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Influence of Green Human Resource Competence on Employee Environmental Behavior in Five-Star hotels in Nairobi Metropolitan

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Abstract

This study explores how Green Human Resource (HR) competence of environmental knowledge influences employee environmental behavior within five-star hotels in Nairobi Metropolitan, with a focus on the moderating role of hotel environmental policy. Grounded in the Ability-Motivation-Opportunity Theory and the Natural Resource-Based View. The study adopts a post-positivist philosophy, quantitative paradigm, and cross-sectional descriptive design. A sample of 312 employees was drawn from a population of 1,069 using stratified and simple random sampling, yielding 270 valid responses. Data were analyzed using descriptive and inferential statistics, with hypotheses tested using Structural Equation Modelling using AMOS. Findings revealed that green HR competences environmental knowledge significantly and positively influence employee environmental behavior. Although hotel environmental policy moderately weakened the relationship between environmental knowledge and green behavior, its impact was not statistically significant. The study recommends that hotel managers enhance employee green competences through targeted training to foster sustainable work practices and resource conservation. Emphasis should be placed on promoting environmental knowledge to support initiatives like waste reduction and energy-efficient operations. Managers should ensure adequate environmental policies, aimed at advancing employee's knowledge are designed and implemented. The study concludes green HR competency that is environmental knowledge is inherently valuable for Employee environmental behavior.

Key words:

Green HR competences (GHRC) for employees, Green Competences, Employee Environmental Knowledge, Employee Environmental Behaviour, Five-Star Hotel



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1.0 Introduction

Green competences are unique pro-environmental activities in workplaces that increase employees' motivation to actively lower their carbon footprint (Tian & Robertson, 2019). Renwick *et al.* (2021) define green competencies as knowledge, skills and capabilities that are essential for environmental management practices. Literature indicates that 40% of environmental challenges stem from human behavior and patterns of production and consumption (Gan *et al.*, 2008). Therefore, aligning employee conduct with organizational green strategies is essential for the success of any environmental initiative (Chou, 2014).

A number of challenges hinder employee participation in environmental initiatives. For instance, in India, staff resistance, poor environmental knowledge, and misconceptions about cost-saving hindered the adoption of green practices in five-star hotels (Sangle & Shitole, 2018). Similarly, empirical studies in Sri Lanka and Nigeria reveal low staff awareness, inadequate green knowledge, and insufficient attention to energy and waste management practices (Osolase *et al.*, 2022).

Five-star hotels in Nairobi Metropolitan constitutes hotels within the capital city and its environs. The region presents an attractive destination choice for several tourists both international and domestic. Despite the hotel's significance to the economy, literature revealed 83.3% of hotels waste estimated 20-30 kg volume of food daily and approximately 20000 tonnes per year (Owusu *et al.*, 2023). The study also found that waste from hotels significantly contributed to climate change. Besides, researchers such as Osiako and Okummitha (2020) and Mugure (2021) highlighted challenges related to insufficient green experience, poor waste management, and a lack of green skills among hotel staff, inadequate knowledge and awareness (Waweru, 2020). The degradation index in Kenya was found to be at 70% (KNBS, 2014); the 2016 epi score of 62.49 % and 2022 epi score showing 30.8% are attributed to a negative change (wolf *et al.*, 2022).

Previous studies employed Chi-square and correlations, which are inadequate in dealing with causal relationships (Shekinah, 2021). This study causal modelling was done using SEM. Prior research is conceptual in nature (Bukhari & Jian, 2022), while studies on GHR competences are scarce in Africa, especially in Kenya, and most of them overlooked moderating factors, a gap this study sought to fill.

1.1 Research Objectives

The main objective of this study was to investigate the influence of Green Human Resource competences on employee environmental behaviour in five-star hotels in Nairobi Metropolitan, Kenya.



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The specific objectives of the study were to:

- i. Examine the influence of employee environmental knowledge on employee environmental behaviour in five-star hotels
- ii. To assess the role of Hotel Environmental Policy as a moderating variable in the relationship between Green HR competences and employee environmental behaviors in five-star Hotels.

1.2 Research Hypothesis

H_{a1}: Employee environmental knowledge has a significant influence on employee environmental behaviour in five-star hotels in Nairobi Metropolitan, Kenya.

H_{a2}: Hotel environmental policy significantly moderates the relationship between environmental knowledge and employee environmental behaviour in hotels.

1.3 Conceptual Framework

The conceptual framework suggests that the influence of green competence (environmental knowledge), on employees' ecological behavior is both direct and moderated by hotel policy on the environment. Environmental knowledge empowers organizational staff to adopt and be engaged in pro-environmental behaviors, while the implementation of policies enhances this relationship. Furthermore, the conceptual framework is drawn from the theoretical underpinnings of Ability Motivation and Opportunity theory and Natural Resource Based theory. These theories affirm that employee environmental behaviors can be heightened through enhancing green abilities, motivating employees to develop a positive attitude, through employee policy on environment and providing opportunity for employees to demonstrate environmental behaviors. Employees' environmental knowledge propels an employee towards actions that tend to conserve natural resources, prevent pollution and act as environmental steward by engaging in environmental actions.

The study proposes that in determining the influence of employee environmental behaviors, the components of GHR competency (environmental knowledge) had to be studied separately. This is expected to offer deeper understanding of significance of how environmental knowledge to employee environmental behavior. Environmental knowledge constitutes: waste management, resource conservation and knowledge of hotel environmental policy. The dependent variable that is environmental behaviors entailed: working sustainably, conserving behavior and taking initiative. The moderating variable entailed: policy implementation of green training, resource conservation and disposal of waste, formed the foundation of the investigation. Subsequently, accounting for the theoretical and empirical literature, the



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study proposed that hotel environmental policy significantly modifies the relationship between GHR competency of environmental knowledge and employee green behaviors.

2.0 Literature Review

2.1 Ability Motivation and Opportunity Theory (AMO)

AMO theory, which was initially developed by Appelbaum et al. (2000), posits that performance is determined by three essential elements: Ability (A), Motivation (M) and opportunity (O). According to this framework, Employees will perform well if they are capable of doing the job (knowledge, skills), motivated to do it (incentives, alignment with values), and given the chance to participate or be empowered.

According to theory, performance depends on a combination of opportunity, motivation, and ability rather than just one of these factors. All three elements can be shaped by HR procedures. Through job design, training, and incentives. Finally, contextual factors, like leadership style, sector characteristics, and organizational culture, determines how performance is influenced.

Applied to this study, Environmental knowledge is essential in GHRM for educating staff members about ecological impact and sustainability practices. By enhancing this capacity, hotels give employees the knowledge they need to make decisions that are environmentally friendly (Renwick *et al.*, 2013). Increasing staff environmental awareness guarantees that green practices are incorporated into daily service procedures in five-star hotels, which have high service standards. Consequently, the 'ability' pillar of the AMO framework is comprised of green competencies, particularly environmental knowledge, which impact pro-environmental practices of employees in the hospitality industry (Tang *et al.*, 2018). While intrinsic motivators, such as personal values and eco-consciousness, are required to encourage employees to act on their knowledge, extrinsic motivators, such as company culture and the adoption of hotel environmental policies, tend to increase employee motivation.

Opportunity is the degree to which workers have the ability to take action. Hotel employees are more dedicated and proactive when they are given the opportunity to take part in green decisions, such as waste management or energy conservation (Kim *et al.*, 2019). This opportunity can be improved through GHRM practices like team-based environmental projects or green suggestion schemes. Giving employees of the hospitality industry organized chances to participate in eco-initiatives encourages them to practice environmental behaviour.

2.2 Natural Resource-Based View



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Natural Resource Based View (NRBV) is based on a firm's links to the natural environment as noted by Hart (1995). The theory highlights the importance of environmental practices and suggests that organizations can achieve greater performance by tying resources to distinct capabilities: rare, valued, unique and non-substitutable resources to their resources. The three strategic capabilities are: stewardship of products, mitigation of pollution, and sustainable development (Hart, 1995). Pollution prevention and stewardship explain employee environmental behaviour, whereas the sustainable development aspects explain more of the moderating influence of hotel environmental policies in the link between Green Human Resource competences and employee environmental behaviour. The stewardship component explains more of employee environmental behaviour.

NRBV was adopted in the study to explain the influence of environmental knowledge and how hotel policies influence environmental behaviour. Since Green Human Resource Competency of green knowledge is centered on preventing pollution, it has the ability to produce environmentally conscious employees through the Green Human Resource competences offered and supported by hotel environmental policies. By emphasizing straightforward green behaviors that have a direct impact on waste and pollution generation, GHR competency helps improve employees' green behaviors, such as eliminating the use of plastics or any disposal materials, recycling paper, walking upstairs instead of lift within same building.

Finally, HR through GHRM can improve employees' green behaviour by providing employees with opportunity to directly get involved in the eco-friendly approaches. Sustainable environmental practices are anticipated when the complete process is comprehended, such as involving personnel from all classification levels. By implementing a stewardship strategy, HR practices and policies establish a green atmosphere that encourages environmentally friendly behavior (Almada & Borges, 2018). Besides, the NRBV focuses on tangible natural resources but might underplay the importance of intangible resources like employee knowledge, attitude and behaviours. The study mitigates this challenge by incorporating both tangible and intangible resources. For instance, the study highlights how Green Human Resource competences contribute to intangible assets such as employee knowledge and environmental awareness.

2.3 Environmental Knowledge on Employee Environmental Behavior

Shekinah (2021), Investigate how Nairobi, Kenya's four- and five-star hotels' operational efficiency is affected by green practices. The study found that hotels, to a great extent, had implemented green practices such as water management, air quality, and environmental purchasing into their operations. The study further showed a Positive correlation between the adoption of green practices with hotel performance. However, the study was limited to the



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hotel as a unit of analysis, and used correlations for analysis. Unlike the current study, which focused on employees as unit of analysis and use of SEM which has ability to model the causal relationship.

Chan *et al.* (2017), Analyze the correlation between employee behavior in the Hong Kong hotel sector and ecological understanding, awareness, and concerns. Environmental concern and ecological behavior are positively impacted by environmental knowledge. However, the study did not consider the moderating variable a gap that this study seeks to fill by using hotel policy implementation on environment as moderator.

A study conducted in Hong Kong by Chan *et al.* (2017), looked at the association between employee behavior in the hotel business and environmental knowledge, awareness, and concerns. Structural Equation Modeling (SEM) was used in the study to analyze data and employees constituted unit of analysis. The study looked into the direct influence of environmental knowledge on employee environmental behaviour. The findings revealed environmental knowledge had positive effect on environmental concern and ecological behaviour.

Amoah and Adoah (2021) did a study in Ghana to investigate if knowledge is a predictor of eco-environmental behaviour in Ghana among the households. The study used household surveys approach and multinomial logit regression analysis. The findings show that knowledge positively and significantly explained (and predicted) environmental behaviour. The study acknowledged that internal factors such as knowledge accounted for environmental behaviour. However, the study was limited to households which may have different operations as compared to luxury hotels like five star which uses large amounts of resources and huge waste generation.

Raza and Khan (2022) focused on how Green Human Resource Management (GHRM) practices influence hotel environmental performance, treating environmental knowledge as a moderating factor. They found that environmental knowledge did not significantly moderate the relationship between affective commitment and environmental performance. In contrast, the current study positions environmental knowledge as a core HR competency and direct predictor of employee environmental behavior.

By addressing environmental knowledge as a moderating factor, Raza and Khan (2022) concentrated on the relationship between hotel environmental performance and Green Human Resource Management (GHRM) practices. The study found the relationship between affective commitment and green performance was not significantly moderated by environmental knowledge. However, the current study positions environmental knowledge as a core HR competency and direct predictor of employee environmental behavior.



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This shift reveals a significant conceptual and contextual difference between the two research.

In addition, the new analysis includes hotel environmental policy as a moderating variable, which was not included in Raza and Khan's (2022) model. This addendum tackles the policy-practice nexus by looking at how institutional frameworks influence the relationship between environmental knowledge and employee green behavior. This study, unlike Raza and Khan's, focuses on individual-level behavioral analysis rather than organizational outcomes. Furthermore, by focusing the research on Kenya's five-star hotel sector, it addresses an empirical gap in Sub-Saharan Africa, where such contextual studies are scarce, given the significance of Africa as a destination for tourists, tourism activities are closely linked to the hospitality industry (hotels), this is an important gap that the current study sought to reduce by carrying out studies on GHR competency and its influence on employee environmental behaviours in five-star hotels in Kenya.

Abu Elhassan and Elsayed (2020), discussing how perceptions of support and availability for Green Human Resource competences affect hotels' ecological sustainability. The findings revealed favorable effects of perceived help and training accessibility on hotel environmental performance. However, the study focussed on Environmental hotel performance. The study was limited to a direct influence lacking mediator or moderator variable which would have influence on performance

A study by Kim *et al.* (2019) explored ways to use GHRM to enhance hotel environmental performance and eco-friendly staff behavior. The study also examines how employee green behavior and green self-efficacy mediate each other. Both green and non-green hotel staff made up the target population of 600 employees, 300 from green hotels and 300 from non-green hotels were surveyed. Data was then analyzed using SMART PLS. The results demonstrate that green HR practices improve hotel environmental performance. Furthermore, highly effective motivated staff members are more likely to engage in green behavior, which improves the environmental performance of hotels. The findings of the study suggest that HR in the hospitality industry should give GHRM practices a lot of attention based on the comparative analysis.

Previous research has demonstrated that GHRM affects the EGB. For example, according to Ababneh (2021), companies that use GHRM practices typically match their traditional HRM procedures with their environmental policies, systems, and values. Green behavior is more likely to occur when they hire staff members with the expertise, background, and environmental mindset that align with GHRM. Ababneh (2021) contended that certain situations may compel an organization to adopt a compliance approach and anticipate that its workers will carry out their duties in accordance with its policies, such as those pertaining to recycling, printing, and waste reduction. Employees might also be urged to take proactive steps to practice green workplace practices. Likewise, Dumont *et al.* (2017) argued that



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employee green behaviors are influenced by organizational green values. Additionally, GHRM procedures function as a guideline that eventually results in green actions from employees.

2.4 Hotel policy implementation on environment

Several findings showed the significance of implementation of environmentally friendly policies in forming environmentally conscious employees. For instance, literature indicates evidence in having mission statement that seek to lower costs improve employee engagement and thus reducing carbon footprint (Sheopuri & Sheopuri, 2019). These efforts seek to leverage employees' abilities and skills through Green Human Resource competences and providing employees with opportunities to participate in environmental social impacts like engaging in environmental beautification projects. Likewise, study by Masri and Jaaron (2017) found Employees' environmental behavior improved when firms committed to environmental restoration. However, Haddock-Miller, *et al.* (2016) found limited correlation between an organization's environmental policy and its employees' real environmentally friendly behavior.

Overall, based on the empirical literature, more consideration has been given to organizational level as unit of analysis, that is, Hotel green performance (Kim *et al.*, 2019; Abuelhassan & Elsayed, 2020; Chan *et al.*, 2017; Chen 2016). While little attention has been given to employee's environmental behaviour, in the hotel industry. In respect to this, the present study addresses this gap by examining the effect of GHR competences by looking at environmental knowledge, and its influence on employee environmental behaviours in hotels in the East Africa region (Kenya).

The majority of existing research views the relationship as a direct one between GHRM procedures and employee environmental behavior (Chan *et al.*, 2017; Abuelhassan & Elsayed 2020; Karmoker *et al.*, 2020). Other studies on green competency have concentrated on the conceptualization of green competencies rather than the influence of green competencies on employee pro-environmental behaviour (Bukhari & Jian 2022). Others have looked at the mediation effect of green competences (Ababneh, 2021). There is scanty of studies that considered the influence of moderating variables. The current study sought to bridge these gaps by using implementation of hotel policy on environment as moderator.

3.0 RESEARCH METHODOLOGY

3.1 Research Philosophy and Design

The research was undertaken in Kenya, concentrated in five-star hotels within Nairobi Metropolitan. The post-positivist perspective guided the study. Post-positivism is based on the objective epistemology, meaning the researcher



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is impartial, which means the research resides solely on the object being studied and not in the conscience of the researcher (Shafi, 2013). Post-positivism is based on realism (Scotland, 2012). Hence, objects are viewed to exist independently of the knower. Quantitative paradigm underpinned the research-

Furthermore, a cross-sectional survey research design was adopted for this study. Researchers such as Ngigi *et al.* (2016) observed that a cross-sectional survey research design enables a researcher to collect data of the population for estimating the link between the study variables and facilitates consistent data collection across many respondents at one point in time. Besides, this design has previously been applied to investigate green HRM effects on hotels green behavior leading to credible results (Karmoker *et al.*, 2020).

3.2 Target population and Sampling

The target population comprised of full-time employees working in operational departments of the hotel. The target population of the study includes all individuals or subjects to whom a researcher hopes to generalize the study (Zhao *et al.*, 2013). The target population for the study included all full-time employees working in five-star hotels in Nairobi metropolitan. They consisted of employees working in accommodation, laundry, kitchen and recreation departments. Furthermore, employees are key front liners in carrying out the hotel's intended green activities and are at the touch point of hotel processes, without whom the hotel may not achieve its greening outcomes. Besides, at the operational cycle of the hotel, employees are key to ensuring the correct processes are carried out effectively. A sample of 312 employees was drawn from a population of 1,069 using the allocation method recommended by Wright (2014) to determine the sample size for each targeted hotel, as well as stratified and simple random sampling, yielding 270 valid responses

3.3 Research Instrument

Questionnaires were used to collect pertinent information for the study. The use of questionnaires is expected to offer objective responses due to their standardized way of data collection and provides an opportunity for anonymity (Goddard, 2016). The study used structured questionnaires with a 5-point Likert scale with a range: "1=strongly disagree to 5 strongly agree" to indicate levels of agreement. In addition, structured questionnaires were used to make statistical analysis manageable. Environmental knowledge items were adapted from Boiral (2002) and Fryxell and Lo (2003), items for measuring moderator hotel environmental policy were adapted from Hsieh (2012) and Arulrajah *et al.* (2015). Lastly, items that measured the dependent variable, employee environmental behaviors, were adapted from Masri and Jaaro (2017), Arulrajah *et al.* (2015) and Wiernik *et al.* (2016).

3.4 Data Collection Procedures



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The researcher sought approval from the School of Business & Economics, department of Graduate Business, Catholic University of Eastern Africa (CUEA) and from the National Commission for Science Technology and Innovation (NACOSTI) for research permit to enable the researcher conduct the research in five-star hotels within Nairobi County. Piloting of the questionnaire was conducted from at least 30 employees not included in the final study. This constituted 9.62% of the sample population. According to Cooper and Schilder (2011), a pilot test should make up 5% to 10% of the target sample. This is to enable establishment of reliability of the questionnaire.

3.5 Data Analysis and Presentations

Data were analyzed using descriptive and inferential statistics such as mean scores and standard deviation, with hypotheses tested using Structural Equation Modelling by using Analysis of Moment Structures (AMOS) software. Exploratory Factor Analysis using the principal component analysis was used to assess possible relationships between green HR competences and employee environmental behavior, as well as the existence of common method bias and response bias were used. Besides, diagnostic tests were conducted to ensure reliability and validity and to ensure SEM assumptions, such as, tests for normality, missing data, or checking data for incompleteness, linearity, multi-collinearity, and homoscedasticity were met.

3.6 Ethical Consideration in Research

Ethical considerations such as, the principle of anonymity whereby the respondents were asked not to indicate their names on the on the questionnaire. Besides, Voluntary participation was achieved as respondents were informed that participation in the study was on a voluntary basis so they were free to participate in the survey or drop. Avoidance of plagiarism was equally achieved, whereby the research report was subjected to a plagiarism test and finally, the researcher obtained a research permit from NACOSTI.

4.0 RESULTS AND DISCUSSIONS

4.1 Descriptive Analysis of Variables

The study used mean scores to rank the items under each research variable. Oxford (1990) states that mean scores fall into three categories: low, medium, and high likelihood of a particular event or response. The ranges for low and medium incidences are 1.0 and 2.0, 2.5 and 3.4, and 3.5 and 5.0 for high occurrence, respectively.

Table 1: Results on descriptive analysis -mean scores standard deviation for Environmental Knowledge

Variable	Mean score	Level of occurrence	Cronbach's Alpha if Item Deleted
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EK1	4.296	High	0.765
EK2	4.144	High	0.752
EK3	4.033	High	0.763
EK4	3.881	Medium	0.757
EK5	4.096	High	0.766
EK6	3.333	Medium	0.811
EK7	4.088	High	0.77

Note: Author (2025)

The results in table 1 indicate the specific items, the mean scores were as follows: I know how to manage wastes from hotels (mean score=4.296), I have the required capacity to reduce pollution from waste in the hotels (mean score =4.144), indicating high levels of knowledge concerning pollution prevention. I know how to recycle reusable items in the hotel (mean score =4.033), I have necessary training on water conservation (mean score =3.881), showing a moderate level of employee green training. The item I have mastered the various ways of using energy efficiently (mean score =4.096), and I am aware of environmental management practices/policy in my hotel, (means core=4088. This implies the employees were confident in being aware of reducing pollution. This is consistent with Elziny's (2019) findings that GHRM practices positively influenced workers' environmental behavior and understanding. Scholars like Cegarr *et al.* (2013) emphasized the Importance of environmental knowledge. Moreover, the score of 3.333 for "I often attend environmental seminars, workshops to boost my knowledge on resource conservation such as water and energy" indicates that enrollment in environmental training programs is not very high indicating a possible area for development, since more training opportunities might improve workers' environmental behaviors and perceptions. Nguyen *et al.* (2020) observed that environmental training programs greatly enhanced hotel staff members' green performance, which lends credence to this.

Generally, the results reveal that, despite all items having been ranked as high occurrence, the frequency of attending seminars and workshops in order to improve employee's knowledge on resource conservation such as water and energy had medium occurrence and was the least in the rank. This could mean that the training given had moderate impact on employee green behavior and a more thorough green training program could be required to improve their proficiency. These results are similar to the findings of Bashrum and Noranne (2020) who found a moderate level of green behavior among the staff.



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Hotel Environment Policy

Table 2: Results on mean scores, standard deviations for hotel environmental policy and Employee environmental behaviour

Item Statistics	Mean score	Mean	Std. Deviation	N
My hotel has a clear policy on the environment has made me conscious of environmental effects	4.2	4.16	0.762	270
I have benefited from the environmental information posted in the hotel website	4.0	4.04	0.859	270
Hotel policy on resource conservation has influenced my use of energy and water conservation skills	4.1	4.1	0.757	270
Hotel policy on waste management has enhanced my knowledge attitude and skills in waste management	4.1	4.07	0.777	270

Note. Author (2025)

The results presented in table 2 show the mean scores and standard deviations. The respondents ranked high all the items. With mean score ranging from 4.0 to 4.2. All the items were used to explain the Hotel environmental policy since all met the minimum threshold of reliability coefficient of at least 0.7. The item with the highest in ranking had mean score of 4.2 (SD=0.762) sought to find out whether the hotel had a clear policy on the environment that made them conscious of environmental effects. This indicates that due to clear communication of policies, the majority of employees are well aware of environmental concerns. Results are consistent with earlier research by Fatoki (2019), who discovered that when environmental policies were explained clearly, hotel staff in South Africa tended to exhibit moderate to high levels of pro-environmental behavior.

The second item sought to establish whether employees benefited from environmental information posted on the website was least ranked with mean score of had the lowest mean score of 4.04 (SD =0.859). The moderately lower mean and the largest standard deviation among the four items indicate some variation in the perceived usefulness or accessibility of the posted environmental information, even though the trend is still positive.

This variation supports the findings by Elkhwesky (2022),



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A.M.E.C.E.A

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that there may not be institutional standardization in the measurement of environmental tactics, which might affect perception and efficacy.

The item, Hotel policy on resource conservation has influenced my use of energy and water conservation skills yielded a mean score of 4.10 (SD = 0.757) and the item on hotel policy on waste management has enhanced my knowledge, attitude and skills in waste management scored mean 4.07 (SD = 0.777). this notion concurs with Khan *et al.* (2022) who points out the role of ethical leadership and psychological green climate as strategic way of reinforcing these behaviors. The results imply hotel policy has significant impact on the relationship between HR competence of environmental knowledge and employee behavior.

Table 3: Descriptive analysis on Environmental Behaviour (EEB)

	Mean	Std. Deviation	N
Working Sustainably behavior (WS)			
I avoid processes that are energy inefficient	4.09	0.748	270
I optimize use of detergents when doing cleaning	4.11	0.738	270
I choose virtual meetings instead of travel	4.10	0.772	270
I use stairs instead of elevators when going from floor to floor in the hotel	4.01	0.783	270
Conserving Behavior (CON)			270
I turn off the electric appliances, such as computers, TV monitor, etc. before I get off work.	4.37	0.778	270
When I leave a room that is unoccupied, I turn off light	4.11	0.723	270
I reuse disposable plastic bottles, materials	4.10	0.724	270
I recycle cans, Bottles and paper	3.90	0.982	270
I separate recyclable materials from thrash	4.11	0.736	270
Taking initiative Behavior (TI)			
I champion for energy reduction policy in my hotel	4.11	0.741	270
I'm willing to compromise comfort to reduce energy	4.11	0.743	270
Argue for environmental issues on board	3.33	0.735	270
I turn down an environmentally unfriendly proposal	4.08	0.762	270



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Valid N (listwise)

270

Note. Author (2025)

Furthermore, WS sought to establish whether employees avoided processes that were energy inefficient (mean score=4.09) , WS2 sought to establish if employee seeks to optimize the use of detergents during the cleaning (mean score=4.11) , WS3 sought to investigate whether employee prefers to choose virtual meetings instead of travel (mean score=4.10) while WS4 sought to establish employee preference on using stairs instead of elevators when moving from floor to floor in the hotel (mean score=4.10). These results imply employees on great extend demonstrated working sustainably behavior particularly on optimization on use of detergents which had highest occurrence and results concur with Fatoki (2019) who observed that employees in most often embrace green practices when organizations policies support them

Furthermore, CON1 sought to find out if employees turn off electric appliances, such as computers (mean score=4.37), TV monitors before getting off work, CON2 investigated whether employee before leaving the room that was unoccupied had practice of turning off lights (mean score=4.11). In addition, CON3 sought to find out whether employee reuses disposable plastic bottles and paper and other materials (mean score=4.10). Furthermore, CON4 sought to establish whether employee recycles cans, bottles and paper (mean score=3.90), indicate employees may not recycle frequently. Whereas, CON5 investigated whether employee separates recyclable materials from trash (mean score=4.11). The means cores for conserving items imply employees had demonstrated green behaviors of conserving with employee's behavior of turning off lights being the highest in the rank while recycling of cans and bottles being the least in the rank. The results imply generally employees demonstrated conserving behavior.

The findings are supported by Elziny (2019) who reported that employees practice of saving energy had positive impact due to explicit environmental regulations of the hotel. Other items were on taking initiative. For instance, TI1 sought to investigate whether employee champions for energy reduction policy in his hotel (mean score=4.11); TI2 sought to establish employee's willingness to compromise comfort to reduce energy (mean score=4.11), TI3 on the other hand sought to find out whether employee turns down an environmental unfriendly proposal (mean score=3.33) and TI4 sought to investigate whether employee had opportunity to argue for environmental issues on board mean score=4.08.

This result is in line with study by Fatoki (2019), which showed that although workers may be in favor of environmental legislation, there can be differences in how actively they participate in environmental conversations



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4.2 Inferential Results

4.2.1 Relationship between Environmental Knowledge and Employee environmental Behaviour

Table4: Results on the relationship between environmental knowledge and employee environmental Behaviour

Variable relationship	Estimate	S.E.	C.R.	P	Standardized estimates
EEB <--- EK	.327	.059	5.527	***	0.387

Note. *** means $P < 0.001$

The findings on table 4 indicates environmental knowledge positively and significantly influenced employee environmental behavior. It was shown that a unit change in environmental knowledge caused an employee's environmental behavior to change by 0.327, significant at a p-value = 0.001, and critical ratio of 5.527. Hence, hypothesis Ha1 was accepted. Furthermore, standardized estimates for the path coefficients from EK to EEB is 0.387, implying environmental knowledge contributes 39% of employee's environmental behaviors. The results also imply that hotels need to reinforce the training that improves employees' knowledge in working sustainably, especially on waste management, required capacity to reduce pollution, recycling and knowledge on conservation.

The findings concur with those of Amoah and Addoah (2021), who pointed out that knowledge positively and significantly explained and predicted environmental behavior. Similarly, Astawa *et al.* (2021) found that green knowledge had a strong influence on the intention to implement green practices. This means that, increase in environmental knowledge leads to improved environmental behavior.

The results contradict those of Kollmuss and Agyeman (2002), who noted that most of the time, increased knowledge would not result in pro-environmental conduct in their findings based on the linear model of pro-environmental behavior. However, the current study differs with that Kollmus and Agyeman (2002) since the study looked at environmental behavior in terms of working sustainably, conserving and taking initiative behavior. The results also align with NRBV, which contends that developing environmental competencies within an organization's employees can enhance environmental competencies in its workforce. By enhancing environmental knowledge, organizations are not only fostering eco-conscious behavior but also reinforcing long-term sustainability goals.

4.2.2 Hotel Environmental Policy, Environmental knowledge (EK), and Employee Environmental Behavior (EEB)



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Table 5: Results on the moderation effect of Hotel Environmental Policy, GHR competence: Environmental knowledge (EK), and Employee Environmental Behaviour (EEB)

Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Standard estimates
EEB	<--- EK	0.175	0.082	2.123	.034	0.156
EEB	<--- HEP	.657	.089	7.411	***	0.638
EEB	<--- Interaction EKxHEP	-.103	.060	-1.719	.086	-0.082

Note. Author (2025)

The study hypothesized that hotel environmental policy significantly moderates the relationship between environmental knowledge and employee environmental behaviors in hotels. The results presented in Table 5 revealed a negative and non-significant moderating influence of hotel environmental policy (HEP) on the relationship between EK and EEB (estimates=-0.103; significance level, P=-0.086). Hence, Ha2 was rejected. This means the presence of a hotel environmental policy has no significant moderating impact on the relationship between environmental knowledge and employee environmental behavior. Besides, the standardized estimates show interaction of EK*HEP =-0.082. This implies hotel environmental policy effects on environmental knowledge, reduces employee green behavior by 8.2%. The results reveal that hotel policies impact on employee environmental knowledge was insufficient in affecting green behavior of the employees.

This finding is more in line with research by Renwick *et al.* (2016), who warned that rules by themselves could not have the practical traction to influence behavior if they are not thoroughly ingrained in company culture and daily operations. This could account for the nonsignificant moderation. Because environmental policies are not actively implemented, properly communicated, or viewed as powerful tools in the context of Nairobi Metropolitan's five-star hotels, it may be possible to explain their lack of moderating influence. According to Daily *et al.* (2009), policies may serve a symbolic rather than a functional purpose if workers don't find them inspiring or successful. This result mirrors previous studies whose results indicate a lack of connection between company's environmental policy and real environmental behavior of employees (Haddlock-Millar *et al.*, 2016). This scenario can be attributed to observations made by prior studies such as Mbasera *et al.* (2016), who reported the existence of inadequate green management policies whereas some hotels engage in eco-friendly practices.



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Furthermore, the present results are contrary to previous studies by Dumont *et al.* (2017) who observed that organizations with green culture or policies on environment enables employees to have opportunities to be trained in required environmental knowledge and skills for green activities motivates employees to voluntarily participate in green tasks. Furthermore, Barr (2007) proposed that an increase in an employee's knowledge of environmental management systems, waste management, and corporate green policies may encourage voluntary pro-environmental workplace behaviors like avoiding use of disposable cups, turning out the lights while not in use, and riding bicycles to work (Kiani, 2016).

Besides, the results on graphical representation reveal that hotel environmental policy, had a positive relationship between environmental knowledge (EK) and Employee environmental behavior (EEB). The results indicate hotel policy implementation dampens the positive relationship between environmental knowledge and employee environmental behavior. However, the results on effect size were minimal and negligible ($f^2 = 0.009$), suggesting that while Hotel environmental policy plays a role in shaping this relationship, its practical impact may be limited. This indicates the need for stronger or more effectively implemented environmental policies to meaningfully influence environmentally responsible behavior in hotel employees.



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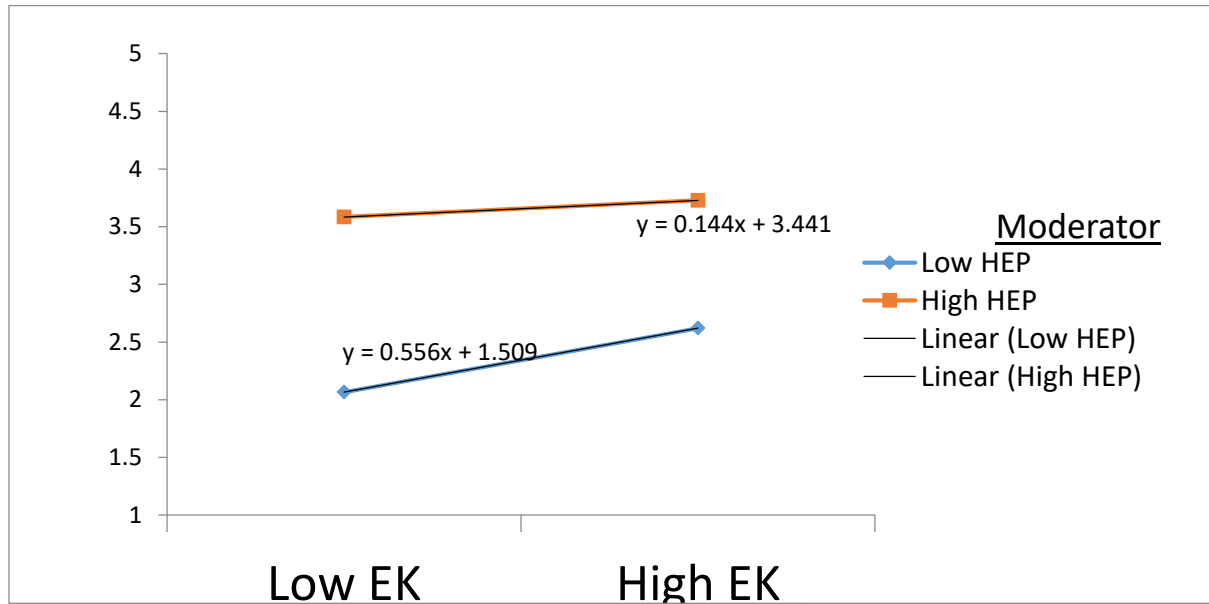


Figure 4.1: Slope on the moderating influence of Hotel Environmental Policy in the relationship between Environmental Knowledge (EK) and Employee Environmental Behaviour (EEB)

5.0 Conclusion

The research concludes that Green Human Resource competences in hotels significantly influenced the employee environmental behavior. It also concludes that environmental knowledge positively and significantly influenced employee environmental behavior. The study concludes that Hotel Environmental Policy implementation lacked significant moderating influence in the relationship between environmental knowledge and employee environmental behavior.

The link between employee environmental awareness and employee environmental behavior was found to be negatively impacted by hotel environmental policy, with a negligible effect. This also implies that the presence of hotel environmental policy weakens the relationship between environmental knowledge and employee environmental behavior, even though the moderator effect size is medium, this did not have a meaningful effect. suggesting that while hotel environmental policies play a role in shaping this relationship, its practical impact may be limited. This indicates the need for stronger or more effectively implemented environmental policies to meaningfully influence environmentally responsible behavior in hotel employees. It is therefore necessary for hotel management to ensure



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that environmental policies are implemented and up dated in manner that positively impacts on the staff by possibly offering training that improves staff green knowledge.

Furthermore, the research affirms the importance of investing in Green HR competences, particularly environmental knowledge, as a key driver of sustainable behavior among hotel employees. At the same time, it calls attention to the limitations of static or under-implemented environmental policies. For hotels aspiring to lead in environmental stewardship, the integration of effective policy frameworks with strategic HR development initiatives is imperative. Future research could explore the specific characteristics of policy design and communication that enhance or hinder their impact, thereby contributing to a more nuanced understanding of organizational pathways toward sustainability.

The research's conclusions significantly advance the body of knowledge as the results of the direct influence between of Green Human Resource competences and employee green behavior show environmental knowledge is critical for employees to demonstrate green behaviors.

5.1 Recommendations

This study upholds and confirms the previous findings on Green Human Resource competences have significant effects on employee environmental behavior This implies that managers have the role to promote environmental training that enhances employee environmental knowledge for improved employee environmental behaviour. The insights for hotel management are that employee environmental knowledge is inherently valuable for employee environmental behaviour and more specifically regarding ways on how to work sustainably, how to conserve resources such as energy and water is encouraged.

The current study's findings indicate green Competences such environmental knowledge, is a critical determinant of employee environmental behaviour or creation of green workforce. Consequently, failure to develop employee environmental knowledge may lead to negative influence in the struggle to reduce hotels' carbon footprints and achieve sustainable development.

A knowledgeable and environmentally conscious workforce is crucial for translating sustainability policies into daily operations, in this regard, Kenya's ratification of international climate agreements such as the United Nations Framework Convention on Climate Change (UNFCCC) in 1994 and the Kyoto Protocol in 2005 reaffirms its national commitment to addressing climate change. This commitment is further reinforced by the Constitution of Kenya (2010), which emphasizes the right to a clean and healthy environment, and the country's Vision 2030, which advocates for ecologically sustainable development.



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Based on the study's findings, the National Environment Management Authority (NEMA) is urged to intensify its oversight of environmental practices within the hospitality industry in order to regulate its carbon footprint. This has the Kenyan constitution sets out commitment to ecologically sustainable development envisions in Kenyan vision 2030. The study informs NEMA as a regulatory body to ensure hotels adopt sustainable working, conserving behavior and ensure that hotels implement environmental policies that are designed for employees' pro environmental behavior and avoid green washing. Besides, the National HR professionals are informed by the results to create a sustainable working environment where resource conservation is promoted.

Likewise, the study recommends future studies to consider examining the effect of training competences of environmental knowledge on employee environmental behavior; managerial perspective. Future studies should consider to explore on the possibility of other moderators such as employee personality traits and hotel environmental rewards system as influencing employee environmental behavior.

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