

Green HRM: The Link Between Environmental and Employee Performance, Moderated by Green Work Climate Perception



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ABSTRACT

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Sustainable organizations think about how their operating systems impact the environment. In this regard, organizations can prevent environmental pollution by adopting green human resource management practices resulting in the development of environmentally responsible behavior among employees. The aim of this study is to provide an understanding of how organizations transform human resource management practices into green human resource management practices that enhance environmental performance and further lead to green employee performance moderated by employee perceptions of a green work climate. This study has used a quantitative research approach. Data analysis uses an approach structural equation modeling-partial least squares supported by the Smart-PLS 3 computer software program. The selected sample is the hospitality sector in Indonesia. The results of the study show that green human resource management has a positive effect on environmental performance. Environmental performance has a positive effect on employee green performance. Employees' green work climate perceptions have a positive effect on employees' green performance. Employees' green work climate perceptions do not moderate the effect of environmental performance on employees' green performance. The implications of the magnitude of the results, opinions and responses of other sustainability stakeholders can add important findings for further research.

1. INTRODUCTION

Sustainable organization initiatives continue to center on operational activities that have an environmental impact, the nature of the consequences of various organizational activities, and safeguards against pollution and environmental degradation [1]. Pollution can be avoided if businesses implement green human resource management (GHRM) policies that encourage environmentally conscious work habits among their staff. It has been suggested that GHRM activities reflect a "triple-bottom-line" paradigm [2] and help businesses since they strike a balance between economic and social concerns [3]. GHRM involves specific HR policies and practices aligned with the three sustainability pillars—environment, social and economic balance [2]. GHRM practice is not limited to awareness of environmental concerns (e.g., reduced wastes) but also to the extent of improving social welfare (e.g., work-life balance) and economic welfare (e.g., sustaining profits) [2].

A company's green work climate captures how its employees' perceptions about the company's policies, practices, and culture as they relate to environmental responsibility [4]. Norton et al. [4] distinguish between perceived organizational climate, which is similar to command norms, and perceived co-worker climate, which is related to descriptive norms. In particular, the decision norm is that the company endorses behavior that is good to the environment if employees believe that their employer has a positive perspective towards environmental sustainability. The

descriptive norm of an organization's environmental policy is its employees' pro-environmental behavior, as judged by how other employees believe their colleagues to act.

According to Ghouri et al. [5] many researchers have conducted research to investigate the relationship between business performance, environmental performance (EP) and GHRM; improve employee green performance (EGP) through training [6]; and emphasizing on organizational sustainability policies and green behavior through perceptions of employees' green work climate [4]. Researchers that have combined HR and environmental concerns have identified a number of GHRM traits, including "green" organizational culture management, "green" training, "green" performance evaluation, and "green" incentive systems [7-10]. However, there is a dearth of research that directly connects the dots between GHRM [11], EP [12], EGP [6], and employees' green work climate perceptions (EGWCP) [4], particularly in the hospitality sector of developing countries like Indonesia.

On top of that, the hospitality industry in Indonesia is only getting started with its green development. Companies in developing countries like Indonesia are beginning to make strides toward green development, academics have acknowledged the need for empirical investigations to better understand the theoretical underpinning linking mechanisms between human resource policy, organizational practices, and green development. To address this empirical void, this study aims to answer the following research questions: (1) What GHRM practices are practiced in the Indonesian hospitality sector? and (2) Can the adoption of the GHRM practices be

translated by employees' perceptions of a green work climate to improve EP and EGP?

By investigating how GHRM practices are connected to EP and EGP, with EGWCP as a moderator, this study adds to the existing body of literature. In this new addition, EP discusses how EGWCP serves as a moderator between GHRM practices and EGP. Therefore, we base our model on the theory of normative conduct (TNC) which relates behavior to social norms [4, 13]; and the natural resource base view (NRBV) literature by integrating a unique empirical model in this study [5].

Therefore, this article is broken down into sections, the first of which describes the knowledge gaps, aims, and contributions of the research, and the second of which analyzes previous literature studies to provide an understanding of how organizations transform HRM practices into GHRM practices that enhance EP, which in turn leads to EGP, which is moderated by EGWCP. Finally, under the article's methodology section, analysis, and design of the study are adopted. The empirical study model's findings are reported and analyzed in section four. In the end, this study concludes with theoretical, managerial and practical implications with future research direction and limitations.

2. LITERATUR REVIEW

2.1 Theory of normative conduct

Our approach is based on TNC, which suggests that people's actions are driven by their compliance with established norms in society [13]. As an illustration, societal norms that show the vast majority of people do not litter may have an impact on individual behavior by implying that littering is socially unacceptable [13-15]. To be more specific, TNC distinguishes between injunctive norms, which describe what is sanctioned, and descriptive norms, which indicate what is usually observed.

We argue that workers' impressions of the workplace environment—which we define as workers' impressions of the organization's written policies, the processes that translate these policies into tacit guidelines, the practices that are rewarded and supported, and the norms typically observed among coworkers—are indicative of the level of satisfaction and productivity in the workplace, serve as the primary drivers of social norms within organizations [16]. Workplace environment evaluations are a reflection of employees' professed values and behavioral standards, as well as the value-based frameworks they bring to the table to interpret data in the workplace [17-19].

2.2 Natural resource base view

The NRBV theoretical lens serves as a foundation in this study for comprehending the connections between environmental activities, organizational operations, and worker productivity. Prior to now, academics used the resource-based view (RBV) theory to argue in favor of the advantages of HRM [20], and the NRBV, an extension of RBV, was used to support the beneficial effects of environmental initiatives on company performance. Additionally, RBV theory is frequently used in research studies on economic difficulties, while NRBV is utilized to back up studies with environmental repercussions, as stated by Svensson et al. [21]. Furthermore, as RBV is focused solely on performance

phenomena, it raises the question of whether businesses should engage in sustainability activities if they may gain a competitive edge [22, 23]. On the other hand, the NRBV offers knowledge to achieve a competitive edge in methods that sustain the planet's ecosystems and natural resources. NRBV therefore suggests a dynamic and integrated perspective of strategies [24].

Previous studies have linked NRBV with the special organizational resources and advantage-giving skills rooted in interaction with nature [24, 25]. As a result, NRBV theory is useful in developing long-term strategies by demonstrating the link between available assets and desired outcomes [26]. According to Hart and Dowell [27] proposal, NRBV theory exploits the ephemeral quality of resources and capabilities to help researchers establish a causal relationship between organizational resource strategies and their external context. Khan et al. [11] suggested that environmental integration in business operations positively contributes to the sustainable performance of organizations. Positive results from GHRM and environmental orientation in corporate operations were also discovered by Chaudhary [28]. Earlier empirical research employed NRBV theory as a theoretical underpinning, however they varied in their choice of latent variables and methods [5, 27, 29].

2.3 Green human resource management practices

Companies are a major contributor to environmental degradation and must play a significant role in resolving environmental management concerns [30, 31]. Many groups are putting pressure on businesses to adopt this practice because of the positive social effects it will bring [32]. As a result, a number of businesses have launched eco-initiatives and are searching for further solutions to environmental management problems. As a result of environmental damage, GHRM has emerged as one solution. To begin achieving long-term success, a firm should look to its HRM practices [33, 34].

Effective GHRM practices lead to better HRM and a greater awareness of the importance of protecting the environment, which promote ecological exploitation of resources with an emphasis on environmental sustainability [35]. The GHRM helps improve social and economic conditions and encourages actions that show respect for the natural world. Strategic HRM views employees as a commodity to be exploited rather than nurtured [36], yet a more pervasive GHRM practice would assist put environmental responsibility at the center of HR [37]. From what we can see, GHRM is an abbreviation for "human resource management," which is a subset of environmental management [37]. Organizational reputation, productivity, and efficiency all benefited greatly from GHRM initiatives, and those strategies were effective because they helped employees [38]. The idea of "Going Green" was also proposed as a means of inspiring eco-consciousness in the workplace [28, 39].

3. DEVELOPMENT OF HYPOTHESES

3.1 Green human resource management and environmental performance

GHRM strategies including as "green hiring," "green learning," "green rewards and remuneration," "green engagement," "green communication," and "green culture in the workplace" were found to have a favorable effect on EP by

Ghouri et al. [5]. This finding is in agreement with the findings of other studies [2, 11, 35, 40], it looked into HRM techniques that focus resource conservation and ecological use in order to highlight environmental sustainability and boost employee engagement to environmental protection. Consequently, the following hypothesis is proposed:

H1. Green human resource management will be positively related to environmental performance.

3.2 Environmental performance and employee green performance

With a good attitude toward HRM regulations, employees are more likely to show higher affective commitment, which in turn might improve their performance and attitude on the job [41]. Thus, this will allow for enhanced productivity thanks to the efforts of the staff. In return, individuals can act in a manner that is consistent with the given responsibilities and requirements by making more efforts to complete these activities and requirements [6].

According to Pinzone et al. [42], found that employees that participate in a green competency development program are more environmentally sensitive and willing to take on additional responsibilities for the sake of the planet. Employees that take environmental issues seriously and participate in environmental training programs benefit EGP by performing environmental duties that require their green knowledge and abilities. As a result of these findings, workers have a better chance of a higher EGP than they did before [6]. Therefore, the following hypothesis is proposed:

H2. Environmental performance will be positively related to employee green performance.

3.3 The moderating role of employees' green work climate perceptions

An employee's performance is measured by their ability to complete the tasks outlined in their job description and is therefore demanded, supervised, and rewarded by their employer [43]. According to Paham et al. [6], EGP is defined as environmentally protective activities that are determined and demanded by the company and can be described in the employee's job description and that are monitored, mandated, and rewarded by the company in accordance with applicable laws and regulations.

Furthermore, we contend that the perceptions of a green work climate moderate the link between GHRM and EP in a manner distinct in relation to EGP, in line with the TNC offered by Cialdini et al. [13]. Specifically, in this study we propose that perceptions of an organization's green work climate will reflect organizational imperative norms and that these perceptions moderate the relationship between GHRM and EP in relation to EGP. Because, command norms should be most prominent when employees are engaged in tasks set by the organization. In addition, we presume that co-workers' green work climate perceptions, reflecting workplace descriptive norms, will moderate the relationship between GHRM and EP in relation to EGP. In this situation, the descriptive norms of what co-workers usually observe should be more dominant and affect a wider variety of discretionary levels of EGP.

As a result, this study supports the idea that corporate environmental performance management positively affects EGP. However, no prior research has examined the beneficial effects of GHRM and EP on green performance of employees. This study proposes the construction of a new research model, EGWCP as a moderator, to fill this research gap, and posits that GHRM and EP have a positive influence on EGP. Therefore, the following hypothesis can be proposed:

H3. Employees' green work climate perceptions will be positively related to employee green performance.

H4. Employees' green work climate perceptions will moderate positively related to GHRM and environmental performance upon their employee green performance.

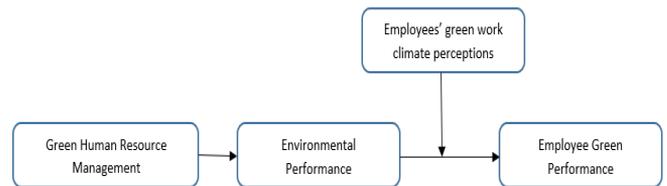


Figure 1. Conceptual model

Figure 1 shows the conceptual framework of the present study. The study investigates the moderating role of employees' green work climate perceptions between the influence of green human resource management with environmental performance and employee green performance using data from the hospitality sector in Indonesia.

4. METHODS

4.1 Design and participants

Quantitative methods were used in this investigation. Non-probability sampling techniques with purposive [44] and judgment sampling approaches are used in this study. Besides the nature of the problem, the reason for selecting a purposive sample instead of adopting a probability sampling technique is because of its simplicity, rules, and costs, contrasted to the probability sampling techniques [45]. Moreover, it was easier to collect the data due to the access demands these services industry sectors adopt when requesting formal lists of their employee [46]. The sampling approach is consistent with Abu Zayyad et al. [46] research, which also used a purposive sampling technique in the services industry [47, 48].

Secondary data information was also combined with primary data sources. Primary data came from Google Form surveys, while secondary data came from scholarly publications, books, and other sources that discussed theorizing about GHRM practices, EP, and EGP with moderated by EGWCP. Based on a number of factors and the sample size, this methodology is deemed suitable for the research being conducted.

This study's population is hospitality sector employees in East Java, Indonesia. The following guidelines are suggested by Roscoe [49] for estimating the size of a study's sample: most studies benefit from a sample size that is between 30 and 500 [50]. In this study, sample is 100 employees of 3 star hotels in Surabaya and its surroundings.

There are four different types of demographic data displayed here using a frequency distribution test. The four demographic profiles are age, gender, last education, and length of work. Because of this, 17 (17%) people aged 31-35 years, 67 (67%) people aged 36-40 years, and 16 (16%) people aged 41-45 years. With details, 81 (81%) people are male and 19 (19%) people are female. Overall, 2 (2%) diploma, 71 (71%) undergraduate, and 27 (27%) master programs. Overall, 23 (23%) people with <3 years of service, 72 (72%) of people with 3-5 years of service, and 5 (5%) with 5-7 years of service.

4.2 Measurement and data analysis

GHRM was measured by 14-items scale developed by Ghouri et al. [5]. This scale encompasses (1) green recruitment and selection (3-items), green training and development (3-items), green performance management and appraisal (2-items), green reward and compensation (2-items), green empowerment and participation (2-items), and green organizational culture (2-items). This study uses a 4-items scale to measure EP by Li et al. [51]. We developed an 8-items scale (perceptions of the organisation: 4-items and perceptions of co-workers: 4-items) based on suggestions by Norton et al. [52] to measure EGWCP. EGP was composed of 3-items extended into the green context basing on the scale of employee in-role performance developed by Pham et al. [6].

Participants reported their perceptions of policies, procedures and practices GHRM (i.e., work climate) relating to environmental sustainability and demonstrated by their employing organisation and co-workers. Responses were made using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

As research conducted by Ghouri et al. [5], we used variance-based structural equation modeling - partial least square (SEM-PLS) using Smart PLS 3, to analyse the collected data [44]. PLS is well suited for studies in the theory building and testing [53]. According to Barclay et al. [54] PLS can simultaneously test the measurement model (relationships between items and their corresponding constructs) and the structural model (relationships between constructs). We created a measurement model and a structural model to assess the model fit. Additionally, we performed composite reliability, cronbach's alpha, convergent validity [55] tests to ascertain the model fitness. Further, bootstrap analysis is performed to test the statistical significance of the path coefficient after computing the path estimates in the structural model [56, 57].

5. RESULT

5.1 Measurement model assessment

For starters, we used Smart-PLS 3 to run the measurement model and verify that the recommended variance accurately correlated the components. This study's measurement model was evaluated based on whether or not it was convergent. Initially, the factor loadings of each item were examined to assess the convergent validity.

Loadings should be at least 0.50, as recommended by Kistyanto et al. [58]. Specifically, all items with outer loadings were above 0.50 (Figure 2). In order to ensure internal consistency, we calculated the composite reliability (CR). The CR cutoff value of 0.70 was proposed by Kistyanto et al. [59].

All items in this study had CR values that were higher than the suggested threshold of 0.7, ranging from 0.862 to 0.946. In the next step, cronbach's alpha (CA) can be used to further enhance the results of the reliability test based on the CR results. Alternatively, we might talk about the benefits of using CA for this purpose. The CA in this analysis was greater than 0.70, ranging from 0.786 to 0.939.

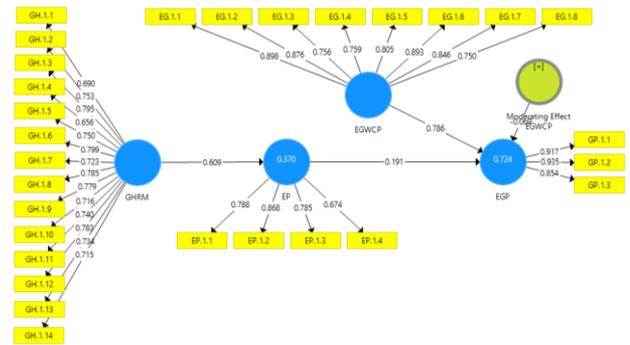


Figure 2. Measurement model

Finally, convergent validity was established by evaluating the Average Variance Extracted (AVE). According to Rahman et al. [60], AVE represents the grand mean value of the squared loadings of the indicators related to the constructs of the study. If half of the items provide a good explanation of the topic, then the AVE is 0.5. The AVE values in this analysis exceeded the recommended threshold of 0.5, spanning between 0.555 and 0.814. Table 1 shows the convergent validity of all of the confirmed constructs in this study.

Table 1. Specified measurement model

Variable	Items	Outer Loading	CR	CA	AVE
GHRM	GHRM.1	0.690	0.946	0.939	0.555
	GHRM.2	0.753			
	GHRM.3	0.795			
	GHRM.4	0.656			
	GHRM.5	0.750			
	GHRM.6	0.799			
	GHRM.7	0.723			
	GHRM.8	0.785			
	GHRM.9	0.779			
	GHRM.10	0.716			
	GHRM.11	0.740			
	GHRM.12	0.783			
	GHRM.13	0.734			
	GHRM.14	0.715			
EP	EP.1	0.788	0.862	0.786	0.611
	EP.2	0.868			
	EP.3	0.785			
	EP.4	0.674			
EGWCP	EGWCP.1	0.898	0.944	0.933	0.681
	EGWCP.2	0.876			
	EGWCP.3	0.756			
	EGWCP.4	0.759			
	EGWCP.5	0.805			
	EGWCP.6	0.893			
	EGWCP.7	0.846			
	EGWCP.8	0.750			
EGP	EGP.1	0.917	0.929	0.886	0.814
	EGP.2	0.935			
	EGP.3	0.854			

5.2 Structural model assessment

R-Square values are used to evaluate the structural model (the inner model) in this research. The R-Square calculation results between the EGP and EP variable have relatively same values and show a relationship that is classified as high. The R-Square value of the EGP is 0.724. This value indicates that the EGP variable described by GHRM, EP and EGWCP is 72.4%, while other variables outside this model explain the rest. The R-Square value for the EP variable is 0.370. This value shows that GHRM described EP variable is 37.0%, while other variables outside this model explain the rest.

It has been proposed to report the path coefficients, p-values, and t-statistics in the structural model to evaluate the significance of the hypotheses [61]. Assessing the structural model by looking at the significant value to determine the effect between variables through the bootstrapping procedure. Table 2 shows the results of the hypothesis testing of direct effects and indirect effect relationships.

Table 2. Hypothesis testing of direct and indirect relationships

Relationship	Original Sample	t-statistics	p-value
Direct effect			
GHRM → EP	0.609	9.247	0.000
EP → EGP	0.191	3.943	0.000
EGWCP → EGP	0.786	16.249	0.000
Indirect effect			
Moderating EGWCP EP → EGP	-0.069	1.491	0.137

In the previous H1 discussion, GHRM is suspected positively related to EP. The results confirm the acceptance of the hypothesis H1, which shows that the relationship between GHRM has a positive and significant effect on the EP ($\beta = 0.609$, t-statistics = 9.247, $p < .05$). Furthermore, EP is suspected positively related to EGP. The results of path analysis show that this relationship is positive and significant ($\beta = 0.191$, t-statistics = 3.943, $p > .05$), so that H2 is accepted. Hypothesis H3 posits that EGWCP is positively associated with EGP. The results of path analysis show that EGWCP has a positive and significant effect on the EGP ($\beta = 0.786$, t-statistics = 16.249, $p < .05$), so that this H3 is accepted.

Furthermore, for the results of the statistical analysis of the effect of moderation, the results of the study present EGWCP not moderates positively effect of EP upon their EGP ($\beta = -0.069$, t-statistics = 1.491, $p > .05$), so H4 is rejected. Hence, based on these results, H1, H2, and H3 is accepted, however H4 are rejected.

6. DISCUSSION

GHRM has a positive effect on environmental performance. With these results it proves that strengthening model practices that encourage green practices and continue to convey the organization's green values to existing employees will encourage them to hold the values and mission of the organization and contribute to long-term EP [62]. This research shows that GHRM techniques do indeed enhance EP. Research conducted by Ghouri et al. [5] found that EP was positively impacted by GHRM practices including as green hiring, green learning, green rewards and pay, green

engagement, green communication, and green culture in the workplace.

EP has a positive effect on EGP. With the help of the company's environmental training programs, employees can gain the understanding they need to identify and mitigate environmental concerns [6], ultimately improving the company's sustainability metrics. EGP is also increased through encouraging staff members to take greater pride in their environmental stewardship, thanks to the information and skills obtained through training [42].

The results of this study also note that EGCP are positively related to EGP. These findings corroborate the study by Norton et al. [52] which found that an organization's climate toward environmental sustainability (including subjective attitudes and norms) and its employees' green behavior are both shaped and driven by the work environment. In his research Zientara and Zamojska [63] also have the perception that the climate for green creativity or more specifically, its basic component is to provide a guide map that communicates organizational goals and interests to employees, in the end the results of behavior and employee attitudes follow according to the climate that is built.

The moderation analysis study revealed no evidence that EGWCP moderated the direct effect of EP on EGP. This finding disproves the research hypothesis. To reduce energy and water consumption and safeguard the environment, as well as the company's production costs and the hotel's financial profit, we suggest that green training is always vital and properly applied in 3 to 5 star hotels [6]. So that the employees' green work climate perceptions construct neither strengthens nor weakens this relationship. This is possible because they will be educated and trained to engage in ecologically beneficial practices [40, 64, 65].

7. CONCLUSIONS

Based on the research results, it can be concluded that green human resource management has a positive effect on environmental performance. Environmental performance has a positive effect on employee green performance. Employees green work climate perception has a positive effect on employee green performance. In addition, this study also uses a moderating model research design, in which the results of the study prove that employees green work climate perception does not moderate the effect of environmental performance on employee green performance. The implications of the magnitude of the results, opinions and responses of other sustainability stakeholders can add important findings for future research.

7.1 Implications of study

The NRBV hypothesis proposes a possible explanation for this observation by stating that “constrained by and dependent upon ecosystems, a firm’s strategy and competitive advantage will be rooted in capabilities that facilitate environmentally sustainable economic activities” [24]. This study further contributes to the NRBV domain that is practiced and engages hospitality sector in Indonesia in eco-friendly operations.

Hotel operations management needs to concentrate on an efficient environmental training program which is essential to encourage employee involvement in environmental tasks to increase EGP. Evaluating the green performance of employees

after training should be carried out carefully by managers and supervisors, aiming to identify program weaknesses and inadequacies to promote better environmental training programs. Understanding how the hotel generates employee engagement and responsibility towards the environment allows for better employee green performance improvements. Without taking solutions to correct this, employees are generally less motivated to effectively participate in environmental requirements.

7.2 Limitations and further studies

Data were collected from limited organizations in the Indonesian hospitality sector. Therefore, the findings are limited to the hospitality sector in developing countries, it is proposed that future researchers can replicate studies in other sectors in developing countries or other developed countries. This study is based on a cross-sectional study design, an important step for future research is the collection and analysis of longitudinal data to rule out alternative explanations. While our discussion addresses key points to explain the findings, it is preferable to undertake qualitative work focusing on a cultural perspective in investigating the results of implementing GHRM in general and environmental training programs in particular. A study that aims to explore this is an important suggestion for further study. It is suggested to make use of other variables in the current model to explore the role of GHRM. This study uses a single moderator in the model, it is proposed to use a mediating variable to find out the results in more detail. The same model can be applied across other businesses and industries to deliver GHRM, EP, EGP and EGWCP outcomes.

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