Green HRM and HR Tech: Implementation and Challenges

Manoj Kumar

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

November 19, 2019
Green HRM and HR-Tech: Implementation and Challenges

Manoj Kumar

Assistant Professor, Deptt. Of Commerce, J.N.P.G. (KKC) college, Lucknow (U.P.)

“The future will either be green or not at all” - Bob Brown

Abstract

In early days Green word was considered as only colour but in the present time the most burning word is ‘GREEN’ and in current scenario the word ‘Green’ is no longer word green, while it has taken the stand of universal problem so we are facing much more problem towards the losing greenery of the earth and has become the challenge for us. The challenge is ‘how to make re-Green of our lovely earth’. The international organizations like Global Green Growth Institute (GGGI), Intergovernmental Panel on Climate Change (IPCC), and International Union for Conservation of Nature (IUCN), United Nation agencies i.e. UNFCCC, World Bank, UNEP and European Environment Agency etc. are planning to prevent the carbon emissions and funding also. Since the severe critical problem and sustainable development the first step was taken in 1987 on environment and development through Brundtland Commission then United Nations Conference on Environment and Development (UNCED), also known as the “Earth Summit,” was held at Rio de Janeiro, Brazil on June 1992, it was the 20th anniversary of the first international conference on the Human Environment, (Stockholm, 1972), 179 countries were participated in 1st summit. Agenda 21 and Kyoto Protocol was the panacea for improving the environment. After 20 years of UNCED 1992 “Earth Summit”, Rio+20 Summit was held in Rio de Janeiro, Brazil on 2012. World leaders endorsed a statement on fighting poverty and environmental woes at the close of a three-day Rio+20 Summit. The summit, officially called the United Nations Conference on Sustainable Development. The 53-page document, titled “The Future we want,” aims at laying the groundwork for a green economy and calls for “Sustainable Development Goals” to replace the UN’s Millennium Development Goals from 2015. These include desertification, fisheries depletion, pollution and deforestation and the danger that thousands of species will go the way of the dodo. This research paper critical analysis the Green HRM and HR Tech with the objectives, methodology, suggestions and conclusion, the challenges are also described in details. It is my first try to correlate the Green HRM and HR Tech with the impacts over the social, economical and psychological factors. Now I am very interested to advocate the terms like Corporate Green Responsibility, Green Audit, Green Cell, Green rating and Green Certificate (ISO).

Key Words- Green HRM, HR Tech, Sustainable Management, Corporate Green Responsibility, Green Audit, Green Cell, Green Certificate, Green Rating.
1. Introduction

Why green?

Our Earth is a unique planet of the solar system; it is a green planet where pure water, pure air etc. are easily available. Why we say green, why we are living in this planet, why lakhs of species are found in this planet because our planet is very beautiful having green atmosphere i.e. green vegetation, green trees, green forest, even greenery under the sea and mangroves are also green means everywhere is green. Just think about that if the greenery of the earth suddenly lost then what would be the position of the earth as well as of us. So our primary responsibility to save the environment which provide raw materials, Solar energy, Wind energy, Tidal energy, Geo thermal energy etc.

Industrial revolution, Economic revolution and many other anti-environmental activities has disturbed the natural vegetation, forest areas as well as marine areas. The focus was on only production and make stronger economy, that condition is responsible for climate change, destruction of natural habitat, extinction of some species, global warming, destruction of coral reefs, marine pollution, vulnerable condition of mangroves etc.

- Some islands may be extinct in future.
- Some species would be available in only books.
- Many severe diseases will be spread.
- The temperature of the earth will be risen by min 2 degree.
- The level of sea will be increased.
- Some important vegetation may be lost in future.
- Lastly the earth will move to be a ‘Pressure Cooker’.

If we didn’t save the forest, trees and other natural thing so we don’t have any right to destroy them. Our day must be started with the protection of environment and end with the protection of environment, through never use of plastics, minimum use of papers, minimum use of electricity, ACs, Refrigerators, carbon emission transports, avoid maximum chemicals, pesticides, fertilizers and other anti-environmental elements. We should take oath to start using solar energy, use jute bags and other bio-degradable things in place of plastics, use bicycle or public transport in place of self heavy vehicles.

Green is the great balancer of our mental, emotional and physical energies which is why there is so much green on our planet. Green is the heart centre of the body; Green is the anticipation of things to come.

Paris Agreement- A historical step was taken in 2015
At COP21 in Paris, on 12 December 2015, Parties to the UNFCCC reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable green climate and low carbon future. It is the first time all nations stand together into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The central aim of the Paris agreement is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to increase the ability of countries to deal with the impacts of climate change, and at making finance flows consistent with a low GHG emissions and climate-resilient pathway. The agreement also provides for an enhanced transparency framework for action and support.

The Paris Agreement opened for signature on 22 April 2016-Earth Day –at UN Headquarters in New York. It entered into force on 4 November 2016, 30 days after the so-called “double threshold” (ratification by 55 countries that account for at least 55% of global emissions) had been met. Since then, more countries have ratified and continue to ratify the agreement, reaching a total of 125 parties in early 2017.

- Long-term temperature goal (Art. 2)
- Global peaking and ‘climate neutrality’(Art. 4)
- Mitigation (Art. 4)
- Sinks and Reservoirs (Art. 5)
- Voluntary cooperation/market-and non-market-based approaches (Art. 6)
- Adaptation (Art. 7)
- Loss and damage (Art. 8)
- Finance, technology and capacity-building support (Art. 9, 10 and 11)
- Climate change education, training, public awareness, public participation and public access to information (Art. 12)
- Transparency (Art. 13), implementation and compliance (Art. 15)
- Global stocktake (Art. 14)

**Human Resource Management**

Human Resource Management is the planning, Organizing, Directing, Controlling of the procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual and social objectives are accomplished.
It is the totality of human resources and human capital (social capital, emotional capital and intellectual capital)

**Green HRM**

Green HRM is the term of HRM policies to promote the sustainable use of resources within organizations and promotes the causes of environment sustainability. GHRM is directly responsible in creating green organizational workforce that understands, appreciates, and practices green initiative and maintains its green objectives all throughout the HRM process of recruiting, selecting, training, compensating, stimulating, developing, and advancing the firms human capital. It refers to the plans, policies, practices, performances and systems that make employees of the organization green for the benefit of the individual, society, species, natural environment, and the business.

**Green Recruitment**

Early days, the recruitment was done through only offline, created paper problem, time consuming process, error in filling forms, receipt and dispatch problem etc. the condition of recruitment has reformed since it started online. Online recruiting is generally known as Green Recruitment. GR is attracting advanced and active staff is a key HR challenge in the “war for
Firms are now beginning to recognize the fact that gaining reputation as a green employer is an effective way to attract new talent and advanced people. German firms such as Siemens, BASF, Bayer and Mannesmann use environmental activities and create a green image to attract highly efficient staff. The Rover Group carmaker, in Britain, makes environmental responsibilities, fundamental duties and qualifications part of every job profile. Increasingly, green job descriptions, job specifications, job analysis, job evaluation, job enlargement, job enrichment, job rotation with environmental aspects are now being included for employees within the recruitment standard. Green recruitment can be defined as the process of hiring individuals with knowledge, skills, talent, expertise, approaches, and behaviors that identify with environmental management systems within an organization and should have the basic knowledge of green technology and green systems. Recruitment practices can support effective environmental management by making sure that new entrants are familiar with an organization’s environmental culture and are capable of maintaining its environmental values and customs.

Green recruiting is a system where the focus is given on importance of the environmental activities and making it a major element within the organization. Recruits are also enthusiastic and passionate about working for an environment friendly “green” company and make it easy for firms to induct professionals who are aware with sustainable management goals and are already familiar with basics like recycle, reuse, reduce, conservation, and creating a more logical world. Grolleau et al. (2012) in their study on impact of environmental standards of a company on recruitment of an employee found that environmental commitment of the company adds to profile of a company. In their primary survey, they found that professionals were more dedicated to the environment concerned with respect to the environmental strategy of a company.

- Green Performance Management
- Green training and development
- Green Compensation
- Green employee relations
- Green building
- Paperless office
- Conservation of energy
- Recycling and Waste disposal

**Green Economy** - The 2012 theme for World Environment Day was Green Economy. A green economy can be thought of as one which is low carbon emissions, resource efficient and socially and economically inclusive. Practically speaking, a Green Economy is one whose growth in income and employment is driven by public and private investments under PPP model that
reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystems. The Green Economy touches almost every aspect of our lives and concerns our development. It is about sustainable energy, green jobs, low carbon economies, green policies, green buildings, agriculture, fisheries, forestry, industry, energy efficiency, sustainable tourism, sustainable transport, waste management, water efficiency and all other resource efficiency. Industry and factories should be eco-friendly under sustainable development. These are all elements involved in the successful implementation of a green economy.  

“Good environmental policy is good economic policy”

What can be done?

**Buildings** - must be in green condition.
**Fisheries** - promote sustainable fishing practices.
**Forestry** - use electronic files to reduce your demand for paper products.
**Transport** - don’t use heavy vehicles for a single person, may be used bicycle in short route.
**Water** - we should conserve every drop of the rain and save the potable water for upcoming generation.
**Agriculture** - stop use of pesticide, chemically fertilizers etc. and starts maximum use of organic farming and neem used technology.
**Energy** - maximum use of renewable energy. Avoid the carbon emissions energy.
**Waste** - recycling appropriate materials and composting food waste reduces the demand on our natural resources.

Sustainable development in India

Sustainable development in India now encompasses a variety of development schemes in social sector, cleantech (clean energy, clean water and sustainable agriculture) and human resources segments. India’s sustained effort towards reducing greenhouse gases (GHG) will ensure that the per capita emission in 2031 will be lower than per capita global emission of GHG in 2005.

India has been ranked ninth in the tree planting roll of honour in 2009 launched by the United Nations Environment Programme (UNEP) in 2006. Two Indian Companies, namely, Wipro and HCL, have figured in the list of top five green electronics brands as per the latest edition of the Guide to Greener Electronics by Greenpeace released in October 2009 because of their strong focus on the e-waste management and climate control.

The number of carbon credits issued for emission reduction projects in India is set to triple over the next three years to 246 million by 2012 from 72 million in 2009, according to a CRISIL Research study. This will cement India’s second position in the global carbon credits market (technically called Certified Emission Reduction units or CERs).

**National Green Tribunal** - It has been established under the NGT Act, 2010 on 18th October, 2010 is headed by chairperson swatantra kumar, a Retired Supreme Court Judge. The Tribunal
has been established for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental there to.

Green Management: Green Management is an initiative aiming at continuously improving the foundation of environmental structure and management, such as the development of green activities, green performance, Green personnel, environmental management systems and environmental communication as well as conservation of biodiversity. Simply we can say that green planning, green organizing, green staffing, green coordinating, and green controlling makes green management.

1. Objectives
   - To study the whole concept of emerging Green HRM and HR Tech.
   - To study the positive impacts of Green HRM and HR Tech over the organization.
   - To study the environmentally challenges before our systems.
   - To study the development of technology for enhancing the performances of employees.
   - To study the factors which are responsible for harming the environment?
2. Methodology

The study consists of systematic review of articles and reports on Green HR and HR Tech. The study has been taken from many sources and deep study of the environmental factors which might be very dangerous for the atmosphere. It is my first try to co-correlate the environment with HR and HR Tech. The analyzed literature draws the systematic facts, impacts, challenges, findings, suggestions, conclusion with further research directions.

3. Literature Review

The term Green HRM is most regularly used to the related employees of the organization who are performing the work have to connect the environment with the work so that they may be called as “environment saver” and concern of people management policies and practices towards the broader corporate environmental schedule. Typical green activities contain online recruiting, or the use of online video interviews to minimize travel requirement or other extravagances. Green reward can enhance the performance and help in creating awareness of green among the employees, the following researcher has argued that: Daily and Huang (2011) argued that eco friendly organization can be possible if the companies have the right people with the right skill, talent and competencies. Collins and Clark (2003) also explained that to achieve HR effectiveness, HR should be trained as a perfect environmentalist and must be aligned with the sustainable development goals, the primary means by which firms can influence and shape the skills, attitudes, and behavior of individuals to do their work and thus achieve organizational goals. Mandip (2012) the practice of green HR should be explain in to the HR processes, such as recruitment, training, development, compensation etc. Lee (2009) claimed that the Green Management became a popular slogan internationally in 2000s. Daily and Huang (2001) companies need to balance between industrial growth and conservation the natural environment so that future generation may thrive. Lee defined Green Management as the process whereby companies manage the environment by developing environmental management strategies.

TUSDAC (2005) explained, one way in which Performance Management Systems can be successfully initiated in an organization is to develop performance indicators for each risk area in environmental awareness and education, as per the British example. Wehrmeyer (1996) stressed the importance of the usage of environmental responsibilities, and the communication of environmental concerns policy in the performance appraisal.

Training plays very important role to prevent and reduce waste. Dr. Douglas Renwick et al (2008) explained that training is one area where the role of human resource management in
environmental management has been recognized for some time. Milliman and Clair (1996) quoted one example; many firms in US have begun training initiatives like the one at Polaroid, where training objectives are linked to their vision regarding regulatory compliance.

Nishad Nawaz Maditheti (2017) explained in his article ‘A Comprehensive Literature Review of the Digital HR Research Filed ‘that an overview of the HR digital research field and a conceptual framework of the different areas of concern. The reviews can hopefully act as a foundation for researchers for further research in Green HRM and HR-Tech and it will be assist other researchers in the identification of related studies in the literature review phase of their work. Finally, the bibliography and its rich set of empirical data can hopefully be used by others in future research and analyses.

4. HR- Tech
It simply means that the smart work done by the smart worker in minimum time with efficient performance. It is well known as “Smart People Management” & this is the time of more efficiency, more performance, more creativity, more intelligence, more talent, more R&D, more competition, more management and more technical etc. So HR
must be very smart and future maker because every aspect of HR is technical, now the time of more science and more research every things has been connected with the science if we see that the all things our near atmosphere are proving with the help of science, our daily gazettes and our lifestyle has been totally depend on the scientific platform. We start day with the science and end day with the science. Calculator, refrigerator, cooker, air-conditioner, automobile, home appliances, cell phone, computer are the best example of technology. This technology make easier work of the HR but create the many challenges before the HR for handling the critical situation and then further improvement or new research and development have to create.

Technology is every where and can be found in every sector, in ancient times many great astrologers also used technology to prove the theory, but the current time of advanced technology, it is mainly found in marine sector, agriculture sector, medical sector, warfare sector, automobile sector, real-state sector, communication sector, space sector etc. India is now gradually enhancing the research in space sector recently launched the chandrayaan-2 by ISRO and launched many satellites with foreign satellites because India is well known for satellites launcher and also become the member of the elite group of nations. The HR systems of India is much more strong means they are the good laborers but not the expert in the technological sector, the institutions, organizations, universities of India are providing the Degrees but not providing the efficient knowledge to the students that they can compete in international level and can make a mark in the whole world. Only IITs, IIMs, & IISc are best institutes of India for providing the technical as well as management knowledge to the students even those who are scholars of these institutes are generally placed by the multinational companies- high salary, high standard of living, developed country are the main attractions to the Indian students, these conditions again create the scarcity of efficient employees. The countries like china, Japan, Korean countries offer technical courses right from the start but in India it is generally found after 12Th standard some students generally choose to do engineering from ITIs, IITs, Polytechnique, NITs, IISc, Universities etc. some universities, institutes (mostly private) are making a lot of money under the guise of engineering and not providing the quality education means the students are taking only degrees not getting the technical education. Since the shortage of jobs some engineers left the engineering and get start the preparation of SSC, UPSC, State PSC & other Govt. Jobs. If the technical education had to be given to the students from the initial schooling and allot the stream according to who are interesting in engineering sector they should be given scholarship for participating in international level competition. It would definitely improve the technical education in our country.
Today’s recruitment and HR pattern is one of constant change. Companies across industries must consistently deal with strong talent competition, changing workforce pattern, and game-changing procedure developments in technological sector. The emerging HR-tech platforms are helping companies to tackle the critical situations and challenging landscape and are providing unprecedented opportunities for advanced technological improvement, automation, process efficiency and welfare of employees. HR departments around the globe are looking to tech for solutions and, thanks to a technological boom to improving HR-Tech, HR recruitment tech companies are delivering highly innovative, creative and transforming solutions that are helping to shift how the entire profession works.

**What is HR Tech?**

HR tech platforms comprise a long list of software products that focus on one or many aspects of employment with in a business. They can be highly targeted to one specific function i.e. candidate screening, or they can be larger suites that cover HR processes i.e. performance and talent management. In general, they help to automate tasks and generate and analyze candidate and employee data to provide insights and actionable items for the HR team. Modern HR platforms aim to improve the lives and efficiency of employees and candidates, and not just the HR team using those platforms.

**HR tech trends in 2019**
Technological booms in artificial intelligence i.e. robotics, processing analytics, talents, power, machine design and social media have contributed to a long list of simultaneous HR innovation trends that will fruitful in coming years.

The trends of HR tech

- Augmented analytics
- Robot process automation
- Natural language processing
- Workforce planning
- Talent management
- Learning development
- Recruitment experience
- Visual storytelling
- HRIT role
- Tech-savvy HR departments
- Employee wellness
- Remote workforces

HR success through technology, HR-Tech system decisions that will fuel your business while supporting your organization’s unique needs. How the right HR technology will help you speed up hiring, attract better candidates, retain top talent, and improve performance management and much more.

“God will not look you over for medals, degrees or diplomas but for scars.” — Elbert Hubbard

If there is CSR then Corporate Green Responsibility (CGR) should also be?

Corporate social responsibility is a type of international private business self-regulation that aims to contribute to societal goals of a philanthropic, activist, or charitable nature or by engage in or support volunteering or ethically-oriented practices.

“If there is CSR then why not CGR”

CGR should be mandatory for every organization whether govt. organization or private organization. It will helps in encouraging the Green HRM as well as creating the Green thinking in the mind of every people. The benefits of CGR may be in future:

- It will help in preventing future events.
- It will deliver a good message to the upcoming organization in future.
- It will help in enhancing the Green Fund.
• It will definitely decrease the ratio of pollution and other pollutants.
• CGR will develop the Green atmosphere and help in developing mindset with green intention.
• It will beneficial for social, economical, psychological and other factors.
• Increasing the awareness between the employees as well as employers of the organizations.
• A small percentage of the annual profits should be credited to the national green fund account.

The main dilemma between Green HRM and HR Tech is that whether Green HRM is best or HR Tech is best or both.

Generally we think that both are the panacea for improvement the condition of the organization and it helps to achieve the target in minimum time.

• Green HRM is the environmental favorable technique but HR Tech damages the environment (using high anti-environmental technology)
• Green HRM is the helpful for paper less training and development as well as online recruiting but HR Tech increases the various types of pollution like air pollution, sound pollution etc.
• Green HRM will definitely reduce the chances of losing vulnerable resources but HR Tech increases the graph of vulnerable species because of increasing dangerous ultra violet rays and very high technology.
• Green HRM will helpful for improving the condition of organization through green technology like low wastage, solar energy, less emission technology, online controlling and online wages plan but HR Tech increases the area of bio-medical wastage, biological wastage, e-waste etc.
• Green HRM is very favorable for the employees and creates cordial relationship between employer and employee relationship but HR Tech is just opposite because it reduces the requirement of manpower and generally take the help of advanced technology which is not favorable for the employees.
• Green HRM is the beneficial for the employees in health sector but HR Tech creates adverse effect on the health of employees
• Green HRM is beneficial for the social sector but HR Tech is just opposite to the social sector.
• HR Tech is beneficial to the performing activities but Green HRM is only subject to the eco-friendly HRM.
• HR Tech is helpful to make easier work but Green HRM is related to do the work without making any hindrance in environmental activities.
• HR Tech is related with the high technology which helps in development, performance, productivity, human engineering, HRD, BARS, and MBO etc. but Green HRM encourages the online recruiting, selecting, interviewing, developing, managing, controlling, coordinating, and appraising etc.

• HR Tech helps in advancing training and development, smart management, smart performance, strongest machinery systems, encouraging high production and then earns more profit as well as in increasing competition in worldwide sector but Green HRM makes employees as environment protector.

When we have done the new thing that creates adverse effect on the nature just take an example we discovered the refrigerator for felling better in summer season and can preserve the food for a period then we discovered ACs for making environment cool and pleasant even we have cut the trees, cut forest areas, maximum use of chemicals, our life style has been changed. Now we are thinking that we have developed and have supreme than the nature. Many space agency discovering the other planet for surviving because they destroy the blue planet even they discover the robots, smart satellites, advanced missiles, heavy nuclear power plants and heavy vehicles. But this thing creates the hazardous effect on our planet. Climate change, acid rain, global warming are such as the good example of the damaging the environment.

So, Green HRM and HR Tech both are very important for the organization as well as for the world. But keeping this is mind that nothing will restructure the whole earth as earlier was. It is our duty that we will definitely safe the whole natural resources and will do research not by harming nature.

“Find new thing but do not harm nature”

5. Challenges:

➢ Literacy of India is not very good and lack of knowledge of advanced technology.
➢ Acute shortage of technological equipments.
➢ Lack of infrastructure and advanced technology.
➢ Lack of knowledge of environment and sustainable development goals.
➢ Implementation problem is the main problem in the organization.
➢ Shortage of fund to improve the environmental condition.
➢ Lack of awareness about the environment protection and green technology.
➢ Absence of Green rating, Green performance, Green standard, Green audit types of agencies.
6. **Suggestions:**- As per the growing area of awareness for being Green because it has become the universal problem so we will have to make plan to fight with the pollution, global warming, climate change, acid rain etc. there are some important suggestions are given :-

- Software should be developed to reducing the paperwork.
- Green award system should be started in national/ international level.
- More Research and development to reduce the carbon emissions.
- Every employee should be aware about the Green technology.
- Green classes/ coaching and campaign should be started in induction training.
- Maximum use of solar energy or renewable resources.
- Mostly air-port, railway station have been Green port or station so why not all the private/ Govt. organization.
- Green Audit must be initiated in every organization.
- Electric vehicles must be encouraged in place of petrol/ diesel vehicles.
- Ministry of Environment and Forest must make the strong laws and regulation.
- Performance Appraisal should be encouraged with the green Performance.
- Green targets, goals and responsibilities should be fixed with individuals.
- Green cell/ branch/ Division and green teams must be created.
- Green HRM and HR-Tech should be correlated in right way.
- Development of Green personnel skills through Green courses.
- Participation in Green initiatives to promotion/ career gains.

7. **Conclusion:** - The Green HRM and HR Tech both are the burning topics and very essential for the organization and is based on the green movement, it is not the little movement but also it is the universal problem that how will we re-green our environment. Several companies are doing well in green sector e.g. Toyota, IBM, Walmart, Gas Authority of India Limited, ITC, ONGC etc. they help in protection of the environment and to save the planet Earth from future disasters. It will help the organization which are good in creating Green environment that would definitely certified as Green company or Green certificate should be given to that organization, even ISO certified should be included with Green certificate and then Grading should be started because the grade will show which company or organization has grade better or which has worst grade. If some company went against the green laws or ISO standard so that company would be awarded as black listed company or worst company the above research paper shows there are much more need of research and development in Green HRM and HR Tech and many suggestion or
recommendations have been given for further improvement the Green HRM and HR Tech.

8. References:-

- Nishad Nawaz Maditheti (2017), a comprehensive literature review of the digital HR research field. ISSN 2224-5758 Vol.7, No.4, 2017
- Brockett J. (2006), change agents, People Management, 23rd November, 18-19
- Sushma Rani and Dr. D.K. Mishra, Green HRM: Practices and Strategic implementation in the organizations, International Journal on recent and innovation trends in computing and communication, 2(11), 3633-3639
- Dr. Douglas Renwick, Tom Redman, Dr straut Maguire (2008), Green HRM, A Review, process model, and research agenda, The university of Sheffield management school, discussion series.