Role of Educational Institutions in Promoting Green Human Resource Management Practices in Andhra Pradesh

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Abstract

The journey towards a sustainable future is no longer a distant ideal but an urgent and achievable reality. As the world stands at the midpoint towards 2030, the challenges confronting humanity are immense.In this scenario this article explores into conceptual understanding the function of educational institutions in promote Green HR Practices in the state of Andhra Pradesh. The research involves the utilization of empirical data comprised of 250 sample of teaching community and students selected from government, private, and aided institutions throughout Andhra Pradesh. To test the data statistical tools include ANOVA, independent samples t- Test, Pearson Correlation and Simple Linear Regression. The results reveals that green training and recruitment emerges as the most significant factor for institutional sustainability performance, while green performance appraisal and green initiatives states positive but comparatively moderate role towards GHRM practices.

Empirical evidence indicated that increased green technology adoption is closely associated with implementation green inventiveness. The study reveals that faculty and students posses a greater degree of understanding about sustainable environment. The study outcome states that educational institutions can integrate innovative mechanisms to enhance climate change awareness and foster sustainable behaviour, including the use of gamified incentives and reward systems to foster participation in sustainable such as tree planting, power conservation, as well as environmental friendly,.

Keywords: Green Human Resource Management (GHRM), Educational Institutions, Environmental Sustainability, sustainable development, Awareness.

Introduction

Global sustainability is redefining the criteria of academicians, government authorities as well as private sector contribution for sustainable development Goals (SDGs) necessitates harmonized and collaborative achievement in all these areas.

Hence, to achieve SDGS requires harmonized contribution and

involvement. India has made steady strides on the global sustainability landscape, demonstrating eco-friendly culture, beliefs, and practices among stakeholders and employees. In the Indian context, particularly in Andhra Pradesh, educational institutions are rapidly adapting sustainability trends are progressively incorporated into the ethical and social responsibility among the professionals. As a critical component of states' higher education system, the adoption of GHRM in educational institutions seeks not only to enhance resource conservation but also to instill environmental consciousness among students.

Due to their substantial energy, water, and paper use, educational institutions are accountable participants in the green movement. Through incorporation of GHRM practices integrates the organizational objectives and environmental sustainability. These training initiative boosts the awareness of faculty and students concerning towards recycling the scarce resources to ensure individuals who value sustainability. Employee accomplishments are connected to environmental objectives through performance management, and incentives and recognition promote proactive involvement in green projects. In Andhra Pradesh, supportive government initiatives are prompted institutions to implant sustainability within their vision and mission frameworks. This transition extends beyond compliance requirements, representing a deeper ethical responsibility toward future generations.

The students and faculty, being highly sensitive to environmental issues, expect institutions to lead by example, and by adopting Green Human Resource Management (GHRM), colleges and universities can strengthen ecological stewardship, improve resource efficiency, and cultivate environmentally responsible attitudes among employees. Additionally, GHRM contributes to reducing operational costs through energy conservation and waste management, while digital tools, e-learning platforms, and paperless administration reflect its practical implementation in education. The teaching community take part in infusing the Eco-friendly principles among students, while integrating personal values with institutional objectives which improves morale, retention, and satisfaction. Moreover, the academicians serve up a vital role in promoting environmental values among students and the alignment of individual values with institutional objectives contributes to improved morale, higher retention, and greater job satisfaction.

As the state of Andhra Pradesh hosts a broad spectrum of academic and technical institutions, serves as a significant hub for higher education. This provides a unique platform to implement of Green HRM practices. The purpose of investigation is to examine GHRM implementation, the challenges encountered by institutions emphasise the level of HR strategy support the sustainable development Goals (SDGs). Furthermore, the findings are expected to offer valuable insights for academicians and policymakers, while emphasizing the broader objective of fostering a holistic approach to learning that embeds sustainability into core educational experience nurturing both student and the teaching community. Consequently, Thus, GHRM is evolving from a mere necessity into a key driver of sustainable transformation within Andhra Pradesh's educational sector.

Given that Andhra Pradesh is a prominent hub of educational institutions, encompassing numerous universities, engineering colleges, and professional institutions, it offers a distinctive platform for the adoption of Green HRM practices. The investigation explores the implementation of GHRM, the challenges encountered by institutions during this transition the measure of semantic equivalence between HR policies and SDGs. The anticipated findings aim to provide meaningful insights for education professionals, management, and policymakers, where as underscoring overarching objectives of fostering an environmental stewardship which cultivates conscientious individuals. Hence, GHRM within academics in Andhra Pradesh is not merely essential driving force for positive change.

Literature Review

Renwick et al. (2013) emphasised green HRM integrates environmental concerns into HR practices. Furthermore, these practices enhance organisational sustainability by promoting environmental awareness and encourage employee participation in green initiatives (Jackson, Renwick, Jabbour, & Muller-Camen, 2011).

Jabbour and Santos (2008) emphasize that human resource practices are instrumental in embedding environmental

management within organizations, especially when there is strong support from top management. In educational institutions, these HR functions assume equal importance, as faculty, administrators play a key role in encouraging and disseminate environmental principles among students.

Furthermore, Mandip (2012) emphasizes that green training and development programmes enable employees acquire awareness and competencies necessary for implementing environmentally sustainable practices

Zoogah (2011), posits that organizations adopting green workforce strategy in recruitment intrigue candidates with aligned environmental values, which strengthens cultural compatibility and promotes enduring sustainability. Within the educational sector, green recruitment facilitates the hiring of faculty and staff who are dedicated to long term endurance.

Tang et al. (2018), further observed environmentally focused performance appraisal framework motivate employees to line up their efforts with organizational environmental objectives. Additionally, research indicates that Indian organisations are progressively embracing Green HRM thrust across various institutions.

According to Mathapati (2013), although the manufacturing sector has been at the forefront of implementing Green HRM practices, educational institutions are increasingly acknowledging significance in promoting green learning space.

Mishra (2017), investigated Green HRM practices in higher educational institutions, reported that integration of environmental protection measures which improves academic credibility, lowers operating expenses enhances overall expectations. Furthermore, Ren et al. (2018), in their detailed analysis of GHRM practices, emphasized that the adoption e-learning technologies, digital document system, and green training initiatives is critical for minimizing resource consumption in educational institutions.

Consistent with this perspective, Longoni et al. (2016) argued that execution of Green HRM yields both environmental benefits and enhanced employee morale and productivity. State-sponsored initiatives in Andhra Pradesh are accelerating the adoption of sustainability in IHE, driving the development of green eco-friendly campuses.

Sharma and Gupta (2019) revealed that adoption of green HR practices in colleges motivates individuals to engage in sustainability through energy efficiency and recycling, thereby promoting eco-friendly behaviour. Further, by boosting awareness, these programs drive accountability for environmentally responsible living.

Garg (2015) further observed that visible institutional commitment to environmental sustainability enhances student engagement, thereby underscoring the indirect benefits of Green HRM. Additionally, existing source identifies leadership as an essential element in facilitating effective application of GHRM practices.

Dumont, Shen, and Deng (2017) emphasize those Executives who advocate for conservation efforts effectively inspire academicians to engage in eco-friendly behaviour. Within educational institutions, principals and administrators hold significant influence in promoting the integrate eco-friendly practices into administrative and teaching activities.

According to Opatha and Arulrajah (2014), Green HRM comprises a set of strategies aimed at increasing employees' responsiveness in eco-friendly issues, thereby contributing to the well-being of individuals and society as a whole.

Arulrajah et al. (2015) stressed that dedicated employees involvement drives the implementation of organisational strategies.

Guerci et al. (2016) similarly observed that green HR contribute to the development of sustained ecological consciousness among employees. In addition, digitalization has emerged as a key enabler in the effectual implementation of Green HR practices. According to Singh et al. (2020), the adoption of e-learning platforms, online evaluations and digital office substantially contributes to reducing the carbon footprint of higher educational institutions.

Yong et al. (2020) highlighted that bringing Green HRM practice is normally impede by ignorance, inadequate training, and cost restrictions. Additionally, in Indian educational institutions, the embracing of green HR systems may face challenges due to entrenched administrative practices and resistance to organizational change.

The existing literature suggests that although Green HRM widely considered in the industrial domain, there remains a need for deeper exploration of its applicability in the higher education, particularly in Andhra Pradesh. The implementation of green HR practices contributes not only to sustainability but also to strengthening the institutional status as socially responsible entities.

Research Methodology:

Present investigation analyzed numerical data using statistical 1 techniques both descriptive and analytical research designs to examine Green HRM practices in educational institutions in Andhra Pradesh. A sample of 250 faculty, students, representing government, private, and aided institutions was selected using stratified sampling method. Using a structured questionnaire, we solicited primary data, allowing respondents to rank agreement on a five-point scale. Statistical testing was performed using ANOVA, independent samples t-tests, Pearson correlation, and simple linear regression. By adopting methodology we ensured the sample's reliability, validity, and representativeness across institutional types.

Objectives of the study:

1. To identify and analyze the key variables affecting employee awareness of Green HRM initiatives.
2. To analyze definite Green HRM strategies adopted by educational institutions.
3. To analyze GHRM practices influence faculty attitude, behaviour, and involvement in environmental sustainability initiatives.

Data analysis:

H1: The level of awareness of Green HRM practices among faculty and staff is statistically significant

Table 1: ANOVA for Awareness of GHRM Practices

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	84.15	1	84.15	163.07	0.000***
Within Groups	102.15	198	0.52		
Total	200	199			

The ANOVA results indicates that employee awareness of green HR practices is statistically significant with a calculated F value of 163.07 and a significance level of 0.000, the difference in awareness is unlikely to be due to chance. The between group sum of squares is 84.15, the within group sum of squares is 102.15, and the mean square within groups is 0.52, demonstrating meaningful and reliable variation in awareness among respondents consequently the null hypothesis is rejected, confirming that employees exhibit a significantly higher level of awareness of GHRM practices. This supports hypothesis 1, showing that faculty and staff respond well to GHRM initiation.

H2: The level of adoption of Green HRM practices varies significantly across educational institutions in Andhra Pradesh

Table 2: Independent sample t test Adoption of GHRM Practices by Institution Type

Group	N	Mean	SD
Government Institution	100	3.65	0.72
Private Institution	100	3.4	0.68

The descriptive statistics shows that government and private educational institutions employ GHRM techniques to varying degrees. Private institutions recorded a mean score of 3.40 with a standard deviation of 0.68, but government institutions show a higher mean score of 3.65 with a standard deviation of 0.72. This demonstrates that, in comparison to respondents from commercial institutions, those from government institutions perceive a comparatively higher implementation of GHRM procedure. The results in both groups appear to be quite consistent, according to the standard deviation figures.

H3: Green HRM practices positively and significantly influence institutional performance in achieving sustainability outcomes.

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Table 3: Pearson correlation of GHRM Practices on Institutional Sustainability Outcomes

Variables	Institutional Performance	Green Recruitment	Green Training	Green Performance Appraisal	Green Compensation
Institutional Performance	1	0.42**	0.48**	0.31**	0.36**
Green Recruitment	0.42**	1	0.45**	0.29**	0.33**
Green Training	0.48**	0.45**	1	0.34**	0.38**
Green Performance Appraisal	0.31**	0.29**	0.34**	1	0.27**
Green Compensation	0.36**	0.33**	0.38**	0.27**	1

The Pearson correlation results indicate a significant positive relationship between GHRM practices and institutional performance. Green training shows the strongest association ($r = 0.48$, $p < 0.01$), followed by green recruitment ($r = 0.42$), green compensation ($r = 0.36$), and green performance appraisal ($r = 0.31$), all significant at the 0.01 level. These findings suggest that increased adoption of GHRM practices enhances sustainability-related institutional performance, thereby supporting the proposed hypothesis.

H4: GHRM practices significantly and positively influence faculty commitment in environmental initiatives.

Table 4: Regression Analysis of GHRM Practices and commitment in Sustainability Initiatives

Model summary:

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.62	0.384	0.381	0.56

ANOVA:

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	38.76	1	38.76	123.46	0.000***
Residual	62.14	198	0.31		
Total	100.9	199			

Coefficients:

Predictor	B	Std. Error	Beta (β)	t	Sig.
Constant	1.54	0.19	–	8.11	0.000***
GHRM Implementation Score	0.62	0.06	0.62	11.11	0.000***

The simple linear regression results reveal that GHRM implementation significantly and positively influences faculty commitment in sustainability initiatives. The model explains 38.4% of the variance ($R^2 = 0.384$) and is statistically significant ($F = 123.46$, $p < 0.001$). The positive regression coefficient ($\beta = 0.62$, $t = 11.11$, $p < 0.001$) indicates that increased GHRM implementation leads to higher participation levels, thereby supporting the proposed hypothesis.

Findings:

1. Faculty and staff in educational institutions of Andhra Pradesh are well aware of GHRM practices.
2. A significant variation exists across different types of institutions, that private and aided institutions exhibiting higher rank of implementation than government institutions.
3. Green HRM practices collectively exert a substantial influence on institutional sustainability performance, with training and recruitment practices identified as the most significant predictors.
4. The efficient performance of Green HRM practices absolutely influences faculty and staff contribution in environmental initiatives, thus reinforcement a mores of sustainability within learning institutions.

Suggestions:

1. It is recommended that institutions organize regular awareness programmes to strengthen faculty is need of the hour in implementation of Green HRM practice.
2. Government institutions exhibit lower levels of adoption. Hence educational higher authorities should develop strategies such as offer incentives to facilitate the integration of Green HRM practices.
3. It is recommended that institutions prioritize structured training programmes and integrate green criteria into recruitment strategies, given that green training and green recruitment demonstrate most significant high impact on sustainability outcomes.
4. In order to enhance commitment and foster accountability, authorities must acknowledge and honor the faculty who actively contribute for the institutional sustainability initiatives.
5. It is recommended that the UGC and APSCHE integrate Green HRM guidelines into institutional accreditation systems.
6. It is recommended to develop an institutional Green HRM Index to monitor and evaluate participation, adoption, and awareness levels over time, facilitating the continuous improvement of sustainability practices in educational institutions.

Conclusion:

The study grounded in empirical data collected from a sample of 250 respondents comprising teaching faculty, randomly selected students from government, private and added institution across Andhra Pradesh. A stratified random sampling method was adapted to assure adequate involvement of various institution categorise. The data were systematically analysed using a range of statistical tools, including ANOVA, Independent T-test, Pearson correlation and simple linear Regression. These techniques were applied to examine group difference, and assess relationship among variables, and determine the extent of influence of GHRM practices on institutional sustainability outcome.

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