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# Green HRM and Green Work Behaviour of Employees: An Empirical Study in a Sri Lankan Tiles Manufacturing Company

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#### **Abstract**

The purpose of this research is to find (1) the existing degrees of green HRM and green work behaviour including green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour, (2) the relationships between green HRM and green work behaviour components and (3) the impact of green HRM on green work behaviour components. The originality of this paper is high as it fills an empirical gap regarding the syntheses between green HRM and green behaviour components, i.e., green organisational citizenship behaviour and green interpersonal citizenship behaviour. As the sample of the study, 100 executive and non-executive employees of a recognized Tile Manufacturing Company in Sri Lanka were randomly chosen and two instruments to measure the constructs were developed and their validity and reliability were assured. Collected data were analyzed using Pearson correlation and linear regression techniques through SPSS statistical software to achieve the research objectives. It is founded that green HRM is positively related to green work behaviour components (green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour) and green HRM significantly impacts on green work behaviour.

#### **Keywords:**

Green HRM, Green Work Behaviour, Green Organisational Citizenship Behaviour, Green Interpersonal Citizenship Behaviour, Green Official Behaviour

#### Introduction

It is important to foster environmentally friendly behaviour of employees in order to become an environmentally responsible organisation (Bohlmann et al., 2018). Environmental concern has become a serious concern now under HRM and there is an emerging field of HRM titled Green Human Resource Management. There are many sustainable issues and practices and HRM is critical in playing the key role in making an organisation sustainable (Opatha, 2019). There is a growing concern for the global environment and international standards for environmental management that have emerged gradually. The results were that businesses have to adopt green practices (Sharma & Gupta, 2009). The promotion of employee green behaviour will increase the value of the organisation as an environmentally responsible organisation (Bohlmann et al., 2018).

HRM can be defined as the efficient and effective utilization of human resources in order to achieve organisational goals (Opatha, 2009). According to Opatha and Hewapathirana (2019) one of the meanings given by the Collins Birmingham University English Language Dictionary 'Green' means protecting the environment. In management 'green' refers to environmental or eco-activities. Green activities are defined as the activities that guide an organisation to reduce its negative environmental impacts and preserve natural resources (Farid & El-sawalhy, 2018). green behaviour is basically coming under the concept of green human resource management. Environmentally sustainable and environmentally friendly behaviours are called green behaviours (Safari et al., 2018). Therefore, environmentally sustainable behaviour and green behaviour are identical (Osbaldiston & Schott, 2012; Wang 2016 as in Safari et al., 2018). EGB

is defined as any measurable individual behaviour that will help achieve environmental sustainability in the workplace (Andersson et al., 2013; Ones & Dilchert, 2012; Norton et al., 2015 as in Safari et al., 2018). According to Kirkwood and Walton in 2014 (as in Safari et al., 2018) organisational green behavioural practices include recycling and reusing programmes, developing environmental policies, waste minimization, energy conservation through technological changes, action plans to reduce energy consumption and water consumption, reducing carbon dioxide generation, having supply chains committed to green issues, measuring environmental impacts, having an environmental management system and conducting environmental audits to make sure that environmental practices are done etc. Green human resource management has an influence on employee green behaviour and this was tested by different scholars. These findings will be discussed under the research framework.

Green HRM and green work behaviour are emerging concepts, especially in Sri Lanka. Not many researches or studies have been done on green HRM and green work behaviour by Sri Lankan scholars. It seems that there is limited published research showing empirical evidence with regard to the nature of green HRM and green work behaviour components of Sri Lankan employees working for a Sri Lankan organisation. This can be considered as a contextual gap. Also, there is a gap in the empirical knowledge regarding the relationships between green HRM and green work behaviour components.

#### **Literature Review**

There are several definitions that can be found in the available literature for the Green HRM. They are mentioned in the following table (Table 1).

Table 1: Definitions for Green HRM

Scholar	Definition
Renwick et al. (2008)	Green HRM is all practices of human resource management that aim at making organisation employees green to achieve the organization's environmental goals and contribute to environmental sustainability.
Jackson and Seo (2010) and O' Donohue and Torugsa (2016) as in Mishra (2017)	GHRM is a branch of green management philosophy which explores the role of human behaviour in environmental management and sustainable development.
Zoogah, 2011	Green HRM is the use of HRM policies, philosophies, and practices to promote sustainable use of business resources and thwart any untoward harm arising from environmental concerns in organisations
Jabbour (2011)	Green HRM is the level of the greening of human resource management practices.
Muster and Schrader 2011	Green HRM focuses on employees' environmental behaviour in the company, which in turn, could be carried on to consumption patterns in their private life
Mampra (2013) as in Jain (2016)	Green HRM is defined as the use of HRM practices to encourage environmentalism and promote sustainable use of organisation resources.

Mampra (2013)	Green HRM is the use of HRM policies to encourage the sustainable use of resources within business enterprises and promote the cause of environmentalism which further boosts employee morale and satisfaction.
Marhatta and Adhikari, 2013, p. 2	Green HRM is the use of HRM policies to promote the sustainable use of resources within organisations and, more generally promotes the causes of environmental sustainability
Opatha and Arulrajah (2014)	GHRM refers to the policies, practices and systems that make employees of the organisation green for the benefit of the individual, society, natural environment and the business.
Ahmad (2015)	Green Human Resource Management (GHRM) where the Human Resource Management (HRM) is engaged in managing the environment within an organisation.
Yusoff et al. (2015)	GHRM includes CSR activities, work-life balance and E-HRM that could help enhance the sustainability of all stakeholders of the organisation which requires consideration of its economic, social and environmental aspects.
Jain (2016)	Green human Resource refers to using employee touch point/interface to promote sustainable practices and increase employee awareness and commitment to the issues of sustainability.
Zaid and Jaaron (2018)	GHRM is concerned with the systematic and planned alignment of typical human resource management practices with ecological objectives of the organisations.

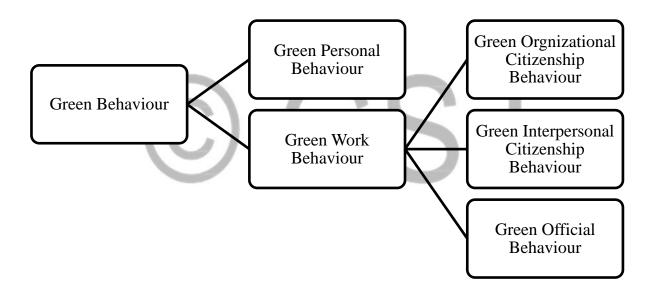
Having considered all the special points of the definitions, the Green HRM can be defined as "Green HRM is a company philosophy, policies, systems and practices leading to the employees' environmental behaviour for promoting the sustainable use of business resources".

Employee green behaviour is defined as any measurable individual behaviour that will help to achieve environmental sustainability in the workplace (Andersson et al., 2013; Ones & Dilchert, 2012; Norton et al, 2015 as in Safari et al., 2018). Individuals' positive behaviours towards the environment are known as pro-environmental behaviours. According to research done by Bohlmann et al. (2018) organisations that care about employee green behaviours are interested in environmental responsibility and sustainability and employee green behaviour is important for a company's reputation and environmental performance in the long run. (Bohlmann et al., 2018). Norton et al. in 2014 & 2015, Bissing-Olson et al. in 2013 and Robertson and Barling in 2015 (as in Safari et al., 2018) differentiated employee green behaviour. They have explained that voluntary employee green behaviours are green behaviours done by persons with their own desire while required employee green behaviour means green behaviours done by persons as a duty. According to Safari et al. (2018) organisational green proceedings include,

- 1. Recycling programmes
- 2. Having environmental policies
- 3. Reusing
- 4. Waste Management
- 5. Energy conservation
- 6. Minimizing water consumption
- 7. Reducing carbon dioxide generation
- 8. Having supply chains committed to green issues
- 9. Conducting life cycle analysis
- 10. Measuring environmental impact
- 11. Having environmental management systems
- 12. Conducting energy auditing

According to Smith and O'Sullivan (2012) green behaviour is two types, direct behaviour and indirect behaviour. Direct behaviour is based on individual actions while indirect behaviour is based on actions which influence others to become green (Safari et al., 2018). There are mainly two dimensions in green behaviour (Opatha & Arulrajah, 2014; Opatha, 2019). The green behaviour and its components are given in Figure 1.

Figure 1: Green Behaviour and Its Components



Source: Opatha (2019, p. 58)

#### **Green Personal Behaviour**

Green personal behaviour means the degree to which individuals take necessary actions towards becoming green in personal life (Opatha, 2019). According to Opatha (2019) people who have higher knowledge about greening and a positive attitude towards greening, highly engage in green personal behaviours.

#### **Green Work Behaviour**

Green work behaviour includes three dimensions (Opatha, 2019)

Green Organisational Citizenship Behaviour

Green organisational citizenship behaviour is the degree to which employees willingly engage in positive behaviours with the intention of helping to achieve green organisational objectives and goals (Opatha, 2019). Employees are voluntarily and deliberately involved in greening activities because they highly believe that their long-term success and survival depend on the organisational long-term success and survival and everybody's success and survival or

sustainability depends on a clean and quality environment (Norton et al., 2015). According to Opatha (2019), employees engage in green activities coming under the roles of preservationist, conservationist, non-polluter and maker.

### Green Interpersonal Citizenship Behaviour

Green interpersonal citizenship behaviour is the degree to which employees willingly engage in positive behaviours with the intention of helping and advising their co-workers to do their green work and to achieve organisational green objectives and goals (Opatha, 2014). Examples of green interpersonal citizenship behaviours include,

- 1. Teach others to become green and the importance of becoming green.
- 2. Answer questions asked by others about green positively.
- 3. Motivate others to participate in environmental protection campaigns voluntarily.
- 4. Appreciate co-workers who actively participate in green activities.
- 5. Personally criticize employees who do not perform on greening.
- 6. Assist others to work on ecological practices.

#### Green Official Behaviour

Green official behaviour is the degree to which employees engage in official duties assigned by the superior towards becoming green and these behaviours are not voluntary (Opatha, 2014).

- 1. Organizing and participating in CSR activities for waste removals.
- 2. Adhere to the green rules, regulations and procedures of the organisation.

The researchers believe that green HRM and green work behaviour are selected concepts of contemporary importance with regard to sustainable development. Each and every organisation must be responsible for the protection of the environment and environmental sustainability and therefore, they must perform green HRM and must influence employees to perform green work behaviours. As a result of that this study was carried out to find the relationships between green HRM and green work behaviour components and the impact of green HRM on green work behaviour components.

#### **Research Framework**

Research framework of this study mainly consists of two major variables which are green HRM and green work behaviour. Green HRM is considered as the independent variable while green work behaviour is the dependent variable.

Ojo and Raman (2019) have found that GHRM practices like recruitment and selection, training and development, compensation and reward, performance management, and empowerment and participation as determinants of employees' pro-environmental IT practices based on the responses received from 68 HR Managers and 333 IT Professionals in Malaysia. As per this research, there is a significant impact of green training and development, empowerment and participation on environmental behaviour and found that GHRM practices stimulate employees' pro-environmental IT behaviour.

As an emerging concept, green human resource management has an influence on employee inrole and extra-role workplace green behaviour under the mediating factors of psychological green climate and individual green values and further revealed that green HRM both directly and indirectly influenced in-role green behaviour, but only indirectly influenced extra-role green behaviour (Dumont et al., 2016). Green HRM impacts both employee in-role and extra-role workplace green behaviour through different social and psychological processes (Dumont et al., 2015).

It has been found that green human resource management contributes to the environmental performance (EPF) of employees indirectly and directly through the mediation effect of employee work-life balance relying on survey data collected from 356 employees of leadership in energy and environmental design (LEED)-certified companies (Bangwal et al., 2017).

Considering the data collected from 347 employees working in coal generating, power industry, food, chemical, and pharmaceutical industries, Saeed et al. (2018) revealed that green HRM practices (green recruitment and selection, green training and development, green performance management and appraisal, green reward and compensation, and green empowerment) positively affect employee's pro-environmental behaviour, and proenvironmental psychological capital and environmental knowledge mediates this link.

Organisations in 21<sup>st</sup> century that focus to build environmental policies, procedures and practices to leave a sustainable and safe business arena to the next future generations (Uddin, 2018) must adopt green HRM practices like green job analysis, green recruitment, green selection, green induction, green training and performance evaluation and green rewards management etc. because GHRM practices are inevitable for the organisations to behave in green to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability (Opatha & Arulrajah, 2014).

Based on the above empirical findings, the following eight alternative hypotheses are formulated.

- H<sub>1</sub> There is a positive relationship between green HRM and green work behaviour.
- H<sub>2</sub> There is a positive relationship between green HRM and green organisational citizenship behaviour.
- H<sub>3</sub> There is a positive relationship between green HRM and green interpersonal citizenship behaviour.
- H<sub>4</sub> There is a positive relationship between green HRM and green official behaviour.
- H<sub>5</sub> There is a significant positive impact on green work behaviour from green HRM.
- H<sub>6</sub> There is a significant positive impact on green organisational citizenship behaviour from green HRM.
- $H_7$  There is a significant positive impact on green interpersonal citizenship behaviour from green HRM.
- H<sub>8</sub> There is a significant positive impact on green official behaviour from green HRM.

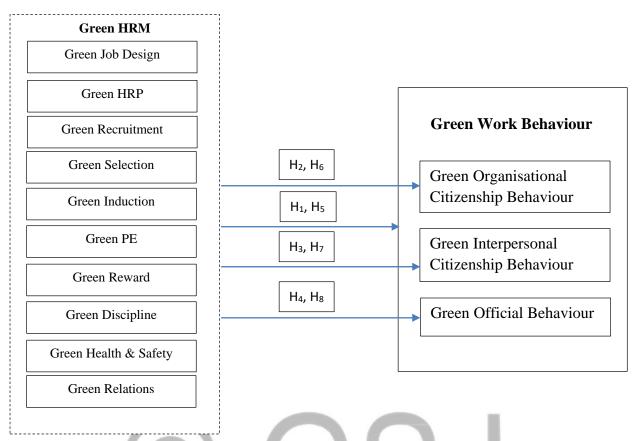


Figure 2: Conceptual Model

The research approach for this study is the quantitative research approach. One reason for the selection of the quantitative approach is that the purpose of this study is hypothesis testing (analytical and predictive). The research strategy for the study is the survey method. The major justification for the application of the survey strategy is that the type of investigation is non-causal. The nature of this study is analytical. The time horizon is cross-sectional as the data were gathered over two weeks. The unit of analysis is individual employees in the tiles manufacturing company including both executives and non-executives. As the sample of the study, 100 executive and non-executive employees of the Tile Manufacturing Company in Sri Lanka were randomly chosen. The questionnaire was distributed among the 100 individuals and 81 responded (38 executives and 43 non-executives). In percentage, the total response rate is 81%. Executives' response rate is 76% while non-executives' response rate is 86%.

#### **Measures**

Data collection was first done by reviewing the existing literature, supervisor's and experts' opinions and experiences relating to green HRM. Next, considering the facts and knowledge gained from these sources two new instruments were developed to measure the variables which are green HRM and green work behaviour. The validity and reliability of the two instruments were assured. The questionnaire is consisted of 75 questions and used a five-point likert scale; "Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree".

Stern (2000) explained the four criteria of causal variables that affect environmental behaviour which are 1) attitudinal factors (including norms, beliefs and values), 2) contextual forces, 3) personal capacities and 4) habits and routines of the concerning subject. Under green work behaviour, organisational citizenship behaviour was measured using three dimensions i.e.

conscientiousness, sportsmanship, and civic virtue. Indicators for each dimension were preservationist, conservationist, non-polluter, and maker. Altruism and courtesy were the dimensions of green interpersonal citizenship behaviour while teaching others, motivating others, assisting others and punishing others were the indicators of each dimension. Green official behaviour was measured using seven dimensions which are duty/duties, responsibilities, tools and equipment used, physical surroundings, job process, decision-making, and adherence to policies and rules. Questionnaires developed by Lynn (2014); Heyl et al. (2013); Opatha (2019) and Tantawi et al, (2009) were referred to build the instrument on green work behaviour.

Job and job analysis, recruitment, selection, induction, training, performance assessment, rewards, corporate culture, corporate learning management, involvement in industrial relations, health and safety, and discipline management are the areas that were considered to measure the green HRM variable. Green HRM areas introduced by Kulshrestha and Srivastava (2018); Halawi and Zaraket (2018); Jabbour and Santos (2008); Dutta (2012); Hussain (2018); Arulrajah et al. (2015), Cherian and Jacob (2012), Ahmad (2015) and questionnaires developed by Zibarraz and Coan (2015), O'Donoghue and Torugsa (2016), and Guerci et al. (2016) to measure the green HRM were utilized to build the instrument on green HRM.

#### **Results**

The first objective of the study which is to explore the existing degrees of green HRM, green work behaviour, green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour of employees was ascertained by univariate analysis. Table 2 represents the results of the univariate analysis.

Table 2: Descriptive Statistics of Green HRM and Green Work Behaviour

		Valid	Mean	Std. deviation
	Executive	38	3.422	.5190
Green HRM	Non-executive	43	3.037	.6693
	<b>Total Sample</b>	81	3.218	.6302
	Executive	38	3.651	.4227
Green Work Behaviour	Non-executive	43	3.663	.3550
	Total Sample	81	3.657	.3858
C C '1'1	Executive	38	3.870	.4357
Green Organisational Citizenship Behaviour	Non-executive	43	3.823	.3901
Citizensinp Benaviour	Total Sample	81	3.845	.4102
Carra Latana and I	Executive	38	3.440	.6045
Green Interpersonal Citizenship Behaviour	Non-executive	43	3.407	.6001
Citizensinp Benaviour	Total Sample	81	3.422	.5986
	Executive	38	3.642	.3982
Green Official Behaviour	Non-executive	43	3.760	.4735
	Total Sample	81	3.705	.4410

Table 2 gives the mean values and standard deviations of green HRM and green work behaviour components of executives and non-executives under the study and it indicates that

the majority of the executives and non-executives in the company are individuals with high levels of green work behaviour as green organisational citizenship behaviour and green official behaviour are high. However, green interpersonal citizenship behaviour is moderate among both executives and non-executives. Further, it was found that the level of green HRM in the company is moderate. The standard deviation is less than 1 in all the variables indicating that the data dispersion from the mean value is low.

The objective of finding relationships between green HRM and green work behaviour components was achieved by performing Pearson's correlation technique. Table 3 represents the Pearson correlation values for each relationship.

Table 3: Pearson Correlation Analysis

		Pearson Correlation	Sig.
C HDM l C	Executive	.469	.003
Green HRM and Green Work Behaviour	Non-executive	.186	.233
WOLK Deliavious	Total Sample	.286	.010
<b>Green HRM and Green</b>	Executive	.414	.010
Organisational Citizenship	Non-executive	.134	.391
Behaviour	Total Sample	.256	.021
Green HRM and Green	Executive	.623	.000
Interpersonal Citizenship	Non-executive	.371	.014
Behaviour	Total Sample	.456	.000
G HDM IG	Executive	.194	.003
Green HRM and Green Official Behaviour	Non-executive	.164	.295
Official Deliaviour	Total Sample	.107	.044

The Pearson correlation for the positive relationship between green HRM and green work behaviour of executives and the total sample is significant at 0.01 level (2-tailed) while it is not significant for non-executives. The executive sample, it indicates that the components of green work behaviour i.e. green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour are significantly and positively related to green HRM. The relationships between green HRM and green work behaviour components relating to non-executives are not significant except for the relationship between green HRM and green interpersonal citizenship behaviour. Above statistical analysis caused the first four hypotheses to be accepted (considering the total sample results).

- $H_1$  There is a positive relationship between green HRM and green work behaviour (accepted).  $H_2$  There is a positive relationship between green HRM and green organisational citizenship behaviour (accepted).
- $H_3$  There is a positive relationship between green HRM and green interpersonal citizenship behaviour (accepted).
- $H_4$  There is a positive relationship between green HRM and green official behaviour (accepted).

Linear regression analysis was carried out to check the validity of the conceptual framework.

According to Table IV considering the R Square of the total sample which implies the proportion of variation of the dependent variable that is explained by the independent variable, it can be identified that only 8.2% of the variability of green work behaviour is explained by green HRM and this is significant. This is 22% for executives, which is significant and 3.4% for non-executives which is not significant. According to the total sample, 6.6%, 20.1% and 3.1% of the variability of green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour respectively, are explained by green HRM and these impacts are significant. However, the impact of green HRM on green work behaviour, green organisational citizenship behaviour and green official behaviour relating to non-executives are not significant while the impact of green HRM on green interpersonal citizenship behaviour is significant.

Table 4: Linear Regression Analysis

		R Square	$\mathbf{F}$	Sig.
C - HDM - C - W 1	Executive	.220	10.148	.003
Green HRM on Green Work Behaviour	Non-executive	.034	1.463	.233
Deliavioui	Total Sample	.082	7.033	.010
Green HRM on Green	Executive	.171	7.432	.010
Organisation al Citizenship	Non-executive	.018	.753	.391
Behaviour	Total Sample	.066	5.541	.021
Green HRM on Green	Executive	.389	22.887	.000
Interpersonal Citizenship	Non-executive	.138	6.552	.014
Behaviour	Total Sample	.201	20.734	.000
C HPM C	Executive	.009	.324	.003
Green HRM on Green Official Behaviour	Non-executive	.027	1.126	.295
Official Dellaviour	Total Sample	.031	3.908	.044

The above statistical analysis caused the fifth, sixth, seventh and eighth hypotheses to be accepted (considering the total sample results).

- $H_5$  There is a significant positive impact on green work behaviour from green HRM (accepted).
- H<sub>6</sub> There is a significant positive impact on green organisational citizenship behaviour from green HRM (accepted).
- H<sub>7</sub> There is a significant positive impact on green interpersonal citizenship behaviour from green HRM (accepted).
- $H_8$  There is a significant positive impact on green official behaviour from green HRM (accepted).

Figure 3 represents the validated conceptual model as per the results yielded from Pearson correlation and regression analysis.

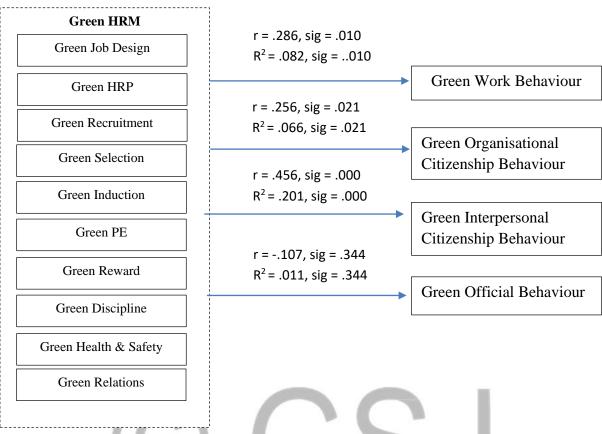


Figure 3: Conceptual Model

The research objectives of the study were to find the (1) existing degrees of green HRM and green work behaviour including green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour (2) relationships between green HRM and green work behaviour components and (3) impact of green HRM on green work behaviour components.

According to the analyzes done in the study following findings were yielded (the total sample was considered).

- 1. There are positive relationships between green HRM and green work behaviour and its components. Green HRM increases green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour.
- 2. There is a significant positive impact on green work behaviour and its components from green HRM However, the impact of green HRM on green work behaviour was not significant for non-executives. The reason for this may be that the non-executives are lacking knowledge and awareness about green HRM more than executives. Thus, the impact of green HRM is not significant for them.

The findings of the study are important in the theoretical as well as practical scenarios. Two new instruments were developed to measure the degrees of green HRM, green work behaviour, green organisational citizenship behaviour, green interpersonal citizenship behaviour and green official behaviour through this research. The reliability and validity of the instruments were assured. In addition, it was found that there is a positive relationship between green HRM and

green work behaviour and the impact of green HRM on green work behaviour is significant which indicates that it is important to practice green HRM within the company to make an influence on the green work behaviour of employees.

#### **Conflict of Interest**

The authors declare that there is no conflict of interest.

#### References

- Ahmad, S. (2015). Green HRM: Policies and practices. Cogent Business and Management, 2, pp. 1-13.
- Arulrajah, A.A., Opatha, H.H.D.N.P. and Nawaratne, N.N.J. (2015). Green human resource management practices. Sri Lankan Journal of human resource management, 5(1), pp.1-16.
- Bohlmann, C., van den Bosch, J. and Zacher, H. (in press), The relative importance of employee green behaviour for overall job performance ratings: A policy capturing study. Corporate Social Responsibility and Environmental Management.
- Cherian, J. and Jacob, J. (2012). A study of Green HR practices and its effective implementation in the organisation: A review. International Journal of Business and Management, 7, pp. 25–33.
- Crosbie, L. and Knight, K. (1995). Strategy for Sustainable Business: Environmental Opportunity and Strategic Choice. McGraw-Hill, Maidenhead, England.
- Dumont, J., Shen, J., and Deng, X. (2016). Effects of Green HRM Practices on Employee Workplace Green Behaviour: The Role of psychological Green Climate and Employee Green Values. Human Resource Management, 56(4).
- Dutta, S. (2012). Greening people: a strategic dimension. ZENITH International Journal of Business Economics and Management Research, 2(2), pp. 143-148.
- Epstein, M. and Roy, M. (1997). Using ISO 14000 for improved organisation al learning and environmental management. Environmental Quality Management, 7, pp. 21–30.
- Faid, M.B. and Sawalhy, H.E. (2018). Green human resource management in hotels: Awareness and implementation, pp. 1-9.
- Guerci, M., Montanari, F., Scapolan, A. and Epifanio, A. (2016). Green and non-green recruitment practices for attracting job applicants: Exploring independent and interactive effects. The international Journal of Human Resource Management, 27(2), pp. 129-150.
- Halawi, A.H. and Zaraket, W.S. (2018). Impact of green HRM on employee behaviour. Journal of Applied Research, 6(1), pp. 18-34.
- Heyl, M., Diaz, E.M. and Cifuentes, Y.L. (2013). Environmental attitudes and behaviour s of college students: A case study conducted at a Chilean University, Revista Latinoamericana de Psicologio, 45(3), pp. 487-500.
- Hussain, A. (2018). Green Human Resource Management (GHRM) practices in organisation s: A comprehensive literature survey. Journal of Management Research and Analysis, 5(2), pp. 112-117.
- Jabbour, C.J.C. and Santos, F.C.A. (2008). The central role of human resource management in the search for sustainable organisation s. The International Journal of Human Resource Management, 19(12), pp. 2133-2154.
- Jabbour, C.J.C. (2011). How green are HRM practices, organisation al culture, learning and team work? A Brazilian study. Industrial and Commercial Learning, 43(2), pp. 98-105.
- Jackson, S.E., Renwick, D.W.S., Jabbour C.J.C. and Camen, M.M. (2011). State-of-the-Art and Future Directions for Green Human Resource Management: Introduction to the Special Issue. German Journal of Research in Human Resource Management, 25(2), pp. 99-116.

- Jain, A. (2016). Green human resource management concept in Indian industries-Present scenario, International Journal of Multidisciplinary Allied Research Review and Practices, 3(7), pp. 171-181.
- Kirkwood, J. and Walton, S. (2014). How green is green? Ecopreneurs balancing environmental concerns and business goals, Australian Journal of Environmental Management, 21(1), pp. 37-51.
- Kulshrestha, S.S. and Srivastava, S. (2018). Green HRM: A new trend in enhancing green behaviour at workplace. International Journal of Advanced Scientific and Technical Research, 8(2), pp. 1-7.
- Lynn P., (2014). Distinguishing dimensions of pro-environmental behaviour , Institute for Social and Economic Research, 19, <a href="https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2014-19.pdf">https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2014-19.pdf</a>
- Mampra, M. (2013).. Green HRM: Does it help to build a competitive service sector? A study. In Proceedings of tenth AIMS International Conference on Management (1273–1281), Retrieved from http://www.scribd.com/doc/126544005/ green-HRM-competitive-service-sector-pdf.
- Mandip, G. (2012). Green HRM: People management commitment to environmental sustainability. Research Journal of Recent Sciences, 1, pp. 244-252.
- Marcus, A. and Fremeth, A. (2009). Green management matters regardless. Academy of Management Perspectives, 23, pp. 17–26.
- Marhatta, S. and Adhikari, S. (2013). Green HRM and sustainability. International e-Journal of Ongoing Research in Management and IT. <a href="https://www.asmgroup.edu.in/incon/publication/incon13-hr-006pdf">www.asmgroup.edu.in/incon/publication/incon13-hr-006pdf</a>
- May, D.R. and Flannery, L.B. (1995). Cutting waste with employee involvement teams. Business Horizon, 38(5), pp. 28-38.
- Mishra, P. (2017). Green human resource management. A framework for sustainable organisation al development in an emerging economy. International Journal of Organisation al Analysis, 25(5), pp. 762-788.
- Muster, V. and Schrader, U. (2011). Green work-life balance: A new perspective for Green HRM. Zeitschrift Fur Personalforschung, 25, pp. 140–156.
- North, K. (1997). Environmental Business Management An Introduction, 2<sup>nd</sup> ed, International Labour Office, Geneva.
- Norton, T.A., Zacher, H., Parker, S.L., and Ashkanasy, N.M. (2019). Bridging the gap between green behaviour al intentions and employee green behaviour: The role of green psychology climate, Journal of Organisation al Behaviour, 38(7), pp. 996-1015.
- O'Donohue, W. and Torugsa, N. (2016). The moderarting effect of 'Green' HRM on the association between proactive environmental management and financial performance in small firms. The international Journal of Human Resource Management, 27(2), pp. 239-261.
- Ojo, A.O., Raman, M. and Vijayakumar, R. (2018). Cognitive determinants of IT professional belief and attitude towards green IT. In Rocha, A. et al., Trends and Advances in Information Systems and Technologies, 745, pp. 1006-1015.
- Opatha, H.H.D.N.P. and Arulrajah, A. (2014). Green Human Resource Management: Simplified Reflections. International Business Research, 7(8), pp. 101-112.
- Opatha, H.H.D.N.P. and Hewapathirana, R.A. (2019). Defining green and green human resource management: A conceptual study. International Journal of Arts and Commerce, 8(5), pp. 1-10.
- Opatha, H.H.D.N.P. (2009). Human Resource Management: Personnel. Sri Lanka: Department of Human Resource Management, University of Sri Jayewardenepura.

- Opatha, H.H.D.N.P. (2013). Green human resource management: A simplified introduction. Proceedings of the HR Dialogue, 1(1), pp. 12-21.
- Opatha, H.H.D.N.P. (2019). Sustainable Human Resource Management. Sri Lanka: Department of Human Resource Management, University of Sri Jayewardenepura.
- Rees, S. (1996). Action through Ownership: Learning the Way at Kent County Council, in Wehrmeyer, W. (ed) (1996), op cit., pp. 357-375.
- Renwick, D.W.S., Redman, T. and Maguire, S. (2008). Green HRM: A Review, Process Model, and Research Agenda. University of Sheffield Working Paper. http://www.sheffield.ac.uk/content/1/c6/08/70/89/2008-01.pdf.
- Revill, C. (2000). The "Greening" of Personnel/ Human Resource Management an Assessment. International Journal of Applied HRM, 1(3), pp. 1-30.
- Saeed, B.B., Afsar, B., Shakir, H., Khan, I., Tahir, M. and Afridi, A. (2019). Promoting employee's pro-environmental behaviour through green human resource management practices. Corporate social responsibility and environmental management, 26, pp. 424-438.
- Safari, A., Salehzadeh, R., Panahi, R. and Abolghasemian, S. (2018). Multiple pathways linking environmental knowledge and awareness to employees' green behaviour. Corporate Governance: The International Journal of Business in Society, 18(1), pp. 81-103.
- Sekaran, U. (1992). Research Methods for Business. United states of America: John Wiley and Sons, Inc.
- Sharma, N. and Gupta, N. (2009). Green HRM: An Innovative approach to environmental sustainability. Society for human resource management, Green workplace: survey brief.
- Smith, A.M. and O'Sullivan, T. (2012). Environmentally responsible behaviour in the workplace: an internal social marketing approach. Journal of Marketing Management, 28, pp. 469-493.
- Snyder, J.D. (1992). More Execs Find Pay Linked to EHS Goals. Environment Today, (October), 22
- Stern, P.C. (2000). Toward a coherent theory of environmentally significant behaviour . Journal of Social Issues, 56(3), pp. 407–424.
- Tantawi, P., O'Shaughnessy, N., Gad, K. and Ragheh, M.A.S. (2009). Green consciousness of consumers in a developing country: A study of Egyptian consumers, Contemporary Management Research, 5(1), pp. 29-50.
- Uddin, M. (2018). Practicality of Green Human Resource Management Practice: A study on Banking Sector in Bangladesh, International Journal of Economics, Commerce and Management, 6(6), pp. 382-393.
- Wehrmeyer, W. (1996). Greening People Human Resources and Environmental Management, Sheffield, England, Greenleaf Publishing.
- Yusoff, Y.M., Othman, N.Z., Fernando, Y., Amran, A., Surienty, L. and Ramayah, T. (2015). Conceptualization of green human resource management: An exploratory study from Malaysian based multinational companies. International Journal of Business Management and Economic Research, 6(3), pp. 158-166.
- Zaid, A.A., Bon, A.T. and Jaaron, A.A.M. (2018). Green human resource management bundle practices and manufacturing organisation s for performance optimization: a conceptual model. International Journal of Engineering and Technology, 7(1), pp. 87-91.
- Zibarraz, L. and Coan, P. (2015), HRM practices used to promote pro-environmental behaviour: a UK survey. The international Journal of Human Resource Management, 26(16), 1-22.
- Zoogah, D. (2011). The dynamics of Green HRM behaviours: A cognitive social information processing approach, Zeitschrift fur Personalforschung, 25, pp. 117–139.

# **Annexure Instrument 1 - Green Behavior**

## Scale

SDA: Strongly Disagree

DA: Disagree N: Neutral A: Agree

SA: Strongly Agree

	Green Organizational Citizenship Behavior	SDA	DA	N	A	SA
1	I respect and admire the organizational rules and regulations relating					
	to eco-friendly practices of the organization even when no one is	1	2	3	4	5
	watching.					
2	I am a person who is going to change any negative aspect of an	1	2	3	4	5
	organizational ecofriendly system without considering any cost.	1	2	3	4	3
3	I obey the organizational rules about minimizing the use of natural	1	2	3	4	5
	resources (as much as possible) to achieve the organizational goals.	1	2	3	4	3
4	I take extra efforts to restrain myself from the pollution of the water,	1	2	3	4	5
	air, atmosphere etc. of the organization.	1	2	3	4	3
5	I am voluntarily involved in the campaigns which are aimed to stop	1	2	3	4	5
	contaminating the organizational natural surroundings.	1	2	3	4	3
6	I am involved in building the natural surroundings of the organization.	1	2	3	4	5
7	I am a person who is able to tolerate any new positive changes in the					
	ecofriendly system of the organization even if it brings additional effort	1	2	3	4	5
	to do my job.					
8	I do not blame anyone in the organization for the minimum usage of					
	natural resources (as much as possible) to achieve the organizational	1	2	3	4	5
	goals.					
9	I usually focus on refraining from the pollution of water, air,	1	2	3	4	5
	atmosphere etc. within the organization.	1		3	4	3
10	I do not blame when encouraging campaigns to stop contaminating the	1	2	3	4	5
	organizational natural surroundings.	1		3	4	3
11	I usually focus on maintaining the natural surroundings of the	1	2	3	4	5
	organization.	1		3	-	3
12	I show interest and loyalty to policies of eco-friendly environment	1	2	3	4	5
	practised by the organization.	1		3	4	3
13	I give my contribution and deliver new opinions for protecting the eco-	1	2	3	4	5
	friendly system of the organization.	1		3	4	3
14	I show my interest in the practices of minimizing the usage of natural	1	2	3	4	5
	resources (as much as possible) to achieve organizational goals.	1		3	4	3
15	I show an interest in restraining from the pollution of the water, air,	1	2	3	4	5
	atmosphere etc. within the organization.	1		3	4	3
16	I show my interest in encouraging the campaigns to stop contaminating	1	2	3	4	5
	the organizational natural surroundings.	1		3	4	J
17	I show my loyalty to the organizational natural surroundings by giving	1	2	3	4	5
	my support.	1		3	4	3
	Green Interpersonal Citizenship Behavior	SDA	DA	N	A	SA

18	I am a person who is teaching and/or training the green activities for the peers/newcomers within the organization.	1	2	3	4	5
19	I am a person who motivates green activities among peers/ newcomers within the organization.	1	2	3	4	5
20	I am a person who assists my peers/ newcomers regarding organizational eco-friendly activities.	1	2	3	4	5
21	I use harmless punishments as a helping method when violating green behaviour by peers within the organization.	1	2	3	4	5
22	I inform fellows about green activities relating to their jobs which must be taken into consideration in advance.	1	2	3	4	5
23	I help to motivate my peers/newcomers in avoiding problems occurred in the organizational ecofriendly activities.	1	2	3	4	5
24	I assist my peers/newcomers in avoiding problems occurring in the organizational eco-friendly activities.	1	2	3	4	5
25	I use harmless punishments to correct the behaviour of peers who are violating green behaviour which must be taken into consideration in advance.	1	2	3	4	5
	Green Official Behavior	SDA	DA	N	A	SA
26		<b>SDA</b>	<b>DA</b> 2	<b>N</b> 3	<b>A</b> 4	<b>SA</b> 5
26 27	Green Official Behavior  I am concerned about wasting natural resources and environmental					
	Green Official Behavior  I am concerned about wasting natural resources and environmental pollution when I do my day to day duty/ duties.  When I am doing my responsibilities, I give special attention to the	1	2	3	4	5
27	Green Official Behavior  I am concerned about wasting natural resources and environmental pollution when I do my day to day duty/ duties.  When I am doing my responsibilities, I give special attention to the waste of natural resources and environmental pollution.  When I use tools and equipment relevant to my official works there is no action taken to consider the waste of natural resources and	1	2	3	4	5
27	I am concerned about wasting natural resources and environmental pollution when I do my day to day duty/ duties.  When I am doing my responsibilities, I give special attention to the waste of natural resources and environmental pollution.  When I use tools and equipment relevant to my official works there is no action taken to consider the waste of natural resources and environmental pollution.  I don't take any action to keep the clean environment surrounding my	1 1 5	2 2 4	3 3	4 4 2	5 5 1
27 28 29	I am concerned about wasting natural resources and environmental pollution when I do my day to day duty/ duties.  When I am doing my responsibilities, I give special attention to the waste of natural resources and environmental pollution.  When I use tools and equipment relevant to my official works there is no action taken to consider the waste of natural resources and environmental pollution.  I don't take any action to keep the clean environment surrounding my work at the organization.  I am a person who considers the unnecessary activities which are	1 1 5	2 2 4	3 3 3	4 2 2	5 1 1
27 28 29 30	Green Official Behavior  I am concerned about wasting natural resources and environmental pollution when I do my day to day duty/ duties.  When I am doing my responsibilities, I give special attention to the waste of natural resources and environmental pollution.  When I use tools and equipment relevant to my official works there is no action taken to consider the waste of natural resources and environmental pollution.  I don't take any action to keep the clean environment surrounding my work at the organization.  I am a person who considers the unnecessary activities which are leading to non-greening throughout my job process.  I always take my decisions relating to my job considering the green	1 1 5 5	2 2 4 4 2	3 3 3	4 4 2 2 4	5 5 1 1 5

# **Instrument 2 - Green HRM**

	Green HRM	SDA	DA	N	A	SA
1	There are enough instructions for my job (for my duties and responsibilities) relating to the environment and environmental protection.	1	2	3	4	5
2	Tools and equipment for my job are designed in a way that protects the environment or minimizes natural resources.	1	2	3	4	5
3	I have enough chances to engage in environmental protection and reduction of wastage when I am doing my job.	1	2	3	4	5
4	I think that environmental aspects were considered by the company when designing the company's jobs.	1	2	3	4	5

5	We have the chance to make decisions relating to the green environment within our scope.	1	2	3	4	5
6	I feel that the company always searches for Green candidates when there is a job opening.	1	2	3	4	5
7	Environmental aspects were incorporated in all job descriptions and specifications.	1	2	3	4	5
8	For the purpose of greening/ environmental protection, I feel that the company considers separate job positions in future.	1	2	3	4	5
9	When publishing a job advertisement by the company, one of the requirements fulfilled by the candidate is environmental knowledge.	1	2	3	4	5
10	I think that job candidates like to join the company's job because of its concern for the environment.	1	2	3	4	5
11	The company encourages candidates who are prone to protect the environment.	1	2	3	4	5
12	The company is prone to select a candidate who is a green consumer under private life.	1	2	3	4	5
13	During the selection process, several questions relating to protecting the environment are asked.	1	2	3	4	5
14	I think that the company gives the highest priority to the candidates who behave with the green concept.	1	2	3	4	5
15	The induction program for newcomers emphasizes environmental issues/ concerns.	1	2	3	4	5
16	The company provides information relating to general environmental aspects of the company at the induction program.	1	2	3	4	5
17	The company provides information relating to special environmental aspects of each job at the induction program.	1	2	3	4	5
18	The company provides training programs (environmental awareness, skills and competencies) which are related to the environment, environmental protection and reduction of wastage.	1	2	3	4	5
19	The company thinks that environmental training is like a future investment.	1	2	3	4	5
20	The company established green targets, goals and responsibilities that each employee must accomplish.	1	2	3	4	5
21	An employee's contributions to protection of the natural resources are evaluated by the company.	1	2	3	4	5
22	The company uses Green outcome criteria in performance evaluation.	1	2	3	4	5
23	Employees are financially rewarded for their performance in environmental management issues.	1	2	3	4	5
24	Employees who contribute to environmental management improvements are publicly recognized by the company.	1	2	3	4	5
25	There are individual incentives or reward programs to encourage environmental behaviour.	1	2	3	4	5
26	There are team incentives or reward programs to encourage environmental behaviour.	1	2	3	4	5
27	In our company, there are financial or tax incentives for bicycle loans and the use of less polluting cars.	1	2	3	4	5
28	Environmental issues are a company's priority.	1	2	3	4	5
29	Employees know what the company's environmental objectives are.	1	2	3	4	5
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30	Employees are motivated to propose new ideas for improving environmental management within the company.	1	2	3	4	5
31	Employees are motivated to think frequently about environmental improvement in their routine activities.	1	2	3	4	5
32	My company has a clear vision to guide the employees' actions in environmental management.	1	2	3	4	5
33	There are a number of formal or informal communication channels to spread green culture among the employees.	1	2	3	4	5
34	The company promotes green concepts for the workers through the company newsletter, posters, handbills etc.	1	2	3	4	5
35	The company facilitates suggestion schemes for workers to promote green solutions.	1	2	3	4	5
36	The company has already established and maintained a company-wide dialogue on green matters.	1	2	3	4	5
37	The company encourages employees to use Green forms of transport.	1	2	3	4	5
38	There is a negotiated Green workplace agreement with the trade union.	1	2	3	4	5
39	The company has introduced Green elements into the health and safety process.	1	2	3	4	5
40	The company ensures a Green workplace for all.	1	2	3	4	5
41	Strategies like Green Factory or Green Zone were introduced to improve the health and safety of employees.	1	2	3	4	5
42	The company practices a strong discipline system for environmental management breaches.	1	2	3	4	5
43	The company formulates and publishes rules of conduct relating to Greening.	1	2	3	4	5