

“GREEN WORKPLACE” AND THE ROLE OF HR IN DRIVING ORGANIZATIONS TOWARDS SUSTAINABLE DEVELOPMENT IN PORT SECTOR

A study of Visakhapatnam Port Trust, Andhra Pradesh

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Abstract: This empirical study has been undertaken to identify the significance of the role of HR in driving organizations towards Sustainable Development based on Warwick model of HRM. The components include Business Strategy, Green workplace environment with Inner and outer contexts and Role of HR with HR context and content. Productivity and Performance variables, Sustainable development principles are used to test Sustainable development. The key driving factors are identified as training, communication, compensation & benefits, workplace diversity, use of Technology that would intervene with the role of HR in the Green workplace environment in driving organizations towards sustainable development. The role of HR as a strategic partner in the green workplace environment is evaluated through the awareness of key stakeholders - the employee group and the other stakeholders group.

IndexTerms - Green workplace, Business strategy, Environmental-friendly practices, HRM policies, Sustainable development

1. INTRODUCTION

A workplace is a conglomeration of employees and their families, employers, customers, contractors, local communities and all other stakeholders. Green is the colour associated with the environmental aspect in the organization as well as the colour of balance, harmony and growth. When there is balance in resource usage and consumption, harmony between the employees and the employer, if the growth is seen in all aspects with the development that is prevailing and can be sustainable, then the workplace can be termed as green workplace. It is the environmental aspect of the workplace practices where the STEPIN environmental factors (Social, Technological, Economic, Political, International and Natural) as a whole - are given due importance. The key component common to all the factors is the sustainable development.

A green workplace can be defined as a workplace with its environmental-friendly HRM practices, and exhibiting usage of resources efficiency, it's environmental management system and corporate social responsibility. These elements of resource usage efficiency, EMS and CSR of the workplace not only contribute to the sustainable development goals but also enhance the brand-image of any organization. Reporting these practices is the primary responsibility of any organization with the help of HR professionals who in turn work as mediators between the organization and stakeholders.

As part of sustainable development agenda in 2015, United Nations adopted 17 Sustainable Development Goals (SDGs). The goal of sustainable development is to 'meet the needs of the present without compromising the ability of future generations to meet their own needs.' Organizations have an important role to play in achieving this goal. Innovative choices, new ways of thinking, development in knowledge and technology are driving organizations to implement new ways in their operations, services and activities that impact quadruple bottom line. There is an urgent need for all organizations to communicate transparently and involve their stakeholders - human resources, in particular, to move towards the attainment of sustainability – social, economic, environment and culture. The role of HR professionals which was only technical involvement earlier, is slowly but steadily including the strategic, advisory and leadership roles. This changing role of HR depends on organization to organization and in turn contribute its share in driving towards sustainable development.

Port sector is the backbone of our country's economy and there are about 12 major and 200 intermediary and minor ports in the country, contributing 2% to the GDP of India. Ports also contribute to societal development through job and wealth creation, have a responsibility to run their business with no harm to the local community and the environment and are increasingly expected to contribute to the sustainable development agenda. Visakhapatnam Port Trust is one of the oldest sea ports, has a responsibility to report the activities related to environmental management every 3 months with the directions from National Green Tribunal judgement. With reforms in the port sector, the major ports are compelled to improve their performance in terms of port load factor or improved productivity. Further, they need to control and communicate the environmental and social responsibility practices at all micro and macro levels. These challenges have resulted in greater significance of the role of HR in sustainable development of service sector organizations specifically port sector companies. Surprisingly, the studies dealing with environmental-friendly or green practices in PSUs and ports, in particular are limited. Hence a study on green workplace environment in Visakhapatnam port trust was undertaken. It is believed that the study will help all the parties concerned such as the organization and management of VPT, other major and minor ports in India and all the strategy players and employees so as to evolve appropriate strategies for promoting sustainable development climate in organizations.

- Are these SDGs goals relevant to the port sector?

- Is there any relation between the green workplace and sustainable development?
- What is the role of HR in driving organizations towards sustainable development in port sector?

Based on these questions, the present study made significant approach of the key stakeholders' (employees and other stakeholders) perception towards the role of HR to test the impact factors in the implementation of green workplace elements. The study also portrays the implementation Environmental management system (EMS) and Corporate social responsibility (CSR) activities which in turn are involved in the sustainable development in the port sector. The main objective of this study is to discover the driving factors in inner context affecting human resources management, to describe the impact these factors are having on organizations and the management of human resources, and develop an appreciation of the changing role of human resources management in supporting organizational strategy in the process of making the organization, a green workplace. The data collected from primary and secondary sources are processed and analyzed to conclude on how the role of HRM in conjunction with Leadership in implementing best practices, would create better place to work while preserving the brand image and withstanding competition from peers and coercion from pressure groups.

2. Importance of the Study and Statement of the problem

Present study extends its focus on the study of Sustainable human resources management which is an emerging discipline within the field of HR which has attracted many international researchers because of its relevance to Business Strategy.

Sustainable HRM is serving as a new paradigm in companies to engage human resources to achieve social, economic and environmental sustainability. The study will benefit a wide range of stakeholders, peer groups, NGOs and pressure groups and those who want to know the implementation of green initiatives of Port Authority, in an attempt to bring down the pollution levels in the port city of Visakhapatnam. The study of review of literature explored the major portion of research in India has been spread out with a focus mainly on Green HRM practices which did not focus on integrating environmental-friendly practices with HR policies in driving towards Sustainable Development and a Five-Dimensional analysis is very rare, hence this study is chosen.

3. Research Methodology

3.a Objectives of the study

The main objective of this study is to identify the factors involved in Green workplace environment and the driving factors of role of HR in the workplace in moving towards sustainable development.

- To explore the factors of Role of HR, Business strategy, Green workplace environment and driving factors for sustainable development and determine the level of awareness of respondents.
- To examine the demographic dimensions of respondents and their effect on the factors of Green workplace environment.
- To determine the driving factors that impact the roles of HR.
- To understand the degree of involvement of HR in Green practices at different levels to contribute towards less carbon footprint.
- To determine the role of HR in the Green workplace in driving towards Sustainable development.

3.b Sources of data collection

Primary data has been collected through Questionnaire, discussions with stakeholders, observations and interview. Secondary data has been collected from Visakhapatnam Port Trust Annual Reports, Central government websites, various reports pertaining to Green initiatives, Sagarmala project reports, journals, newspapers, www, research papers and books from various libraries as well as online, to add support to the data collected.

3.c Research design

Researcher has collected data through the exploratory and descriptive research design.

3.d Scope of the study: The present Empirical research study is limited to the role of HR in the implementation of plan-do-act-check cycle of environmental managements system and the green workplace elements in port sector in general and Visakhapatnam Port Trust in specific. The role of HR in green workplace practices is evaluated through the awareness of key stakeholders - the employee group (employees, consultants/ OSD/Consolidated pay) and other stakeholders group (stevedors, shipping agents, surveyors, contractors, PPP concessionaires, representatives from local community, union leaders, activists/NGOs, researchers/ academicians/lawyers, retired VPT employees, APPCB, GVMC, CISF agents).

3.e Sampling technique and Sample size

The sample size (575) of the study comprising of 327 internal stakeholders - employees and consultants / consolidated pay/ Officers on special duty group and 248 external stakeholders group. **Stratified random sampling method** is used and at times convenience sampling and snowball sampling techniques are also used to make the more explicit identification of possible biases.

Table 3.e Sample on Stratified Basis- Random selection

	Category of Population	Portion of Population	sample size	Number of respondents	Valid %	Cum %
1	Employees of VPT as on 01 July 2017	2875	297	295	51.3%	51.3
2	Consultants / officers on special duty/ Consolidated Pay	75	35	32	5.6%	56.9
3	Other stakeholders (stevedors, shipping agents, surveyors, contractors, PPP concessionaires, representatives from local community, union leaders, activists/NGOs, Observers from APPCB, researcher/ academician/lawyer, Rep from GVMC, retired VPT employee, CISF)		300	248	43.1%	100.00
	Total		600	575	100%	

3.f Hypotheses of the study

- H₁ There exists significant difference in employees and other stakeholders' awareness towards the explored factors of Green workplace Environment for Sustainable Development;
- H₂ There is no impact of demographic dimensions of respondents on the factors of role of HR, Business Strategy and Green workplace Environment;
- H₃ There exists significant impact of driving factors on the roles of HR;
- H₄ HR involvement in Green practices at different levels has significant impact on Green workplace.
- H₅ Role of HR is significant in the Green workplace Environment and Business Strategy for Sustainable development.

3.g Limitations of the study

Behavioural patterns of the stakeholders became a constraint due to their severe work pressure and other engagements. Even demographic dimensions became constraints particularly age, gender, experience, positions they hold.

4. Conceptual Framework:

4.a Green Workplace-Role of HR-Sustainable Development Framework:

The researcher followed the guidelines and utilized research Instruments developed by T V Rao (1991, 2008) and Udai Pareek(2008), Vogt(2005), Anol(2012) and Field(2005). The conceptual framework with Outer context (Concept and Elements of Green workplace, Principles of Sustainable Development, Productivity and Organizational performance and Environmental-friendly practices) with 13 variables, Inner context of Driving Factors with 12 variables, HR Context and Content with 4 variables and one Business Strategy Context variable was explored and developed based on extensive literature review and administered theory of factor analysis from Research methods of Field (2005) in finding the factor load. Only 3 components were extracted using Component Factor Analysis whose Eigen values are greater than 1. The three extracted components are

1. Business Strategy with one item of Strategic Plan of Org with Vision, Mission, Objectives and Functions (1 factor)
2. Role of HR comprising of six HRM functions for Procurement, Compensation, Development, Integration, Maintenance and Separation; eight roles of Generalist role, Service Delivery role, Business Partner role, Innovation role, Change Agent role, Advisor role, Strategic partner role, Leadership role; Awareness of Green workplace process and practices and Sustainable Development Goals 2030 (4 factors)
3. Green workplace Environment
Green work place concept and the three most important elements of Use of resources efficiently, Environmental sensitivity and social responsibility (4 factors),
Environmental-friendly practices at different levels (4 factors),
Principles of Sustainable development (4 factors)
Productivity and Organizational performance (1 factor), Driving factors (12 factors)

4.b Conceptual Model

The Warwick Model of HRM is the most popular one developed by Hendry and Pettigrew of University of Warwick(1986) that centers around five elements namely Outer context (Macro environmental forces), Inner context (firm specific or micro environmental forces or driving forces), Business strategy context, HRM context and HRM content. The strength of the model is that it identifies and classifies important environmental influences on HRM. It shows the connection between external and internal environmental factors and explains how HRM adapts to the changes in the context. Organizations with achievement of external and Internal contexts will attain performance, growth and development.

Fig 4.b Conceptual Model of Study is Based on Warwick Model:

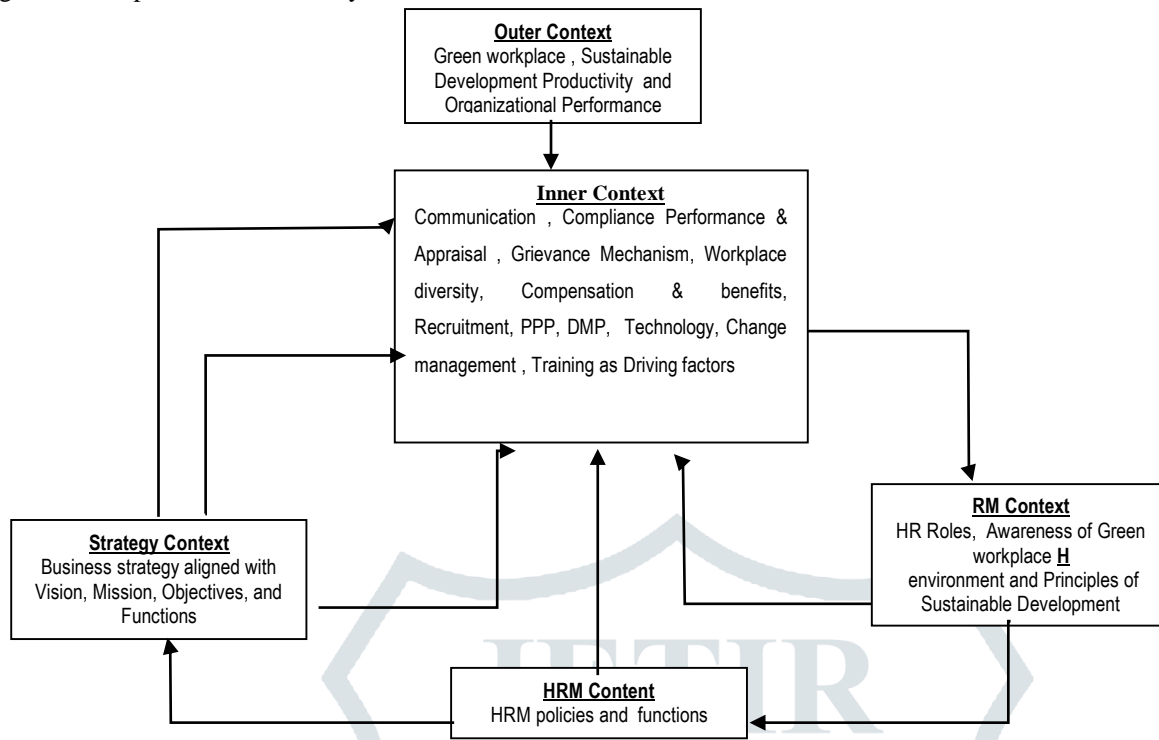


Fig. 4.b The Warwick Model (Hendry and Pettigrew, 1990)

4.c Final validated research framework for service sector – ports in India taking the output from literature review, empirical data analysis after applying component extraction method:

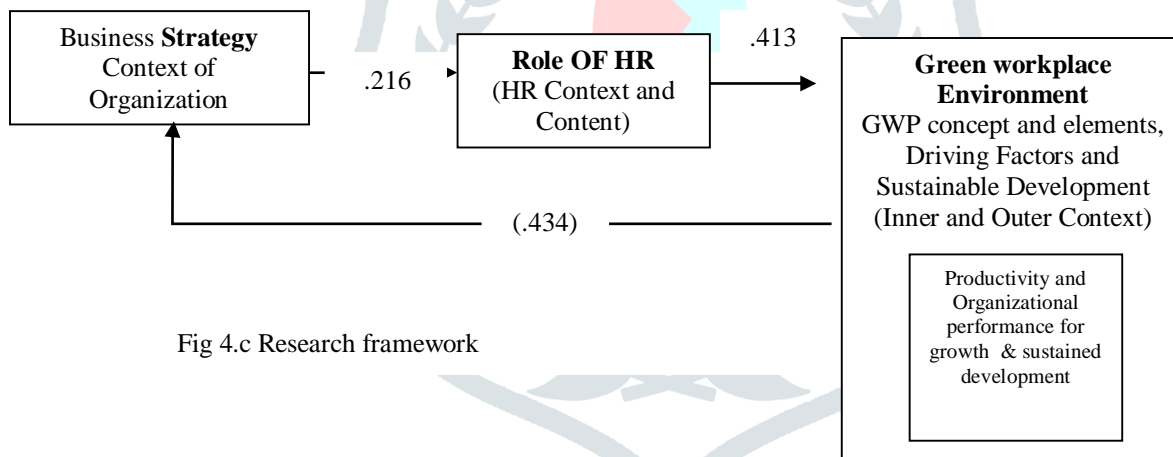


Fig 4.c Research framework

Role of HR is significant in the Green workplace environment as a Strategic partner in driving organizations towards Sustainable development with the intervention of Training, Communication, Compensation & benefits for the benefit of all diverse groups of stakeholders. Role of HR and Green workplace environment are positive uphill linear relationship to each other with the correlation co-efficient of $r=.434$; Role of HR and Business Strategy components are correlated ($r=.413$) and Business plan and role of HR are correlated with $r=.216$ and all the three components are significant at 1% level ($p<0.01$).

5. Findings and interpretations:

- Awareness of employees and other stakeholder groups on different factors involved in the present study:** In view of the impact of Green workplace towards sustainable development it has been identified that both share common factors of Social, economic and environmental Sustainability. Here, employees are very well aware that the organization helps to plan for future in using resources efficiently while taking care of present needs without compromising the ability of future generations to meet their own needs. Environmental sensitivity is critical to reduction and prevention of pollution and employees are very well aware of environmental management system and involve themselves in the plan-do-check-act cycle of EMS. Social responsibility is critical to make positive impact on society and it is looked as one of the key elements of Green workplace by all employees. It goes beyond charity and is required to act beyond organization’s obligations to integrate social, environmental and ethical concerns in the business process. All the employees are well aware of green initiatives of their organization and the principles of sustainable development. Majority of them approved that Green workplace elements and sustainable development are critical in enhancing the brand image and improving productivity. Majority of them opined that EMS and CSR activities need involvement of all

stakeholders. However, only a few employees opined that green workplace and sustainable development goals are important in poverty reduction.

- **Gender factor has an impact on Business Strategy, Role of HR, Principles of Sustainable development, Productivity and performance, Environmental-friendly practices and the Driving factors** which implies that the involvement of women need to be more as women play an important role in environmental protection with their participation in environmental programs. Gender factor has no impact Green workplace concept and elements factor which implies that the Green workplace environment is prevailing and implemented in a systematic way in VPT. Age, Education and experience factors have no impact on the business strategy, role of HR, Principles of Sustainable development, productivity and performance, green practices and driving factors of the Green workplace environment.
- **Top five important driving factors that would intervene with the roles of HR are Training, Workplace Diversity, Compensation & benefits, Communication, Performance & Appraisal system in Port Sector.** Grievance handling procedure needed more attention as the perception of the respondents yielded less correlation values.
- **Level of the involvement in environmental friendly /Green practices at different levels to contribute towards less carbon footprint, promote brand image and attain environmental sustainability :** The involvement of employees in green practices at organizational level is through participation in promoting online resumes for recruitment and procurement to reduce printing and usage of paper, introducing new employees with ways to reduce waste and promoting green working conditions , including “green” targets like planting, watering saplings, conducting sessions and workshops on waste management, energy efficiency etc. It is perceived that all the respondents have accepted the fact that there are no monetary benefits for green practices. The fact that the involvement of HR in green practices at organizational level is found significant and accepted the fact that HR involvement in Green practices as Strategic partner helps organization in attaining sustainability. The fact that the involvement of HR in ‘Go green’ practices at department level is found significant and accepted the fact that HR involvement in Green practices as Advisor role to be a change agent in changing the green habits of subordinates and others. The fact that the involvement of HR in ‘Go green’ practices at personal level is found significant and accepted the fact that HR involvement in Green practices as leading the group in practicing what he is teaching.
- **Significance of role of HR in the Green workplace environment in driving towards Sustainable development:** The role of HR with 8 dynamic roles (Generic role, Service delivery role, Business partner role, Innovation role, Change agent role, Advisor role, Strategic partner role, leadership role) suitable to the needs of green workplace elements with the necessary analytical, technical and communication skills is **found significant at 1% level** in the Green workplace in driving the organization towards Sustainable Development goals. Principle of Sustainable development is strategic and all stakeholders are encouraged to get involved in the development process. Turning off computers and lights when not in use, Electronic filing and printing on double sides of paper or re-using for rough draft, waste management through reusing and recycling method etc are some of the Go green practices at department level. Turning of ignition at red signals, encouraging carpooling, requesting e-statements, composting kitchen waste etc are some of the adopted Go green practices at personal level.

6.SUGGESTIONS

Plan-Do-Check-Act (PDCA) cycle was originated by Walter Shewhart and made popular by Edward Deming - two of the fathers of the modern quality control.

- 6.a Plan Green:** HR as a strategic partner need to help the organizations integrate the sustainability theme with the vision of the organization.
- 6.b Do Green:** HR as a leader need to manage organization’s expectations on aligning employees at all levels with it’s vision and mission and help in improving employee engagement and motivation.
- 6.c Check Green:** HR need to act as mediators and continually check with internal and external stakeholders and voice their concerns to speed up the grievance procedure.
- 6.d Act Green:** HR need to provide help to leadership and other supporting roles to ensure that overall targets are met. Help in effective communication on performance metrics and results to all stakeholders continually. HR as a change agent need to play an important role in leveraging change management whenever there is change in policies, technology, work profile etc.
- 6.e** As Full participation of women is essential to achieve sustainable development, organizations need to encourage women employees to take active part in environmental protection.HR need to play an important role in encouraging them to identify problems of women in local community and help them overcome hygiene problems.
- 6.f** There is a need for Employee Assistance Programme and counseling center for Disaster Management and Preparedness.HR plays an important role in preparing for a disaster and developing a crisis management team. Conducting green public hearing meetings periodically and inviting feedback from different stakeholders and implementing their suggestions by involving them will benefit not only organization but also helps in stakeholder engagement and community development.

7. Scope for further study:

Involvement of HR in Green workplace elements play an important role in the whole process. Due to time constraint and other factors, researcher could not include the same in the study. Hence a detailed study on the role of HR in involvement of Green workplace elements is suggested for further study.

8. Conclusion

Based on the empirical data of this research, it is concluded that the role of HR as a strategic partner is significant in the Green workplace environment in driving organizations towards Sustainable development with the intervention of training, communication, compensation & benefits and more importantly with the usage of Technology, for the well-being of all diverse groups of stakeholders.

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