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A Study on Barriers in Implementation of Green Human Resources Management in Various Sectors

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Abstract:

The integration of environmental management into Human Resource Management (HRM) procedures is becoming increasingly important; such efforts are known as Green HRM. The goal of this research is to identify green human resource hurdles in many industries, including banking, education, and information technology.Adoption of green human resource management results in increased reputation, more appealing public image, more efficient business processes, better recruitment, improved product quality, increased employee productivity, increased competitive advantage, increased confidence, increased loyalty, commitment, and motivation of employees. The rise of environmentalism motivates businesses to train their personnel to produce products that adhere to stringent environmental laws. Organisations regularly take initiative to develop environmental policy, specific targets to improve environmental performance, publication of environmental reports, environmental management system, environmental purchasing policy, environmental training and education. But, there are barriers at various levels. Objective of study is to identify these barriers according to sectors. Study is based on primary data. SPPS is used to analysis data. ANOVA and F-test is applied to identify significance of difference in barriers for green HRM according to sectors. Friedman's Chi-square test is applied to identify significant factor of barriers.

Key Words: Green HRM, Barriers, Education, Banking, Information Technology

Introduction: Green supply chain management is a method of improving the performance of processes and goods in accordance with environmental rules. It is a type of long-term strategic development for businesses in today's competitive workplace that has evolved as a new inventive method to achieving both financial and environmental benefits at the same time by decreasing environmental risk and effect.Natural resources, such as mineral ores and fossil fuels, agricultural output, and the natural environment's self-purification ability, all have their own limits. Today, environmental pollution is the primary issue that, if not handled

immediately, has the potential to lead to the extinction of humanity on Earth. In recent years, the natural environment has emerged as a major global concern. Environmental challenges are becoming more serious and broad as human and industrial impacts on the environment increase. Recent environmental restrictions enacted by governments and other third-party organizations in many parts of the world have mandated that businesses develop a strategic environmental plan for implementing green supply chain management techniques. The number of firms considering incorporating environmental practices into their strategic goals and operations is steadily growing.

Review of Literature

C.T. Griffin,(2015) in his research discuss the barrier of price, legislation does not recognize new green materials, and green materials are not commonly available. A critical impediment is the absence of readily accessible and credible information about alternative structural materials and systems. Also, this study found that green building stakeholders require experienced and competent stakeholders to collaborate. novel analysis tools that can be used during the design phase to compare both the environmental and economic effects of alternative materials and systems Many green initiatives are dropped from projects before the true costs are realized. To offset rising expenses in the structural system, use less material or reduce the size of other systems. That means that these new analysis tools cannot take a holistic approach and only examine the structural system in isolation. Manufacturers need to contend with supply chain barriers to guarantee a sufficient supply is available to meet the demand in Oregon. Focus groups responded that stakeholders need to understand how work in an integrated design process increases the performance of the building and reduces the resources required to construct it. This would be a more inclusive approach to the design and construction process that isolates stakeholders from one another.

Mohammed Aboramadan (2020), Suggested that higher education institutions are being urged to go green and develop a plan for their employees to serve as environmental advocates. These firms will need to actively and successfully conduct GHRM activities in order to improve environmental management and promote green attitudes among employees. Higher education institutions must implement sustainable green practices to aid staff in addressing environmental difficulties and concerns. This could result in better green performance for these organizations and the community as a whole. Human resource (HR) professionals in higher education are recommended to put GHRM practices at the top of their priority list.

V. UDHAYA GEETHA (2020), The benefits of Green HRM include not just improved business performance, staff productivity, and morale, but also the creation of a brand image and a better reputation in the eyes of society. Furthermore, integrating ‘Green' in an Academic Institution plays a critical role in raising environmental and sustainability consciousness among students and scholars through teaching value education so that its significance and advantages can be passed on to future generations. As a result, Green HRM practices and regulations in every sector are needed to make a significant contribution by

providing a healthy working environment with a focus on preserving natural resources while also minimizing environmental pollution.

Qian Shi (2013),made an attempt to demonstrate the challenges of building green construction in a large city. Because of the industrial environment and regional conditions, concerns in Hong Kong are primarily related to the free construction market, but the key to removing major barriers to green construction in mainland China is primarily dependent on the government. Finally, businesses are eager to implement green building through active action in order to create a healthy sustainable development construction industry in China.

Dr.M.Kavitha (2017), study of researcher show that green supply chain management is now gaining momentum in India.. As of 31.01.2016, 3014 medium scale manufacturing businesses were identified to be operating in these specified districts of Tamilnadu. Green supply chain techniques were introduced in 753 units in the Chennai district, 196 units in the Kanchipuram district, and 166 units in the Thiruvalluvar district. As a result, chosen medium-sized firms should adopt an effective green supply chain as a strategic imperative. As a result, potential policy measures, regulatory frameworks, and initiatives to support green supply chain management have become critical. If the study prompts the authorities to take positive action, the researchers will be richly rewarded.

Research Methodology: Study is based on primary data. Information is collected through structured questionnaire. Employees of Banking, Education and IT sector are respondents of the primary data. Convenience sampling method is used to collect data. Primary is collected for 140 respondents. Data analysed using SPSS version-20.

Objectives of Study:

1. To study barriers for implementation of green HRM in various sectors.

2. To study the significance of barriers in implementation of green HRM according to demographic factors.

3. To study the significance of Barriers according to social factors of respondents.

Data Analysis:

Information relevant to the study on "Study of Barriers in Implementation of Green Human Resource Management in various sectors" is collected through a structured Questionnaire. There are 140 respondents. The required information collected through the questionnaire is classified and presented as follows:

Demographic factors:

Demographics		**Frequency**	**Percent**
Gender	Male	62	44.3
	Female	78	55.7
Age group	Up to 25 years	24	17.1
	26 to 35 years	62	44.3

	36 to 45 years	30	21.4
	Above 45 years	24	17.1
Qualification	Graduate	28	20.0
	Postgraduate	69	49.3
	Professional	43	30.7
Level of Management	Lower management	33	23.6
	Middle management	54	38.6
	Upper management	53	37.9
Employment sector	Banking	36	25.7
	Education	34	24.3
	IT	39	27.9
	Others	31	22.1

The above table indicates that out of 140 respondents considered for this study, there are 62 Male and 78 Female respondents.Out of 140 respondents in the sample, 24 respondents are aged up to 25 years, 62 are aged between 26 to 35 years, 30 are aged between 36 to 45 years and 24 respondents are aged above 45 years. Out of these 140 respondents 28 are Graduates, 69 are Postgraduates and 43 are Professionals. Out of 140 respondents, 33 are in Lower management, 54 works in the Middle management and 53 hold positions in the Upper management. From these 140 respondents 36 work in Banking sector, 34 work in Education sector, 39 work in IT sector, while 31 work in Other sectors on the Industry.

Barriers of Green Human Resource Management:

Information related to the Barriers of Green Human Resource Management is captured from related questions in the questionnaire. The collected responses are represented in the table as follows:

Statements	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Lack of Comprehensive plan	35	34	24	23	24
Lack of Infrastructure	38	34	19	24	25
Lack of understanding of green policies	21	19	23	37	40
Unavailability of HR system structure	24	25	25	26	40
Lack of technical support	36	36	16	11	41
Complexity & difficulty of adoption of green technology	16	14	31	46	33
Lack of knowledge	53	41	18	11	17
Lack of culture	14	40	24	31	31
Staff resistance	19	31	34	32	24
Implementation expenses	32	38	29	17	24
Managers' resistance	24	50	16	21	29

The above responses are given suitable ratings and descriptive statistics is obtained.

The mean score for Barriers for Green Human Resource Management is calculated for each respondent and subsequently for all 140 respondents and is represented in the table below:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Barriers Score	140	21.82	96.36	59.33	15.16

The above table indicates that the mean score for Barriers for Green Human Resource Management is 59.33 percent. Corresponding standard deviation is 15.16, suggesting that there is high variation in the responses.

Test of reliability of scale: This test is used for validation of Likert scale used in the questionnaire.

To validate the scale in this study Cronbach Alpha test is applied. Test is applied for all 140 respondents.

For the Cronbach Alpha test all sub questions of Barriers of Green HRM are considered.

Variable Name	No. of subgroups	Cronbach's Alpha	Result
Barriers - GHRM	11	0.755	Scale is reliable and accepted

Above results indicate that Cronbach Alpha value is 0.755 for the Barriers of Green HRM. It is more than the required value of 0.700. Hence the test is accepted. Conclusion is **scale is reiable and accepted.**

Objective 1: To identify sector wise level of Barriers in implementation of Green HRM.

To investigate the above objective, the following hypothesis is constructed and tested for its statistical significance.

Null Hypothesis H_{01}: There is no significant difference in mean score of barriers for Green Human Resource Management according to sector of respondent.

Alternate Hypothesis H_{11}: There is a significant difference in mean score of barriers for Green Human Resource Management according to sector of respondent.

To test the above Null Hypothesis ANOVA is obtained and F-test is applied. Results are shown in the table below:

ANOVA					
Barriers					
	Sum of Squares	df	Mean Square	F	p-value
Between Groups	8928.054	3	2976.018	17.582	.000
Within Groups	23020.302	136	169.267		

Total	31948.356	139			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore F-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in mean score of barriers for Green Human Resource Management according to sector of respondent.

Finding is that the Mean Score for Barriers for Green Human Resource Management is significantly different across the sector of the respondent. It is higher in the Banking sector as compared to the other sectors, where the respondents work. This can be observed in the following table:

Report			
Barriers			
Employment Sector	N	Mean	Std. Deviation
Banking	36	69.2933	8.60259
Education	34	49.3041	15.25006
IT	39	54.4056	11.49365
Others	31	64.9842	16.05777
Total	140	59.3374	15.16062

The above table indicates that the mean score for Barriers for Green HRM is highest at 69.29 percent for the respondents working in the Banking sector, while it is lowest at 49.30 percent for the respondents working in the Education sector. This verifies our findings.

Objective 2: To identify the key factors of Barriers in of Green HRM.

To investigate the above objective, the following hypothesis is constructed and tested for its statistical significance.

Null Hypothesis H_{02}: There is no significant difference in key factors of barriers for GHRM.

Alternate Hypothesis H_{12}: There is a significant difference in key factors of barriers for GHRM.

To test the above Null Hypothesis, Friedman's test is applied and p-value is calculated. Results are shown in the table below:

Test Statistics[a]	
N	140
Chi-Square	94.702
Df	10
p-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Friedman's test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is rejected.

Conclusion: There is a significant difference in key factors of barriers for GHRM.

Finding is that the behavioural aspect of Barriers for Green HRM is significantly different within the key factors. It is observed that there is a significant difference in the ranking of the most important and the least important parameter within the Barriers. This can be observed in the following table:

Ranks		
	Mean Rank	Rank
Q8lackofacomprehensiveplantoimplement	5.69	7
Q8Lackofinfrastructures	5.48	9
Q8TheLackofunderstandingofgreenpolicies	**7.02**	**1**
Q8TheunavailabilityofHRsystemstructure	**6.61**	**3**
Q8Lackoftechnicalsupport	5.94	6
Q8Complexityanddifficultyofadoptionofgreentechnology	**6.99**	**2**
Q8Lackofknowledge	4.35	11
Q8Lackofculture	6.59	4
Q8Staffresistance	6.28	5
Q8Implementationexpenses	5.39	10
Q8Managersresistance	5.67	8

The above table indicates that the statement 3 "The Lack of understanding of green policies" is the most important key factor of Barriers for Green HRM as it has the highest mean rank of 7.02, followed by statement 6 "Complexity and difficulty of adoption of Green technology" is the second most important key factor of Barriers for Green HRM as it has the second highest rank of 6.99.

Objective 3: To study the significance of Barriers according to social factors of respondents.

To investigate the above objective, the following hypothesis is constructed and tested for its statistical significance.

Null Hypothesis H_{03}: There is no significant difference in mean score of barriers for GRHM according to demographics of respondents.

Null Hypothesis H_{13}: There is a significant difference in mean score of barriers for GRHM according to demographics of respondents.

To test the above Null Hypothesis ANOVA is obtained and F-test is applied. Results are shown in the table below:

ANOVA for Barriers		
Test	**p-value**	**Result**
Barriers across Gender	0.721	Not Significant
Barriers across Qualification	0.027	Significant
Barriers across Level of Management	0.741	Not Significant

Interpretation: The above results indicate that calculated p-value is 0.721, 0.027 and 0.741 for Gender, Qualification and Level of Management. It should be less than 0.05. Therefore F-test is rejected for the test of Barriers across Qualification but is accepted for Gender and Level of Management. Hence Null hypothesis is rejected for the test of Barriers across Qualification but accepted for the test against Gender and Level of Management and Alternate hypothesis is accepted for the test of Barriers across Qualification but rejected for the test against Gender and Level of Management.

Conclusion: There is a significant difference in mean score of barriers for GRHM according to Qualification of respondents.

Finding is that the Mean Score for Barriers for Green Human Resource Management is significantly different across the Qualification of the respondent. It is higher for the Graduate respondents as compared to the respondents with other qualifications. This can be observed in the following table:

Report			
Barriers			
Q5Qualification	N	Mean	Std. Deviation
Graduate	28	66.1686	14.79855
Post graduate	69	57.7597	15.78368
Professional	43	57.4207	13.32615
Total	140	59.3374	15.16062

The above table indicates that the mean score for Barriers for Green HRM is highest at 66.16 percent for the Graduate respondents, while it is lowest at 57.42 percent for the respondents who are professionally qualified. This verifies our findings regarding the Barriers across Qualification of respondents.

Also, the difference in the Mean Score for Barriers for Green Human Resource Management is highly insignificant across the Gender and Level of Management of the respondent. It is highly similar for all respondents irrespective of their Gender and Level of management. This can be observed in the following table:

Barriers * Q3Gender			
Barriers			
Q3Gender	N	Mean	Std. Deviation

Male	62	59.8531	15.19541
female	78	58.9274	15.21868
Total	140	59.3374	15.16062

The above table indicates that the mean score for Barriers for Green HRM is highest at 59.85 percent for the Male respondents, while it is lowest at 58.92 percent for the Female respondents. This verifies our findings regarding the Barriers across Gender of respondents. The above information can be represented in the following Bar chart as follows:

Barriers * Q6PresentlevelofManagement			
Barriers			
Q6PresentlevelofManagement	N	Mean	Std. Deviation
Lower management	33	60.3852	15.32527
Middle Management	54	59.9322	14.98499
Upper Management	53	58.0789	15.43740
Total	140	59.3374	15.16062

The above table indicates that the mean score for Barriers for Green HRM is highest at 60.38 percent for the respondents working at the Lower management, while it is lowest at 58.07 percent for the respondents working in the Upper Management. This verifies our findings regarding the Barriers across Gender of respondents.

Findings and Discussion:

The mean score for Barriers to Green HRM is 69.29 per cent for banking sector and 49.30 per cent for Education sector and for IT sector score is 54.40 per cent. This is clear understanding that barriers are more in banking sectors. It is recommended that there is scope for improvement of green HRM. Bank expects lot physical copies from customers such as KYC documents, Loan Application along with documents. It is recommended that there should be provision for scanning of documents.

Barriers to Green HRM are largest forgraduate respondents (66.16 percent), and lowest among Professionally Qualified respondents (57.42 percent). Barriers to Green HRM are largest among respondents in lower management, at 60.38 percent, and lowest among respondents in upper management (58.07 percent). It is recommended that aggressive training and development programs may be arrange to change attitude towards environment.

Most prominent barriers of green HRM are identified as ‘Lack of understanding of green policies’ and ‘Complexity and difficulty of adoption of green technology’. Therefore recommendation is organisations may take initiative to improve awareness and attitude of employees towards environment.

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