



Adoption of Green HRM Practices by Industrial Sectors in Kathmandu Valley

Krishna Chaudhary^{1*}  & Ramesh Kunwar¹ 

¹Quest International College, Pokhara University, Gwarko, Lalitpur, Nepal

*Corresponding Author:

krishchaudhary034@gmail.com

Received: 22 January 2026

Revised: 30 January 2026

Accepted: 15 February 2026

Published: 30 March 2026

How to cite this paper:

Chaudhary, K., & Kunwar, R. (2026).

Adoption of Green HRM Practices by Industrial Sectors in Kathmandu Valley. *Quest Journal of Management and Social Sciences*, 8(1), 235-248.

<https://doi.org/10.3126/qjmss.v8i1.92113>

Copyright © by authors and Quest Journal of Management and Social Sciences.

This work is licensed under a Creative Commons Attribution-Non Commercial-No Derivatives 4.0 International License.

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Abstract

Background: Green HRM is an emerging concept, but limited research has explored the relationship between Green Human Resource Management (HRM) practices and organizational commitment. Existing literature shows a gap in understanding how Green HRM is implemented in industrial sectors and its impact on employee abilities, creativity, and commitment.

Purpose: The study aims to examine the level of implementation of Green HRM practices in industrial sectors of Kathmandu Valley and analyze their relationship with organizational commitment, extending the Ability–Motivation–Opportunity (AMO) framework.

Design/Methodology/Approach: An explanatory research design was adopted, and data was collected using a structured questionnaire. A total of 144 responses were analyzed quantitatively using descriptive and inferential statistics. Smart-PLS 4.0 was applied to assess relationships between Green HRM practices, green human capital, and organizational commitment.

Findings: The study reveals that Green HRM practices are rarely implemented in industrial sectors of Kathmandu Valley, with medium-scale industries adopting them more than small-scale industries. Green human capital has a significant positive relationship with organizational commitment, while Green HRM practices enhance employee abilities and green creativity but shows an insignificant relationship with organizational commitment.

Conclusion: The findings highlight the importance of Green HRM practices in enhancing employee capabilities and fostering creativity. The study provides practical insights for manufacturing industries, HR managers, policymakers, researchers, and students seeking to promote sustainable HR practices in the industrial sector.

Key words: GHRM, Organizational Commitment, Green Human Capital, Managers/ Owners, Industrial Estate, AMO Theory



1. Introduction

The modern world is evolving with new strategies and concepts for improving organizational performance, including "Green" practices (Sarfraz et al., 2023). Exploring management fields in term of green policies is essential to create a footprint on today's global corporate world (Zhao et al., 2021). Disasters caused by the environment and climate change are now having a greater impact on people's quality of life. The earth's climate has undergone significant change recently and will do so again quickly. An important factor contributing to this unfavorable development is the growth of economic activity and the ensuing environmental damage (Alvarado & Toledo, 2017).

Companies everywhere must now implement formal environmental strategies and programs because of expanding international environmental requirements and growing environmental concerns (Mandago, 2019). Environmental issues have taken on worldwide importance in the 21st century because of the challenges that climate change is posing to many nations and cultures (Bhattarai et al., 2023; Miraj & Wang, 2019). Sustainability and green practices have become buzzwords for corporations, institutions, and households. The recent rise in environmentalism, sustainable development, corporate social responsibility, and the green movement, may be attributed mostly to a deal to manage climate change. Green HRM was born as a result of the late 1990s attention given to the global concerns of climate change, high carbon emissions, green development, and the green movement. Green HRM began a journey through the area of green management applications to address the growing concern of corporate stakeholders because of the negative environmental impact of organizational operations (Al-Minhas et al., 2016).

Green HRM considers the role of the human resource department in supporting organizations to adopt green lifestyle by becoming environmentally aware and sustainable. Green HRM includes green environment objectives in their HR practices which are specific in nature and regards human resources in line with economic, social and environmental pillars of sustainability and enhance positive environmental impacts of the organizations. Green HRM includes ecofriendly HR initiative, green intellectual capital and corporate environmental citizenship that stimulate a green culture and behavior within the organization through green inventions to promote sustainability (Sharma, 2016). The organization's supply chain, production process, waste management, organizational culture, values, strategic decisions, and employee behavior are all impacted by its greening goals and activities (Benevene & Buonomo, 2020). According to a study done by Mandip (2012), GHRM refers to the use of each employee interface to support sustainable approaches and supplement employee commitments and responses to sustainability concerns. He contends that GHRM engages in eco-friendly activities and programs that boost efficiency, reduce costs, promote staff involvement, and increase employee retention. Green HRM is a process aimed at encouraging and support employees' eco-friendly behavior and activity through the development of green rules, policies, and practices. It begins by hiring eco-aware individuals to inform current employees.

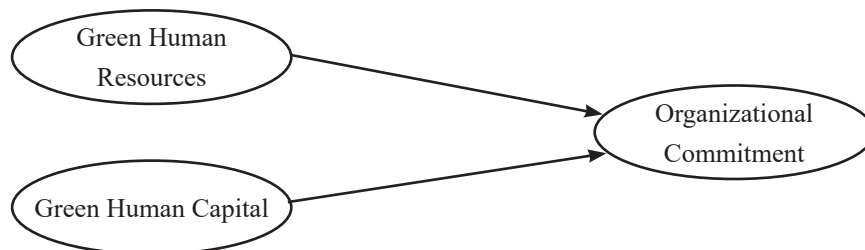
The business world is transitioning from a traditional financial structure to a contemporary capacity-based economy that is ready as the corporate world is becoming global too. To embrace various green technologies and environmental management strategies to examine the green economic aspects of business (Ahmad, 2015). Globally progressive businesses can benefit from green management initiatives, and strategic green HRM is becoming more necessary nowadays. Through the adoption of Green HR policies and practices, Green HRM can assist businesses in supporting environmental issues. Green HRM methods, such as electronic forms, teleconferencing & virtual interviews, employment and ridesharing, recycling, online trade, and creating energy-efficient office space, are essential for sustainable company development that reduces the organization's carbon footprint (Mishra et al., 2014). To support sustainable business practices, enhance corporate image and brands, help processes be more effective and less expensive while decreasing and eliminating ecological waste, and support sustainable business practices, green HR updates HR products, tools, and procedures. The burgeoning global competition's emphasis on customers, speed, and adaptability has created challenges in the modern economy.

Majority of nations are now globally integrated, and the necessity for sustainable development is becoming increasingly important and well-liked. Through an interconnected economy, Nepal is moving closer to globalization, and both government policy and Nepalese organizations use the catchphrases "sustainable development" and "corporate social responsibility." The organization in Nepal needs to quickly and consistently change its HRM practices, and it should foster a culture that adopts contemporary HRM initiatives and 3 policies. Therefore, GHRM can significantly contribute to national sustainability and CSR goals. Reviewing research from various nations According to Mishra (2017), there is clear evidence that the scope and depth of green HRM practices vary between developed and developing nations, and that fewer organizations in developing nations have adopted GHRM policies than have organizations in developed nations. According to Rani and Mishra (2014), there is little research and study available on green human resource management (GHRM), which is a novel idea. Moreover, in context of Nepal, There are no studies being done on GHRM, and no experts have emerged who have knowledge of the subject which further highlight the need for more attention and investigation in this area. Hence, this study is to analyze the level of implementation of Green HRM practices, challenges faced by adoption of Green HRM practices and proper management strategy to improve scope of Green HRM practices in Industrial sectors in Kathmandu valley.

2. Literature Review

The issues of Green HRM, such as its definition, process model, results, stakeholders, and performance, are impacted by several theories in the field of organizational and human relations. Institutional theory, Resources Based View (RBV) theory, System theory, Stakeholder theory, AMO theory and Organizational change theory have all been explained for this study. Through organizational framework, rules, behaviors, and relationship patterns, institutional theory investigates how social interactions relate to a larger social and cultural setting (Zilber , 2012). In addition, according to RBV theory, resources that are specialized and difficult to duplicate present potential for uniqueness that result in competitive advantage (Varadarajan, 2023). System theory views organizations as open social systems that interact with many environmental components, is the logical theory that follows. Similarly, Stakeholder theory emphasizes that an organization has several stakeholders whose interests are influenced by organizational actions and who have interests in those activities (Friedman & Miles, 2002). The ability, motivation, and opportunity (AMO) of employees are the three factors that shape an employee's characteristics and contribute to the success of the organization, according to the AMO theory proposed by Hameed et al. (2020). This study uses the AMO theory as a theoretical framework to explore the link between behavior intention and actual usage and justifies that the study is more relevant showing technological and buying changes.

Figure 1: Conceptual Framework



Sources: Shoaib et al. (2021)

Figure 1 explains the role of green HRM on GHC through mechanism of organizational commitment. It consists of three variables that are mentioned: role of Green HRM practices, Green Human Capital and Organizational Commitment. In this framework, role of Green HRM practices is explained as independent variables whereas Organizational Commitment explained as dependent variable and Green Human capital is used as a mediating variable.

Green HRM and Organizational Commitment: Role of Green HRM practices provides employees with mean for understanding how an organization supports commitment, green values, training, environmental culture, and performance management. Green work climate perceptions may serve as a mechanism explaining why GHRM may encourage sustainable employee behavior at the workplace since they partially mediate the relationship between GHRM and pro-environmental behavior (Ansari et al., 2021). Additionally, it was discovered that the association between green behavioral intention and green creativity, as well as between green HRM practices, was mediated by the individual's green values (Shafiq et al., 2023). In order to implement an environmental policy that encourages workplace sustainability, GHRM practices are essential (Shoaib et al. 2021). It acts as a resource for managers and policymakers on Green HRM to encourage employee green behavior and environmental culture in the workplace.

H1: Green HRM positively and significantly affects Organizational Commitment

Green Human Capital and Organizational Commitment

Green human capital encompasses the talents, skills, knowledge, and past experiences of employees, all of which are harnessed to drive the successful adoption of eco-friendly practices. Research demonstrates that the expertise, abilities, and competencies of the workforce play a pivotal role in effectively implementing sustainable initiatives (Nejati et al., 2017), positioning them as a significant competitive advantage (Zaid et al., 2018). Workers possessing Green Human Capital are inclined to experience heightened engagement and contentment when they find themselves in an organization that appreciates their knowledge and values related to sustainable practices (Gilal et al., 2019). Such employees are also more prone to demonstrating commitment to an organization that actively fosters and integrates green initiatives into its business operations and overall corporate culture (Haddock-Millar et al., 2016).

H2: Green Human Capital positively and significantly affects Organizational Commitment.

Table 1: Construct and Variable Use in the Study

Construct	Observed Variable	Variable Notation	Explanation
Green HRM	Green Recruitment and selection (GRS)	GHRM-1	We attract green job candidates who use green criteria to select organizations
	Green Training and Development (GTD)	GHRM-2	We develop training programs in environment management to increase environmental awareness, skills and expertise of employees. Yusof et al. (2018)
	Green Performance Management (GPM)	GHRM-3	Our firm sets green targets, goals and responsibilities for managers and employees Yusof et al. (2018)
GHC	Employee Green Behavior	GHC-1	Knowledge about the organizational working environment.
	Green Abilities	GHC-2	Green abilities can be generated through effective green training and development approach (Ahmed et. al 2021).
	Green knowledge sharing	GHC-3	The green knowledge sharing expected to moderate by strengthening the relationship between green human capital and green abilities to explain the employee green behavior (Ahmed et. al, 2021)
	Turnover Intention	GHC-4	Long last supporting organization or searching for next job due to some issues.
	Job Stress	GHC-5	Unable to cope with the situation

OC	Organization Reward and Benefits	OC-1	Organization reward is the benefit that employees receive in return for their work during the job. Reward system makes employee more committed to the organization.
	Supervisory Support	OC-2	Supervisors serve as the organization's go-between when it comes to directing and evaluating personnel.
	Work-life Balance	OC-3	Work-life balance as the proper arrangement between work -career, ambition; and life -health, pleasure, leisure, and family
	Career Development and Opportunities	OC-4	It provides the focus on the career development and opportunities for employees.
	Perceived supervisor support	OC-5	Is the supervisors' responsibility both in preventing and solving employee problems

3. Research Methods

Research methodology is the process through which problems with research are properly resolved, whereas research methods encompass all techniques and methods used for performing research. To find new information or develop a deeper understanding of a subject, research procedures are methods or strategies employed in data collecting or analysis. (i.e Understanding Adoption of Green HRM practices by Industrial Sector in Kathmandu Valley. The term Research is related to seek out the information and knowledge on a particular topic or subject. The major aim of any type of research is to find out the reality and facts which is unknown and which have not been exposed. This section covers the study region and population, sample strategies, research tools, and other topics.

3.6.1 Study Area and Population

The study's chosen location is the Kathmandu Valley, which includes the three districts of Kathmandu, Lalitpur, and Bhaktapur in Nepal's Province 3. Up to 2030, Kathmandu Valley will continue to grow quickly and vigorously, then more slowly until 2050. The overall area of built-up regions would nearly double in size by the middle of the century to 352 km², covering half of the valley (Cremen et al., 2022). Geographically speaking, the Himalayan Mountains surround Kathmandu Valley, which is located within the Bagmati river watershed. The valley covers a total area of 721 km² and spans latitudes of 27°49'4" to 27°31'42" and longitudes of 85°11'19" to 85°33'57" (Aalam et al., 2025). Administratively speaking, the Kathmandu Valley includes the entire districts of Bhaktapur and Kathmandu as well as around half of Lalitpur. The valley is home to several rural municipalities and five urban municipalities (formerly named village development committees, or VDCs). By 2031, the Kathmandu Valley's population, which is currently estimated at 3.3 million, is expected to increase to 3.8 million.

3.6.2 Sampling Technique

The research is conducted in the Industrial sectors in the Kathmandu valley in 2023; the population of the study comprised three classifications that covered all the sectors provided in the Industrial sectors (e.g. Large-scale Industry, Middle Scale and Small-Scale Industry). There was non-Probability sampling used to choose respondents for the quantitative investigation because a census method was used in this study (Devkota et al., 2023). A census is a type of data gathering that includes the complete population and collects data from each individual person in it. The managers from Lalitpur, Bhaktapur, and Kathmandu Industrial Estate were the study's target group, and the entire population consisted of the businesses in the valley of Kathmandu. The researcher chose to employ a census survey approach because the total population for this study was a suitable and manageable size in terms of addressing the research question, gathering data, and analyzing data. Every person in the population has the choice to take part in a census survey, and the information gathered is more precise and thorough as a result. Additionally, because it includes the entire population, it is also simpler to administer and report (Parker et al., 2011).

3.6.3 Research Instrument and Data collection

In this study, a structured questionnaire combined with interviews served as the primary research tool. In order to conduct surveys and collect firsthand information about green HRM practices in industry and service sectors, a structured questionnaire has been designed. To achieve the numerous study aims outlined above, the researchers have connected questionnaires. In order to express the objective of the questions, both open-ended and closed-ended questions (61 in total) were created to address the topic of the study. After creating the questionnaire, the researcher concentrated on organizing and sequencing it. In the KOBO toolbox, the developed structured questionnaires are used to collect data. After the questionnaire was submitted to KOBO toolbox, a trial survey with a few sample questions was conducted to evaluate the instrument's consistency and accuracy. Permission to gather the data was obtained from the Kathmandu Industrial Estate Administration, where a letter from the authority was signed. The data was analysed by using descriptive and inferential analysis.

4. Result and Analysis

Socio Demographic Characteristics

Table 2: Socio-Demographics Characteristics

Title	Category	Number	Percentages (%)
Gender	Male	125	87%
	Female	19	13%
Marital Status	Married	130	90%
	Unmarried	14	10%
Age	Under 30	16	11%
	30-40	91	63%
	40-50	37	26%
Education Level	SEE	8	6%
	+2	50	35%
	Bachelor	74	51%
	Masters	12	8%
Designation	Manager	63	44%
	HR Manager	12	8%
	Owner	36	25%
	CEO	3	2%
	Supervisor	30	21%
Work Experience	Less than 1 years	6	4%
	1-3 years	19	13%
	4-6 years	74	51%
	7-10 years	40	28%
	Above 10 years	5	3%
Industry Classification	Manufacturing	117	82%
	Information and Telecommunication	2	1%
	Agriculture and Forest Based	8	6%
	Construction	9	8%
	Services	5	3%
	Others	2	1%
Scale of Industry	Small Scale	99	69%
	Medium Scale	45	31%

The findings indicate that out of 144 respondents, 87% were male and 13% were female, suggesting a significant male majority in the human resources sector in Lalitpur, Bhaktapur, and Balaju Industrial Estate. Moreover, most respondents fell within the 30–40 age range, indicating a preference for experienced workers in the HR industry. All the respondents had an educational background, emphasizing the importance of education in this field. Additionally, the study uncovered that most of the respondents in Kathmandu Valley Industrial Estate held managerial positions. Regarding work experience, 51% of respondents had 4–6 years of experience, while 28% had 7–10 years, 13% had 1–3 years, and 4% had less than 1 year. Only 3% of respondents possessed over 10 years of experience. Regarding the industries in the study region, there were 117 manufacturing, 2 agriculture and forestry, 9 construction, and 5 services industries, along with 8 telecommunications and information industries and 2 others. Thus, manufacturing businesses dominated the Kathmandu Valley Industrial Estate. Notably, the study revealed that most industries in the Kathmandu valley were small scale industries.

General understanding of Green HRM Practices

Different people may have differing levels of understanding regarding the application, adoption, and advantages of GHRM techniques. Green HRM techniques and their benefits may be well known to some managers, but they may not be well known to others. So, in this part, a thorough explanation of the manager's general knowledge of green HRM practices in the Kathmandu Valley Industrial Estate is provided. It shows that the respondents' knowledge of green HRM techniques is evaluated. According to the data, only 47% of respondents were conscious of Green HRM principles, and 53% were unaware of Green HRM altogether. The awareness about ISO 14000 series issued on Environmental Management System is described which includes a broad range of Environmental disciplines. It is found that 90% of the respondent are unaware about ISO 14000 series whereas only 10% of the respondents are aware about ISO 14000 series. It is the concern about industries ISO 14000 certified or not. It is found that 95% of the industries were not ISO14000 certified whereas only 5% of industries in Kathmandu Valley Industrial Estate were ISO 14000 certified. According to the most recent data, 14,000 businesses globally are ISO 14000 certified.

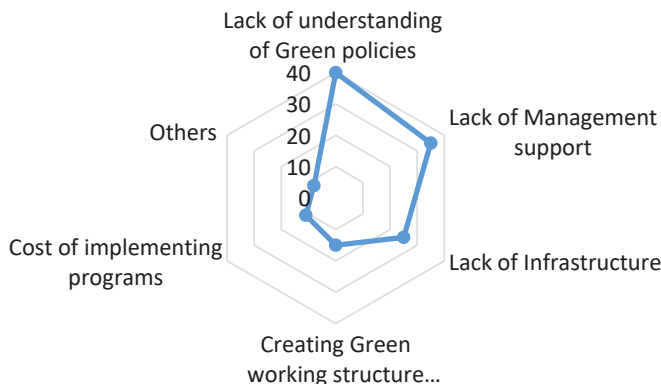
The level of understanding and familiarity with Green Human Resource Management (GHRM) techniques can vary among individuals. While some managers may be well-versed in the application, adoption, and advantages of GHRM practices, others may lack awareness in this area. The evaluation of respondents' knowledge of green HRM techniques revealed that only 47% of them demonstrated awareness of Green HRM principles. Moreover, we assessed the awareness regarding the ISO 14000 series, which addresses the Environmental Management System and includes a wide array of environmental disciplines. Astonishingly, 90% of the respondents were found to be unfamiliar with the ISO 14000 series, whereas only a mere 10% displayed awareness of it. We also investigated whether the industries in the Kathmandu Valley Industrial Estate were ISO 14000 certified or not. The results indicate that a substantial 95% of the industries were not ISO 14000 certified.

Many industries (i.e.,74%) in the Kathmandu valley have yet to embrace green practices and among the few that has adopted stated that the motivations behind the adoption were identified as reducing waste disposal, fulfilling the moral imperative of social responsibility, responding to pressure from regulatory agencies, and addressing competition-driven pressures. Among the total of 144 respondents, the most common initiative to promote Green HRM practices was Recycle, Reuse, and Recovery, with 78 respondents highlighting its significance. Additionally, 31 respondents mentioned the use of Email and E-payment systems as an initiative, 18 respondents emphasized Teleconferencing and Virtual interviews, 8 respondents pointed out Online Training and presentations, 4 respondents mentioned Work from home and Work sharing, 3 respondents brought up Online Application, and 2 respondents highlighted the importance of Electronic Performance Management Systems as initiatives to promote Green HRM practices in industries.

Challenges in Adoption of Green HRM Practices and Managerial Solution

When asked about potential challenges in adopting Green HRM practices, the responses indicated that 87% of the participants reported facing challenges, while 13% reported having none. The main hurdles identified by industries in the adoption of Green HRM practices include a lack of understanding of green policies (40%), inadequate infrastructure (25%), difficulties in establishing green work structures and processes (15%), insufficient management support (35%), high implementation costs (11%), and a range of other issues (8%). These diverse viewpoints were collected and tabulated to gain insight into the challenges related to the adoption of Green HRM practices.

Figure 2: Major challenge in adoption of Green HRM practices



Similarly, when respondents were inquired about the possible managerial solutions to reduce the challenges, the findings indicated that management support (50%), proper infrastructure facilities (37%), establishment of fair working structures and processes (18%), adoption of Green HRM practices (15%), consideration of legal and environmental factors (11%), and other unspecified authorities (8%) are the possible strategies. Furthermore, when respondents were asked an open-ended question about suggestions to enhance the scope of Green HRM practices, they proposed several ideas. These included governmental initiatives to promote Green HRM practices, the recruitment of an educated and environmentally conscious workforce, fostering an eco-friendly workplace environment, and leveraging technology and innovation to improve the scope of Green HRM practices in industries located in the Kathmandu valley.

Inferential Analysis

Common Method Bias (CMB): Using a comprehensive collinearity test, common method bias is evaluated. According to the research by Kock (2017), Variance Inflation Factor (VIF) scores below 3.3 suggest the absence of data influenced by common method bias (Lawaju et al., 2023). Notably, all VIF values fall within this range (as indicated in table 3), indicating that the data remains unaffected by common method bias. Consequently, the data is considered suitable for further analysis.

Table 3: Full Collinearity (CMB)

GHC	GHRM	OC
1.191	1.049	1.22

Note: GHC= Green Human Capital, GHRM= Green Human resources management, OC= Organizational Commitment

Measurement Model Assessment: : The measurement model is evaluated to confirm the validity and reliability of the analysis. In measurement model assessment, internal consistency reliability, convergent validity and discriminant validity was scrutinized by applying PLS-SEM standard reliability and validity criterions.

To test the reliability of the constructs, the study used cronbach’s Alpha and Composite reliability (CR). All the CRs were higher than the recommended value of 0.700. Cronbach’s alpha of each construct exceeded the 0.700 threshold. The convergent validity was acceptable because the Average Variance extracted (AVE) was over 0.500 (2025; Bhatta et al., 2023; Adhikari et al., 2024; Maharjan et al., 2025). The results for reliability and validity along with the factor loading for the items are presented in Table 4. As per measurement model evaluation, 4 items (GHRM-3, GHRM-4, GHC1, GHC2, GHC3, GHC6, OC2, OC4, OC6, OC7 and OC8) were removed from the analysis because of low factor Loading.

Table 4: Reliability and Validity

Constructs	Items	Loading	Cronbach's Alpha	CR	AVE	Deleted Items
Green Human Capital	GHC3	0.894	0.675	0.859	0.753	GHC1, GHC2, GHC4
	GHC5	0.841				
Green Human Resources Management	GHRM1	0.890	0.633	0.770	0.537	GHRM, GHRM2
	GHRM3	0.528				
	GHRM5	0.735				
Organizational Commitment	OC1	0.778	0.583	0.758	0.526	OC2, OC4,
	OC3	0.873				
	OC5	0.459				

Assessing discriminant validity involves employing techniques such as cross-loadings, the Fornell-Larcker criterion, and the Heterotrait-Monotrait ratio (HTMT), as proposed by Franke and Sarstedt (2019). To establish discriminant validity, the outer loading of an item within the construct must be greater than the cross loadings of the same item in any other construct (Rasoolimanesh, 2022)cross-loadings method, heterotrait-monotrait (HTMT. The results presented in Table 6 validate the discriminant validity of latent variables integrated into the model, satisfying the criterion for discriminant validity cross-loadings. Additionally, we evaluated the HTMT Ratio. Discriminant validity between two constructs is confirmed when the HTMT value is under 0.90. In light of the results, discriminant validity is successfully demonstrated (Lawaju et al., 2024), as the values remain below the 0.90 threshold (Ab Hamid et al., 2017).

Table 5: Fonell and Larcker Criterion & HTMT Ratio

Fonell and Larcker Criterion				HTMT Ratio			
	GHC	GHRM	OC		GHC	GHRM	OC
GHC	0.868			GHC			
GHRM	-0.268	0.793		GHRM	0.327		
OC	0.378	-0.231	0.836	OC	0.504	0.318	

The Fornell-Larcker criterion assesses discriminant validity by analyzing the square root of Average Variance Extracted (AVE) for individual latent variables (Tiwari et al., 2025). According to this criterion, the square root of AVE for each latent variable must exceed its correlation with other latent variables (Henseler, 2018). The findings verify that the square root of AVE for each latent variable surpasses its correlations with other latent variables, as outlined in Table 5.

Table 6: Cross Loading

	GHC	GHRM	OC
GHC3	0.872	-0.235	0.318
GHC5	0.865	-0.059	0.311
GHRM1	-0.300	0.718	-0.141

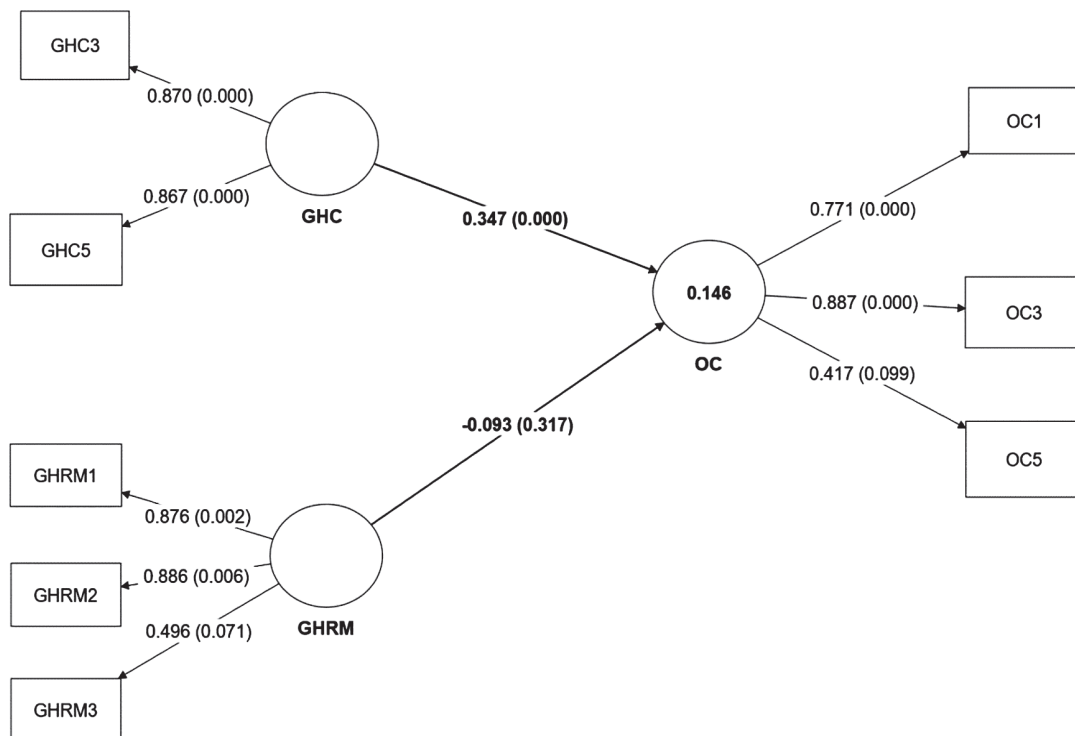
GHRM3	-0.007	0.599	-0.073
GHRM5	-0.073	0.884	-0.232
OC1	0.250	-0.225	0.801
OC3	0.368	-0.158	0.851
OC5	0.082	-0.101	0.476

To ensure a good model fit to data, the SRMR value should less than 0.1 and NFI value should be within 0-1. The value of SRMR value is 0.112 and NFI value is 0.726 the above given value required for the goodness of fit.

4.4 Structural model

The collected data was analyzed using structural equation modeling (SEM) using the Smart-PLS 4.0 version. Figure 3 shows the results from a bootstrapping procedure. In the procedure, a large number of subsamples are taken from the original sample with the replacement to give bootstrap standard errors which give approximate t-value for significant testing of the structural path. The R2 value for the study is 0.145 which means that 14.5% of variation in organization commitment is explained by GHC and GHRM.

Figure 3: Path Analysis



Hypothesis Testing

Following the execution of the Partial Least Squares algorithm through SmartPLS 4.0, the next step involves hypothesis testing to determine the level of support for the proposed hypotheses. It was done by using a paired sample t-test with 5% significance level ($\alpha=0.05$). A hypothesis is deemed supported when the p-value (sig.) is less than 0.05; conversely, a hypothesis is considered not supported when the p-value (sig.) exceeds 0.05. A concise presentation of the hypothesis testing outcomes is depicted in the following table.

Table 7: Hypothesis Testing

Hypothesis	Beta	SD	T- values	P-values	CI		Decision
					2.5%	97.5%	
GHC -> OC	0.555	0.136	4.088	0.000	0.18	0.707	Supported
GHRM -> OC	-0.093	0.128	0.731	0.465	-0.267	0.329	Not Supported

Based on the above analysis that has been conducted, path coefficient shows the value of 0.555 for the relation between Green human Capital (GHC) with organizational commitment (OC). This indicates that there is positive relation between Green human capital and organizational commitment. In addition, it also shows $0.000 < 0.05$ for its p-value and 4.088 for its t-value, which means that Green human capital in OC significantly affects their organizational commitment. Similarly, the result show that the path coefficient of 0.093 for the relation between Green HRM with organizational commitment (OC). This indicates that there is negative relation between Green HRM and organizational commitment (OC). It also shows $0.465 > 0.05$ and 0.731 for t-value, which means Green HRM has insignificant impact on organizational commitment.

5. Discussion

Green HRM is still new and emerging concept field that needs more attention from researcher and HR practitioners Mwita (2019). According to myth, the history of human resource management (HRM) began in England in the early 1800s, at the height of the craftsmen and apprentice period, and continued to grow throughout the late 1800s industrial revolution. To satisfy the various demands in the business world, various developments have been evolving. Likewise in the United States, many organizations have adopted telecommuting and flexible work arrangements to reduce carbon emissions from employee commuting. Organizations also provide sustainability training to employees and encourage them to participate in environmental initiatives. European Union has implemented policies and regulations to encourage Green HRM practices, such as the EU Eco-Management and Audit Scheme (EMAS), which promotes sustainable production and consumption. European companies also invest in sustainable supply chain management and green energy sources.

The result reveal that there are there are 87% male and 13% female as otherwise respondents. Both male and female had partial knowledge about the Green HRM practice. As GHRM is new and unique concept our result reveals that only 47% of the respondents are aware of Green HRM practices. Awareness about Green HRM plays vital role in industrial sectors as development of industrial sectors is emerging. Awareness about Green HRM should be considered in different sectors with collaboration with local government for environmental sustainability.

Industrial sectors are increasing in Nepal, and this sectors very much focus on environmental sustainability. Green HRM practices seem to be very important for knowledge sharing with the managers of industrial sectors. Greening employers is important for environmental performance though HR. Likewise, Adoption of Green HRM practices industrial sector for employees is to improvement of green innovation in terms of product and behaviors. Our study shows less focus on adoption of green HRM practices. Similarly, different program should be conducted to increase awareness about Green HRM practices. Likewise, various Businesses and business organizations in Nepal include Sipradi Trading, NIC Asia Bank, Nabil Bank, Vishal Group, Shanker Group, Chaudhary Group, MV Dugar Group, KL Dugar Group are involved in HR practices.

Similarly, second section of this chapter showed inferential analysis in which measurement model assessment, Structural modeling assessment, and path analysis through bootstrapping and hypothesis testing are done for the result. We performed hypothesis testing to get effective results of Green HRM practices to show relationship between Green HRM, Green Human Capital and Organizational Commitment. Likewise, hypothesis testing (H1) results show that ($\beta= 0.555$, $t= 4.088$, $p\text{-value}= 0.000$) in which Green Human Capital have significant effect on Organizational Commitment whereas $p\text{-value} < 0.05$. In the second hypothesis testing (H2) the results show that ($\beta=-0.093$, $t= 0.731$, $p\text{-value}= 0.465$) this means that there is insignificant role of green HRM in Organization Commitment.

6. Conclusion

The study examines the level of implementation of Green HRM Practices in Kathmandu valley Industrial Sector. The specific objectives of the study are to measure. This study was conducted with managers of Kathmandu valley Industrial Estate. For the data collection census technique was used. After determining data collection techniques, structured questionnaire was developed for the data collection form the respondents. The collected data has been analyzed with the help of descriptive statistics inferential analysis. Similarly, in this study Smart-PLS 4.0 model was used.

Awareness of Green HRM practices in industrial sectors is still limited, with more than half of the respondents being unaware of these practices. Additionally, a majority of industries were not certified with the ISO 14000 series. The primary applications of Green HRM practices in industrial sectors were driven by factors such as cost considerations in waste disposal, the need for greater social responsibility, energy conservation efforts, and pressures from regulatory bodies and competitors. However, the adoption of Green HRM practices also faces several challenges. These include a lack of understanding of green policies, inadequate infrastructure, complexities and difficulties in implementation, establishing appropriate work structures and processes, and concerns about the costs involved. For successful adoption, proper management support and improved infrastructure facilities are crucial in raising awareness among industry managers about the benefits of Green HRM practices. Green HRM has a substantial impact on both Organizational Commitment and Green Human Capital. Furthermore, the presence of green human capital within an organization significantly influences the level of organizational commitment exhibited by individuals. However, it's noteworthy that the impact of green HRM on organizational commitment is found to be statistically insignificant. This suggests that while the investment in cultivating green human capital positively affects commitment, the direct influence of green HRM practices on organizational commitment might not be as pronounced.

References

- Aalam, M. P., Siddique, M. R., & Kunwar, R. (2025). Impact of digital complaint management system on banking customer satisfaction: Evidence from Kathmandu valley, Nepal. *Economic Review of Nepal*, 8(2), 93-107.
- Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*, 890(1). <https://doi.org/10.1088/1742-6596/890/1/012163>
- Adhikari, B., Lawaju, P., Adhikari, K., & Bohaju, S. (2024). Graduate Student's Perception on Effectiveness of Virtual Education during Covid-19: Evidence from Structural Equation Modelling in Nepal. *Quest Journal of Management and Social Sciences*, 6(2), 360-379.
- Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.
- Al-Minhas, U., Ndubisi, N. O., & Barrane, F. Z. (2020). Corporate environmental management: A review and integration of green human resource management and green logistics. *Management of Environmental Quality: An International Journal*, 31(2), 431-450.
- Alvarado, R., & Toledo, E. (2017). Environmental degradation and economic growth: evidence for a developing country. *Environment, Development and Sustainability*, 19(4), 1205-1218
- Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management*, 28(1), 229-238.
- Benevene, P., & Buonomo, I. (2020). Green human resource management: An evidence-based systematic literature review. *Sustainability*, 12(15), 5974.

- Bhatta, S., Devkota, N., Paudel, U. R., & Danuwar, R. K. (2023). Prospect of tourism development in Khaptad National Park: a local perspective. *Journal of Tourism & Adventure*, 6(1), 53-71.
- Bhattacharai, U., Lopatka, A., Devkota, N., Paudel, U. R., & Németh, P. (2023). Influence of green human resource management on employees' behavior through mediation of environmental knowledge of managers. *Journal of International Studies (2071-8330)*, 16(3).
- Cremen, G., Galasso, C., & Zuccolo, E. (2022). Investigating the potential effectiveness of earthquake early warning across Europe. *Nature communications*, 13(1), 1-10.
- Devkota, N., Khamcha, S., Upretee, S., Paudel, U. R., & Mahato, S. (2023). Visitors' perceptions of homestay management in Nepal: Evidence from structural equation modelling. In *Handbook of Research on Sustainable Tourism and Hotel Operations in Global Hypercompetition* (pp. 235-254). IGI Global Scientific Publishing.
- Friedman, A. L., & Miles, S. (2002). Developing stakeholder theory. *Journal of management studies*, 39(1), 1-21.
- Gilal, F. G., Ashraf, Z., Gilal, N. G., Gilal, R. G., & Channa, N. A. (2019). Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. *Corporate Social Responsibility and Environmental Management*, 26(6), 1579-1590.
- Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2016). Green human resource management: a comparative qualitative case study of a United States multinational corporation. *The International Journal of Human Resource Management*, 27(2), 192-211.
- Henseler, J. (2018). Partial least squares path modeling: Quo vadis? *Quality and Quantity*, 52(1). <https://doi.org/10.1007/s11135-018-0689-6>
- Ismail, I., & Hassan, R. (2020). Employee and top management engagement as main determinants of successful green hrn practices. *International Journal of Business and Economy*, 2(1), 20-24.
- Kock, N. (2017). Common method bias: a full collinearity assessment method for PLS-SEM. In *Partial least squares path modeling: Basic concepts, methodological issues and applications* (pp. 245-257). Cham: Springer International Publishing.
- Lawaju, P., Adhikari, S. U., & Devkota, J. (2024). Impact of AI in education: An evidence from use of ChatGPT in management education in Nepal. *Quest Journal of Management and Social Sciences*, 6(3), 621-642.
- Lawaju, P., Awale, P., Basyal, D. K., Thakur, A., Bhandari, A., & Paudel, U. R. (2023). Investigating policyholders' perception towards insurance: Evidence from structural equation modeling. *Nepalese Journal of Insurance and Social Security*, 6(1), 71-81.
- Maharjan, J., Lawaju, P., & Karki, D. (2025). The Role of Financial Literacy in Investment Decision: A Study in Kathmandu Valley. *Quest Journal of Management and Social Sciences*, 7(2), 390-408.
- Mandago, R. J. (2019). *Influence of green human resource management practices on environmental sustainability in service based state corporations in Kenya* (Doctoral dissertation, JKUAT-COHRED).
- Mandip, G. (2012). Green HRM: People management commitment to environmental sustainability. *Research Journal of Recent Sciences*, ISSN, 2277, 2502.
- Miraj, J., & Wang, Z. (2019). Factors influencing the implementation of international public sector accounting standards in Pakistan. *International Journal of Business and Management*, 14(9), 15-22.

- Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. *International Journal of Organizational Analysis*, 25(5), 762-788.
- Mishra, R. K., Sarkar, S., & Kiranmai, J. (2014). Green HRM: innovative approach in Indian public enterprises. *World Review of Science, Technology and Sustainable Development*, 11(1), 26-42.
- Mwita, K. (2019). Conceptual review of green human resource management practices. *East African Journal of Social and Applied Sciences*, 1(2), 13-20.
- Nejati, M., Rabiei, S., & Jabbar, C. J. C. (2017). Envisioning the invisible: Understanding the synergy between green human resource management and green supply chain management in manufacturing firms in Iran in light of the moderating effect of employees' resistance to change. *Journal of Cleaner Production*, 168, 163–172. <https://doi.org/10.1016/j.jclepro.2017.08.213>
- Parker, R. I., Vannest, K. J., Davis, J. L., & Sauber, S. B. (2011). Combining nonoverlap and trend for single-case research: Tau-U. *Behavior therapy*, 42(2), 284-299.
- Rani, S., & Mishra, K. (2014). Green HRM: Practices and strategic implementation in the organizations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(11), 3633-3639.
- Rasoolimanesh, S. (2022). Discriminant validity assessment in PLS-SEM: A comprehensive composite-based approach. *Data Analysis Perspectives Journal*, 3(2), 1–8.
- Sarfraz, M., Ozturk, I., Yoo, S., Raza, M. A., & Han, H. (2023). Toward a new understanding of environmental and financial performance through corporate social responsibility, green innovation, and sustainable development. *Humanities and Social Sciences Communications*, 10(1), 297.
- Shafiq, M. A., Ramzan, M., Faisal, M. M., & Iqbal, S. (2023). Exploring the relationship between green human resource management and green creativity: The moderating influence of green behavioral intention. *Pakistan Journal of Humanities and Social Sciences*, 11(1), 426-439.
- Sharma, K. (2016). Conceptualization of green HRM and green HRM practices: Commitment to environment sustainability. *International Journal of Advanced Scientific Research*
- Shoib, M., Abbas, Z., Yousaf, M., Zámečník, R., Ahmed, J., & Saqib, S. (2021). The role of GHRM practices towards organizational commitment: A mediation analysis of green human capital. *Cogent Business & Management*, 8(1), 1870798.
- Tiwari, D. R., Devkota, N., & Lawaju, P. (2025). Tourist satisfaction and sustainable homestay management: Insights from six rural communities in Western Nepal. *Quest Journal of Management and Social Sciences*, 7(1), 182-200.
- Varadarajan, R. (2023). Resource advantage theory, resource based theory, and theory of multimarket competition: does multimarket rivalry restrain firms from leveraging resource advantages?. *Journal of Business Research*, 160, 113713.
- Yusoff, Y. M., Nejati, M., Kee, D. M. H., & Amran, A. (2020). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, 21(3), 663-680.
- Zaid, A. A., Jaaron, A. A., & Bon, A. T. (2018). The impact of green human resource management and green supply chain management practices on sustainable performance: An empirical study. *Journal of cleaner production*, 204, 965-979.
- Zilber, T. B. (2012). The relevance of institutional theory for the study of organizational culture. *Journal of Management Inquiry*, 21(1), 88-93.