes employee well-being by creating a healthier physical environment, supporting active commuting, incorporating natural elements, fostering a sense of purpose, and encouraging employee involvement. By prioritizing sustainability and environmental responsibility, organizations can contribute to the well-being and satisfaction of their employees while also making a positive impact on the planet.

Different organizational stakeholders benefit from a green work environment. The green working environment has several positive financial effects by lowering resource use, maintenance expenses, dangers, absenteeism, health hazards, and turnover while raising total productivity. It enhances process innovation and boosts the effectiveness of the work process.

Shareholders perspective, it may assist in improving public perception, enabling sales to environmentally conscious clients, attracting top talent, and improving ability to collaborate with community stakeholders. Additionally, it might aid workers in enhancing their quality of work life, their level of productivity, and their general well-being (Heerwagen, 2000; Soundarapandian, 2007).

2.11 Employee well-being

According to positive psychology (Seligman and Csikszentmihalyi, 2000; Bandura, 1986), well-being is an individual valued experience that increases people's effectiveness in their work and other endeavours. In order to properly comprehend one's level of well-being and its impact on their life, this reference concerning effort emphasizes their “psychological and cognitive perception”(Veenhoven, 1991; Taylor and Brown, 1994). According to Ryan with Deci (2001) and Waterman (1993), well-being is generally understood to be a comprehensive perception of delight plus to represent an assessment of one's existence, encompassing life satisfaction with optimistic concern (Lu, 2001). Recently, employers have been devoting a greater amount of attention to the health and well-being of their staff (Grant et al., 2007). According to an earlier study, employee satisfaction could act as a stand-in for mental health on the job (De Jonge and Schaufeli, 1998). Diener (2000) went on to say that job satisfaction could also be correlated with employee well-being. That is, in the context of the workplace, employee well-being is strongly correlated to job satisfaction, life satisfaction, pleasant feeling, plus quality of work life. Taris and Schreurs (2009), Grant et al. (2007), Li et al. (2014), and others have said that an employee's well-being is the evaluation of their whole life, in addition to the overall standard of their experience with effectiveness at work. It includes life satisfaction with positive effects, that affect how well they do their job. Organization studies have paid some attention to worker satisfaction. According to studies (Fisher 2003; Galabova and McKie, 2013; Taris & Schreurs, 2009), both management and workers perceive that happier and healthier workers put up more effort, contribute more, and are more productive. Employee well-being, in a wide sense, includes not just happiness at work but also contentment and quality of life. According to a large body of research that has been conducted in the past, organizational performance benefits from employee well-being through lower absenteeism, reduced staff turnover, and greater voluntary effort by employees (Spector, 1997), improving organizational citizenship (Podsakoff et al., 2003), and boosting job performance (Cropanzano and Wright, 2001; Judge et al., 2001; Paille and Valeau, 2020). A lot of earlier research has looked

at things like job stress, psychology, and the balance between work and family life (Lapierre and Allen, 2006; Schaufeli et al., 2008) or things about jobs, like job demand (De Jonge and Schaufeli, 1998; Macky and Boxall, 2008) further propose a few variables that affect workers' well-being. Although such studies help us understand the reasons for workers' potential high degree regarding well-being in an organization, it is relatively less known how organizations can improve employee well-being.

Well-being is broadly defined as a holistic concept understood as a wide-ranging concept regarding happiness moreover, to represent an assessment concerning one's life, encompassing life satisfaction with positive effects.

2.12 Employee performance

The EPF shows an output that demonstrates how much an organization cares for the environment. Green practices can be implemented and HRM integrated to improve EPF (Del Bro et al., 2007; Paille and Valeau, 2020). For the achievement of the EPF, certain researchers illustrate how GHRM plus environmental management interact. Considering Jabbour et al. (2013) looked at EPF performance and found that the highest results were obtained when employees actively participated in GHRM practices (Kitazawa & Sarkis, 2000; Jabbour & Santos, 2008). Such a type of environmentally friendly HRM procedures at work benefit EPF. Employees are frequently a major driving force behind green development practices further help towards enhancing employee performance (Florida & Davison 2001; Roy et al., 2013). In order to support a direct or indirect impact on the EPF, such GHRM practices must be implemented, according to ongoing study. Researchers found that further GHRM contributes towards intensifying otherwise further improving the degree concerning EPF after researching the link between GHRM plus the environment ("Jackson et al., 2012; Renwick et al., 2013; Paille & Valeau, 2020"). Therefore, a variety of green practices can increase employee eagerness, motivation, and loyalty to contribute to the greening of their business and to reach the EPF. According to Paille et al. (2013), most businesses may employ appropriate green practices to motivate their workforce. The introduction of green HRM

policies and practices could be encouraged by a well-established HR framework. Employees may come up with a lot of environmental management ideas to enhance green initiatives, stated by the CIPD (“Chartered Institute of Personnel and Development, 2007a, 2007b”). The best way to encourage managers and employees to use GHRM is to further create environmental reports. An overall effect assessment, goals, a policy statement, and indications of achievement, energy efficiency, recycling, plus transport strategy are some of the specifics (CIPD, 2007a, 2007b; Davies and Smith, 2007). The collaboration between the company's HRM and EPF is demonstrated by a GHRM process model. Additionally, as stated by Renwick et al. (2008), GHRM initiatives might occur more positively whether the organization's green authorization support plus gauge employee performance norms. Employee performance is defined as how well a person executes their job duties and responsibilities.

2.13 Employee well-being and employee performance

Employee well-being and employee performance are closely intertwined, as the well-being of employees can significantly impact their productivity, engagement, and overall job performance.

Numerous studies have found a beneficial link between employee well-being plus performance. When employees experience high levels of well-being, they are more inclined to be content with their jobs, exhibit greater levels of involvement, and exhibit greater commitment to their organization (Wright and Cropanzano, 1998; Harter et al., 2002). These factors help boost motivation and encourage employees to go above and beyond their basic job duties, which in turn leads to better performance outcomes.

Employee well-being plays a crucial role in enhancing cognitive functioning and decision-making abilities. When employees experience well-being, they are less likely to suffer from stress, anxiety, or burnout—factors that can interfere with their ability to think clearly and perform effectively (Wright & Cropanzano, 2000). On the other hand, employees who are both physically and

mentally healthy are more focused, creative, and able to make better decisions. This leads to improved performance and greater productivity (Harter et al., 2002; Warr, 2002).

Moreover, employee well-being influences job satisfaction and job engagement, both of which are strong predictors of performance. Satisfied and engaged Workers typically exhibit greater dedication to their work, exhibit higher levels of effort, and demonstrate greater job performance (Schaufeli & Bakker, 2004; Bakker & Demerouti, 2008). Well-being factors such as work-life balance, positive relationships with supervisors and colleagues, and opportunities for growth and development contribute to satisfaction of job along with engagement, ultimately leading towards upgraded performance results (Harter et al., 2002; Judge et al., 2001; Fang et al. ,2022).

Also, employee well-being has been linked to reduced absenteeism and turnover rates. When employees experience higher levels of well-being, they are less likely to skip work than those who are sick or under stress reasons (Kelloway et al., 2008). Lower absenteeism rates contribute to increased productivity and organizational performance. Similarly, employees with higher well-being are more inclined to stick with their company, which lowers turnover costs and keeps things consistent in the workforce (Wright and Cropanzano, 1998).

It's worth noting that the connection between employee well-being plus performance is reciprocal. While employee well-being influences performance, organizational practices plus support for well-being also impact employee performance (Wright and Cropanzano, 1998). Organizations that prioritize employee well-being by providing supportive work environments, promoting work-life balance, offering development opportunities, and recognizing employees' achievements are more likely to see improved performance outcomes.

Overall, employee well-being and performance are interconnected, with improved well-being levels leading to increased job satisfaction, engagement, cognitive functioning, reduced absenteeism, and enhanced decision-making

capabilities. Fostering a culture of well-being and implementing practices that support employee well-being can have a favorable effect on individual along with organizational performance.

The research consistently highlights a significant correlation between employee well-being and job performance. When organizations prioritize employee well-being and take into account aspects like job satisfaction, life satisfaction, leadership, justice, and support, it results in improved employee performance, ultimately contributing to the success of the organization. Creating a favorable workplace environment that fosters employee well-being becomes a mutually beneficial situation, benefiting both the employees and the overall company. Therefore, investing in employee well-being is a strategic approach for achieving organizational excellence.

2.14 Underpinning Theory

2.14.1 Job-Demands-Resource theory (JD-R)

Demerouti et al. (2001) introduced the Job Demands-Resources (JD-R) Theory as a foundational framework for examining how job demands and resources influence employee well-being, stress, burnout, and performance. Further studies have built upon understanding the model's applicability in different contexts like culture, educator stress, emotional labor, and proactive career behavior. This review synthesizes major theoretical contributions, incorporates criticisms, and sets the agenda for future research. In service research, there is a surge in the study of different sequences of job demands along with resources and their effects on work outcomes (Demerouti et al., 2001; Bakker & Demerouti, 2017; Subramony et al., 2021).

Job resources assist in goal attainment, mitigate job demands along with associated expenditures, and promote skill enhancement through development. Demerouti et al. (2001) understand the definition of job demands as the need to expend persistent physical or mental energy, incurring bodily or psychological costs as a result of work-related factors, whether social, organizational, or physical. Bakker and Demerouti's (2017) research indicates that these two job

qualities influence organizational outcomes via either a health depletion or motivation procedure. In 2011, Hu et al. highlighted that job demands negatively affect employee health by increasing stress and fatigue, whereas job resources enhance motivation, promote engagement, and help protect against the detrimental health effects of those demands.

Widely recognized in the literature, the framework developed by Demerouti and Bakker (2001) stands as one of the most influential models for understanding work-related stress. Several straightforward yet powerful statements can be used to summarize the model. All occupations have basic traits that, depending on how they affect an individual, might be categorized as "demands" or "resources." Demands start a process of health degradation marked by tension and tiredness, which eventually results in burnout and other detrimental job effects. Resources encourage work engagement, which boosts motivation and produces other beneficial work results. As a result, the challenge for those responsible for work design is to maximize resources while minimizing demand. Demerouti et al. (2001, p. 501) define the concept of "job demands" as encompassing the physical, social, or organizational elements of a job that necessitate continuous physical or mental exertion, thus leading to certain physiological and psychological burdens. Importantly, the employee should dislike demands, as opposed to challenging jobs, which they should like because they give them a chance to learn and grow (Schaefeli & Taris, 2014). Unreliable work schedules and difficult customer contacts are just two examples of such obligations. A job resource, in contrast, is described by way of "those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development." 2001, page 501 (Demerouti et al. Examples could incorporate organizational components like goal clarity and supervisor support, but they could also be expanded to include human assets like fortitude and social competencies (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). The potential to induce physical or operational unease unites a number of otherwise dissimilar characteristics of the employment environment. We classify these as

environmental demands, drawing on terminology commonly used in related theoretical frameworks. These pressures either directly or indirectly harm one's bodily or mental health, opening the "strain" channel. When confronted with demands, employees are required to exert greater physical or psychological effort to achieve equivalent outcomes. Prolonged exposure to such environmental pressures can consequently heighten the risk of burnout, reduce productivity, and negatively impact both physical and mental health. Consequently, the JD-R model's first premise (P1) as it relates to the working environment can be best expressed as follows:

P1. Elements of the physical workplace serve as “environmental demands” that trigger a health-impairment process, ultimately diminishing job performance.

The evidence base needs to be strengthened; however, strong indications suggest that certain workplace features independently enhance work engagement by fulfilling core psychological needs. These elements are considered environmental resources. While their absence may not directly cause strain, they activate an alternative motivational pathway that enhances engagement and buffers the impact of various demands, including environmental ones. Thus, natural resources promote both physical and mental wellness, enhancing worker productivity.

P2. Environmental resources within the physical workplace initiate a motivational process, mitigate the effects of demands on strain, and positively influence job performance.

The intention to enhance the working environment by minimizing environmental demands or enhancing environmental resources directly drives a variety of workplace activities. Examples can include switching up one's workspace, adjusting the time at which one works, or changing the surrounding environment. Collectively, these practices can be described as environmental crafting.

P3. Employees, when possible, engage in crafting behaviors aimed at reducing demands and enhancing resources within the workplace environment.

Over time, the Job Demands-Resources (JD-R) theory has evolved into a central framework within the field of occupational health psychology. A variety of studies have applied and extended JD-R across different contexts, revealing insights into how job demands, along with available resources, play a critical role in influencing employee well-being, levels of burnout, with overall engagement.

Rattrie, Kittler, and Paul (2020) examined the moderating role of national culture on JD-R relationships. Their meta-analysis of 132 samples (N = 101,073) showed that cultural dimensions—derived from Hofstede's framework—affect how job demands plus resources relate to burnout together with engagement. Five of Hofstede's six dimensions moderate these relationships, providing valuable insights for international business and global mobility. However, the findings were only partially stable, suggesting the need for further research into additional cultural dynamics and their long-term stability.

In the education sector, Taris, Leisink, and Schaufeli (2017) used JD-R theory to explore educator stress. They emphasized that while the JD-R model is promising, it remains underutilized in education research. Their review highlights the need to investigate how specific job demands (e.g., student behavior, workload) and resources (e.g., administrative support) interact to impact educator well-being, underscoring the importance of tailored interventions to mitigate educator burnout.

In 2023, Ong and Johnson took a fresh perspective on the JD-R model by introducing a configural approach. Rather than focusing on isolated variables, they shifted the lens to look at how different patterns of job demands and resources affect individuals. Through the lens of fuzzy set qualitative comparative assessment, they uncovered three key combinations that can lead to fatigue: (a) extreme workload paired with psychological demands, (b) Social isolation in the workplace, and (c) extreme workload combined with low autonomy. This approach challenges the traditional JD-R framework by showing that there's no single path to burnout—diverse combinations

concerning stressors can lead towards the same outcome, emphasizing the complexity and nuance of workplace experiences.

Earlier, in 2013, Odle-Dusseau and colleagues explored similar themes through a longitudinal study of military personnel, drawing on both the JD-R and Conservation of Resources (COR) theories. They looked at the impact of family-supportive work environments (FSWE) and found compelling evidence: when employees experienced supportive environments at Time 1, they reported lower psychological strain at Time 2. This reduction in strain, without evidence of reverse causation, strengthens the argument that supportive work cultures can meaningfully buffer the negative effects of job demands—offering a valuable strategy for preventing burnout and promoting well-being.

Kim and Wang (2018) examined the dynamics of emotional labor among service workers, particularly focusing on how burnout emerges in roles that require sustained emotional effort. Their findings indicate that surface acting, essentially putting on a facade, was strongly linked to increased burnout, whereas deep acting, or genuinely engaging with the emotional demands of the job, appeared to mitigate burnout. The presence of job resources, such as self-efficacy and social support, played a moderate role in this relationship. These results suggest that interventions aimed at strengthening personal and social resources could be effective in reducing burnout in emotionally demanding occupations.

Building on this, Van den Tooren and Rutte (2016) explored the role of personality traits in the JD-R framework. They found that employees with Type D personalities, characterized by negative affectivity plus social inhibition, experienced higher levels of emotional exhaustion and lower levels of engagement, even after accounting for variations in job demands and available resources. This underscores the importance of incorporating personal characteristics into JD-R research, as personality traits can significantly influence employee well-being.

Clements and Kamau (2018) extended the JD-R model to the academic context, investigating how goal orientation shapes proactive career behaviors among students. Their research demonstrated that a mastery approach to goal setting enhanced students' perceived employability, a relationship mediated by proactive actions such as skill development and networking. Notably, heavy academic and employment workloads did not significantly hinder these proactive behaviors. These findings highlight the motivational processes within the JD-R model, suggesting that they can foster resilience and encourage proactive behaviors even in high-demand settings.

Mudrak et al. (2018) investigated the well-being of university faculty, and their findings reinforce the dual processes outlined in the JD-R model. Essentially, greater job resources were linked with higher engagement among faculty members, while increased job demands tended to elevate stress levels. Their results highlight non-linear relationships between academic demands (e.g., work-family conflict) and resources (e.g., collegial support), demonstrating JD-R's applicability in higher education. Moon et al. (2024) reviewed job stress theories and found JD-R to be the most widely used model, surpassing older frameworks like the Job Demand-Control-Support model. The JD-R model's focus on diverse resources and demands offers a broad framework towards identifying job stress.

JD-R theory offers broad applicability across cultural, occupational, and personal dimensions, with extensions like the incorporation of personal resources and configural approaches advancing our understanding of employee well-being. Although there are notable advantages, further research is definitely needed to untangle how different combinations of job demands and resources actually play out in varied organizational settings. The demands of a specific job can either drain employees or, in some cases, support their well-being and performance, all depending on how these elements are configured. GHRM serves as more than just a trendy term, it can function as a genuine resource for employees by offering practical tools, targeted skills, and a work environment that values sustainability. This not only helps reduce employee stress and boost

job satisfaction but also aligns with many individuals' personal values, providing a sense of intrinsic reward.

When organizations lessen environmental-related pressures and, at the same time, boost job resources, like training or real support for green initiatives, employees are more likely to enjoy stronger psychological well-being and, honestly, perform at a higher level. In that sense, it's a mutually beneficial situation for both employees and organizations.

2.14.2 Social Exchange Theory (SET)

Social Exchange Theory, pioneered by George Homans, Peter Blau, and Richard Emerson, centers on the notion that individuals constantly navigate social life by exchanging resources—be it trust, support, or influence. Through these ongoing exchanges, broader social patterns and power structures take shape, influencing everything from friendships to workplace dynamics. Building on this foundation, scholars like Cook et al. (2013) have underscored how SET frames human behavior as a series of calculated decisions, where people weigh potential rewards against risks or costs. This framework is especially valuable for analyzing settings where trust, reciprocity, and perceived fairness serve as key drivers in defining relationships and organizational life.

SET remains a popular lens for analyzing relationships, but, honestly, it's facing increasing criticism for being a bit out of touch with today's ever-shifting social and organizational realities. Cropanzano et al. (2017) highlights how SET tends to struggle when it comes to predicting behavior in the workplace. The theory does a decent job explaining what happened after the fact, but it lacks depth when you need to anticipate outcomes. To address this, they introduce a two-dimensional model: one dimension focuses on the hedonic value of interactions (basically, whether people feel good or bad after), and the other looks at how active or passive those interactions are. This update is necessary given the complexity of modern organizations and the evolving nature of work.

As workplaces continue to evolve, so too must the theories we use to understand them. Chernyak-Hai and Rabenu (2018) point out that the traditional ideas behind Social Exchange Theory (SET) don't quite fit the reality of today's

working world. With rapid changes driven by technology and shifting organizational structures, work relationships have become more flexible, fast-moving, and complex. To better reflect this modern environment, they propose a "hybrid" model—one that blends SET's foundational principles with the new realities of contemporary work life. Their approach reminds us that as the way we work changes, so should the way we study it.

Adding to this conversation, Ahmad et al. (2023) emphasizes the importance of including emotions and psychological elements in our understanding of social exchanges. In their review, they argue that SET shouldn't just focus on practical give-and-take, like favors or resources. It also needs to acknowledge the emotional aspects of relationships, like feelings of trust, appreciation, and support, that play a crucial role in how people interact. Their work broadens SET's reach, showing how it can apply more meaningfully across various settings.

SET's usefulness extends far beyond individual workplaces. For example, Lambe et al. (2001) looked at how SET operates in business-to-business marketing, showing that trust and long-term commitment between companies lead to better business outcomes. Meanwhile, Nunkoo (2016) applied the theory in the tourism sector, illustrating how positive exchanges between residents and the tourism industry—rooted in trust and fairness, can lead to stronger community support for development.

In short, while Social Exchange Theory remains a valuable tool for understanding relationships, it needs to grow and adapt. By incorporating emotional, psychological, and modern workplace factors, researchers are helping SET stay relevant in an increasingly complex and human-centered world.

2.15 Research Gaps

Table 2.1: Theme Wise Research Gaps

S.No	Theme	Reference	Gap
1	GHRM (Green Human	“Renwick et al., 2008, Maxwell et al., 1997, Brockett, 2006: 18, CIPD,	Limited research exists in association of pay and rewards, training

	Resource Management & its Effects	2007a: 3-4; Davies & Smith, 2007: 29, Wehrmeyer (1996: 15), Parker and Wehrmeyer, 1996: 163, Frankfurt, 2003, Wagner, 2011; Dubey et al., 2017; Stefanelli et al., 2019, Wagner, 2011, Egri and Hornal (2002), Daily & Huang, 2002; Daily et al., 2007; Jabbour & Santos, 2008b; Liboni et al., 2019;Stefanelli et. Al., 2019”	and development and work environment with green HRM.
2	GHRM Practices	“Leather et al., 2003; Lee & Brand, 2005; Rashid & Zimring,2008; Kato et al. 2009; Kamaruzzaman et al.,2011; Monfared & Sharples, 2011; Zhang & Altan,2011; Rashid et al.,2016; Gou et al.,2013; Hui et al., 2015; Forsythe & Wilkinson, 2015; Gou, 2016, Newsham et al., 2013; Byrd & Rasheed, 2016; Deuble & John, 2012; Daniel et al., 2014; Wu,2015; Frontczak et al., 2012; Kim & de Dear,2013; Schiavon & Altomonte,2014;Paille and Valeau,2020; Carlopio, 1996, Seligman and Csikszentmihalyi, 2000; Bandura, 1986, Taylor and Brown, 1994; Veenhoven, 1991, Ryan and Deci,2001; Waterman ,1993; Lu, 2001, Grant et al., 2007; De Jonge and Schaufeli, 1998; Diener,2000; Taris and Schreurs,2009; Li et al., 2014; Fisher 2003; Galabova and McKie, 2013; Spector, 1997, Podsakoff et al., 2003, Cropanzano and Wright, 2001; Judge et al., 2001;	There is lack of literature on impacts of Green HRM practices on the organization. Also, the studies on employee performance with respect to pay and rewards, training and development and work environment are not adequate. Moreover, the existing literature has paid little attention to the study of GHRM practices in LEED certified organizations.

		Paille & Valeau, 2020, Lapierre and Allen, 2006; Schaufeli et al., 2008, De Jonge and Schaufeli, 1998; Macky and Boxall, 2008”	
3	Employee well-being & Performance	“Garrido-Morgado, 2012; Tang et al., 2017; Adjei-Bamfo et al., 2019; Al-Swidi et al. 2021; Pham et al., 2019; Saputro and Nawangsari, 2021; Grant et al., 2007; Diener, 2000; Choi et al., 2013; Wang & Mao, 2013; Zou et al., 2015; Pellegrini et al., 2018, Melo & Qi et al., 2013; Cormier & Magnan, 2013, Renwick et al., 2008; Mandip, 2012; Islam et al., 2020; Al-Minhas et al., 2020; Rubel et al., 2021; Roscoe et al., 2019; Russo & Harrison, 2005; Conyon & He, 2011, Coombs and Gilley (2008, 2009), Cordeiro and Sarkis, 2009; Berrone, 2010; Massoud et al., 2008; Ramus, 2002, Fernandez et al., 2003, 2002, Ramus and 2019, Roscoe et al, Phillips, 2007, Cordeiro and Sarkis, 2008; Berrone, 2009; Ramus, 2001; Stefanelli et al., 2019”	Employee well-being is a well-researched area, however employee well-being as an effect of Green HRM needs to be investigated. Also, the impact towards employee well-being on performance needs to be studied.
4	Theoretical Premise Job-Demands-Resource theory (JD-R) Social Exchange Theory (SET)	“Bakker and Demerouti, 2017; Demerouti et al., 2001; Subramony et al., 2021, Hu et al., 2011, Demerouti, Bakker, 2001, Schaefer & Taris, 2014, Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; Rattrie, Kittler, and Paul, 2020; Taris, Leisink, and Schaufeli (2017); Ong and Johnson (2023); Odle-Dusseau et al. (2013); Kim and Wang (2018); traits, Van	JRD theory and SET theory have been widely used in studies on Green HRM. However, the application of this theory with respect to Green Training & development, green pay & rewards and green work environment is not evidenced.

den Tooren and Rutte (2016);
Clements and Kamau (2018);
Mudrak et al. (2018); Moon et
al. (2024), Cook et al., 2013;
Cropanzano et al. (2017);
Chernyak-Hai and Rabenu
(2018); Ahmad et al. (2023);
Lambe et al. (2001); Nunkoo
(2016)”

2.15.1 Consolidated Research Gap

In the existing literature there is a significant gap in understanding how GHRM practices, specifically in the area of training and development, pay and reward and workplace environment influence employee well-being. Additionally, little attention has been paid to LEED certified organizations for study of these GHRM practices and employee performance. This research is needed to fill these gaps providing insights into how GHRM can be tailored to the workforce to enhance both employee well-being and employee performance.

2.16 Research Problem

GHRM policies and practices have been adopted by the organization as a means of environment sustainability. However, there is limited understanding of how specific Green HRM practices (green T&D, green P&R, green workplace) influence employee well-being and performance, creating a critical gap in knowledge for organizations aiming to balance green efforts with employee and organizational success.

2.17 Research Questions

By applying quantitative statistical analysis to examine the data gathered from those firms that have previously practiced green management, this research seeks to evaluate the effect of GHRM on employee well-being and performance.

RQ1: Is green HRM practices such as green training and development, green pay & reward, green workplace are associated with Green HRM

RQ2: How GHRM practices influence employee well-being.

RQ3: How employee well-being influences employee performance.

2.18 Research Objective

RO1: To identify and establish the association between green training and development, green pay and reward, green workplace with GHRM.

RO2: To analyse the impact of GHRM practice- on employee well-being.

RO3: To examine the influence of employee well-being on employee performance

2.19 Summary

This chapter summarizes the extensive review of literature related to the research domain. A total of 283 research papers from various sources, including Journals, magazines, and other open sources, have been reviewed. The literature review has been done thematically with three themes viz. GHRM (Green Human Resource Management) & its Effects, GHRM Practices and employee well-being and performance. A review of research papers on the theoretical premise of the study has also been incorporated. A research gap has been identified on each theme, and a consolidated research gap has been established. The chapter also highlights the research problem, research questions, and research objectives.

CHAPTER 3

METHODOLOGY

3.1 Introduction

The research design and methodological procedures followed in this study are described in this chapter. The chapter is organized into six distinct sections. The first section focuses on the research design, outlining the overall approach and methodology used in the study. This section also enumerates the sample organizations from which data was collected. The second section presents the research framework and hypotheses, providing a theoretical foundation for the investigation. In the third section, the research instrument is discussed, including the development of relevant survey items. The fourth section delves into sampling and sampling methods employed to select participants for the study. Moving on, the fifth section explores the process of data collection, highlighting the various sources and methods utilized to gather relevant data. In the sixth section, the survey questionnaire design is elaborated upon, providing insights into the structure and content of the survey instrument.

This study set out to examine how GHRM practices impact employee performance, with a particular focus on whether employee well-being played a mediating role. Researchers surveyed employees based in LEED-certified buildings, making sure to select workplaces that fit specific LEED criteria for consistency. The investigation centered on four sites: ITC, Olympia Technology Park, Six Senses Vana – A Wellness Retreat, and Suzlon Energy Ltd. Notably, Six Senses Vana, ITC, and Suzlon Energy Ltd. all held the prestigious LEED Platinum certification, while Olympia Technology Park was certified at the gold level. By analyzing data from these environmentally conscious organizations, the study aimed to clarify the links between green human resource management, employee well-being, and overall performance. The focus on sustainable workplaces provided a controlled context to better understand how GHRM

initiatives might translate into tangible benefits for both individuals and organizations.

3.2 Research design

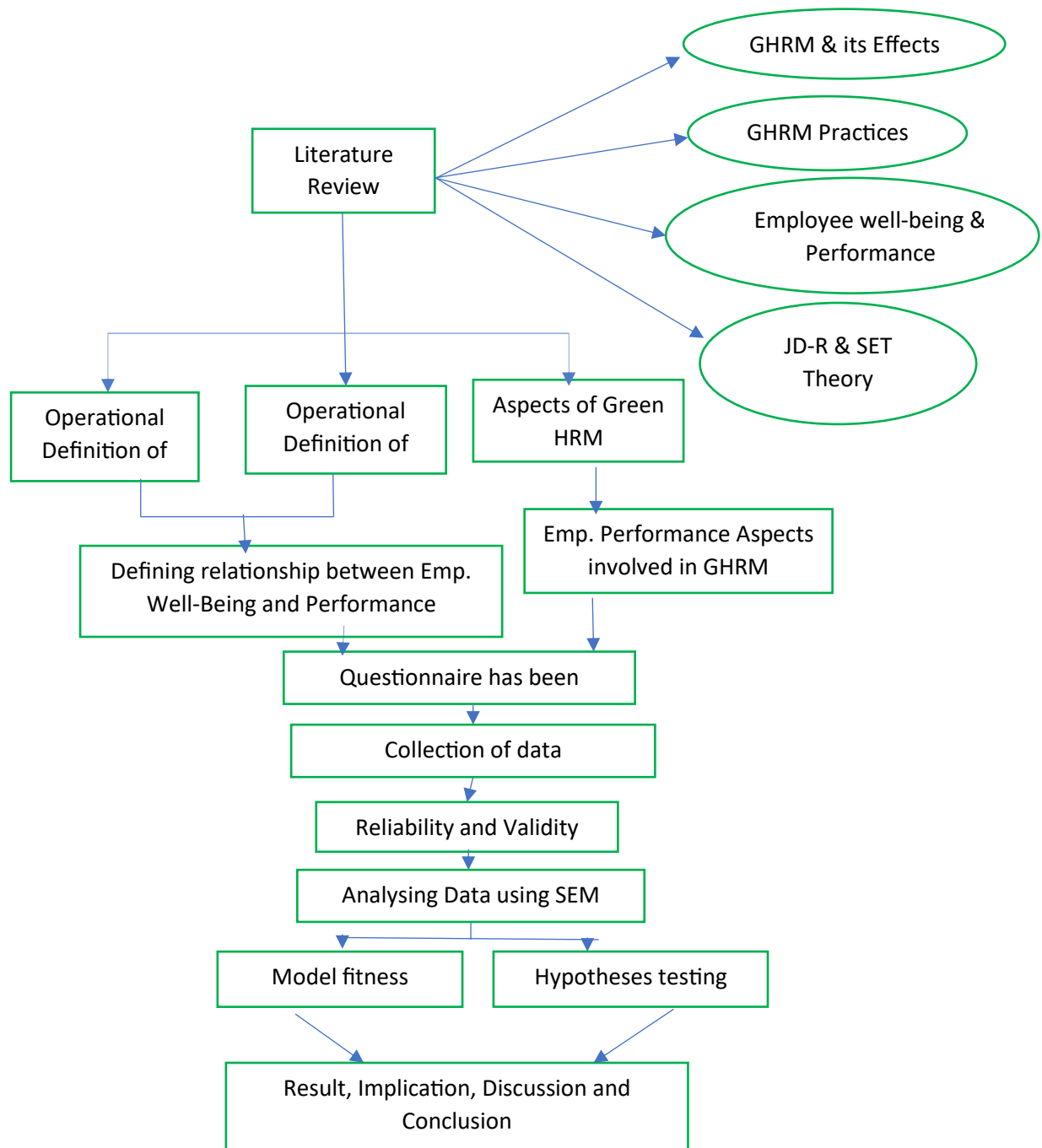


Figure 3.1: Research Flow Diagram

3.2.1 ITC

The Indian Tobacco Company (ITC), established on 24 August 1910, represents a longstanding presence within India's corporate landscape. The company's operations are based in the Sidcul region of Haridwar, located in northern India, where ITC has emerged as a prominent employer. Over time, ITC has strategically diversified its business portfolio, engaging in sectors such as education, leisure, personal care, branded apparel, stationery, agricultural business, cigarettes, and information technology. This broad sectoral involvement underscores ITC's significant and sustained contribution to the region's economic development.

ITC Maurya, New Delhi

ITC Maurya, situated in the Diplomatic Enclave of New Delhi, honors the legacy of the Mauryan Dynasty. The hotel provides stunning views of the ridge, luxurious accommodation, and acclaimed dining options. It is the preferred choice for heads of state and global leaders. Additionally, ITC Maurya is a LEED® Platinum-certified hotel, recognized for its award-winning culinary experience, with a workforce of 251 employees. As of the period when data was collected, ITC was actively championing eco-friendly and sustainable business practices, reiterating its commitment to a green future.

3.2.2 Suzlon Energy Ltd.

Suzlon Energy Ltd.'s global headquarters in Pune, Maharashtra, India, known as "One Earth," has received LEED Platinum certification. It is an electrical/electronic manufacturing company. The One Earth campus is spread across 10 acres and is powered entirely by renewable energy, including hybrid wind turbines, solar panels, and photovoltaic cells. It is one of the greenest corporate campuses globally and ranks among the largest green building projects in India. Suzlon Energy Ltd. employed roughly 400 individuals, spanning a variety of job roles and functions.

3.2.3 Six Senses Vana- A Wellness Retreat

From its inception, the retreat was envisioned with the Green Building Concept, harmoniously integrating with the surrounding Sal forests, Mango orchards, and Lychee groves. In 2015, commitment to sustainable design was recognized when they were conferred the LEED Platinum status, making them the first retreat in India to achieve such an esteemed environmental benchmark. The retreat's design emphasizes natural airflow within its interiors, while the exteriors remain verdant, preserved in their most authentic and untouched state. Employed roughly 136 individuals, spanning a variety of job roles and functions.

3.2.4 Olympia Technology Park

Olympia Technology Park, situated in Chennai, Tamil Nadu, stands as a beacon in the southern region of India for those in the information technology sector. It is not only one of the most sought-after IT office locations in the region but also holds the distinction of being the first green building in Chennai, showcasing a commitment to sustainable development and environmental consciousness. Employed roughly 125-200 individuals, spanning a variety of job roles and functions. The first largest LEED Certified Gold rated Green Building in the city.

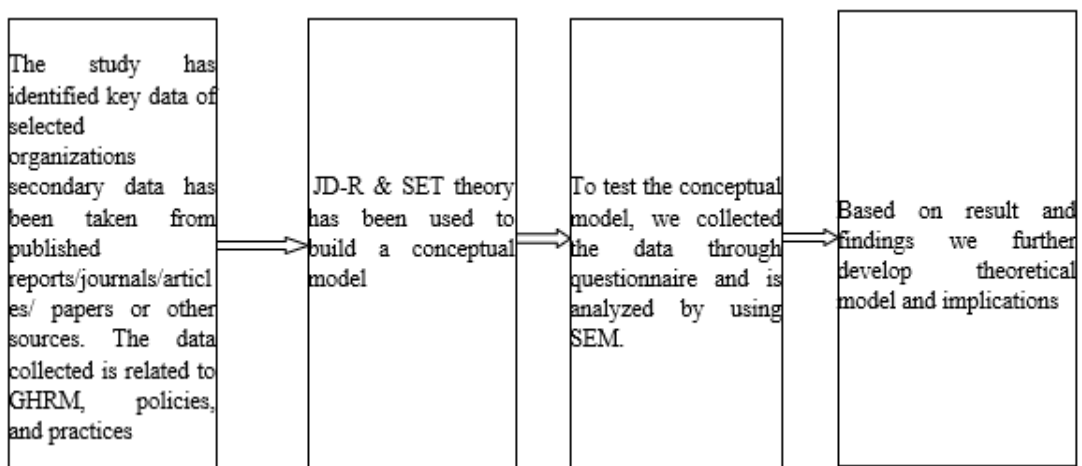


Figure 3.2: Flow diagram

3.3 Research framework and hypotheses

This research aims to explore the positive effects of three key factors on employee well-being: green T&D, green P&R, and green workplace. Additionally, it hypothesizes that employee well-being is positively related to employee performance.

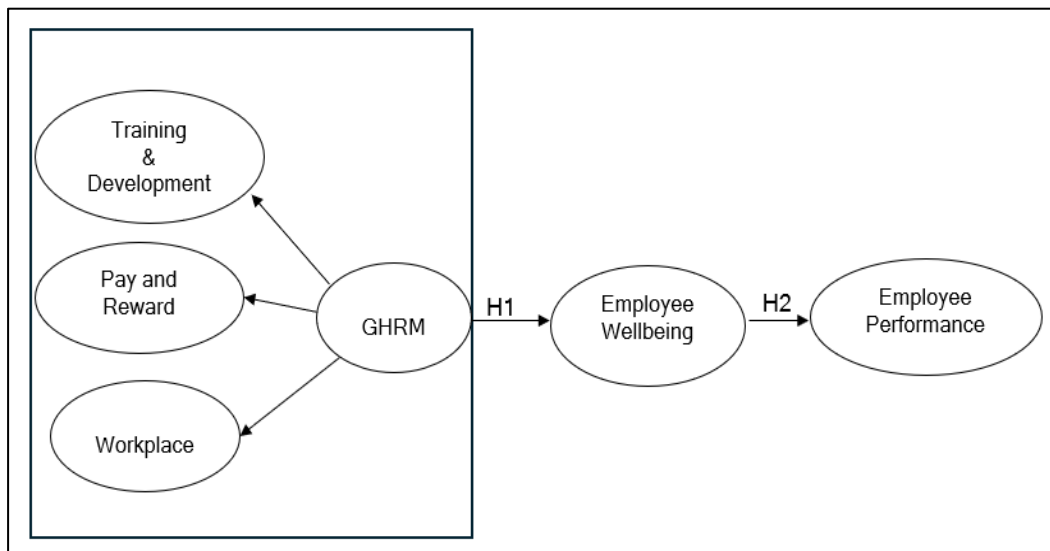


Figure 3.3: Green HRM model

The research framework, as illustrated in Figure 3.3, presents the hypotheses and their interrelationships. By investigating the effect of these green practices about employee well-being plus subsequently linking employee well-being to performance, the work seeks to shed light upon the importance of creating environmentally sustainable work environments further promote employee well-being furthermore ultimately enhance overall organizational performance.

Hypotheses:

H1: Green HRM has significantly influence employee well-being.

H2: Employee well-being has significantly influence employee performance.

3.4 Research Instrument

According to Parahoo (1997) a research instrument is “a tool used to collect data. An instrument is a tool designed to measure knowledge, attitude and

skills.” In this research a questionnaire is the instrument that was used for collecting data. According to Calderon & Expectacion (1993) this instrument is easy to construct, distribution is easy and expensive, and responses are easy to tabulate. To address the study’s two hypotheses, the questionnaire was structured into five distinct sections. The first section included five items focusing on green training and development. The second sections comprised four items each on green pay and reward. The third section comprised five items each on green workplace. The fourth section comprises five questions focused on employee well-being, which is broadly defined as a holistic measure of happiness and life evaluation, encompassing life satisfaction and the presence of positive emotions. The fifth section includes five questions that pertain to assessing employee performance. All items were evaluated by means of a five-level Likert scale, ranging from "strongly agree" (5) to "strongly disagree" (1). The items representing the study variables were developed based on an extensive review of existing literature. To ensure content validity, feedback was sought from subject matter experts—two from academia and two from industry. Their insights led to appropriate modifications, following which the finalized items were included in the questionnaire. Reliability of the constructs was assessed using Cronbach’s alpha, with all scales exceeding the recommended threshold of 0.8. Additionally, to confirm validity, a measurement model was tested using AMOS, and the results indicated satisfactory levels of both convergent and discriminant validity across all constructs.

3.4.1 Sampling and sampling methods

The sampling strategy involved the selection of the sample organizations in the first phase and the selection of respondents in the second phase. the selection of companies was purposive sampling as only LEED certified companies were involved in the research. Four companies in the domain of renewable energy, hospitality, wellness resort and IT park were selected to ensure representation of major industrial segments. the HR section of these companies were contacted for the purpose of data collection. The selection of respondents was carried out at random by the HR sections of these companies and questionnaire was circulated and data collected by them. The completed questionnaires were

forward by HR sections to the researcher. As for sample size, Yamane's formula was used to determine the sample size at a confidence level of 95%

For the distribution of questionnaires, a purposive sampling method was employed to ensure that the respondents were appropriate and relevant to the population under study. The sample under study was taken only from the companies that are certified by the LEED that's why we adopt the purposive sampling technique. Yamane's formula was used to determine the sample size. The headcount for four companies was under 1000. Using a margin of error of $\pm 5\%$, the sample size comes to be 285.71 which is equivalent to 286. The sample size used in the study was 350, which is greater than the calculated sample size.

The organizations are from a wide domain of operations. Four organizations representing all categories of operations were selected for study. The number of respondents for the study were determined on the basis of Yamane's formula. The sampling unit was the employee in the company working at lower and middle management levels. Upon completion of the questionnaires, the data is recorded and organized using an electronic format, such as an Excel spreadsheet. Utilizing an electronic format significantly improved data management and analysis throughout the study. To maintain data accuracy and quality, we conducted a comprehensive review of the dataset—checking for completeness, pinpointing any missing information, and verifying the range and distribution of collected values. Any inconsistencies or errors were promptly addressed.

After this verification phase, the data was manually entered into SPSS (SPSS Inc.), a statistical analysis software. This platform enabled a thorough exploration of relationships and patterns within the dataset, supporting the testing of research hypotheses and the formulation of meaningful conclusions. By following these procedures, the study prioritized data integrity and reliability across both collection and analysis. This approach ensured that the findings accurately represent the relationships among the examined variables.

3.4.2 Data collection

The accomplishment or failure of research is frequently determined by data and its collection. As a result, it is critical to select an appropriate methodology for data collection. The research draws on both primary plus secondary data for comprehensive analysis. Secondary data was gathered from peer-reviewed articles published in prestigious management journals such as “International Journal of Human Resource Management, Journal of Cleaner Production, Human Resource Management (US), Journal of Management, Academy of Management Review” etc. and the website of LEED was employed. The main technique for gathering data is self-administered surveys with Likert scale questions. The participants were sent the questionnaires via the internal email arrangements of part taking organizations.

The study involves voluntary participation, with no monetary or other compensation offered. Employees were allowed to complete the questionnaire during their working hours, ensuring convenience and minimizing disruptions to their regular work activities.

The survey questioner was forwarded to the HR heads of the identified organizations through email. The HR heads were requested to identify appropriate respondents in their organizations. The respondents were identified by HR heads. A google form was created for the respondents to submit their responses. The google form link was administered to the respondents by HR heads. The respondents submitted their responses on the google form. Reminder emails were sent to respondents after one month of the questionnaire administration.

The data collected were analyzed using Structural Equation Modeling (SEM) with the AMOS 27.0 software. This method was employed to test and validate the proposed hypothetical model and evaluate its fit with the observed data. By utilizing self-administered questionnaires alongside SEM, the study effectively gathered quantitative data and examined the relationships among key variables. The results of this analysis aim to offer valuable insights into the proposed

model, enhancing the understanding of how green HRM practices influence employee well-being and performance.

3.4.3 Survey questionnaire design

In this study, data were collected through a structured survey questionnaire designed to ensure the validity of the research findings. The development of the questionnaire was informed by an extensive review of relevant literature and academic journals, with particular emphasis on the context of green management. The formal survey questionnaire was administered to the respondents, and data collection took place over the course of two months. The questionnaire consisted of six categories: 5 questions related to significance of Green Training & Development, 4 questions considering significance of Green Pay & Reward, 5 questions considering significance of green workplace, 5 questions considering significance of employee well-being (We define well-being as generally understood to be a comprehensive concept of happiness and to represent an assessment of one's life, encompassing life satisfaction with positive affect.), 5 questions related to what degree does employee well-being have an impact on employee performance?, 6 questions related to demographic profile.

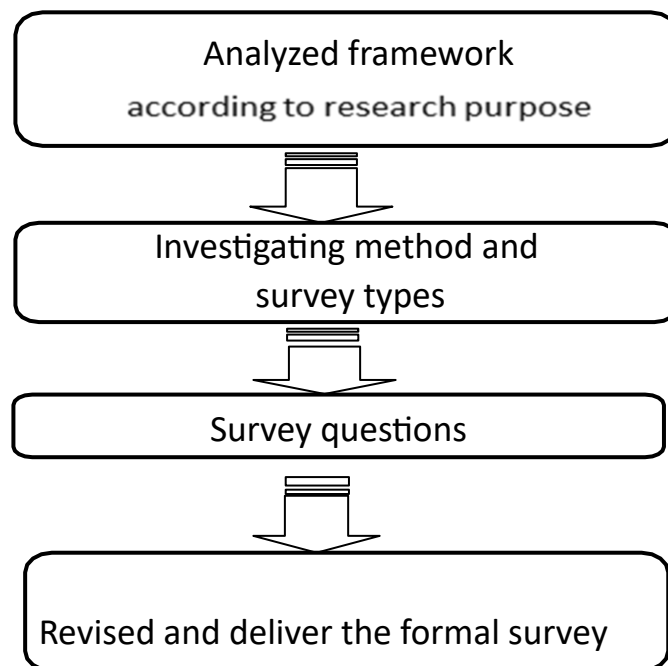


Figure 3.4: Design process of survey question

The survey questionnaire comprised a total of 24 items. By proceeding with the survey questionnaire consisting of 24 questions, this research aims to investigate relationships and explore further insights into the topic of interest.

3.5 Overview of Research Methodology

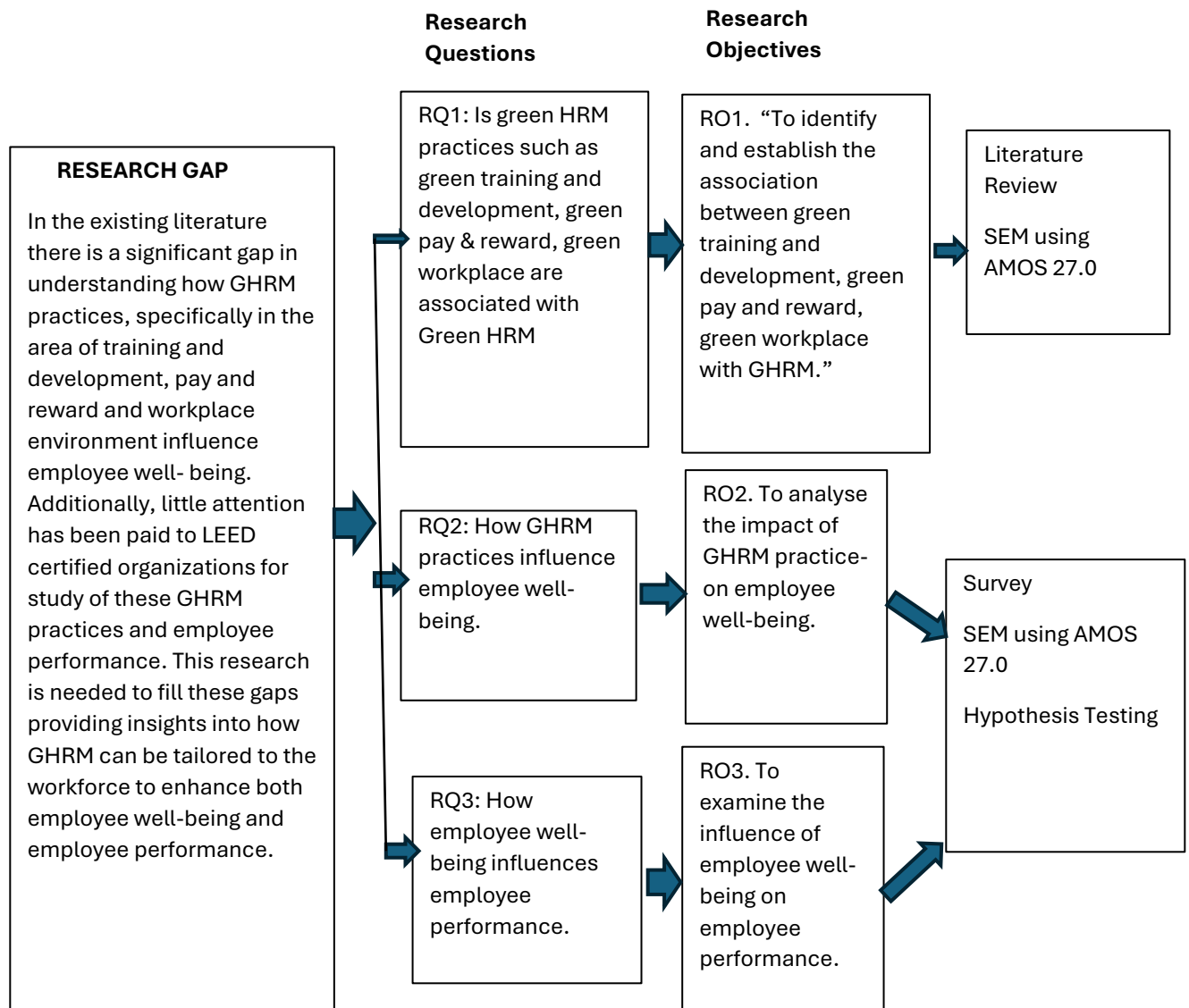


Figure 3.5: Overview of Research Methodology

3.6 Summary

This chapter has described the research design adopted for the purpose of the study. The research flow has been explained using a research flow diagram. The sample companies for the purpose of the study have been illustrated. The

hypotheses of the study have been defined using green HRM model. Sampling method and method of data collection have been explained. Use of a survey questionnaire as a research instrument has been justified. The chapter also explains the process of designing the survey questionnaire on a five-point Likert scale. Introduction to the method of data analysis using SEM conducted through AMOS 27.0 software has also been incorporated in the chapter.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

The chapter details the approach adopted for analysis of data and its interpretation. the logic of sample selection and size has been explained. The reliability and validity of the data have been established using Cronbach alpha. Structural equation modeling (SEM) has been used for analysis. On the basis of SEM, a measurement model and structural model have been developed, and model fit has been tested. The results of analysis have been illustrated in this section. The chapter also elaborates the hypotheses testing results, with both hypotheses found to be supported.

4.2 Summary of responses

Table 4.1: The summary of responses

LEED Certified Organizations	Questionnaire Circulated	Questionnaire Received	Questionnaire Rejected	Questionnaire Used
ITC Maurya, New Delhi	200	150	29	121
Suzlon Energy Ltd	200	148	28	120
Six Senses Vana- A Wellness Retreat	95	34	05	29
Olympia Technology Park	245	89	09	80
Total	700	421	71	350

4.3 Analysis of data and Results

In order to uncover important insights, make conclusions, and support decision-making, data analysis entails carefully reviewing, honing, reshaping, and building models from data. Structural Equation Modeling (SEM) using AMOS 27.0 was employed to evaluate the significance of the data, confirm the validity of the proposed hypothetical model, and assess its alignment with the observed data.

4.4 Reliability and Validity

According to Colin Phelan and Julie Wren, validity refers to the extent to which a test accurately measures what it is intended to measure. In this study, the internal consistency toward each item is evaluated using Cronbach's α to determine the survey's validity and reliability. Reliability is defined by Phelan

and Wren as the stability and consistency of the outcomes generated by an evaluation tool. Reliability is indicated by a Cronbach's α value greater than 0.7, which is generally considered high. Values between 0.35 and 0.7 reflect moderate reliability, while scores below 0.35 indicate low reliability.

4.5 Population profile

Table 4.2: Demographic profile of the sample

Variable	Categories	Response %
Gender	Male	67
	Female	33
Age Group	Below 30 years	22
	31-40 years	28
	41-50 years	38
	Above 50 years	12
Employment	Full-time	100
	Part-time	0

Table 4.2 presents the population demographics of the respondents. From a total of 350 participants, 67% identified as male and 33% as female. The majority of respondents claimed working full-time. Within the age range, 22 percent were below 30 years, 28 percent were between the ages of 31 and 40, with 38 percent falling between the ages of 41 and 50, 12 percent above 50 years. Furthermore, a significant majority of respondents demonstrated awareness of the environmental design features associated with green buildings.

4.6 Structural Equation Modelling (SEM)

SEM is a strong multivariate tool for investigating the interdependence of variables in a hypothesized model. SEM is essentially a blend of multiple

regression plus Confirmatory Factor Analysis (CFA), with two major components: the measurement model together with the structural model. The primary objective of the measurement model is to evaluate the validity and reliability of both latent and observable variables, as Doloi et al. (2011) explicate. It investigates the connections between observable variables measurable indicators and latent variables, or underlying constructs. Ensuring that indicators genuinely capture the constructs they aim to represent is a crucial aspect of SEM. In this framework, the structural model examines the strength and nature of relationships between latent variables—both direct and indirect. This process allows researchers to investigate not only how variables are interconnected but also whether their measures are reliable and valid. Ultimately, SEM offers a comprehensive way for researchers to analyse complex systems and phenomena, providing valuable insights into both the measurement properties and the structural pathways within their models.

4.6.1 The measurement model

AMOS version 27.0 was employed to conduct Confirmatory Factor Analysis (CFA) for evaluating the measurement model. Establishing the validity along with the reliability of this model is essential prior to examining the structural relationships among constructs. This process ensures that the indicators accurately represent the intended latent variables, which is foundational for meaningful analysis. Both Ifinedo (2006) and Fornell and Lacker (1981) have highlighted the critical nature of this preliminary evaluation. Fornell and Lacker, in particular, introduced the concept of discriminant validity, which focuses on determining whether constructs are sufficiently distinct from one another. Ifinedo also underscores the importance of evaluating both validity (measurement accuracy) and reliability (internal consistency). By conducting CFA and analyzing metrics such as factor loadings, composite reliability, plus average variance extracted, researchers can confirm that the measurement model faithfully captures the constructs of interest, ensuring their distinctiveness and overall measurement quality. This rigorous evaluation ensures the robustness of the subsequent structural model analysis.

Figure 4.1 illustrates the final measurement model, which consists of five constructs: Green Training and Development (GTD), Green Pay and Reward (GPR), Green Workplace (GWP), Employee Well-being (EWB), and Employee Performance (EMP). Each construct, except for Green Pay and Reward (GPR), is represented by five items, while GPR is measured by four items, resulting in a total of 24 observed indicator variables (GT1–EP5).

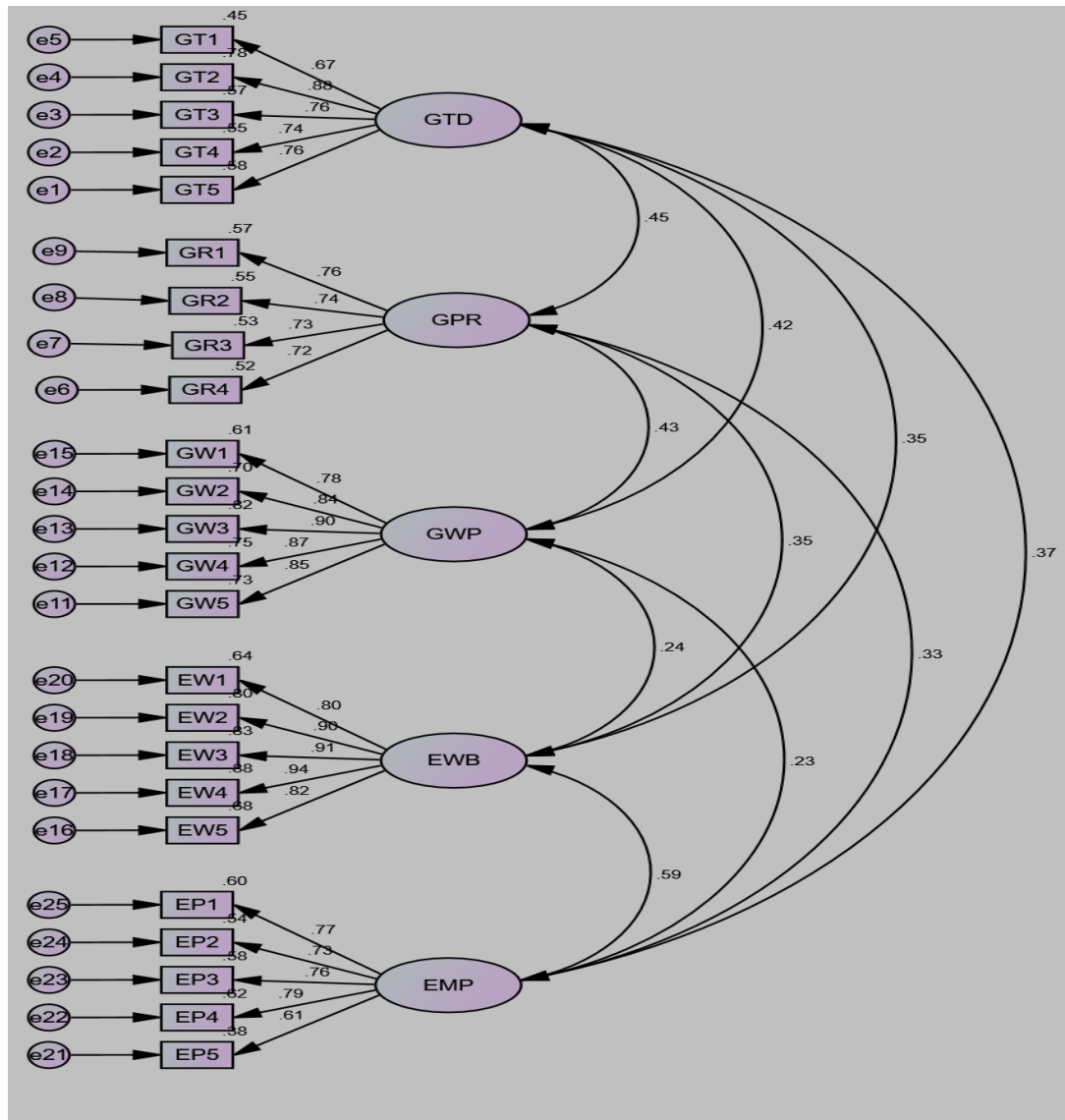


Figure 4.1: Measurement Model

Table 4.3: Unstandardized Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
GT5	<---	GTD	1.000				
GT4	<---	GTD	.962	.079	12.127	***	par_1
GT3	<---	GTD	.946	.076	12.399	***	par_2
GT2	<---	GTD	1.112	.077	14.493	***	par_3
GT1	<---	GTD	.784	.072	10.831	***	par_4
GR4	<---	GPR	1.000				
GR3	<---	GPR	.968	.093	10.373	***	par_5
GR2	<---	GPR	.967	.091	10.576	***	par_6
GR1	<---	GPR	.999	.093	10.734	***	par_7
GW5	<---	GWP	1.000				
GW4	<---	GWP	1.019	.056	18.266	***	par_8
GW3	<---	GWP	.977	.050	19.674	***	par_9
GW2	<---	GWP	1.081	.063	17.201	***	par_10
GW1	<---	GWP	.968	.063	15.319	***	par_11
EW5	<---	EWB	1.000				
EW4	<---	EWB	1.096	.055	20.096	***	par_12
EW3	<---	EWB	1.092	.057	19.084	***	par_13
EW2	<---	EWB	1.100	.059	18.513	***	par_14
EW1	<---	EWB	.989	.064	15.437	***	par_15
EP5	<---	EMP	1.000				
EP4	<---	EMP	1.132	.116	9.783	***	par_16
EP3	<---	EMP	.926	.097	9.572	***	par_17
EP2	<---	EMP	1.038	.111	9.348	***	par_18
EP1	<---	EMP	.985	.102	9.674	***	par_19

The analysis in table 4.3 shows that all observed variables significantly load onto their respective latent factors, with high critical ratios and strong loadings,

indicating a well-fitting model. All estimates are statistically significant at $p < 0.001$.

Table 4.4: Standardized Regression Weights: (Group number 1 - Default model)

			Estimate				Estimate
GT5	<---	GTD	0.762	GW2	<---	GWP	0.837
GT4	<---	GTD	0.743	GW1	<---	GWP	0.78
GT3	<---	GTD	0.758	EW5	<---	EWB	0.825
GT2	<---	GTD	0.883	EW4	<---	EWB	0.94
GT1	<---	GTD	0.671	EW3	<---	EWB	0.912
GR4	<---	GPR	0.72	EW2	<---	EWB	0.896
GR3	<---	GPR	0.726	EW1	<---	EWB	0.799
GR2	<---	GPR	0.744	EP5	<---	EMP	0.614
GR1	<---	GPR	0.758	EP4	<---	EMP	0.785
GW5	<---	GWP	0.853	EP3	<---	EMP	0.759
GW4	<---	GWP	0.867	EP2	<---	EMP	0.733
GW3	<---	GWP	0.904	EP1	<---	EMP	0.772

The factor loadings in table 4.4 show moderate to strong relationships between observed variables and their respective latent constructs, ranging from 0.614 to 0.940, indicating that the latent factors (GTD, GPR, GWP, EWB, and EMP) are well-represented by the observed variables. All loadings suggest good model fit and significant associations.

Table 4.5: Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
GTD	<-->	GPR	.231	.044	5.267	***	par_20
GTD	<-->	GWP	.220	.040	5.442	***	par_21
GTD	<-->	EWB	.149	.031	4.774	***	par_22
GTD	<-->	EMP	.130	.029	4.481	***	par_23
GPR	<-->	GWP	.233	.044	5.300	***	par_24
GPR	<-->	EWB	.153	.034	4.535	***	par_25
GPR	<-->	EMP	.120	.030	3.950	***	par_26

			Estimate	S.E.	C.R.	P	Label
GWP	<-->	EWB	.108	.030	3.562	***	par_27
GWP	<-->	EMP	.086	.027	3.166	.002	par_28
EWB	<-->	EMP	.175	.028	6.233	***	par_29

The estimates for the covariances in table 4.5 between latent factors (GTD, GPR, GWP, EWB, and EMP) indicate significant positive relationships, with critical ratios (C.R.) above 3 and p-values less than 0.05, showing strong associations between these constructs.

Table 4.6: Correlations: (Group number 1 - Default model)

			Estimate
GTD	<-->	GPR	.448
GTD	<-->	GWP	.420
GTD	<-->	EWB	.355
GTD	<-->	EMP	.369
GPR	<-->	GWP	.429
GPR	<-->	EWB	.351
GPR	<-->	EMP	.328
GWP	<-->	EWB	.244
GWP	<-->	EMP	.232
EWB	<-->	EMP	.587

The estimates in table 4.6 for the covariances between the latent factors (GTD, GPR, GWP, EWB, and EMP) show varying strengths of relationships. The highest covariance is observed between EWB and EMP (0.587), suggesting a strong connection between these two factors. Conversely, the lowest covariance is between GWP and EMP (0.232), indicating a relatively weaker but still significant association. These values reflect the interconnectedness of these constructs, with moderate to strong correlations across the variables.

Table 4.7: Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
GTD	.499	.071	7.004	***	par_30
GPR	.534	.086	6.210	***	par_31
GWP	.549	.065	8.481	***	par_32
EWB	.355	.044	8.101	***	par_33
EMP	.249	.048	5.187	***	par_34
e1	.360	.038	9.549	***	par_35
e2	.374	.038	9.766	***	par_36
e3	.330	.034	9.597	***	par_37
e4	.175	.026	6.662	***	par_38
e5	.374	.036	10.345	***	par_39
e6	.497	.055	8.998	***	par_40
e7	.448	.050	8.899	***	par_41
e8	.404	.047	8.619	***	par_42
e9	.396	.047	8.361	***	par_43
e11	.205	.022	9.247	***	par_44
e12	.189	.021	8.952	***	par_45
e13	.117	.015	7.743	***	par_46
e14	.274	.029	9.528	***	par_47
e15	.332	.033	10.189	***	par_48
e16	.167	.016	10.265	***	par_49
e17	.056	.008	7.101	***	par_50
e18	.086	.010	8.609	***	par_51
e19	.106	.012	9.139	***	par_52
e20	.197	.019	10.471	***	par_53
e21	.411	.039	10.412	***	par_54
e22	.198	.023	8.654	***	par_55
e23	.156	.017	9.090	***	par_56

	Estimate	S.E.	C.R.	P	Label
e24	.230	.024	9.440	***	par_57
e25	.164	.018	8.896	***	par_58

The estimates in table 4.7 for the factor loadings and error variances show the strength plus significance of the relationships concerning the latent variables (GTD, GPR, GWP, EWB, EMP) and their observed indicators (e1–e25). All paths are statistically significant, with high critical ratios (C.R.) and p-values marked as "***", indicating robust relationships. Notably, GTD, GPR, and GWP exhibit higher loadings (0.499 to 0.549), while EMP shows a comparatively lower loading of 0.249. The error variances (e1–e25) also range from low to moderate, reflecting the measurement model's precision.

Table 4.8: Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate		Estimate
EP1	0.596	GW3	0.818
EP2	0.538	GW4	0.752
EP3	0.577	GW5	0.728
EP4	0.617	GR1	0.574
EP5	0.377	GR2	0.553
EW1	0.638	GR3	0.528
EW2	0.802	GR4	0.518
EW3	0.832	GT1	0.451
EW4	0.884	GT2	0.779
EW5	0.68	GT3	0.575
GW1	0.608	GT4	0.552
GW2	0.701	GT5	0.581

The estimates in table 4.8 provided for the observed variables show the standardized regression weights between each indicator and its corresponding latent variable. For example, "EP4" has a relatively strong loading of 0.617 on EMP, while "GT1" has a lower loading of 0.451 on GTD. The highest loadings are seen in "EW4" (0.884) for EWB and "GW3" (0.818) for GWP, indicating strong associations with their respective latent constructs. In contrast, some loadings, like "EP5" (0.377) and "GR4" (0.518), are relatively lower, showing weaker relationships with their latent variables.

The measurement model parameters were assessed in terms of reliability (see Table 4.9), convergent and discriminant validity (refer to Table 4.10). Reliability was determined by calculating internal consistency, which evaluates whether each survey item measures the same underlying construct. Cronbach's alpha was used as a measure of internal reliability for all constructs, Green Training and Development (GTD), Green Pay and Reward (GPR), Green Workplace (GWP), Employee Well-being (EWB), and Employee Performance (EMP) based on the pairwise correlations among items. Cronbach's α values range from 0 to 1, with values between 0.6 and 0.7 considered acceptable, and values above 0.7 indicating good reliability (Sekaran, 2003). As shown in Table 4.9, the reliability coefficients for all constructs exceed 0.7 and approach 0.9, demonstrating very good internal consistency. Specifically, Cronbach's α values are 0.873 for GTD, 0.825 for GPR, 0.826 for GWP, 0.941 for EWB, and 0.816 for EMP. These results confirm that the measures are reliable and suitable for use in SEM analysis.

Each construct's reliability within the measurement model was determined through composite reliability. Hair et al. (2010) emphasize that this method serves as a robust indicator of reliability, as it evaluates how consistently the items represent the intended construct. By focusing on internal consistency, it ensures that the scale reliably captures the underlying concept across all measured items.

Table 4.9 presents the composite reliability values for the constructs: 0.876 for GTD, 0.826 for GPR, 0.928 for GWP, 0.943 for EWB, and 0.845 for EMP. All composite reliability values exceed the threshold of 0.7, indicating that each construct in the measurement model demonstrates good reliability.

Table 4.9: Reliability

Construct	Items	Composite Reliability	Cronbach Alpha
Green Training and Development	GT5	0.876	0.873
	GT4		
	GT3		
	GT2		

“Green Pay and Reward”	GT1		
	GR4	0.826	0.825
	GR3		
	GR2		
	GR1		
Green Workplace	GW5	0.928	0.826
	GW4		
	GW3		
	GW2		
	GW1		
Employee Well-being	EW5	0.943	0.941
	EW4		
	EW3		
	EW2		
	EW1		
Employee Performance	EP5	0.845	0.816
	EP4		
	EP3		
	EP2		
	EP1		

Table 4.10: Convergent and Discriminant validity

Construct	Items	AVE	ASV	Standardized Regression Weights
Green Training and Development	GT5	0.587	0.16	0.762
	GT4			0.743
	GT3			0.758
	GT2			0.883
	GT1			0.671
Green Pay and Reward	GR4	0.543	0.145	0.72
	GR3			0.726
	GR2			0.744
	GR1			0.758
Green Workplace	GW5	0.721	0.118	0.853
	GW4			0.867
	GW3			0.904
	GW2			0.837
	GW1			0.78
Employee Well-being	EW5	0.767	0.163	0.825
	EW4			0.94
	EW3			0.912

	EW2			0.896
	EW1			0.799
Employee Performance	EP5	0.541	0.161	0.614
	EP4			0.785
	EP3			0.759
	EP2			0.733
	EP1			0.772

Table 4.10 presents the Average Variance Extracted (AVE), Average Shared Variance (ASV), and Standardized Regression Weights for the Green HRM constructs. The AVE values are all above 0.5, demonstrating strong convergent validity. Additionally, the ASV values fall within the acceptable range, supporting adequate discriminant validity for the constructs assessed. The Standardized Regression Weights confirm strong relationships amongst the items along with their respective constructs.

According to Hair et al. (2010), convergent validity assesses how strongly the indicators of a construct converge by sharing a significant amount of common variance. It is assessed using standardized regression weights (factor loadings), which indicate how well each observed variable represents its underlying latent construct. According to Hair et al. (2010), standardized factor loadings should exceed 0.50 to be considered acceptable. As shown in Table 4.10, the standardized factor loadings of the observed variables range from 0.50 to 0.95, demonstrating that the indicators adequately represent their respective latent constructs. Therefore, convergent validity is confirmed.

According to Hair et al. (2010), discriminant validity assesses whether a construct can be clearly differentiated from other constructs in the model. Discriminant validity is typically assessed using two primary methods. First, the correlations between measures of theoretically distinct constructs should not be excessively high (Trochim, 2006). Second, the AVE (“Average Variance Extracted”) for each construct should exceed the ASV (“Average Shared Variance”) with other constructs. Additionally, the square root of the AVE should be greater than the inter-construct correlations. As shown in Table 4.10, the AVE values for the constructs are higher than their corresponding ASV values, confirming discriminant validity.

Table 4.11: Correlation Matrix & Square root of AVE matrix

	EWB	GTD	GPR	GWP	EMP
EWB	0.876				
GTD	0.355	0.766			
GPR	0.351	0.448	0.737		
GWP	0.244	0.42	0.429	0.849	
EMP	0.587	0.369	0.328	0.232	0.735

The correlation matrix displays the relationships between various constructs related to Green Human Resource Management (HRM). Each construct shows a positive correlation with others, with Employee Well-being (EWB) having the highest correlation with Green Training and Development (GTD) (0.355). The values along the diagonal represent the square roots of the Average Variance Extracted (AVE), confirming the constructs' convergent validity, as they are greater than their correlations with other constructs. Overall, this suggests good discriminant validity among the constructs.

Measurement Model - Goodness-of-fit indices

The goodness-of-fit of the measurement model is detailed in Table 4.13, with emphasis on major indices such as the CFI (“Comparative Fit Index”), GFI (“Goodness of Fit Index”), NFI (“Normed Fit Index”), TLI (“Tucker-Lewis Index”), and RMSEA (“Root Mean Square Error of Approximation”) (Hair et al., 2010). According to Gefen and Straub (2000), acceptable model fit is indicated by a chi-square to degrees of freedom ratio (χ^2/df) less than [value missing], CFI, GFI, NFI, and TLI values greater than 0.9, and an RMSEA value below 0.08.

Table 4.12: Measurement Model Summary

Model Fit Details**CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	58	384.982	242	.000	1.591
Saturated model	300	.000	0		
Independence model	24	4365.144	276	.000	15.816

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.028	.891	.865	.719
Saturated model	.000	1.000		
Independence model	.231	.262	.198	.241

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.912	.899	.965	.960	.965
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.877	.799	.846
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	142.982	93.457	200.433
Saturated model	.000	.000	.000
Independence model	4089.144	3878.817	4306.755

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.469	.546	.357	.765
Saturated model	.000	.000	.000	.000
Independence model	16.661	15.607	14.805	16.438

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.047	.038	.056	.672
Independence model	.238	.232	.244	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	500.982	513.218	708.167	766.167
Saturated model	600.000	663.291	1671.646	1971.646
Independence model	4413.144	4418.207	4498.876	4522.876

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.912	1.723	2.131	1.959
Saturated model	2.290	2.290	2.290	2.532
Independence model	16.844	16.041	17.675	16.863

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	191	202
Independence model	19	21

Table 4.13: Summary of goodness-of-fit indices for measurement model

Model	Fit Index	χ^2/df	CFI	GFI	NFI	TLI	RMSEA
Model		1.591	0.965	0.891	0.912	0.96	0.047

The model fit indices presented in table 4.13 are as follows: The chi-square/df (χ^2/df) ratio is 1.591, indicating a reasonable model fit (values between 1 and 3 are generally acceptable). The CFI (Comparative Fit Index) is 0.965, showing a very good fit (values above 0.90 are desirable). The GFI (Goodness of Fit Index) is 0.891, slightly below the ideal threshold of 0.90 but still close to acceptable. The NFI (Normed Fit Index) is 0.912, also above the recommended value of 0.90, indicating a good fit. The TLI (Tucker-Lewis Index) is 0.96, reflecting a strong fit. Lastly, the RMSEA (Root Mean Square Error of Approximation) is 0.047, which is excellent, as values below 0.05 indicate a close fit. Collectively, the fit indices suggest that the model demonstrates a satisfactory fit, thereby justifying further analysis of the structural model.

4.6.2 Structural Model

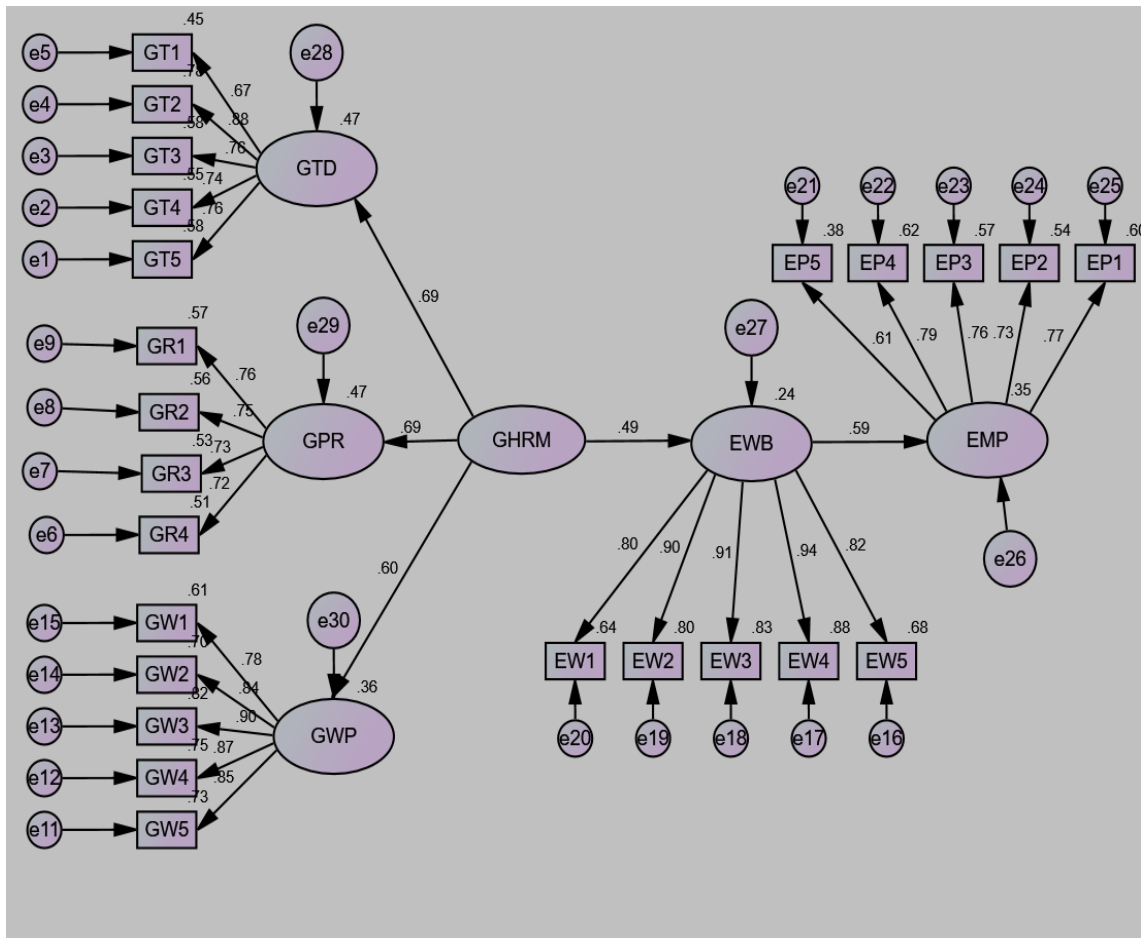


Figure 4.2: Structural Model

The figure 4.2 shows relationships between latent variables like GTD, GPR, and GWP influencing GHRM, which in turn affects EWB and EMP. The model depicts strong to moderate factor loadings, indicating significant relationships among workplace factors, well-being, and performance.

Table 4.14: Unstandardized Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
EWB	<---	GHRM	.605	.117	5.189	***	par_23
GTD	<---	GHRM	1.000				
GPR	<---	GHRM	1.032	.184	5.619	***	par_20
GWP	<---	GHRM	.912	.159	5.729	***	par_21
EMP	<---	EWB	.494	.066	7.456	***	par_22
GT5	<---	GTD	1.000				
GT4	<---	GTD	.962	.079	12.134	***	par_1
GT3	<---	GTD	.947	.076	12.423	***	par_2
GT2	<---	GTD	1.110	.077	14.476	***	par_3
GT1	<---	GTD	.782	.072	10.810	***	par_4
GR4	<---	GPR	1.000				
GR3	<---	GPR	.974	.094	10.356	***	par_5
GR2	<---	GPR	.974	.092	10.559	***	par_6
GR1	<---	GPR	1.001	.094	10.680	***	par_7
GW5	<---	GWP	1.000				
GW4	<---	GWP	1.019	.056	18.269	***	par_8
GW3	<---	GWP	.977	.050	19.691	***	par_9
GW2	<---	GWP	1.081	.063	17.203	***	par_10
GW1	<---	GWP	.967	.063	15.301	***	par_11
EW5	<---	EWB	1.000				
EW4	<---	EWB	1.094	.055	20.045	***	par_12
EW3	<---	EWB	1.091	.057	19.054	***	par_13
EW2	<---	EWB	1.102	.059	18.559	***	par_14
EW1	<---	EWB	.990	.064	15.466	***	par_15
EP5	<---	EMP	1.000				
EP4	<---	EMP	1.136	.116	9.762	***	par_16
EP3	<---	EMP	.925	.097	9.529	***	par_17
EP2	<---	EMP	1.040	.112	9.327	***	par_18
EP1	<---	EMP	.988	.102	9.647	***	par_19

This table 4.14 summarizes the standardized regression weights (Estimate), standard errors (S.E.), critical ratios (C.R.), and significance levels (P) for the relationships in a structural equation model (SEM). Here's a summary:

- EWB (Employee Well-Being) is significantly influenced by GHRM (Estimate = .605, $P < .001$).

- GTD, GPR, and GWP are all significantly predicted by GHRM, with estimates of 1.000 (GTD), 1.032 (GPR, $P < .001$), and .912 (GWP, $P < .001$).
- EMP (Employee Performance) is significantly influenced by EWB (Estimate = .494, $P < .001$).
- All the observed variables (e.g., GT1-GT5, GR1-GR4, GW1-GW5, EW1-EW5, EP1-EP5) have significant loadings on their respective latent variables ($P < .001$), with critical ratios indicating strong relationships.

Overall, all paths in the model are statistically significant, indicating that the relationships between constructs are robust.

Table 4.15: Standardized Regression Weights: (Group number 1 - Default model)

Estimate			
EWB	<---	GHRM	.493
GTD	<---	GHRM	.687
GPR	<---	GHRM	.687
GWP	<---	GHRM	.597
EMP	<---	EWB	.591
GT5	<---	GTD	.763
GT4	<---	GTD	.744
GT3	<---	GTD	.760
GT2	<---	GTD	.882
GT1	<---	GTD	.670
GR4	<---	GPR	.717
GR3	<---	GPR	.728
GR2	<---	GPR	.746
GR1	<---	GPR	.757
GW5	<---	GWP	.853
GW4	<---	GWP	.867
GW3	<---	GWP	.905
GW2	<---	GWP	.837
GW1	<---	GWP	.779
EW5	<---	EWB	.825
EW4	<---	EWB	.939
EW3	<---	EWB	.911
EW2	<---	EWB	.897
EW1	<---	EWB	.800
EP5	<---	EMP	.613

Estimate			
EP4	<---	EMP	.787
EP3	<---	EMP	.758
EP2	<---	EMP	.734
EP1	<---	EMP	.772

This table displays the standardized estimates illustrating the relationships between latent constructs and their observed variables in the SEM:

- GHRM has moderate effects on EWB (.493), GTD (.687), GPR (.687), and GWP (.597).
- EWB significantly influences EMP (.591).
- The factor loadings for the observed variables range from .670 to .882 for GTD, .717 to .757 for GPR, .779 to .905 for GWP, .800 to .939 for EWB, and .613 to .787 for EMP.

Overall, the latent variables show strong relationships with their respective indicators and moderate influences on other latent variables.

Table 4.16: Squared Multiple Correlations: (Group number 1 - Default model)

Estimate		Estimate	
EWB	0.243	GW1	0.607
EMP	0.35	GW2	0.701
GWP	0.356	GW3	0.819
GPR	0.472	GW4	0.751
GTD	0.471	GW5	0.728
EP1	0.596	GR1	0.572
EP2	0.539	GR2	0.556
EP3	0.574	GR3	0.53
EP4	0.619	GR4	0.514
EP5	0.376	GT1	0.449
EW1	0.639	GT2	0.778
EW2	0.805	GT3	0.577
EW3	0.83	GT4	0.553
EW4	0.882	GT5	0.582
EW5	0.68		

The estimates reflect the strength of the relationships between latent constructs and their observed variables within the SEM. EWB is estimated at 0.243, while EMP, GWP, GPR, and GTD have values of 0.350, 0.356, 0.472, and 0.471, respectively. Among observed variables, EW4 shows the highest loading for EWB (0.882), while EP4 is the strongest for EMP (0.619). Overall, the indicators demonstrate significant relationships within their constructs, reflecting their importance in the model.

Structural Model Fit – Goodness of Fit indices

Model Fit Details

Table 4.17: Structural Model Fit details

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	53	396.891	247	.000	1.607
Saturated model	300	.000	0		
Independence model	24	4365.144	276	.000	15.816

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.037	.888	.864	.731
Saturated model	.000	1.000		
Independence model	.231	.262	.198	.241

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.909	.898	.964	.959	.963
Saturated model	1.000		1.000		1.000

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.895	.814	.862
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	149.891	99.418	208.282
Saturated model	.000	.000	.000
Independence model	4089.144	3878.817	4306.755

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.515	.572	.379	.795
Saturated model	.000	.000	.000	.000
Independence model	16.661	15.607	14.805	16.438

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.048	.039	.057	.629
Independence model	.238	.232	.244	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	502.891	514.072	692.215	745.215
Saturated model	600.000	663.291	1671.646	1971.646
Independence model	4413.144	4418.207	4498.876	4522.876

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.919	1.727	2.142	1.962
Saturated model	2.290	2.290	2.290	2.532
Independence model	16.844	16.041	17.675	16.863

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	188	200
Independence model	19	21

4.6.3 Structural Model Fit Summary

Structural Equation Modeling was utilized to test the structural model, thereby validating the hypothesized conceptual framework. Table 4.18 presents the goodness-of-fit indices, indicating a marginally adequate fit. The values for $\chi^2/df = 1.607$, CFI = 0.963, GFI = 0.888, NFI = 0.909, TLI = 0.959, and RMSEA = 0.048, respectively, all of which meet the acceptable thresholds. Consequently, the analysis can proceed to test the hypotheses outlined in the model.

Table 4.18: “Summary of goodness-of-fit indices for structural model”

Model Fit Index	χ^2/df	CFI	GFI	NFI	TLI	RMSEA
Model	1.607	0.963	0.888	0.909	0.959	0.048

The properties of the structural model are summarized in Table 4.19, which includes standardized path coefficients (β), their standard errors, critical ratios, along with the outcomes of hypothesis testing.

4.6.4 Summary of testing hypotheses

Table 4.19: Summary of testing hypotheses

Hypothesis	Structural Relationship	St. Est (β)	St. Error	P	Result
H1	GHRM $\rightarrow$ EWB	0.49	0.117	$P < .005$	Supported
H2	EWB $\rightarrow$ EMP	0.59	0.066	$P < .005$	Supported

The hypotheses testing results indicate significant structural relationships in the model:

1. **H1: GHRM $\rightarrow$ EWB:** The standardized estimate (β) for the relationship between Green Human Resource Management (GHRM) and Employee Well-Being (EWB) is 0.49, with a standard error of 0.117. This relationship is statistically significant ($P < .05$), leading to the conclusion that GHRM positively influences EWB, thus supporting Hypothesis 1. The result indicates that there is reasonable evidence of the positive impact of GHRM on employee well-being. Although implementing GHRM causes initial employee resistance because of need of cultural change, but the employees soon recognize the benefits of green practices on their work environment and general welfare in terms of health, hygiene and better work place. so eventually green practices lead to the employees perceiving a positive impact on their well-being.
2. **H2: EWB $\rightarrow$ EMP:** The relationship between EWB and Employee Performance (EMP) has a standardized estimate of 0.59 and a standard error of 0.066. This also shows statistical significance ($P < .05$), indicating

that higher employee well-being is associated with improved employee performance, thereby supporting Hypothesis 2.

The hypothesis has been supported which indicates a positive impact of employee well-being on performance. The better performance is on account of higher satisfaction level of employees and a positive work environment. the employees tend to believe the efforts of management in providing a cleaner and healthier work environment and reciprocate by focusing on better performance. the individual better performance results in overall better performance for the organization.

A positive influence of GHRM on EWB has been established and a positive impact of EWB on EMP has been confirmed. So, both hypotheses are supported.

4.7 Summary

This chapter describes the sampling, reliability, and validity of data and results of analysis using structural equation modeling (SEM). The sample was taken from four LEED certified organizations with a total of 350 validated responses. The sample size has been validated using Yamane's formula. The demographic profile of the sample has also been given. The reliability of data has been established by evaluating internal consistency using Cronbach α . The basic introduction to structural equation modeling (SEM) has been given. The data was analyzed using SEM on AMOS 27.0 software. The results of analysis have been presented in the chapter. On the basis of the analysis, the measurement model and structure model have been arrived at. The results of testing the goodness of fit for both models have been presented in the chapter, and both models have been found to be adequate on this test. The chapter concludes with a summary of hypotheses testing, varying both hypotheses have been found to be supported.

CHAPTER 5

DISCUSSION

5.1 Introduction

This chapter describes the interpretation of data analysis results and their comparison with the outcomes of the literature review. The discussion focuses on the significance of training & development, pay & rewards, and workplace in adoption of GHRM. The chapter investigates the impact of GHRM on employee well-being and performance. The results have been found to be compatible with the existing result. The association of T&D, P&R, and Workplace with GHRM has also been discussed. In addition, the impact of employee well-being on performance has also been highlighted in this chapter.

5.2 Discussion

It has been established by the present study that green training and development is closely associated with GHRM practices. The GHRM practices have been found to have a positive impact on employee well-being.

Ahmed et. al. (2020) in a study on GHRM stated that green training and development is an essential component of GHRM. This study also emphasizes that GHRM has an influence on employee well-being and environmental sustainability. This study by Ahmed et. al. (2020) is in alignment with the results of present research. Many other recent studies on green training suggest that green training provides skill and knowledge to the employees to incorporate environmental concerns in their work, thereby addressing ecological challenges. Also, green training aligns organizational goals with sustainable green practices.

This is in line with the results of the present study, which suggests that there is a close association between GHRM & T&D. Training is necessary to develop

competence in employees for adopting green practices. GT&D, which is an important aspect of GHRM, is a specialized training with the aim of improving employees' competencies for managing environmental issues like waste reduction and energy conservation. Green T&D helps in developing a culture of innovation and improvement for environmental sustainability.

It is also supported by a study by Govindarajulu and Daily (2004) suggesting the need for specialized training with an objective of enhancing the competencies of employees and creating awareness on environmental issues. Environmental issues include waste reduction, energy conservation and ecological management. This study was supported by the work of Jabbour (2013), and Teixeira et al. (2016), who have examined the positive impact of training on improvement in technical skills and environmental consciousness in the employees, which eventually helps organizations in achieving green objectives. These studies by Govindarajulu and Daily (2004), Jabbour (2013), and Teixeira et al. (2016) are in alignment with the results of the present study, which has highlighted the importance of training in adopting GHRM.

The study has established that integration of green training and development in human resource practices, positively impacts employee performance Perron et al. (2006) in a study highlighted that green training and development is especially important for the organizations facing pressures related to environmental concerns. As per this study, green training has a positive influence on employee knowledge and fosters abilities for enhancing environmental performance. A study Bai and Sarkis in 2010 supported the study by Perron et al. and suggested that green training not only enhances organizational efficiency but also develops ability in the employees for providing creative solutions to organizational concerns.

Ahmed et al. in 2020 conducted a study on GHRM practices in the food industry. This study found a close association of adopting GHRM practices, including green training and development on enhanced organizational performance. He observed that the enhancement of performance is a result of promoting environmental awareness and fostering responsible behaviour in the

employees. Claver, in a study in 2007, mentioned that green trained employees develop the ability to cause minimal harm to the environment, while maintaining commercial viability of the organization. He also observed the development of a culture of innovation and continues improvement as a result of green training. This culture enables employees to identify opportunities for reducing consumption of resources and improving product quality, apart from improving performance and waste management practices. Claver mentions that these efforts result in long term sustainability and help organizations in contributing to Corporate Social Responsibility (CSR).

The above studies were also supported by a study conducted by Zoogah, 2011, who examined the relation between GHRM practices and employee well-being. Apart from establishing a positive relation between GHRM practices and employee well-being, the study concluded that GHRM practices enhance employee skills and understanding of environmental challenges. Also, in addition to green pay and rewards, and green workplace also contributes to employee well-being and subsequently employee performance. The results of this study are in alignment with the results of the present study. The scope of these studies was extended by Pham et al. in 2019. Pham observed that as a result of GHRM practices, employees feel more valued and engaged, which results in higher production and better employee commitment. Pham used structural equation modeling (SEM) and developed a model that indicates the positive influence of GHRM practices on employee well-being and employee performance.

In a study focused on GT&D, Tang et al. (2017) noticed that green training fosters a sense of purpose in the employees, which has a positive impact on sense of fulfillment and job satisfaction. Tang mentions that the employees with green training feel empowered to contribute to environmental sustainability. This is in alignment with the results of Zoogah in his study in 2011. Tang further noticed that the sense of empowerment results in employees feeling more competent in addressing environmental challenges and developing pride in contributing to organizational goals. The above-mentioned studies support the result of present research.

The study by Tang is also in lined with the results of the study by Pham et al 2019, which observed the impact of green training on employee psychological well-being. The sense of better psychological well-being is a result of aligning employees' personal values with organizational goals. The belief of employees that their work has a positive impact on the environment leads to greater job satisfaction and a sense of purpose. Srivastava and Shree in 2019 studied GHRM in hospitality industry. This study concluded that green training encourages employees to develop environmentally responsible behaviour leading to higher job satisfaction and a sense of engagement.

Saputro and Nawangsari, 2021, in their study, focused on psychological impacts of green training and development. The study concluded that green training enhances collaboration and teamwork leading to a positive work culture. This is a result of collective participation of the employees in green efforts resulting in shared purpose and community. It enhances the social relations of the employees and increases workplace morale. This study is in alinement with the results of studies conducted by Grant et al (2007) and Diener (2000). These studies found that green training develops a supporting environment in the organization and enhances employee well-being. The factors affecting employee well-being were considered as reduced stress, higher job satisfaction, and mental and physical health.

In their study, Joshi and Dhar (2020) focused towards the impact of green T&D on the performance of establishments. The study noticed that green training, apart from enhancing employee well-being, also has an impact on organizational resilience and competitiveness. In the face of pressures to meet environmental regulations and reduce carbon footprints, green training equips employees with skills to meet these challenges. It helps organizations to aim for being a leader in environmental sustainability, thereby strengthening competitive advantage in the market.

Akkermans and Tins (2017) in their study considered the cost of green training as an investment. The study examines the critical role of green training in organizational adaptability. Akkermans and Tins observed that the long-term

success of organizations requires ability to innovate and respond to environmental challenges. The cost incurred on green training is actually an investment which gives returns in the form of skilled motivated and aligned workforce.

The present study has established a close association between pay and reward and GHRM. Green pay and reward referred to rewarding employees for their contribution to the organizational goal of environmental sustainability. These rewards are necessary for motivating the employees for green efforts. The rewards may be monetary or non-monetary. The monetary rewards may be in the form of cash incentives or pay revision. The non-monetary rewards may include recognition and opportunity of promotion.

Similar results were furthered in many subsequent studies. Choi et al., 2013; Wang & Mao, 2013 mentioned in their study that green pay and reward is closely associated with GHRM which in turn has a positive impact on employee well-being. Zou et al., 2015; Pellegrini et al., 2018 extended these results in their studies and related green initiatives with organization success, survival and reputation in a market with growing environmental consciousness. The results of these studies are in alignment with the studies conducted by Renwick et al., 2008; Mandip, 2012; Islam et al., 2020, which suggest it is essential to adopt GHRM to remain sustainable in the market. They also conclude that green pay and rewards results in the high motivation level of employees, leading to better organizational performance.

Rubel et al. (2021) conducted a study on green pay and reward systems. The study indicates that green pay and reward is an integral component of GHRM, with an objective to offer incentives to the employees for their contribution to green efforts. The rewards may be monetary or non-monetary. Rubel further observes that green pay and rewards contribute to the environmental objectives of organizations and result in higher employee performance.

Berrone, 2009; Roscoe et al., 2019 conducted a study focused on monetary rewards at Dupont US and Nesle Oil Europe. Bonus, cash incentive and pay

increments were considered as monetary rewards in the study. The study indicated that monetary rewards for participation in green initiatives lead to better employee performance. The study also found that financial rewards for environmental sustainability improve job satisfaction and financial security for the employees.

Cordeiro and Sarkis, 2008 in their study focused on non-monetary rewards for green efforts. Non-monetary rewards included gift cards, the opportunity for promotion, recognition and extra paid time off. Their study in Dow Chemicals indicated that non-monetary rewards contribute significantly to motivating employees to adopt green practices. For example, Dow Chemicals provides letter of appreciation to employees for proposing innovative solutions for environmental sustainability. The same concept was extended in a study by Ramus, 2002; Stefanelli et al., 2019, which proposed that non-monetary rewards help in developing a positive work culture by incorporating a sense of belonging and appreciation. This positive work culture directly impacts employee well-being and commitment to green initiatives. Ramus further observed that monetary rewards are in the form of tangible incentives, while the non-monetary rewards have a psychological influence on the employees. These rewards make employees feel valued and develop a sense of purpose and alignment with the environmental objectives of the organizations. Ramus concluded that a good balance between both forms of rewards results in higher employee engagement, well-being, and performance.

The previous study by Ahmad, 2015; Ryan and Deci, 2001; Grant et al., 2007 also supports the results of Ramus, 2002; Stefanelli et al., 2019 by observing that green pay and reward has a positive impact on employee well-being and also significantly influences employee performance. These studies focus on impact on non-monetary rewards on positive work environment. The positive work environment makes employees feel valued. The employee starts perceiving the meaningfulness of their work, which leads to enhanced job satisfaction and emotional well-being. Green pay and rewards achieve these objectives by integrating the personal values of employees with their professional responsibilities.

Al-Minhas et al., 2020 in a study focused on the balance between monetary and non-monetary rewards. The study observes that financial rewards increase the perception of financial security and satisfaction of the employees, resulting in their overall well-being. On the other hand, non-financial rewards have psychological impacts on the employees and help in creating a supportive work culture and enhance a sense of pride in the employees for their contribution to environmental sustainability. This study is aligned with an earlier study with Yusliza et al. 2019, which stated that monetary and non-monetary rewards for green behavior increases employee motivation and enhances commitment of employees to environmental objectives of the organization. These rewards directly influenced the well-being and performance of the employees. The study notes that a good balance between monetary and non-monetary rewards creates a sustainable work environment. The sense of value for their effort in environmental protection makes employees engaged, motivated and committed to the goals of the organization resulting in better performance and eventual success of the organization.

This is supported by an earlier study by Rashid and Zimring in 2008, which investigated the relation between green pay and reward, employee well-being, and performance. This study concluded that employees can be motivated by the organizations to adopt green behaviour by providing a good combination of monetary and non-monetary rewards. It impacts both the performance and well-being of the employees leading to an encouraging work culture that fosters increased job satisfaction and a sense of purpose in the employees. This study used the SEM model for stabilizing relation between GHRM, well-being, and performance of the employees.

The study by Rashid et al. is also supported by Kamaruzzaman et al. (2011) and Zhang et al. (2011) who investigated the advantages of implementing GHRM. They concluded that GHRM results in benefits like economic upgradation, health and the emotional well-being of the employees. Some subsequent studies by Gou et al. (2013), Forsythe and Wilkinson (2015), Hui et al. (2015) focused further on perception of workers and organizations about green workplace. These studies highlighted the impact of green workplace on psychological well-

being, health and job satisfaction of the workers, as a result of green workplace. These results are in alignment with a study by Kato et al. (2009).

In the same line, some studies by Monfared and Sharples (2011), Deuble and John (2012), Daniel et al. 2014, and Wu's (2015) report higher satisfaction, a positive mindset, and increased motivation in the employees for adopting eco-friendly behaviour. Byrd and Rasheed (2016) extended the above studies by stating that GHRM results in a better image of the company by contributing to environmental responsibility. It leads to increased employee happiness and performance. The same results were reported by “Leather et al. (2003), Lee and Brand (2005), Frontczak et al. (2012), and Kim et al. (2013)”.

The impact of employee well-being on performance has also been studied in the present research indicating a positive correlation has been found between the two. The employees who experience a higher level of well-being show enhanced performance as a result of job satisfaction and higher commitment. The impact on performance is both economic and non-economic. The economic impact is in the form of reduced cost of operations and higher productivity. Non-economic performance factors include reputation and a sense of contribution to environmental sustainability. This is in line with a study by Kaplan in 2012 and many other researchers.

The impact of a green workplace on employees and also organizational performance was studied by Kaplan in 2012. The study found that a green workplace results in higher employee morale and well-being. As regards organization, green workplace practices like efficient use of energy, natural lighting, and waste management create a better physical environment involving better air quality and reduce health risk. The overall impact is the physical and psychological well-being of the employees.

The present study has also noted a very close association has been noted between the workplace and GHRM. The GHRM practices results in the creation of a better workplace where employees feel happier and satisfied. The impact of GHRM on the workplace is in the form of a safer, healthier, and hygienic

environment. This environment helps in creating higher satisfaction, a positive mindset and higher motivation to participate in environmentally friendly work practices. The Green workplace also positively impacts companies' image and demonstrates commitment towards environmental responsibilities.

A study by Chen et al. 2015 focused on advantages of green commuting options like walking, cycling, carpool and use of public transport. The study concluded that green commuting options reduce carbon emissions and increase the physical fitness of workers. Additionally, the provision of facilities like shower, walking path and bike racks further add to employee well-being. Browning et al. 2014 supported this study by observing that green infrastructure like plants, green space, and natural light, help in reducing stress and enhancing productivity. This results in a healthier and more enjoyable workplace.

Paille and Valeau in 2020 suggest that green workplace fosters a sense of purpose in the employees. When organizations emphasize environmental responsibility, the employees feel associated with a greater cause. This results in higher job satisfaction and well-being. The same results were reported by Jackson et al. 2012 who noticed that involvement of employees in green projects makes employees feel empowered. This sense of ownership results in job satisfaction and well-being.

The present study has also noted that GHRM practices significantly impact the perception of well-being in the employees. Employees feel empowered for their involvement in environmental sustainability efforts where they have the opportunity to participate in decision-making regarding green practices. Well-being refers to both psychological and cognitive factors and is a perception of job satisfaction which influences overall work and life balance.

To summarize, the results and observations of the present study are in compliance with the observations of previous research work. The present research work has further strengthened the concept of GHRM and its impact on employee well-being and performance.

5.3 Summary

This chapter focuses on discussion of results of research in the light of existing literature. The discussion revolves around the three research objectives. The chapter discusses the association of GHRM with training and development, pay and rewards and workplace. The impact of GHJRM on employee well-being and performance has also been discussed, with respect to the results of research. The research results have been compared with results of existing studies. The results of the present research have been found adequately aligned with studies referred to in literature review.

The findings of the research significantly contribute to the existing knowledge. It is a common perception that initiating a new approach like GHRM practices is always associated with employee resistance and adds to cost. However the study has established that if implemented systematically involving the employees of the organisation and providing resources to adopt new practices, GHRM adoption not only results in higher employee motivation but also results in reduction of cost along with other intangible benefits like reputation of the organisation.

The results are supported by JD-R theory. The theory advocates providing resources to the employees to enable them to comply with the demands of job placed on them. The research has established additional job demands placed on employees in the form of learning and adopting green practices. these additional demands must be supported by resources including training, rewards for green approach and provision of a better work place. the research is also supported by SET theory which is based on principle of reciprocity. the initiatives of the management in the form of training and motivation lead to a perception of better well-being in the employees and they reciprocate by putting in efforts for a higher performance level.

CHAPTER 6

IMPLICATIONS AND CONCLUSION

6.1 Introduction

This chapter highlights the implications of research in practical scenario and provides a pathway for implementing GHRM effectively in the organizations. The importance of T&D, P&R, and the Workplace in successful implementation of GHRM has been emphasized. GHRM has been explained as a means of reducing operational cost and enhancing performance.

The chapter also describes the contribution of research to theoretical background. The implementation of research to GDR theory and SET theory has been explained.

The chapter also refers to the conclusion of research and recommendations to the organizations for the effective implementation of GHRM. The limitations of the study have been mentioned to describe the constraints. Finally, the chapter recommends the future scope of study

6.2 Practical Implications

The study provides important insight of GHRM and effective manner for implementing it. The study identifies the benefits of green efforts by the organizations by focusing on its impact on organizational performance and employee well-being. The outcome of the study motivates organizations to adopt green practices and highlights the importance of GHRM towards these objectives. The study indicates that the green efforts are not only for demonstrating environmental accountability but also result in the reduction of operational cost. And that is why the implementation of green should be

considered as an investment rather than cost. The study appraises the organization on the effect of deteriorating environment and need to sustain it.

The significance of three aspects of HRM, that is TRD, P&R, workplace, has also been investigated. The study reflects that training and development is an integral part of GHRM and is important for employee awareness about green efforts. The training also becomes necessary to develop competence in the employees to adopt green practices and suggest innovative ideas. So, the organizations must focus on T&D for successful implementing GHRM. It has been shown by the study that T&D is closely associated with GHRM.

On the same lines a close association of pay and rewards with GHRM highlights the importance of motivating the employees. Infact, it is based upon the SET theory which talks of reciprocity. The organizations are provided with a need to provide financial and non-financial rewards to the employees for engaging in green practices. The rewards lead to higher motivational levels of the employees, and they participate more actively in the green efforts of the organization.

The association between work environment and GHRM has also been investigated. A close positive association has been found between the two, indicating the importance of providing a work environment for the employees which encourages them to adopt green practices. The green workplace provides a safer and healthier environment for the employees.

Apart from highlighting the association of T&D, P&R and workplace, the impact of GHRM on employee well-being has also been studied. The study reflects that GHRM has a direct impact on employee well-being. Well-being refers to the perception of employees about happiness, quality of life and value to the organization. An employee with a perception of better well-being contributes more towards individual and organizational performance. Green initiatives have been found to have a positive culture also which makes employees more loyal and happier in the workplace.

It has also been noted that employee well-being has a direct impact on the

performance of organizations. The performance is reflected by both internal and external aspects. As regards internal performance, better well-being leads to higher productivity and reduces the costs of operations. On the external front, it adds to the good will of the organization.

To summaries, adopting GHRM has a positive impact on employee motivation, employee well-being and organizational performance. However, implementing GHRM needs green intervention in all aspects of HRM, that is T&D, P&R and workplace.

The recommended action plan for implementing GHRM can be summarized as below.

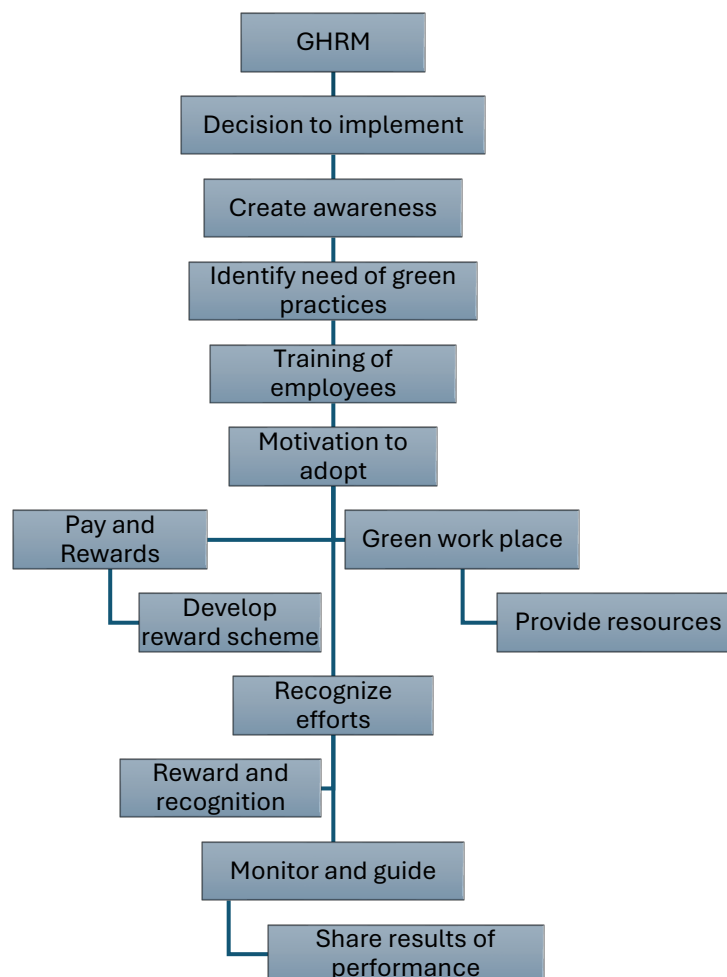


Figure 6.1: Flow chart describing recommendations for effectively implementing GHRM

6.3 Theoretical Implications

6.3.1 Contribution of GHRM to JD-R (Job Demands-Resources) Theory

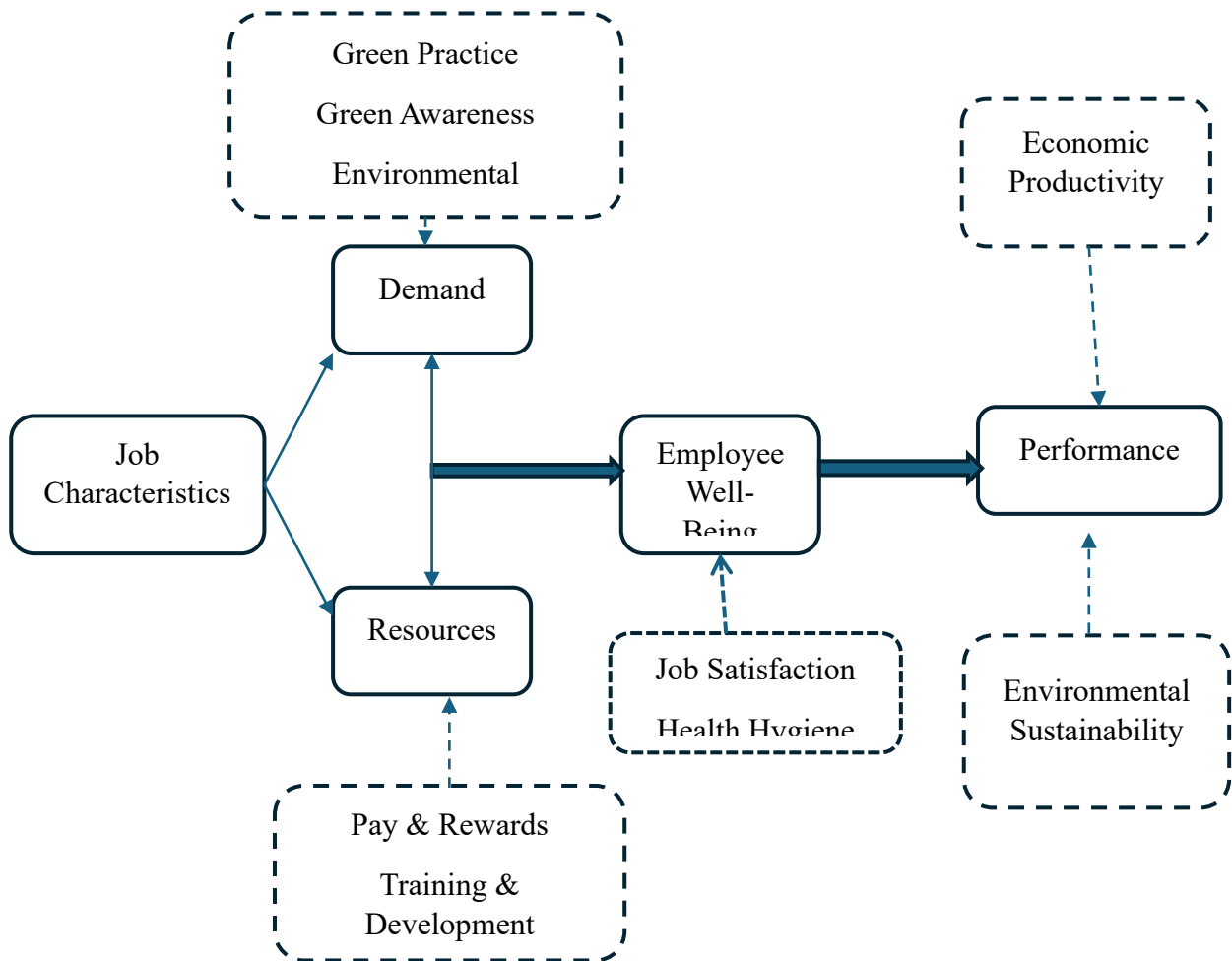


Figure 6.2: Contribution of GHRM in JD-R theory: Developed by researcher

The research extends the JD-R theory by considering green practices as job demands and also resources which influence employee well-being and performance. JD-R theory states that a balance between job demands & resources is essential for employee well-being and outcomes. The present research has tested this theory in the context of GHRM. The framework of JDR theory has been enhanced by recognizing that green practices act as job demands and resources in the context of GHRM and lead to employee motivation and well-being.

The concept of job demands has been extended beyond conventional perception by GHRM. Green practices like waste reduction and energy conservation have

created additional job requirements, thereby enhancing job demands. These new job demands require training and additional efforts and add to the workload of the employees. This additional workload may cost stress if not supported accurately this is alignment with JD-R model which states that high demand can lead to strain and burnout. GHRM therefore emphasized the need to provide resources to support employees for these additional job demands.

GHRM has also extended the nature of job resources. In the context of GHRM job resources include training for adopting green practices, reward and recognition for green efforts and participation in green projects. These job resources promote motivation with the engagement of employees in the efforts of environmental sustainability. The resources also add to job satisfaction of the employees in line with, motivational process of JD-R model.

JD-R theory suggests that different combinations of demand and resources result in different outcomes. GHRM places a demand for adopting green practices and advocates providing resources like T&D, P&R, and the workplace. In line with JD-R theory, a good balance between the two results in a positive outcome in the form of employee well-being and organizational performance.

To summarize, GHRM contributes to JD-R theory by adding a new dimension of environmental practices as both demand and resources which has an impact on the outcomes like employee well-being and performance.

6.3.2 Contribution of GHRM to Social Exchange Theory (SET)

The contribution of GHRM to SET theory is depicted in the diagram below

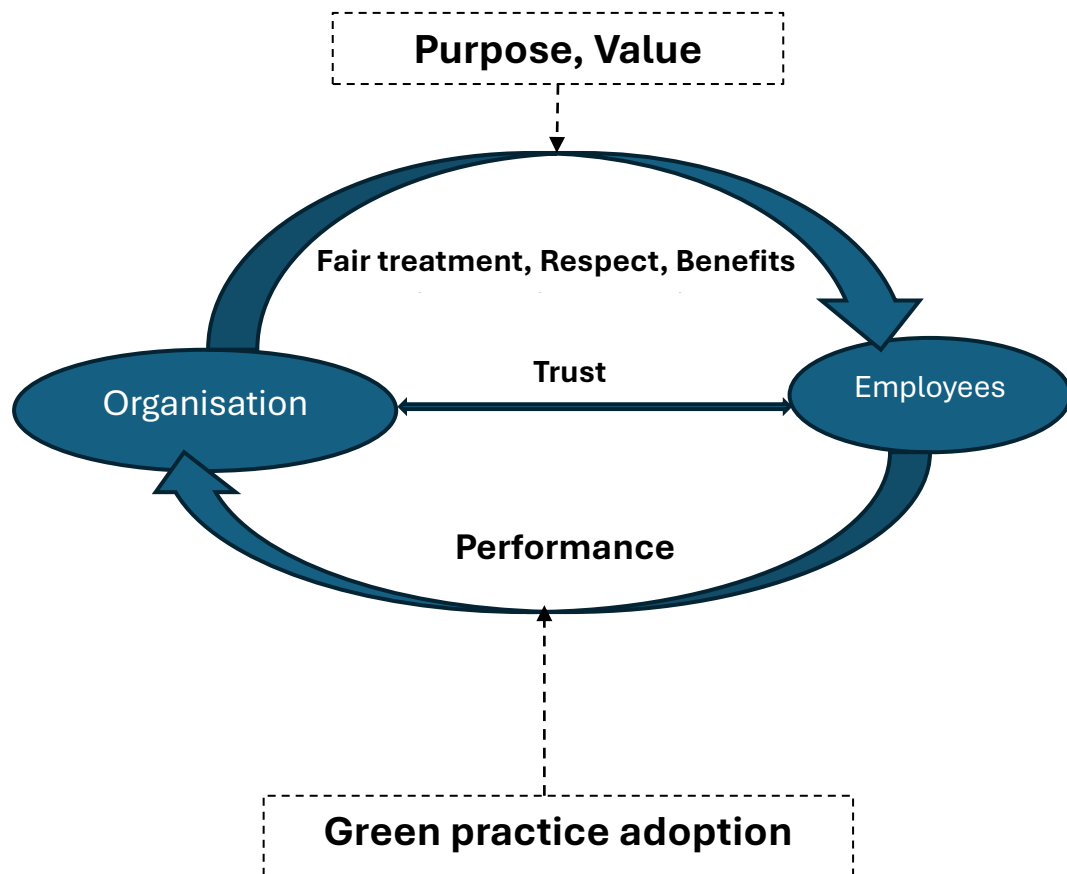


Figure 6.3: Contribution of GHRM to Social Exchange Theory (SET):
developed by researcher

SET theory is about organizational relationships and interaction between organization and employees. The core idea of SET theory is reciprocation, where employees contribute to organization in response to fair treatment, respect, and benefits provided to them. The present study has contributed to this theory by incorporating environmental sustainability as a major component of organizational relationships. GHRM plays a crucial role in designing interaction between employees and the organization by creating a common platform of corporate social responsibility. GHRM introduces the reciprocal exchange by considering green practices as a common issue between employees and employers and encourages mutually beneficial eco-friendly practices.

GHRM extends SET theory by incorporating shared values of environmental responsibility and there by adding to employee organizational relationship. The perception of employees regarding organization commitment to environmental sustainability leads to a sense of purpose and alignment of employee's efforts with organizational goals. Higher performance and engagement are reciprocated by environmental initiatives by the organization. On the same line, integration of HR practices like T&D, P&R, and workplace is returned in the form of higher motivation and willingness to contribute to the success of the organization.

GHRM also contributes to SET theory by advising that employees are motivated not only by economic rewards but also by roles that provide purpose and value. GHRM also adds to the concept of reciprocity of SET theory by recognizing environmentally responsible behaviour as a positive cycle of exchange. The investment of organizations in environmentally sustainable practices signals a perception of the well-being of the employees and concern for planet earth. The employees reciprocate this perception by higher productivity and green behaviour.

Integration of GHRM into SET theory helps organizations to develop deeper relations with the employees which are aligned with both social and ecological objectives.

6.4 Conclusion

Awareness about environmental sustainability has been on the rise during the last decade. It is a result of the fast pace of environmental depletion. Organizations are widely adopting green practices. The green practices involve approach towards energy conservation, telecommuting, and recycling. Adoption of these practices needs an awareness to be created amongst the employees, training the employees for green practices and motivating them to adopt it. Human resource management plays a crucial role to achieving this objective. GHRM is about incorporating green practices in all areas of HRM including green T&D, green P&R, and green workplace. Adoption of green practices, although it requires organizational change, leading to initial stress and barriers, but it leads to better employee well-being in due course of time. The

better well-being perceived by employees has a beneficial effect on employees' performance and ultimately organizational performance. The organization, while implementing green, must focus on training employees in achieving the objective of environment sustainability.

The study has established a close association between GHRM & T&D. Training is necessary to develop competence in the employees for adopting green practices. GT&D, which is an important aspect of GHRM, is a specialized training with an aim for improving employees competencies for managing environmental issues like waste reduction and energy conservation. Green T&D helps in developing a culture of innovation and improvement for environmental sustainability.

A close association has also been observed between pay and rewards and GHRM. Green pay and reward referred to rewarding employees for their contribution to the organizational goal of environmental sustainability. These rewards are necessary for motivating the employees for green efforts. The rewards may be monetary or non-monetary. The monetary rewards may be in the form of cash incentives or pay revision. The non-monetary rewards may include recognition and opportunity of promotion.

On the same lines a very close association has been noted between the workplace and GHRM. The GHRM practices results in the creation of a better workplace where employees feel happier and satisfied. The impact of GHRM on the workplace is in the form of a safer, healthier, and hygienic environment. This environment helps in creating higher satisfaction, a positive mindset and higher motivation to participate in environmentally friendly work practices. The Green workplace also positively impacts companies' image and demonstrates commitment towards environmental responsibilities.

GHRM practices significantly impact the perception of well-being in the employees. Employees feel empowered for their involvement in environmental sustainability efforts where they have the opportunity to participate in decision-making regarding green practices. Well-being refers to both psychological and

cognitive factors and is a perception of job satisfaction which influences overall work with life balance.

The impact of employee well-being on performance has also been studied, indicating a positive correlation has been found between the two. The employees who experience a higher level of well-being show enhanced performance as a result of job satisfaction and higher commitment. The impact on performance is both economic and non-economic. The economic impact is in the form of reduced cost of operations and higher productivity. Non-economic performance factors include reputation and a sense of contribution to environmental sustainability.

To summarize, GHRM is an essential aspect in achieving organizational goal of contributing to environmental sustainability. Three important components of GHRM which are closely related with green efforts are GT&D, GP&R and workplace. GHRM has been found to have a positive impact on employee well-being and, resultantly, on performance.

6.5 Recommendations

Based on research and the practical and theoretical implications, the following recommendations can be made for organizations aiming to implement effective GHRM practices and enhance their performance:

1. Organizations should align their GHRM practices with their overall sustainability strategy and goals. To promote a unified commitment to environmental responsibility, GHRM initiatives should be embedded within the organization's mission, vision, and core values.
2. Implement comprehensive green training and development programs to enhance member of staff environmental knowledge, skills, plus competencies. These programs can empower employees to contribute proactively to sustainability initiatives and foster a culture of environmental responsibility.
3. Strong commitment from top management is crucial for the successful implementation of GHRM practices. Leaders should demonstrate their

commitment to environmental sustainability through their actions, decisions, and communication, thereby inspiring employees to follow suit.

4. Ethical leadership is instrumental in influencing employee behavior and shaping a values-driven organizational culture. By modeling transparency, integrity, and ethical conduct in environmental decision-making, leaders can inspire trust and foster a strong sense of commitment to sustainability among employees.
5. Create a green organizational culture that promotes environmentally friendly practices and behaviors. Recognize and reward employees who enthusiastically participate in sustainability efforts and integrate green values into the organization's daily operations.
6. Continuously track, evaluate organization's environmental performance to gauge impact, effectiveness of GHRM practices. Use key performance indicators (KPIs) to track progress towards sustainability goals and identify areas for improvement.
7. Embrace innovation to enhance green practices and environmental performance. Implement eco-friendly technologies, sustainable supply chain practices, and green innovations to reduce the organization's environmental footprint.
8. Engage employees in sustainability initiatives by providing opportunities for their active involvement. Encourage employee feedback and ideas for improving environmental practices, creating a sense of ownership and commitment towards sustainability.

By adopting these recommendations, organizations can enhance their GHRM practices which create a more sustainable plus environmentally responsible workplace. GHRM, when strategically integrated and effectively implemented, can lead to positive environmental outcomes, improve employee engagement, which contributes to long-term organizational accomplishment.

6.6 Limitations of the study

- The survey is limited to LEED certified organizations and cannot be generalized.
- The survey was based on an email survey. Personal interaction could not be done due to time and cost constraints.
- The survey was limited to organizations in Indian context only.
- There may be bias in employee responses with respect to their perception and actual impact on well-being.
- The employee responses may be affected by socially acceptable answers.
- The study may be limited to short term impact rather than sustainable impact of GHRM.
- Size and type of organization may impact on the results.

6.7 Future scope of the study

Our study offers a valuable contribution to the existing literature on GHRM, highlighting its influence on employee well-being and performance. However, as with any research, there are several potential directions for future research.

This research can be replicated in different industry settings to examine if the effect of GHRM on employee well-being and performance varies across industries. Future research can compare the impact of GHRM practices on employee well-being and performance across different cultures and countries to understand the cultural nuances. It would be valuable to conduct longitudinal studies to examine the long-term effects of GHRM on employee well-being and performance. There are other aspects of GHRM like green recruitment and selection, green performance management, etc., that can be studied for their impact on employee well-being and performance. Future study could also consider the influence of organizational factors such as leadership style, organizational culture, and structure on the effectiveness of GHRM practices. Understanding the role of technology in implementing and enhancing GHRM practices could also be a fruitful area for future study. By exploring these potential avenues, future research can provide more comprehensive insights into

the effectiveness of GHRM practices and strategies to optimize their benefits.

The recommendations for future research can be summarized as below.

- The research can be extended to other sectors of industry like manufacturing industry.
- The association of other HR aspects like recruitment and selection and performance management can be studied with respect to GHRM.
- The study can be extended to comparison of impacts of GHRM across different countries and cultures.
- The present research lacks study of longterm impacts of GHRM. the long term impacts of study may reveal extended benefits of GHRM.
- Future study could also consider the influence of organizational factors such as leadership style, organizational culture, and structure on the effectiveness of GHRM practices.
- Understanding the role of technology in implementing and enhancing GHRM practices could also be a potential area for future study.

6.8 Summary

Practical and theoretical implications of the research have been explained in this chapter. The practical implications describe the use of study in a practical industry scenario. It highlights the importance of GHRM and a roadmap for implementing it in organizations. GHRM has been suggested as a means of enhancing employee well-being while simultaneously reducing operational costs. Use of GHRM for demonstrating commitment to environmental sustainability has been highlighted. The chapter has also described enrichment of two underpinning theories viz. JD-R theory & SET theory by expanding them in the context of GHRM. The chapter also concludes with the results of the research. The strategies for implementing GHRM have also been incorporated in this chapter. The chapter concludes by enumerating the limitations of the research and future scope of the study.

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RESEARCH PUBLICATIONS

Name: Aparna Chaudhary

ORCID ID: <https://orcid.org/0009-0004-1669-2889>

1. Aparna Chaudhary, Deepak Bangwal. (2024). Green HRM: Paving the Path to a Sustainable Environment. *Empirical Economics Letters (EEL)*, 14(1), 601–615. <https://doi.org/10.5281/zenodo.14634608>
2. Aparna Chaudhary, Deepak Bangwal. (2024). Green Human Resource Management (GHRM), Work-Life Dynamics, and Employee Environmental Behavior. *European Economic Letters (EEL)*, 14(3), 705–723. <https://eelet.org.uk/index.php/journal/article/view/1821>
3. Deepak Bangwal, Aparna Chaudhary, Rupesh Kumar, Sarbjit Singh Oberoi, Vinod Kumar. (2025). *Green HRM*, Employee Pro-environmental Behavior, and Environmental Commitment. *Acta Psychologica*, **258**, 105153. ISSN 0001-6918. <https://doi.org/10.1016/j.actpsy.2025.105153>

APPENDICES

Questionnaire

Dear Respondent,

I am doctoral researcher focusing on the impact of Green HRM practices on employee well-being and performance. Your insights are valuable to my study. Please be assured that all responses will remain confidential and be exclusively used for academic purposes. Completing this questionnaire should take around 10-12 minutes. Thank you for your willingness to contribute to my research.

Kindly express your level of agreement or disagreement with the following statements about your experience with green human resource practices on a scale of 1 to 5, where -Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1).

Questions	1	2	3	4	5
1. To what extent do you consider " Green Training & Development" to be significant?					
1.1.Company emphasizes to have green innovative activities/Practices.					
1.2.Company provides environmental education to employee”.					
1.3.Continually promote environmental conservation internally.					
1.4.Company actively participates in environmental conservation in the work”.					
1.5.Employees become more aware of environmental conservation”.					
2. To what extent do you consider "Green Pay & Reward" to be significant”?					
2.1. The company provides monetary(bonuses)/non-monetary (leave, gifts) rewards.”					
2.2. Company gives recognition-based rewards (awards, dinners, publicity, external roles, daily praise.”					
2.3. Sense of accomplishment i feel once i have done something for the environment.”					

2.4. The existing green rewards and incentives significantly affect my work behaviour.					
3. To what extent do you consider "Green Workplace" to be significant?					
3.1. The amount of area in personal workspace fits needs.					
3.2. Workspace helps accomplish tasks.					
3.3. Conversation with co-workers cannot be overheard.					
3.4. Have enough natural light in the workspace.					
3.5. Have enough fresh air in the workspace.					
4. To what extent do you consider "Employee Well-being" to be significant? (We define well-being as generally understood to be a comprehensive concept of happiness and to represent an assessment of one's life, encompassing life satisfaction with positive affect).					
4.1. Green training and development contribute to sustaining employee well-being.					
4.2. Green pay and rewards contribute to sustaining employee well-being.					
4.3. Green workplace contributes to sustaining employee well-being.					
4.4. Green human resource practices provide me with an eco-friendly workplace which helps to improve my mental health.					
4.5. Green human resource practices provide me eco-friendly workplace which helps to improve my physical health.					
5. To what degree does employee well-being have an impact on employee performance?					
5.1. I feel more comfortable in my work environment.					
5.2. I have the necessary resources and tools to perform my job effectively.					
5.3. I believe that my overall well-being has a direct impact on my work performance.					
5.4. I am motivated to meet my performance goals.					
5.5. The organization provides opportunities for professional growth and development.					

DEMOGRAPHIC PROFILE

1. Gender

- | | |
|-------------|-----------|
| a) Male | b) Female |
| d) Other... | |

2.Age

- | | |
|-------------------|-------------------|
| a) Below 30 years | b) 31-40 years |
| c) 41-50 years | d) Above 50 years |

3.Company/Organisation Name.....

4. Designation

- | | |
|----------------------|---------------|
| a) Executive | b) Supervisor |
| c) Assistant Manager | d) Manager |
| e) Others | |

5. Educational Qualification

- | | |
|------------------|-------------|
| a) Undergraduate | b) Graduate |
| c) Post Graduate | d) Other |

AUTHOR'S BIOGRAPHY

Aparna Chaudhary is a passionate academic professional with over 14 years of experience in higher education. Her experience is a blend of academic delivery and administration. She has a high inclination for academic research. She is a graduate in commerce from HNB Garhwal University, with an additional graduation in the IT sector from NIIT. She is a postgraduate in Management, specialized in Human Resource Management.

Her current assignment is with Centre for Continuing Education (CCE) at UPES, Dehradun as Assistant Manager. Her responsibilities include online teaching and the administration of online programs. Her areas of teaching interest are Human Resource Management, Organization Behaviour and performance management. She has also been actively involved in development and updating of course content, including video content for online programs. In the administrative role, she is involved in the complete coordination of online academic activities, which involve class scheduling, communication with program faculty, providing online support to the students and maintenance of relevant records.

Prior to joining UPES in 2017, she has also been associated with Institutes like Tula's Institute, Dev Bhoomi Group of Institutions, and Beehive College. Her professional development includes international certification as a Virtual Teacher from the University of California, Irvine, and training in intellectual property rights, NEP 2020 implementation, and research funding proposal writing.

A dedicated researcher, Aparna is currently pursuing her Ph.D. in Green Human Resource Management at UPES. Her research explores the intersection of sustainable HR practices and employee behavior, and she has several notable publications in reputed peer-reviewed journals. These include articles in *Acta Psychologica* (ABDC Category A), *European Economic Letters*, and *Empirical*

Economics Letters (ABDC Category C), which examine themes such as green HRM, work-life dynamics, environmental commitment, and employee pro-environmental behavior.

Her academic contributions extend to national conferences and faculty development programs. She has presented papers at UGC- and Ministry of Tourism-sponsored conferences, addressing emerging issues in sustainable development and the post-pandemic revival of the tourism industry. She has also served as the Head of the Technical Committee for national conferences and as a member of organizing committees for online teaching workshops.

On the personal front, apart from being a dedicated academician, she is a great team player and a fast learner who believes in continual improvement and that education is a never-ending process.

Aparna Chaudhary

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