

APPLICABILITY OF GREEN HUMAN RESOURCE MANAGEMENT CONCEPT TO ACHIEVE SUSTAINABLE GOALS OF GREEN BUILDINGS IN SRI LANKA

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ABSTRACT

Nowadays in world, construction of green building becomes a new trend. Many studies noticed that there are considerable amount of investments to the green buildings than conventional buildings. Since in last decade, the world has concerned about green building concept as one of the solutions to reduce environmental impacts. In achieving such foremost benefits of green buildings, human resource plays a vital role, especially to achieve sustainable goals of green buildings. Green Human Resource Management came into practice as a newest concept to create green responsive employees who make a significant contribution to environmental sustainability. However, Human Resource is not utilized in effective and efficient manner in most of the organizations. Therefore, the intention of this research is to investigate the applicability of Green Human Resource Management concept to achieve sustainable goals of green buildings in Sri Lanka.

As this research required an in-depth investigation, the research problem was approached through three case studies which are conducted in three selected green buildings in Sri Lanka. Content and cross case analysis techniques are used to analyse the data. QSR. Nvivo software is used to simplify the data analysis. As key research findings derived through case analysis, in Sri Lanka, existing green buildings have not been implemented the proper Green Human Resource Management process. Hence, the gaps in existing Human Resource Management process in green buildings are identified in relation to the job analysis, recruitment, selection, induction, training and development, performance evaluation and discipline management. Improper job designing, not including green competencies, use of traditional Human Resource Management process, unawareness, no proper performance evaluation criteria are identified as major gaps in Human Resource Management process in green buildings. Accordingly, a framework is developed to propose various strategies to fill the gaps in existing process to effectively utilize the Human Resource for achieving sustainable goals of green buildings in Sri Lanka as the main implication of this research.

Keywords: *Green Human Resource Management; Green Buildings; Human Resource Management Process; Gaps; Sri Lanka.*

1. INTRODUCTION

During the last 30 - 40 years, the world has to face some major environmental problems, such as, global warming, ozone diminution, resource diminution, energy scarcity, environmental toxicity, human toxicity, and acid rains. These indicated to change the way they operate on the earth. In response to the severe and irreversible climatic changes, the world concerns more towards sustainable development to reduce the impacts on people and the environment (Khalil and Husin, 2009). In such governing concern, green building movement is rapidly becoming a necessity. It aims to fundamentally change the built environment by creating energy efficient, health and productive buildings (USEPA, 2014; United States Green Building Council, 2009 cited Gou *et al.*, 2013).

Green building is refers to the practice of creating structures and which are using processes that are environmentally responsible and resource-efficient practise throughout a building's life-cycle from inception and design to construction, operation, maintenance, renovation and deconstruction. This

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practice expands and complements the classical building design concerns of economy, utility, durability, and comfort (USEPA, 2014). Nowadays in the world, there are considerable amount of investments to the green buildings than conventional buildings. It is more important to adapt the green concept in construction of buildings to achieve the benefits of sustainability (Mallikage, 2012).

According to the Rinkesh (2015), more benefits can be achieved through the green building concept. Those benefits can be categorised as environmental benefits, economic benefits and social benefits. Human Resource (HR) is the most significant factor in an organization to attain those benefits. Human Resource play a vital role in organizational success and it constitutes a significant source of competitive advantage by using their collective skills, abilities and experience, coupled with their abilities. To achieve organisational goals and objectives effectively and efficiently, Human Resource practices, procedures and systems should be developed and implemented based on organisational needs (Ogedegbe, 2014). Specially, the whole context of Human Resource Management is currently being considered in achieving sustainable goals of green buildings.

Green Human Resource Management (GHRM) is referred to all the activities involved in development, implementation and on-going maintenance of a system that aims at creation of green employees. GHRM is concerned with transforming normal employee to green employees to achieve environmental goals of the organization and finally to make a significant contribution to the environmental sustainability (Opatha and Arulrajah, 2014). As Opatha and Arulrajah (2014) further mentioned, employees may play four roles for becoming a green employee such as, preservationist, conservationist, non-polluter, and maker. Therefore, to achieve sustainable goals of green organisation, GHRM system is important to implement. Further, all the employees must be encouraged, empowered and trained (Sudin, 2011). Hence, the intention of this research is devoted to investigate the applicability of Green Human Resource Management concept to achieve sustainable goals of green buildings in Sri Lanka.

2. LITERATURE REVIEW

2.1. GREEN HUMAN RESOURCE MANAGEMENT (GHRM) AND IT'S IMPORTANCE

According to Lewis (2015), when organisations move towards green, it mainly affects to its profit. Further, 73 percent of consumers consider that companies have good environmental records. Customers seek a company which has low environmental footprint. Therefore, companies try to make their employees green. As Mandip (2012) stated, there should be a proper sense of balance between organisational growth for wealth design and protection of natural environment. Past decades people concern only about the profit and wealth of the shareholders of the company. Thus, each and every industry is currently paying more attention toward minimization of environmental footprints plus improving awareness to social and environment phase.

In this regard, GHRM refers to using every employee to support sustainable application and increase employee responsiveness and commitments on the problems of sustainability. At the same time, GHRM is frequently refers to the concern of managing people by leading them towards a broader corporate environmental schedule (Mishra and Rani, 2009). GHRM implements environmental friendly HR initiatives while enhancing efficiencies, lower costs and better employee engagement. It will benefits to decrease the employee carbon footprints by electronic filings, car sharing, job sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, energy efficient office space (Scribd, 2015). GHRM initiates the organisation to find alternative ways to bring down cost without losing their talent and it also gives assistance to create a culture of having anxiety for environmental defence (Prasad, 2013). Organisations provide much attention towards sustainability and corporate social responsibility. Sustainability provides the basis of long lasting solution for the business and it helps to improve the socio economic background of the organisation that connects with society. Therefore, sustainability plays a vital role in HRM (Mishra and Rani, 2009). Most of the organisations use human resource and environment management integrated approach to achieve sustainable goals (Mandip, 2012). Further, when implementing the sustainable goals for green building, it should be measurable and should be considered about energy efficiency, water conservation, on-site treatment of rain water and storm water, material and resource management. Nevertheless, it should be based on best practices where it further

requires appropriate resources to achieve those goals within the given time frame, there should be time bound and should be based on best practises (USEPA, 2015).

2.2. GREEN HUMAN RESOURCE MANAGEMENT PROCESS

Green Human Resource is most often used to refer to the contribution of HRM policies and practices toward the broader corporate environmental agenda (Scribd, 2015). The GHRM process generally includes, green job analysis, green HR recruitment, selection, induction, training and development, performance management and discipline management (Renwick *et al.*, 2013; Opatha and Arulrajah, 2014).

Green Job Analysis

A number of environmental protection related task, duties and responsibilities can be used to specify job descriptions of employee (Wehrmeyer, 1996; Renwick *et al.*, 2013). Job description could include at least one duty related to environmental protection and also specifically includes environmental responsibilities. Job descriptions and person specifications may include environmental, social, personal, and technical requirements of the organizations as far as possible. For example, environmental protection duties should be included, along with the allocation of environmental reporting roles and health and safety tasks (Wehrmeyer, 1996).

Green HR Recruitment

Retention/recruitment and satisfaction is one the most vital benefit scopes of HR and sustainability. So gaining reputation as a green employer is an effective way to attract novel talent. Green recruitment can be defined as the process of hiring individuals with skills, knowledge, approaches, and behaviours that identify with environmental management systems within an organization. Green recruiting is a system where the focus is given on the importance of the environment (Wehrmeyer, 1996). As stated by Opatha and Arulrajah (2014), there are four categories of green HR recruitment, such as, green competencies, green attitude, green behaviour and green result.

Selection

Environmental concern and interest is the major focused context of selecting candidates for the organization. When interviewing candidates or assessing them for selection, environmental-related questions are asked by the selection panel is becoming a frequent factor. Certainly, these are some of the worthy green selection practices any organisation can adopt to select environmental friendly people (Opatha and Arulrajah, 2014).

Induction

For fresh employees induction give the first impression about what needed to understand and approach to their corporate environmental culture in a thoughtful way (Wehrmeyer, 1996). After selecting the candidates for the posts, these companies provide necessary basic information about the corporate environmental management policy, system and practices. Subsequently, organizations should ensure that new recruits understand their environmental responsibilities, become familiar with health and safety arrangements, appreciate the corporate environmental culture, adopt the company's environmental policy and practices, and know given relevant contact persons within the organisation (Wehrmeyer, 1996; Renwick *et al.*, 2013).

Training and Development

Providing environmental training to the organizational members (non-managerial employees and managers) to develop required skills and knowledge is an important function of green HRM. This will helpful to implement corporate environmental management programs of the company. In the green training program, employee should be able to develop and acquire the knowledge regarding the environmental management, green skills and attitudes (Prasad, 2013).

Performance Management

Green performance management consists of issues related to environmental concerns and policies of the company. It also concentrates on use of environmental responsibilities. When HR managers integrate environmental performance into performance management systems they safeguard environment management against any damage. Further, environmental incidents, usage of environmental responsibilities, reducing carbon emission and the communication of environmental concerns and policy can be covered by Performance Appraisal (Prasad, 2013).

Discipline Management

In green discipline management, it is required to enforce rules to carry out greening policies and practises and to establish a system to maintain a progressive disciplinary system within the organisation (Opatha and Arulrajah, 2014).

Accordingly, the applicability of GHRM is investigated in relation to HRM process which is practiced in green buildings in Sri Lanka. Therefore, the gaps in existing practice are identified relating to green job analysis, green HR recruitment, selection, induction, training and development, performance management, reward management and discipline management in order to propose probable strategies.

Section 3 describes the methodology adopted in this study to achieve the above aim.

3. RESEARCH METHODOLOGY

In order to achieve the research aim, qualitative research approach was identified as the most suitable method for gathering and analysing data. As this research required conducting a detailed investigation in HRM process in green buildings, case study method was applied. Three case studies were conducted in green certified office buildings in Sri Lanka. Eight semi-structured interviews were conducted with HR professionals and other employees in selected case buildings to collect the data. The interview profile is illustrated in Table 1.

Table 1: Interview Profile

Case	Designation	
Case A	A1	Director (Geology)
	A2	Assistant Administrative Officer
	A3	Maintenance Supervisor
Case B	B1	HR Manager
	B2	Assistant HR Manager
	B3	Maintenance Manager
Case C	C1	Branch Manager
	C2	Assistant Manager

Code-based content analysis and cross case analysis techniques, together with QSR. NVivo software are used to analyse the data. In the data analysis, a coding structure is developed as illustrated in Figure 1.



Figure 1: Coding Structure

Section 4 presents the case study data analysis and key research findings relating to applicability of GHRM in green buildings in Sri Lanka.

4. RESULTS AND DISCUSSION

The existing human resource management practice in green buildings was investigated and gaps are identified.

Job Analysis

According to case analysis, designing job without intention of sustainable goals of organisation and, not including green competencies into job specification are identified as major gaps in job analysis. as it further revealed, Director (Geology) in Case A stated that *“In the existing Human Resource Management process there is no clear work areas proposed for the job and this created confusion in work line. And the most important thing is job is not design to achieve sustainable goals in green building”*. Further, in Case Assistant Administrative Officer mentioned that *“It is a government error, for not having a proper way to attach sustainability goals in government job analyzing procedure”*. In case B both Assistant HR Manager and HR Manager said that *“In current situation we do not apply tasks to achieve sustainability goals.”*

Recruitment

In recruitment process according to the maintenance supervisor in case A, *“government did not apply any statement in order to achieve sustainable goals in Green HRM concept. Both Assistant Administrative officer and Director (Geology) in case A also mentioned that “the government sector is still following the traditional method in recruiting people and it needs a change which will focus on green recruitment”*. Also maintenance supervisor of case A stated *“government have to focus on the abilities of protecting the environment”*. In case B, Assistant HR Manager, HR Manager and Maintenance Manager said that *“we didn’t apply Green HRM concept in recruitment process. And yet we don’t have any idea of applying Green HRM concept with recruitment process”*. In case C, both Branch Manager and Assistant Manager said that *“we did not concern about linking green HRM and sustainable goals with the process of recruitment. Accordingly, less concern on green and use of traditional recruitment process especially in government sector are identified as gaps in existing recruitment process in green buildings.*

Selection

In the existing selection process, there are no evaluation criteria for green competencies. Assistant Administrative officer of case A mentioned that, *“there is no step which links the procedure with Green Movement.”* In case B Maintenance Manager also said that *“we don’t evaluate their knowledge in Green Competencies.”* Assistant HR manger and HR manager confirm that statement as *“we don’t judge their awareness on Green HRM concept in selection process.”* Further, Assistant HR Manager said that *“we don’t evaluate their knowledge regarding Green HRM concept as because they should adopt to protect environment and achieve the sustainable goals while they engage with their work in the company.”* Furthermore, there is no rewarding system for achievement of sustainable goals by green employees.

Induction

No any case organisation has linked green concept to induction program of employees. In case A both Director (geology) and Assistant Administrative Officer said that *“it is still unaware that this step can link with Green HRM in order to achieve Sustainability Goals.”* In case C, both Branch Manager and Assistant Manager said that *“we did not link induction process with Green HRM concept”* Further, the development of green abilities of employees is also not considered in the induction program.

Training and Development (T&D)

According to Maintenance Supervisor in case A, they are not following any kind of training programs to improve knowledge of employees on green concept. As Director (Geology) said *“we have training programs for employees but they don’t improve their knowledge regarding Green HRM and sustainable goals.”* Further, Assistant HR Manager and HR Manager in case B said that *“we don’t practice green competencies of employee in training and development programs.”*

Performance Management

According to Maintenance Supervisor in case A, *“It is vital to include some criteria to evaluate environmental protecting performance of the employees.”* In case B according to Assistant HR Manager he said that *“every department in the company has a particular zone to grow trees and the functioning of the process is evaluated by them”*. Both HR manager and Maintenance Manager confirm the statement of Assistant HR Manager. In case C both Branch Manager and Assistant Manager said that *“we don’t have any evaluation procedure to analyse the knowledge on green HRM concept of their workers.”*

Discipline Management

In case B there is no rules in discipline management process. Assistant HR Manager said that *“we are strictly observed how they maintain their zone which the company allocate to grow trees”* According to Branch Manager and Assistant Manager in case C said that *“we don’t have green concept on discipline management .”* Assistant Administrative Officer (AAO) in case A expressed that *“implementing rules and make it to work in the institutions should be a must, and that will be very important fact in functioning the green human resource management in the institute.”* Hence, no rules and function to control the employee behaviour regarding Green performance and no proper procedure regarding the green behaviour of the employees are identified as gaps in existing discipline management process. The identified gaps in existing HRM process are summarised in Table 2.

Table 2: Gaps in Existing Process

HR practice	Gaps
Job Analysis	Job is not design to achieve sustainable goals Green competencies has not been included in to job specification
Recruitment	Use of traditional method for the recruitment process Less concern on green concept
Selection	No evaluation criteria for green competencies of employees No rewarding system for achieving sustainable goals
Induction	Fewer knowledge to adopt green concept into induction Less concern on developing green abilities of employees
Training and Development	Not facilitating training programs to develop green competencies
Performance Management	No criteria to evaluate environmental protecting performance of employees No any procedure to evaluate achievement of sustainable goals
Discipline Management	No rules and function to control the employee behaviour regarding green performance No proper procedure regarding the green behaviour of the employees

As per the different views and opinions of the HR professionals and key literature findings, probable strategies are proposed to apply GHRM concept in green buildings to fill the gaps in existing process. Accordingly, a framework is developed as the final outcome of the research and illustrated in Figure 2.

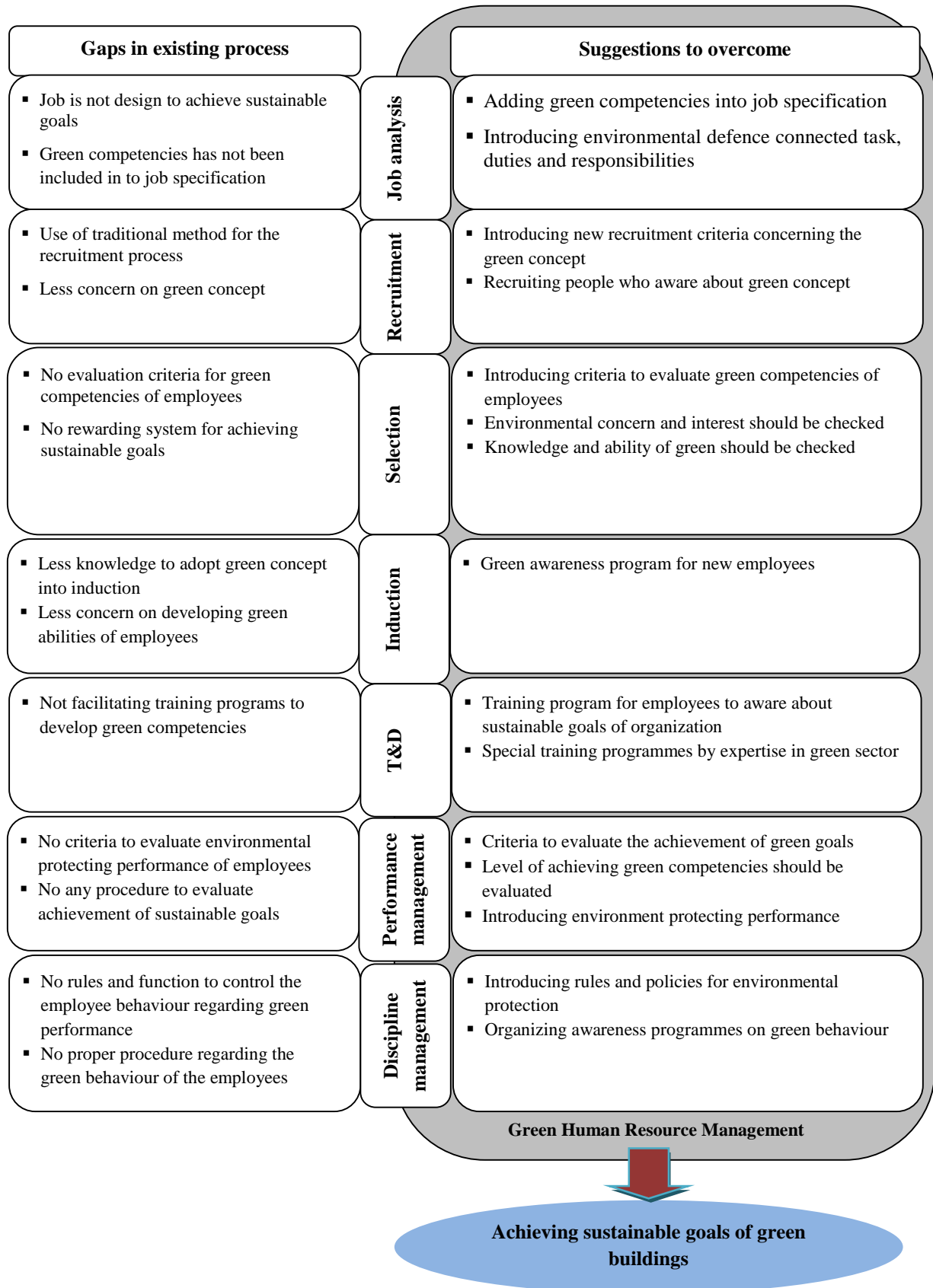


Figure 2: The Framework Developed

5. SUMMARY

In improving organisation's environmental performance, people factor is one of the key factors. To create, practice and maintain environmental related innovative behaviours of employees coupled with right attitude of greening, green HRM practices are critical. Without proper green HRM practices, it is difficult to create and maintain sustainable environmental performance. Hence, as this research aimed, the applicability of GHRM was investigated in green buildings in Sri Lanka. Through the case analysis, gaps in existing HRM process are identified. As investigated, there is no proper HRM procedure in green buildings to convert employees to green employees in order to apply them effectively to achieve its sustainable goals. Further, no any step in HRM process has been considered about the green building concept. Therefore, several strategies can be applied to incorporate green concept into HRM process in green buildings. Hence, as the main implication of this research, the gaps in job analysis, recruitment, selection, induction, training and development, performance management and discipline management are identified. Accordingly, a framework is developed by proposing probable solutions to fill the gaps identified. Further, it can be used as a basis to effectively utilize human resource for achieving sustainable goals of green buildings in Sri Lanka as the main implication of this research.

6. REFERENCES

- Gou, Z., Prasad, D. and Lau, S.S., 2013. Are green buildings more satisfactory and comfortable?. *Habitat International*, 39 (1), 156-161.
- Khalil, N. and Husin, H.N., 2009. Post occupancy evaluation towards indoor environment improvement in Malaysia's office buildings. *Journal of Sustainable Development*, 2(1), 186-191.
- Lewis, J., 2015. *Ways to encourage employees to go green* [online]. Houston, Hearst Newspapers. Available from: <http://work.chron.com/ways-encourage-employees-green-4470.html> [Accessed 3 July 2015].
- Mallikage, S.T., 2012. *Green building concept and its Sri Lankan Context* [online]. Sri Jayawardanapura, University of Sri Jayawardanapura. Available from: <http://www.sjp.ac.lk/sites/forestry/2015/04/02/green-building-concept-and-its-sri-lankan-context/> [Accessed 25 July 2015].
- Mandip, G., 2012. Green HRM: People management commitment to environmental sustainability. *Research Journal of Recent Sciences*, 1(1), 244-252.
- Mishra, K. and Rani, S., 2009. Green HRM: practices and strategic implementation in the organizations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(11), 3633-3639.
- Ogedegbe, R.J., 2014. Achieving organizational objectives through human resource management practices. *European Journal of Business and Management*, 6(6), 18-22.
- Opatha, H.H.D.N.P. and Arulrajah, A.A., 2014. Green human resource management: simplified general reflection. *International Business Research*, 7(8), 101-112.
- Prasad, R.S., 2013. Green HRM- Partner in sustainable competitive growth. *Journal of Management Science and Technology*, 1(1), 15-18.
- Renwick, W.S., Redman, T. and Maguire, S., 2013. Green human resource management: a review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.
- Rinkesh, K., 2015. *What is a green building?* [online]. Conserve Energy Future. Available from: <http://www.conserve-energy-future.com/green-building.php>. [Accessed 04 April 2015].
- Scribd, 2015. *Creating high performing HR systems: green HRM* [online]. UK, Scribd Inc. Available from: <http://www.scribd.com/doc/61220598/Green-HRM#scribd> [Accessed 1 July 2015].
- Sudin, S., 2011. Strategic green HRM: a proposed model that support corporate environment citizenship. In: *International Conference on Sociality and Economics Development*, Kuala Lumpur 4-5 June 2011. Singapore: IACSIT Press, 79-83.
- US Environmental Protection Agency (USEPA), 2014. *Green building* [online]. US, US Environmental Protection Agency. Available from: <http://www.epa.gov/greenbuilding/> [Accessed 04 April 2015].
- US Environmental Protection Agency (USEPA), 2015. *Sustainability*. [online]. US, US Environmental Protection Agency. Available from: <http://www.epa.gov/sustainability/basicinfo.htm> [Accessed 17 April 2015].
- Wehrmeyer, W., 1996. *Greening people: human resources and environmental management*. England: Greenleaf Publishing.