

Developing Green Behaviour For The Environment: The Role Of Green Human Resource Management Practices

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Abstract

This study explores the relationship between environmental awareness, green Human Resource Management (HRM) practices, and environmentally responsible behavior among IT employees in India. The research employs a quantitative approach, collecting data through an online survey questionnaire. The measurement scales' reliability and validity are evaluated using Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). The study employs structural equation modeling with the support of SMARTPLS V.4 to test the hypotheses.

The findings indicate that environmental awareness has a positive influence on both green behavior and the adoption of green HRM practices. Furthermore, green HRM practices are positively associated with green behavior. This study underscores the significance of environmental awareness and the implementation of green HRM practices in fostering environmentally responsible behavior within the workplace. These results hold important implications for organizations and policymakers seeking to encourage sustainable environmental practices in their workplaces. Moreover, this study contributes to the existing literature on green HRM practices, particularly within the information technology industry, where research on this subject remains limited.

Key Words: Environmental awareness, Green HRM, Green Behavior.

1.Introduction

In the current context, the environment is recognized as an integral aspect of an organization's activities, products, or services, with implications for the broader environment. However, many organizations initially struggle to pinpoint their specific impact beyond internal employee-generated waste. It's worth noting that the environment has a substantial impact on industries like manufacturing and construction. To address environmental concerns, numerous reputable manufacturing and construction companies have implemented ISO 14001 to identify their environmental aspects. On a global scale, given the planet's depleting resources and the looming scarcity projected in the next 20 years, businesses are increasingly embracing environmentally sustainable practices, such as energy conservation and recycling. This shift is not limited to India but is occurring worldwide.

Within the realm of green human resource management (HRM), an area that remains relatively unexplored in the existing literature, HR professionals have a crucial role to play in steering organizations toward sustainability. Green HRM practices and the cultivation of green behavior can be instrumental in adding commercial value when integrated into an organization's culture.

Organizations are recalibrating their strategies and emphasizing green initiatives. This shift has prompted HRM professionals to expand the scope of their traditional practices by incorporating green management practices. This integration aims to enhance the execution of fundamental HRM practices, as highlighted by Angel

del Brio et al. (2008). HRM can play a pivotal role in distinguishing, influencing, and measuring sustainability-related behaviors and attitudes among employees within an organization. Consequently, organizations are increasingly leveraging HRM to formulate and implement environmentally friendly policies more effectively, as emphasized by Renwick et al. (2013).

In the existing literature, Green Human Resource Management (HRM) has been extensively studied across various industries, including the manufacturing industry (Saeed et al., 2019; Chaudhary, 2019; Yusliza et al., 2019; Dumont et al., 2016), the health industry (Saeed et al., 2019; Jia et al., 2018), and the hospitality industry (Tuckova and Thuy, 2019; Kim et al., 2019). However, research in the information technology industry has been limited (Ojo and Raman, 2019). In the past decade, there has been a growing trend among information technology organizations worldwide to incorporate environmental management and green practices into their operations. The information technology industry plays a pivotal role in adopting approaches and solutions to address pressing environmental issues (León Fernández and Domínguez Vilches, 2015).

To foster an environmentally friendly workplace, IT organizations should instill the philosophy of "Go Green" or "Green Behavior" (Gilal et al., 2019). This includes encouraging employees, including administrative staff, to embrace green and sustainable practices in their day-to-day activities at work. Dumont et al. (2017) defined green behaviors as employee actions that support environmental management practices in the workplace. These behaviors are crucial for the successful implementation of environmental initiatives within organizations. Mazzi et al. (2016) emphasized the importance of employees engaging in green practices at their workplace to drive environmental management efforts. Green behavior and practices not only contribute to improved environmental performance but also help organizations gain a competitive advantage (Kim et al., 2019).

To cultivate green employee behaviors, Green HRM practices are considered a core HRM strategy for enhancing employees' environmental awareness in the workplace. Green HRM encompasses functions such as green recruitment, green training and development, green rewards, and green performance appraisal (Tang et al., 2018; Dumont et al., 2017).

II. Theoretical Framework and Hypotheses Development

a. Environmental Awareness and Green Behavior

Zsoka et al. (2013) define environmental knowledge as an individual's understanding and awareness regarding environmental concerns, issues, and potential solutions. They distinguish environmental awareness as the knowledge and concern individuals possess about their own behaviors in relation to the environment (Afsar et al., 2016). It's important to note that in certain contexts, awareness and knowledge can be used interchangeably, as identified in the existing literature by Kwatra et al. (2014). In this study, the researcher considers the term "environmental awareness" to encompass both environmental knowledge and awareness.

Environmental knowledge, values, and attitudes are considered the tangible behaviors directly influenced by intentional factors that form the core components of an individual's environmental awareness (Zsoka et al., 2013). Furthermore, environmental awareness can be shaped by external factors such as social pressures, traditions, family, friends, educational background, and neighbors, which collectively contribute to approximately 80 to 90% of an individual's awareness regarding environmental issues and concerns.

Numerous researchers, including Chan et al. (2014), Mostafa (2009), and Kotchen and Reiling (2000), have established that environmental awareness has a direct influence on green behavior. For instance, an individual's knowledge about waste management and recycling is indicative of their inclination toward green behaviors (Tudor et al., 2008). In an organizational context, when employees are well-informed and aware of environmental issues, ecological degradation, and eco-friendly practices, they are more likely to exhibit green behaviors in the workplace (Afsar et al., 2016). Additionally, employees who undergo organizational changes and possess a strong foundation in environmental knowledge tend to be more committed (Al-Shemmeri and Naylor, 2017). Thus, the hypothesis is formulated that environmental awareness creates positive and significant impact on employee's green behavior.

b. Green Human Resource Management Practices and Green Behavior

Organizations play a pivotal role in environmental issues and challenges, necessitating their active involvement in addressing environmental management concerns (Ragas et al., 2017). Societal and governmental pressures exert significant influence, compelling organizations to implement eco-friendly initiatives and explore innovative solutions for environmental management issues. Green Human Resource Management (GHRM) has emerged as a response to environmental degradation, with its primary focus on aligning human resource

operations with sustainable development (Bhutto, 2016). GHRM practices promote the responsible and eco-conscious use of resources to foster environmental sustainability, and they also have a profound impact on employee behavior in favor of green practices. Renwick et al. (2013) reveal that GHRM serves as the human resource management component of environmental management, delivering numerous benefits to an organization's reputation and performance.

Green recruitment within an organization involves assessing prospective employees' environmental knowledge, awareness, beliefs, and concerns, as well as their ability to champion environmental criteria (Arulrajah et al., 2015). This recruitment process aims to bring individuals on board who resonate with the organization's green culture and environmental values. Therefore, it is recommended that organizations actively seek and hire individuals who not only possess the necessary skills and knowledge but also demonstrate a genuine concern for the environment. Mani et al. (2018) emphasize the importance of organizations projecting an environmentally friendly image in the public eye to attract and retain potential candidates.

Employee training plays a crucial role in providing employees with the knowledge and skills required to enhance their capabilities and creativity. In the context of green training, organizations empower employees with environmental knowledge and skills (Longoni et al., 2014; Chowhan, 2016). This type of training helps employees better understand and address environmental issues, making them more likely to engage in environmentally responsible activities.

Guercei et al. (2016) find that green performance management and compensation practices serve to align employee behavior with environmental goals and objectives. Jabbour (2016) further identifies that organizations that reward and compensate employees for their environmentally friendly practices and commitment to the environment are more likely to achieve their environmental objectives. Consequently, green performance management, coupled with green compensation and reward systems, incentivizes and encourages green behavior among employees. In summary, GHRM practices serve as a means for employees to perceive an organization's support through training, recruitment processes, performance management, empowerment, compensation, and reward systems. Ultimately, Green HRM fosters green behavior in the workplace. Thus, it's hypothesized that Green HRM create positive and significant impact on employee green behavior.

III. Hypotheses

Based on the above theoretical frame work, hypotheses were developed for the study.

1. There is positive and significant relationship between environmental awareness and green human resource management.
2. There is positive and significant relationship between environmental awareness and green behavior.
3. Green human resource management positively and significantly mediates between environmental awareness and green behavior.

IV. Methodology

Data for this study was gathered through an online survey conducted between January 2023 and March 2023. The respondents were sourced from the top five ISO 14001 certified Information Technology companies in Chennai, Tamil Nadu, India. The research employed a cross-sectional design and purposive sampling method by distributing questionnaires to 402 employees via the internet. Out of the total, 381 questionnaires were returned, and after validation, 357 questionnaires were deemed valid for analysis. Participants were requested to complete the survey, which assessed their environmental awareness, the Green Human Resource Management (GHRM) practices within their organization, and their green behavior in the workplace.

The organizations and participants were carefully selected using the purposive sampling technique. This selection criterion ensured that the organizations held ISO 14001 certification and that the participating employees held managerial positions for a minimum of 24 months, with a demonstrated level of environmental awareness.

V. Measurements

The online survey questionnaire consists dimensions related to the study. The dimensions are environmental awareness, Green HRM practices and Green Behavior. The dimension environmental awareness was measured by five individual statements adopted from Gatersleben et al. (2002). The responses of environmental awareness were captured on a five-point Likert Scale.

The dimension Green Human Resource was adopted from Dumont et al (2016) which consists of five individual statements. The individual statements were captured on Likert five scaling technique. The dimension green behavior in the workplace consists of five individual statements adopted from Wesselink et al. (2017). The

responses of green behavior of employee at work place were captured on five-point Likert scaling technique. All the dimensions were measured with the responses ranging from Strongly Agree = 5 to strongly disagree = 1. The individual statements adopted from the source were slightly modified to suit the IT employees.

VI. Results and Discussion

a. Results of the measurement model - Reliability and Validity Measures

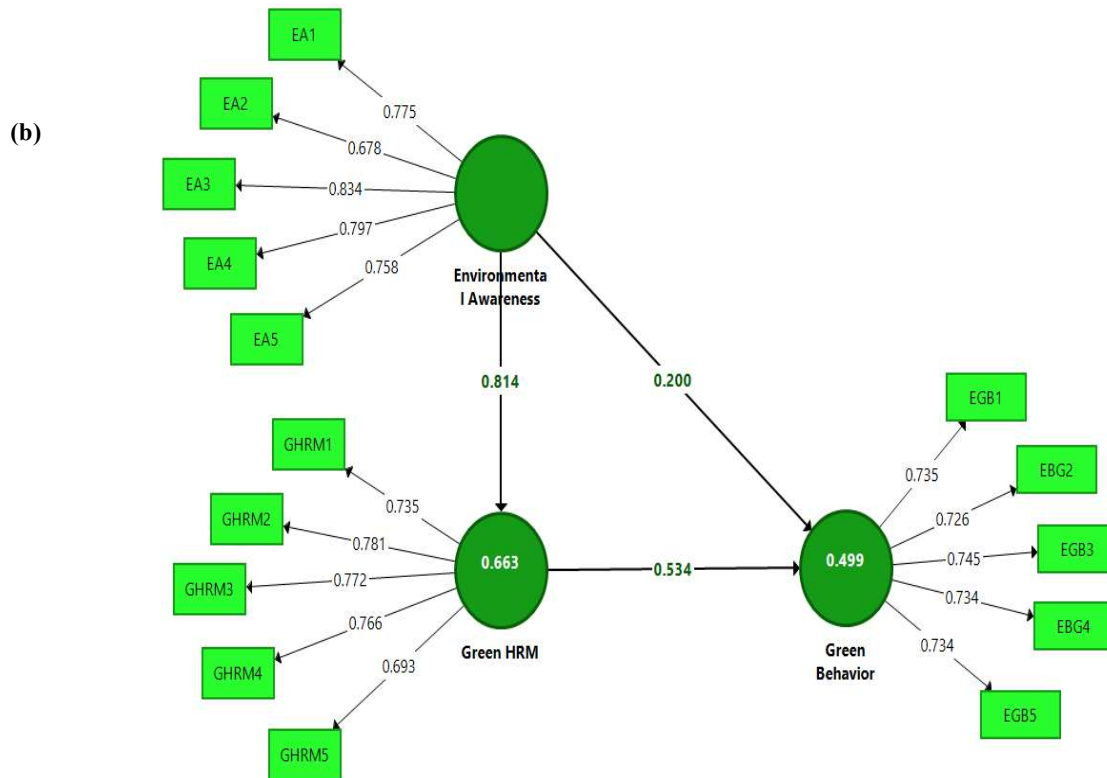
	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Environmental Awareness	0.827	0.828	0.879	0.593
Green Behaviour	0.787	0.787	0.854	0.54
Green HRM	0.805	0.807	0.865	0.563

The table displays the results of reliability and validity measures for three constructs: Environmental Awareness, Green Behavior, and Green HRM. The measures used are Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). These measures are commonly used in assessing the reliability and validity of a measurement scale.

- (i) **Cronbach's Alpha:** This is a measure of internal consistency, which assesses how closely related a set of items are as a group. The values of Cronbach's Alpha for the three constructs are all above the commonly accepted threshold of 0.7, indicating high internal consistency. This suggests that the items measuring each construct are measuring the same underlying concept.
- (ii) **rho_A:** This is a measure of composite reliability, which assesses the extent to which the items in a scale are consistent in measuring the underlying construct. The values of rho_A for the three constructs is all above 0.8, indicating high composite reliability. This suggests that the items in each construct are highly consistent in measuring the construct.
- (iii) **Average Variance Extracted (AVE):** This is a measure of convergent validity, which assesses the extent to which a set of items measuring a construct are measuring the same underlying concept. The values of AVE for the three constructs are all above the commonly accepted threshold of 0.5, indicating high convergent validity. This suggests that the items measuring each construct are highly correlated with each other and are measuring the same underlying concept.

In summary, the results suggest that the three constructs have high internal consistency, composite reliability, and convergent validity. These results provide evidence that the measurement scales used to measure Environmental Awareness, Green Behavior, and Green HRM are reliable and valid measures of the constructs. This provides confidence that the constructs can be used to assess environmental awareness, green behavior, and green HRM in the context of the study.

Modeling Green HRM based on Environmental Awareness and Green Behavior



Structural Model Results

Hypothesis relationship	Path Value	F Square	R Square Value	T Statistics	P Values
Environmental Awareness -> Green Behaviour	0.200	0.027		2.694	0.007
Environmental Awareness -> Green HRM	0.814	1.967	0.663	32.334	0
Environmental Awareness -> Green HRM -> Green Behaviour	0.534	0.192	0.499	7.01	0

Hypothesis 1: Environmental Awareness -> Green Behavior

The path coefficient between environmental awareness and green behavior is positive and significant ($\beta = 0.200$, $t = 2.694$, $p = 0.007$). This means that environmental awareness has a positive effect on green behavior. The effect size, as measured by F square, is small (0.027), indicating that environmental awareness explains only a small proportion of the variance in green behavior. The R square value for green behavior is 0.499, indicating that the model accounts for approximately 50% of the variance in green behavior.

Hypothesis 2: Environmental Awareness -> Green HRM

The path coefficient between environmental awareness and green HRM is positive and significant ($\beta = 0.814$, $t = 32.334$, $p = 0$). This means that environmental awareness has a strong positive effect on green HRM. The effect size, as measured by F square, is large (1.967), indicating that environmental awareness explains a substantial proportion of the variance in green HRM. The R square value for green HRM is 0.663, indicating that the model accounts for approximately 66% of the variance in green HRM.

Hypothesis 3: Green HRM -> Green Behavior (mediation)

The path coefficient between green HRM and green behavior is positive and significant ($\beta = 0.534$, $t = 7.01$, $p = 0$). This means that green HRM has a positive effect on green behavior. The effect size, as measured by

F square, is medium (0.192), indicating that green HRM explains a moderate proportion of the variance in green behavior. The R square value for green behavior is 0.499, indicating that the model accounts for approximately 50% of the variance in green behavior. As the direct effect of environmental awareness on green behavior is significant, and the indirect effect through green HRM is also significant, we can conclude that green HRM mediates the relationship between environmental awareness and green behavior.

VII Core Findings

The study's findings reveal a positive relationship between environmental awareness and green behavior among employees working in the selected IT companies in Chennai, Tamil Nadu, India. Additionally, the research identifies a robust positive association between environmental awareness and the adoption of Green Human Resource Management (HRM) practices within the surveyed organizations.

Furthermore, the results highlight that Green HRM practices exert a positive influence on employees' green behavior in the workplace. Notably, this relationship is found to be partially mediated by employees' environmental awareness. In other words, employees' environmental awareness serves as a connecting factor that enhances the impact of Green HRM practices on their green behavior.

These findings provide valuable insights into the interconnectedness of environmental awareness, Green HRM practices, and green behavior in the organizational context. They underscore the importance of fostering environmental consciousness and implementing Green HRM strategies as complementary approaches to promote environmentally responsible behavior among employees.

VIII Core Suggestions

Based on the study's findings, it is recommended that IT companies operating in Chennai, Tamil Nadu, India prioritize the development and promotion of environmental awareness among their employees. This strategic emphasis on environmental awareness can serve as a catalyst for encouraging green behavior within the workplace.

Furthermore, the study suggests that organizations should actively adopt and implement Green Human Resource Management (HRM) practices, recognizing their potential to positively influence employees' green behavior at work. To effectively promote green behavior, organizations can integrate both environmental awareness and Green HRM practices into their employee training and development programs.

In summary, the study's recommendations underscore the importance of fostering environmental consciousness and embracing Green HRM practices as integral components of organizational strategies. By incorporating these elements into their operations, IT companies can create a workplace culture that encourages and sustains environmentally responsible behavior among their employees.

IX Core Implications

The findings of this study carry significant implications for IT companies operating in Chennai, Tamil Nadu, India. They provide valuable insights for these organizations, shedding light on the crucial roles played by environmental awareness and Green Human Resource Management (HRM) practices in fostering green behavior within the workplace. This knowledge can assist IT companies in recognizing the importance of these factors and integrating them into their organizational strategies.

Additionally, the results of this study hold relevance for policymakers and regulatory bodies. They underscore the significance of promoting environmental awareness and encouraging the adoption of Green HRM practices among organizations, as a means to mitigate their environmental impact. Policymakers can consider leveraging these findings to shape policies and initiatives that drive environmentally responsible practices among businesses.

Furthermore, this study contributes to the expanding body of literature investigating the interplay between environmental awareness, Green HRM practices, and green behavior in the workplace. It not only provides valuable empirical evidence but also offers a foundation for future research endeavors in this field, guiding scholars and researchers in exploring this critical area further. In summary, these findings serve as a valuable resource for IT companies, policymakers, and researchers, offering insights into the promotion of sustainable and environmentally responsible practices within organizations.

X. Conclusion

The present study delved into the relationship between environmental awareness, green Human Resource Management (HRM) practices, and green behavior among IT employees in India. The study's results indicate that

environmental awareness positively influences both green behavior and the adoption of green HRM practices. Additionally, green HRM practices also positively impact green behavior. Furthermore, the study confirmed the moderating effect of green HRM between environmental awareness and green behavior. These findings carry significant implications for organizations and policymakers aiming to foster environmentally sustainable practices within workplaces.

This research underlines the pivotal roles played by environmental awareness and green HRM practices in promoting green behavior among employees. It underscores the need for organizations to prioritize initiatives such as environmental awareness programs and the implementation of green HRM practices to encourage and incentivize green behavior among their staff. To this end, organizations should consider incorporating practices like green recruitment, green training and development, green reward systems, and green performance appraisal processes to effectively promote green behavior.

Moreover, this study contributes to the body of literature concerning green HRM practices, particularly within the information technology industry, where research in this area has been limited. As such, it serves as a valuable source of insights for future research endeavors in this domain. In summary, the findings strongly advocate for organizations to embrace green HRM practices and actively promote environmental awareness to cultivate and sustain environmentally responsible practices in the workplace.

XI. Limitations and Scope for Future Study

The study considered respondents' perception of three dimensions (environmental awareness, green HRM, and green behavior) only. The researcher didn't consider the personal profile of the respondents. In this study the researcher considers environmental awareness and green HRM to predict green behavior, there might be many other dimensions influence green behavior. The study considered only ISO 14001 certified IT companies; other IT companies might be included in the future study. Further, comparison might be done between IT and other sectors to understand the green behavior of employees. In this study, the researcher measured only green behavior, outcome of green behavior might be considered in the future study.

References

- Afsar, B., Badir, Y. and Kiani, U.S. (2016), "Linking spiritual leadership and employee pro-environmental behavior: the influence of workplace spirituality, intrinsic motivation, and environmental passion", *Journal of Environmental Psychology*, Vol. 45, pp. 79-88.
- Al-Shemmeri, T. and Naylor, L. (2017), "Energy saving in UK FE colleges: the relative importance of the socio-economic groups and environmental attitudes of employees", *Renewable and Sustainable Energy Reviews*, Vol. 68, pp. 1130-1143.
- Angel del Brio, E., Fernandez-Mendez, J., & Junquera, B. (2008). Green HRM: A proposal for a new approach in strategic human resource management. *International Journal of Human Resource Management*, 19(5), 974-988.
- Arulrajah, A. A., Opatha, H. H. D. N. P., & Nawaratne, N. N. J. (2015). Green recruitment: A new perspective to attract environmentally friendly employees. *International Journal of Business and Management*, 10(10), 173-184.
- Bhutto, S. A. (2016). Green human resource management: Policies and practices. *Journal of Cleaner Production*, 112, 4400-4413.
- Chan, R. Y. K., He, J., & Chan, H. K. (2014). Environmental knowledge, attitudes, and behavior: A study of hospitality students. *Journal of Travel & Tourism Marketing*, 31(5), 567-581.
- Chaudhary, R. (2019). Green human resource management practices in Indian manufacturing firms: An empirical investigation. *International Journal of Productivity and Performance Management*, 68(8), 1451-1470.
- Chowhan, J. (2016). Effectiveness of green training and development practices: A review. *International Journal of Applied Business and Economic Research*, 14(3), 1709-1723.
- Dumont, J., Shen, J., & Deng, X. (2016). Green human resource management research in emergence: A review and future directions. *Journal of Cleaner Production*, 112, 3620-3630.
- Gilal, F. G., Hussain, T., Akbar, M. M., & Fatima, N. (2019). A systematic review of green HRM practices and

- their impact on employee green behavior. *Business Strategy and the Environment*, 28(8), 1597-1611.
- Guerci, M., Radaelli, G., Siletti, E., & Cirella, G. T. (2016). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 18(4), 492-512.
- Jabbour, C. J. (2016). Green human resource management, green supply chain management, and green innovation: Links and challenges. *Journal of Cleaner Production*, 112, 2860-2870.
- Jia, J., Li, Z., & Zhao, Y. (2018). Environmental knowledge sharing and green innovation performance: The mediation of green human resource management practices. *Journal of Cleaner Production*, 183, 743-752.
- Kim, J. Y., Shin, J. H., & Jung, M. (2019). Influence of green HRM practices on environmental performance and competitive advantage in the hotel industry. *Journal of Sustainable Tourism*, 27(9), 1043-1063.
- Kotchen, M. J., & Reiling, S. D. (2000). Environmental attitudes, motivations, and contingent valuation of nonuse values: A case study involving endangered species. *Ecological Economics*, 32(1), 93-107.
- Kwatra, G., Baker, T., & Stevens, C. (2014). Environmental knowledge, awareness, and business school students' intentions to purchase green vehicles. *Journal of Education for Business*, 89(8), 368-374.
- León Fernández, V. M., & Domínguez Vilches, E. (2015). Green human resource management as a tool for sustainable development: An empirical study aimed at Italian firms. *Journal of Cleaner Production*, 107, 342-354.
- Longoni, A., Cagliano, R., & Ho, W. (2014). Green training and green supply chain practices: Evidence from Italian manufacturers. *Journal of Cleaner Production*, 74, 90-102.
- Mani, V., Jeyarathnam, M., & Ramanujam, R. (2018). Green recruitment practices and employee engagement: A study of Indian IT sector. *Journal of Cleaner Production*, 196, 1252-1262.
- Mazzi, E., Lozano, R., & Ndiaye, M. M. (2016). Green HRM and its impact on organizational sustainability: An analysis of the additive manufacturing industry. *Journal of Cleaner Production*, 135, 318-327.
- Mostafa, M. M. (2009). Shades of green: A multidimensional analysis of environmental attitudes. *Journal of Environmental Psychology*, 29(4), 462-468.
- Ojo, S., & Raman, M. (2019). Green human resource management practices and employees' willingness to perform green behaviours in the Nigerian information and communication technology industry. *Journal of Cleaner Production*, 237, 117821.
- Ragas, R., Pedersen, E. R. G., & Kvalshaugen, R. (2017). Challenges and opportunities for green HRM. In *Routledge Companion to Green Management* (pp. 321-338). Routledge.
- Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.
- Saeed, B. B., Afsar, B., Hafeez, S., & Shahzad, K. (2019). Examining the role of green human resource management practices on employee green behavior: A moderated mediation analysis. *Journal of Cleaner Production*, 220, 132-142.
- Tang, X., Chen, Y., Huang, Q., & Hu, J. (2018). Research on the relationship among green HRM practices, green innovation, and organizational performance. *Sustainability*, 10(9), 3081.
- Tuckova, Z., & Thuy, T. T. (2019). Green HRM practices and employee engagement: Evidence from the Czech hospitality industry. *Sustainability*, 11(4), 1064.
- Tudor, T. L., Barr, S., & Gilg, A. W. (2008). A novel conceptual framework for examining environmental behavior in large organizations: A case study of the Cornwall National Health Service (NHS) in the United Kingdom. *Environment and Behavior*, 40(6), 823-847.
- Yusliza, M. Y., Abdullah, H., & Yusof, N. M. (2019). The impact of green human resource management practices on environmental performance in Malaysian manufacturing firms. *Journal of Cleaner Production*, 218, 229-238.

Zsoka, A., Szerényi, Z. M., Széchy, A., Kocsis, T., & Papp-Váry, Á. (2013). Environmental knowledge, attitudes and behavior among Hungarian high school students. *Journal of Cleaner Production*, 48, 126-135.