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Impact of Green Human Resource Management Practices on Firm's Environmental Performance: The Mediating Role of Green Organizational Culture

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ABSTRACT

During the last decade, there has been an increasing trend in the corporate sector giving priorities for environmental-friendly policies and practices. Accordingly, scholars have examined the role of Green Human Resource Management (GHRM) practices in organizational success. However, most of these studies examined the effect of GHRM on firm performance, and it has given little attention to understand the role of green organizational culture (GOC) in enhancing environment performance (EP). Thus, based upon the Ability-Motivation-Opportunity model, this study focuses on examining the effect of GHRM on GOC and EP. The study's research design mainly focused on post-positivism philosophy followed by deductive approach. Researcher used survey method to collect data and the nature of study is cross-section as the data collection is limited one point in time. To test the hypotheses, data were collected from 410 employees working in the Manufacturing firms in Sri Lanka. The findings of this study show that there is a significant impact of GHRM on GOC and EP. Moreover, results revealed that GOC mediates the association between GHRM and EP. The results of this study should be explained in the light of its limitation. Theoretical and practical implications are discussed.

1. Introduction

In recent years, scholars, policymakers, and global leaders extensively discussed environmental changes and their impact on various aspects of human lives [1,2]. The rapid increase in environmental pollution from industrial practices, accompanied by a decline in natural resources, has driven pressure on society to push firms and corporations to adopt green practices on a larger scale. Although there is a great deal of inconsistencies of conceptualization environmental performance, scholars have found that positive adaptation of environmental practices lead to improve organizations' environmental performance and competitive advantage [3].

Accordingly, Human Resource Management Scholars introduced Green Human Resource Management (GHRM) practices which enable organizations to create a healthy working environment. Defined as "systematic, planned alignment of typical human resource management practices with the organization's environmental goals" [4], GHRM helps ensure sustainable

performance. Therefore, the main purpose of GHRM is to improve the organization's sustainable environmental performance [5]. GHRM involves integrating positive environmental thinking into the firm using human resources (HR) activities such as recruitment, selection, training, and leadership development [6,7] and extant research reported a positive association between GHRM and firm performance [6].

In contrast, an organization's culture can be considered "green" when employees go beyond profit-seeking objectives to minimize the negative and maximize the positive impact of organizational activities on the environment [8]. As underdeveloped research area, there is no wellaccepted definition of green organizational culture (GOC), however. For instance, some scholars explained that green organizational culture includes shared beliefs, values, norms, symbols, social stereotypes about organizational environment management and shapes standard behaviors expected from the individuals

[9]. As another example, [10] conceptualized GOC as the set of values, symbols, assumptions, and organizational artefacts reflecting the obligation or desire to be an environment-friendly organization. Thus, green organizational culture can be considered a fundamental requirement for continuous environmental performance improvement.

To date, the extant research on GHRM examined the effect of GHRM on firm performance and organizations' adaptation of different green initiatives and strategies. Despite the growth of research in this area, there are still some unanswered questions. First, most of the extant research on GHRM focused on firm performance instead of environmental performance, still we know little about the effect of GHRM on EP. Second, recently, scholars started examined the importance of building GOC to organizational performance. However, empirical evidences which showed the effect of GOC on environmental performance. Moreover, to date, only a limited study examined the role of GOC increasing EP [11]. Thus, we know little about the effect of GOC on EP and the mediation role of GOC on the relationship of GHRM and EP. Accordingly, this study attempts to answer the research questions of what is the impact of GHRM practices on environmental performance and the mediation effect of GOC between GHRM and EP?

This study provides several contributions to the theory and practice. First, by examining the effect of GHRM on GOC and EP, this study contributes to the existing literature on human resource management and the ability-motivation-opportunity model. Although prior research examined the effect of GHRM on EP, there is a lack of studies examining the effect GOC on EP. In particular, we postulated that GHRM influences EP through GOC. Thus, this study helped to increase our understanding of GHRM, GOC, and EP. Second, most of the prior research on GHRM, GOC, and EP is based on a sample of western and East-Asian countries. However, according to a recent study by [12], South Asia is far behind other countries in terms of HRM practices. Moreover, South Asia is culturally and economically diverse from other regions. South Asian culture is mainly based upon religion which primarily influences organizational culture too. Thus, as this study is based on a sample from Sri Lanka and this study help to fill the gap in the literature. Next, the findings of this study help policymakers to encourage GHRM practices. GHRM practices provide additional benefits to a company in terms of environmental performance. Thus, we believe the findings of this study help employees to gain awareness of the importance of

going green and commit themselves to the organization's environmental and sustainable goals.

1.2 Context of the Study

This study focused on the context of the manufacturing sector in Sri Lanka. Contributing to more than 30 percent of Sri Lanka's entire economic output was the industrial sector, which has seen some incredible growth for the past five years. As stated by the Central Bank of Sri Lanka, the largest proportion of the industrial sector was comprised of manufacturing businesses, which accounted for more than 17% of the segment's entire output. The annual survey of the Industries Sri Lanka reveals that manufacturing is dominated by having 91.0% of the industry establishments (Department of Census and Statistics, 2018). Thus, we believe that significant number of manufacturing firms are practicing GHRM in Sri Lanka. GHRM has emerged as a new trend of successful management and combines and integrates environmental management (EM) and sustainable performance to support organizational performance. Meanwhile, HRM department of an organization play a key role in enabling a GOC to enhance a firm's EP. Based upon Ability-Motivation-Opportunity theory and extant literature, we developed a conceptual model and Figure 1 shows the conceptual model.

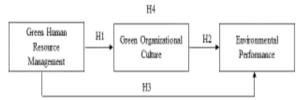


Figure 1: Conceptual model

2. Literature review and hypotheses development

2.1 Ability-Motivation-Opportunity (AMO) Theory

The conceptual model of this study is rooted in Ability-Motivation-Opportunity (AMO) theory which is used to explain the link of GHRM-GOC-EP. AMO theory is one of the most referred theories to explain the effect of HRM practices on finance and other organizational performance [13]. Accordingly, AMO theory proposes that HRM practices help to enhance the organization's human resources through improved human capabilities translate into quality performance such higher and productivity. waste reduction, and profit maximization [14].

2.2 Green Organizational Culture

Green organizational culture (GOC) can be defined as employees' values, beliefs, and behaviors concerning the environment [7]. In an organization, the HRM department play a significant role in empowering a green organizational culture because it forms the values, beliefs, and behaviors of workforces through the processes of employee hiring, training development, performance evaluation, incentivization [7,8,15,16,17]. Green organizational culture contributes to increasing the awareness of green practices on employees and prompting them to implement the practices. Moreover, it creates a place to develop and encourages new ideas that lead to green innovations.

2.3 Green Human Resource Management Practices (GHRM)

In recent years, environmental sustainability, in particular, environmental conditions globally, is one of the top priorities among the researchers in every industry. Therefore, organizations need to increase adaptation of sustainability practices and incorporate these sustainability practices through human resources, and this is called GHRM. According to [18], GHRM is that "the systematic, planned alignment of typical human resource management practices with the organization's environmental goals." Extant research has shown the significance of HRM in different organizations, and those are more intensive to take up GHRM, as a greater competitive advantage provided to the organization. In addition, there are two essential elements of GHRM as namely, environmentfriendly HRM practices & procedures and preservation of knowledge assets [19]. Therefore, the scope of HR must redefine by integrating environmental management due to changing business objectives, strategies, and efforts toward a focus of environment-friendly manner.

Furthermore, the concept of GHRM is an environmentally friendly initiative that promotes greater work efficiencies, minimum wastage, improved employee performance, and a developed environment-related attitude. In particular, GHRM is that execute of procedures, practices & systems which generate the benefits and paybacks for individual, business, society as well especially environment [19]. Further, GHRM is responsible for creating an environment-friendly workforce known about green initiatives and green objectives from the HRM process of recruitment, hiring, training and development, compensation, and evolving the firm's human resources [19]. The concept of GHRM is important and significant within the organization. It contributes to other

operations such as green management, green supply chain management, green marketing, and green operations.

According to [13], the green function of human resource management such as job designing and Analysis, recruitment and selection, training and development, performance appraisal, and rewards is defined as GHRM. As per a comprehensive specification of these researchers, the field of recruitment, training, and development, performance management, and appraisal, employment relations, and remuneration & reward are considered as dominant factors for aligning employees with an organization's environmental strategy and tactics [5]. Likewise, GHRM should be concentrated on: employees who enable to involve in environmental management issues; expand their knowledge and awareness about environmental management and protection; and demand knowledgeable workers, especially those who are directly engaged in environmental performance development and improvement [18].

2.4 Green Human Resource Management Practices and Green Organizational Culture

Based upon AMO theory, we proposed that there is a significant impact of GHRM on OC. As AMO theory explained, organizations' activities lead to change in values, norms, and beliefs. In particular, when organizations encourage using GHRM practices, these practices will help to build GOC. For instance, when the organizations have the policy of using all the documents as e-copies instead of printed copies, in the long-term, this will be part of the organization's culture. As another example, organizations can do recruitment online, enabling organizations to reduce carbon print and waste of materials. When this becomes a practice of the organization, that will be a part of the culture. The scholars [7] proposed that GHRM creates a green culture. Therefore, we propose;

H1: There is a significant impact of GHRM practices on GOC.

2.5 Green Organizational Culture and Environmental Performance

Prior research has shown that actual performance is achieved not only by making changes to operational processes or production capacity but also by changing the organization's culture that supports long-term company sustainability. Organizational culture plays a significant role in getting employee involvement in environmental performance. In a culture that prioritizes environmental concern, employees are well-aware of their role in the organization [17]. According to the AMO theory, empowering green

culture leads to developing green opportunities that may enhance environmental performance. In support, prior research has found a positive association between GOC and EP. For instance, [16] reported a positive association between GOC and EP. Thus, we hypothesize;

H2: There is a significant impact of GOC on EP.

2.6 Green Human Resource Management Practices and Environment Performance

AMO theory is mainly used to explain the link between human resource management practices and performance. GHRM helps firms with an overarching architecture through its green recruitment, selection, training & development, and performance-based rewards [14]. GHRM practices will help increase the eco-friendly impact on the the organization and decrease negative environmental impacts on the organization [5]. Prior researchers such as [20] found a positive relationship between GHRM and EP. Based on that, we assumed that;

H3: There is a significant impact of GHRM on EP.

2.7 Mediation effect of GOC

We further propose that GOC mediates the relationship between GHRM and EP. In particular, we propose that GHRM practices influence environmental performance through GOC. In support, the extant researchers [16,20] have shown that quality performance and environmental proactivity mediate the relationship between environmental management and firm performance. Based on that we hypothesize:

H4: GOC mediates the relationship between GHRM practices and the firm's EP.

3. Methodology

3.1 Research Design

The research philosophy which adopts reveal important assumptions about the way in which researcher view the world. According to the philosophical stance, this study follows a post-positivism philosophy, and the purpose of the study is explanatory. This study uses a deductive research approach. The strategy of inquiry of this study is the survey method, and the data collecting instrument is a structured questionnaire that is developed based on a rigorous literature review. Then, this study carried out as a cross-sectional study.

3.2 Population and Sample

This study examines the effect of GHRM practices on green organizational culture and the

firm's environmental performance. Accordingly, the study population includes employees of the Sri Lankan manufacturing sector. As there is no systematic way to determine the population, the population of this could not estimate. The survey participants of this study selected from the manufacturing Companies in Sri Lanka. However, we considered only the manufacturing companies which are located in the Western Province in Sri Lanka (as most of the manufacturing companies are located in Western Province) and the companies which employed at least 20 staff members. - Using the non-probability sampling technique (convenience sampling method) we distributed 552 surveys and returned 410 surveys. First, we sent out online survey invitation along with the cover letter which explained the purpose of the study. After two weeks from the first survey invitation, we sent another reminder and after three days from first reminder, we sent last reminder. After all these, we received 417 surveys, however, there were seven surveys which were incomplete. Thus, we ignored them and thus, the final sample of this study is comprised of 410 staff members (N = 410), which equates to a response rate of 74.23%.

In terms of demography, the sample comprised 57% of males. Among the respondents, 63% are between 20 and 29. 58% of the respondents have bachelor's degrees in the sample, and 23% of participants had Master's degrees. The majority of participants (21%) are working in the rubber and plastics industry, and 43% of participants hold middle-level positions.

3.3 Measurers

Green Human Resource Management- We measured GHRM using 15 items scaled developed by [18]. These items included six main processors of human resource management, i.e., job description, recruitment, selection, training, performance appraisal, and rewards. Answers were provided on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). An example item is "Environmental training is a priority in our company, and all selection steps consider environmental questions in our company." We used the composite scale following prior research [13,7]. Cronbach's alpha for the scale is 0.937.

Green Organizational Culture- GOC comprises five dimensions, leadership emphasis, message credibility, peer involvement, employee empowerment, and pro-environmental emphasis. We measured GOC using a 20 item scale, and the sample items include "Most employees have a strong network of peers for guidance, and the congruence of managerial and employee beliefs

concerning environmentalism may facilitate firm's environmental performance." Answers were provided on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's alpha for the scale is 0.916.

Environmental Performance- we measured environmental performance using 8 item scale developed by [22]. The example items are "our firm reduced the number of environmentally harmful accidents, and our firm reduced the radiations of contaminated substances in nature." Answers were provided on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach's alpha for the scale is 0.784.

4. Data analysis and results

4.1 Preliminary Analysis

We tested validity of the instrument using Kaiser-Meyer-Olkin (KMO) and Bartlett test of spehericity (Field, 2009). Test results show that all the values are fallen under the range of acceptable (GHRM practices = ,933, p = .00, environmental performance = .814, p = .00, & GOC = .928, p = .00). Before testing hypotheses, we tested all regression assumptions. Accordingly, we tested for normality, linearity, multicollinearity, and homoscedasticity. The test results confirmed all assumptions of regression. The means, standard deviations (SD), and correlation coefficients are reported in Table 1.

Table 1: Means, SDs, and inter-item correlation coefficients

	Variable	Mean	SD	1	2
1	GHRM practices	4.01	1.01	-	
2	GOC	3.81	0.78	.396**	
3	Environmental performance	3.94	0.96	.229**	.416 **

GHRM practices = Green Human Resource Management Practices, GOC = Green Organizational Culture, SD= standard deviation

**. Correlation is significant at the 0.01 level (2-tailed).

4.2 Hypotheses Testing

To test the hypotheses, we ran multiple regression.

H1: There is a significant impact of GHRM practices on GOC

In Hypothesis 1, we proposed that there is a significant impact of GHRM practices on GOC. The results of regression analysis showed that GHRM

significantly improved GOC (β =0.469, t = 4.321, p<.05). Therefore, H1 is supported.

H2: There is a significant impact of GOC on EP.

In Hypothesis 2, we proposed that there is a significant impact of GOC on EP. Supporting our hypothesis, the results show that EP increase when GOC is high (β =0.316, t= 3.123, p<.05). Thus, H2 is supported.

H3: There is a significant impact of GHRM practices on EP.

Hypothesis 3 proposed the direct effect of GHRM on EP. As we proposed in H3, there is a significant impact of GHRM on EP (β =0.229, t = 2.845, p<.05). Thus H3 is supported.

The results of regression analysis are reported in the Table 2.

Table 2: Results of regression analysis

Variable	GOC	Environmental performance	
	Model 1	Model 2	
GHRM Practices	0.469**	0.229**	
GOC		0.316**	
R2	0.329**	0.306**	
Adjusted R2	0.173*	0.287**	

H4: Mediation effect of GOC on GHRM and EP.

In hypotheses 4, we proposed that GHRM influences on EP through GOC. To test the mediation effect, we ran the Sobel, and the results show a significant mediation effect on the relationship between GHRM and EP (β =0.316, z= 3.812, p<.05). Thus, H4 is accepted. To further corroborate the results of mediation analysis, we used Andrey F. Hayes's PROCESS for SPSS (Version 3.5). The results show that there is an indirect effect of GHRM on EP through GOC (β = .3015, SE = .0604, 95% CL [.3105, .7001] as zero does not exist between upper and lower level of confidence intervals.

5. Discussion

The aim of this study was to examine the effect of GHRM on GOC and EP. To attain this objective, we developed a conceptual model and tested the model using a sample of 410 employees who are working for the manufacturing firms in Western Province, Sri Lanka. In particular, the study's findings reveal a significant impact of GHRM practices on Green Organizational Culture.

The findings of this study are comparable with previous findings such as [7,15,17]. Moreover, the results show that GOC has a significant impact on environmental performance. Our results are consistent with previous research such as [10,16]. Overall our findings emphasize the importance of enhancing firms' environmental performance. Moreover, in line with prior studies [7,13,18], our study found a significant effect of GHRM on EP. Further, the results of this study report a mediation effect of GOC on the relationship of GHRM and EP. Similar results were found in a recent study by [20]. Thus, the findings of this study help to increase the understanding of GHRM, GOC, and EP. The theoretical and practical implications are discussed in the following section

5.1 Theoretical Contribution

This study provides several contributions to the existing literature on Human Resource Management, particularly GHRM and GOC. First, examining the direct effect of GHRM on GOC and EP, the findings of the study contribute to the AMO theory. AOM theory is mainly used to explain the association between HRM and firm performance. However, there are limited studies that examined the effect of GHRM and EP. Moreover, this study contributes to the extant literature by examining the GOC as a mediation variable between GHRM and EP, which received less attention in the literature [21]. As shown by the results, GHRM influence on EP through GOC. Most of the extant research on GHRM shows the importance of GHRM to increase firm performance. However, there is a lack of studies that shows how GHRM can enhance environmental performance. Overall, this study emphasized the significant role of GOC in building the link between GHRM and EP.

5.2 Practical Implication

This study has significant implications for both managers as well as policymakers. First, we proposed managers in particular manufacturing firms encourage their employees to implement proenvironmental initiatives in their daily roles. HR managers should use green job descriptions, training, and performance assessment to develop GOC. Hiring environmentally-conscious employees and then establishing a consistent, effective training and measurement system promote environmental awareness across the various functions of the firm. These activities ensure that environmental awareness is embedded in the behaviors and habits of employees.

Moreover, over time, these behaviors become habits that can shape a pro-environmental organizational culture. In turn, this culture

reinforces employee efforts to implement environmentally responsible initiatives to improve their company's EP. Therefore, we suggest managers should consider GHRM initiatives in driving EP improvements and the significant role that organizational culture plays in the sustainable development of their company.

6. Limitations and Avenues for Future Research

The findings of this study should explain in light of their limitations. First, the study focused only on the manufacturing sector in Sri Lanka. However, the results might be varied across different sectors; thus, we recommend future researchers replicate this model with different samples. As this study is a cross-section study, the findings might be influenced by common method bias. Thus, we recommend future researchers collect data at different points in time and multiple sources to reduce the common method bias. Although the variables selected for the framework can be considered adequate for studies on GHRM practices in organizations, it is believed that other variables can also contribute to this framework. Furthermore, future research needs to test the model with moderate variables such as green innovation.

7. Conclusion

Initiatives of Green management have become an important factor in businesses that are thinking ahead around the world. Scholars have argued that employees must be inspired, empowered, and environmentally aware of greening to carry out green management initiatives. This study, therefore, sought to evaluate the impact of green human resource management practices in the environmental performance of manufacturing firms in Sri Lanka. The results of this study showed that there is a significant impact of GHMR on EP through green organizational culture.

References

- Rhead R, Elliot M, Upham P. Assessing the structure of UK environmental concern and its association with pro-environmental behavior. Journal of Environmental Psychology 2015. 43, 175–183. Doi:10.1016/j.jenvp.2015.06.002
- Robertson JL. Barling J. Toward a new measure of organizational environmental citizenship behavior. Journal of Business Research 2017. 75, 57–66. Doi: 10.1016/j.jbusres.2017.02.0073.
- 3. El-Kassar AN, Singh SK. Green innovation and organizational performance: the influence of big

- data and the moderating role of management commitment and Practices. Technological Forecasting and Social Change 2019. 144,483-498. Doi.org/10.1016/j.techfore.2017.12.016
- 4. Yu W, Chavez R, Feng M, Wong,CY, Fynes B. Green human resource management and environmental cooperation: An abilitymotivation-opportunity and contingency perspective. International Journal of Production Economics, 2020. 219,:224-235.Doi.org/10.1016/j.ijpe.2019.06.013
- Arulrajah AA, Opatha HHDNP, Nawaratne NNJ. Green human resource Management practices: A review. Sri Lankan Journal of Human Resource Management 2015. 5(1), 1-16. Doi: 10.4038/sljhrm.v5i1.5624
- Pellegrini C, Rizzi F, Frey M, The role of sustainable human resource practices in influencing employee behavior for corporate sustainability. Business Strategy and the Environment 2018. 27, 1221–1232. Doi.org/10.1002/bse.2064
- Roscoe S, Subramanian N, Jabbour CJC, Chong T. Green human resource management and the enablers of green organizational culture: Enhancing a firm's environmental performance for sustainable development. Business Strategy and the Environment 2019. 28(5), 737-749. Doi.org/10.1002/bse.2277
- 8. Sroufe RP, Liebowitz J, Sivasubramaniam N. Are you a leader or a laggard? HR's role in creating a sustainability culture. People and Strategy, 2010. 33(1), 34–42
- Chen Y. Green organizational identity: sources and consequence, Management Decision, 2011. 49(3), 384-404.
 Doi.org/10.1108/00251741111120761
- 10. Harris LC. Crane A. The greening of organizational culture: Management views on the depth, degree and diffusion of change. Journal of Organizational Change Management, 2002.15(3): 214–234. Doi.org/10.1108/09534810210429273
- 11. Jackson SE, Renwick DWS, Jabbour CJC, Muller-Carmen M. State-of the-art and future directions for green human resource management: Introduction to the special issue. Zeitschrift für Personalforschung 2011. 25(2):99–116. Doi.org/10.1177/239700221102500203
- Renwick DWS, Redman T, Maguire S. Green human resource management: A review and research agenda. International Journal of

- Management Reviews, 2013.15(1): 1–14. Doi.org/10.1111/ j.1468-2370.2011. 00328.x
- Wajeeh-ul-Husnain S, Shen J. Benson J. HRM practices in South Asia: convergence, divergence, and intra-regional differences.
 Asian Business and Management 2020. Doi: 10.1057/s41291-020-00129-9
- 14. Appelbaum E, Bailey T, Berg P, Kalleberg, AL. Manufacturing Advantage: Why High Performance Systems Pay Off. Cornell University Press, Ithaca, NY. 2000.
- 15. Dyllick, T. Hockerts K. Beyond the business case for corporate sustainability. Business Strategy and the Environment, 2002. 11(2), 130–141. Doi.org/10.1002/bse.323
- 16. Hadjri MI. Perizade B. Farla W. Green Human Resource Management, Green Organizational Culture, and Environmental Performance: An Empirical Study. In 2019 International Conference on Organizational Innovation (ICOI 19). Atlantis Press, 2019
- 17. Madsen H, Ulhoi JP, Integrating environmental and stakeholder management. Business Strategy and the Environment 2001. 10(2), 77–88. Doi.org/10.1002/bse.279
- 18. Jabbour CJC. Environmental training in organizations: from a literature review to a framework for future research. Resources Conservation and Recycling 2013, 74:144–155. Doi: 10.1016/j.resconrec.2012.12.017
- 19. Arda OA, Bayraktar E, Tatoglu E. How do integrated quality and environmental management practices affect firm performance? Mediating roles of quality performance and environmental productivity. Business Strategy and the Environment 2018. 28(1), 64-78. Doi.org/10.1002/bse.2190
- 20. Montabon F, Sroufe R, Narasimhan R. An examination of corporate reporting, environmental management practices and firm performance. Special Issue on Innovative Data Sources for Empirically Building and Validating Theories in Operations Management 2007. 25(5), 998–1014.
 Doi.org/10.1016/j.jom.2006.10.003
- Al-Swidi, A. K., Gelaidan, H. M., & Saleh, R. M. The joint impact of green human resource management, leadership and organizational culture on employees' green behaviour and organisational environmental performance. Journal of Cleaner Production, 2021. 316, 128112.
 Doi.org/10.1016/j.jclepro.2021.128112.