



Environmental concerns and green human resource management: A meta-synthesis

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Abstract

The concept of green human resource management is presented as a new perspective in environment protection which incorporates environmental management into human resource management. This qualitative study aimed at examining the factors that lead employees to achieve environmental performance in organizations through human resource management. First, a systematic meta-synthesis study was performed to review the literature during 2010-2015, and the desired codes were identified. Then, data were summarized and new components were presented by a focus group composed of informed experts. The amount of support factors identified in the previous studies was assessed and ranked using the Shannon entropy. Results indicate that among the 12 identified factors, training, recruitment, and rewards are the most important ones and play an important role in the implementation of green human resource management.

Keywords: green human resource management; environmental management; sustainability

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Introduction

Green human resource management (GHRM) was introduced as a prerequisite for sustainable environment (Jackson et al., 2011; Kumari, 2012; Khan, 2015; Shaikh, 2014; Wagner, 2012). It comprises a series of human resource management activities in an organization with the objective to plan for the implementation of environmental programs and optimization of the use of resources, saving of costs, and sustainable

development. GHRM activities are composed of two components: environmental protection (environmental aspect and pollution control) and protection of organizational knowledge assets (human aspect). These activities affect directly and indirectly the organizational health and public health, respectively. A GHRM system is created with incorporation of environment management issues and human resource management, in which the human resources are capable of taking advantage of natural resources in daily life and creating a safe environment for them to think about future generations.

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Environmental Management System is a set of management practices that allow the organization to identify and assess the impact of its activities on the environment and control and eventually improve their environmental performance. This system can meet the legal requirements on the environment and also help conserve materials and energy. Also environmental management system supported by human resource management can apply more control over the activities of the organization and thus to reduce wastage and increase the efficiency of the organization. Among the environmental standards, ISO 14000 is a set of international standards related to the management of the environment. Most recognized of these standards, the standard ISO 14001, is an environmental management system standard.

ISO 14001 is an international standard by which managers can improve their environmental sustainability performance by implementing laws to reduce wastage, pollution, energy consumption and recycling and so on (Fonseca, 2014). This standard includes information on all the factors needed to develop and implement an environmental management system in organizations, and human resource management plays an important role in it.

Advancements in technology have led to the formation of official and service institutes which in turn have resulted in the emergence of new environmental concerns. Negligence and excessive use of natural resources cause environmental pollution, posing challenges which affect both the present and future generations. Therefore, there is a need to incorporate the environmental objectives into the corporate goals. In fact, a systemic approach is needed to apply to the whole community including organizations in which employees play an important role by transferring a management system, the GHRM, to family environment. Given the importance of environment protection for the present and future generations, the present study reviews the relevant literature and interprets the concepts to introduce key factors in green human resource management.

Materials and Methods

Meta-synthesis techniques were employed in an exploratory and descriptive study and using keywords and systematically reviewing references, libraries, and search engines' databases between 2010 and 2015, previous studies were analyzed to identify important factors in GHRM. Based on a set of keywords, 256 research articles were scrutinized to extract, analyze, and synthesize findings. The articles were then assessed several times using critical appraisal skills program (CASP) based on their abstract, content, characteristics, scope, and results. Finally, articles that did not meet the quality conditions and parameters were excluded and 30 articles were designated for the study. These articles were then studied in detail several times, and the basic concepts were encoded based on research needs. The codes were then summed up and extracted after re-examination and review of the literature before they were integrated on the basis of similar concepts. Next, the quality of the extracted findings was assessed using Holsti's formula. Five articles were reviewed and encoded by a third party expert to check on the reliability of the extracted code and the reliability coefficient was measured as 0.613. Finally, the codes were summarized for presentation of the findings.

To ensure the validity of results and adjust and refine the qualitative findings of meta-synthesis stage, focus group discussions were conducted with the participation of experts and informants. The meetings were organized in two 90-minute sessions at three stages including conceptualization, interviews, analysis, and reporting, managed by the researcher. The focus group meetings were organized with the participation of nine informed authorities including five academic faculty members and four PhD students. Results included the labeling of "green thinking" to the set of findings. Green thinking consists of the factors that form a prerequisite for any activity to create or develop green human resource management in the organization. The findings from seven meta-

Table 1
Results Shannon entropy: factors of green human resources

Component	Factors	Abundance	relative abundance	$\sum p_i \ln p_i $	Ej	Dj	Wj	Rank
GREEN HUMAN RESOURCE	Green HRM prospects	4	0.030769231	-0.10711508	-0.26617097	1.266170974	0.071873064	8
	Recruitment and selection	23	0.176923077	-0.306437888	-0.76146954	1.761469545	0.099988244	2
	Performance management	17	0.130769231	-0.266026606	-0.66105128	1.661051283	0.094288091	4
	Training of GHR practices	25	0.192307692	-0.317049736	-0.787839	1.787838997	0.101485083	1
	Innovation	5	0.038461538	-0.125311405	-0.31138714	1.311387144	0.074439719	7
	Grievance and discipline	3	0.023076923	-0.086975127	-0.21612507	1.216125071	0.069032253	9
	Designing jobs	5	0.038461538	-0.125311405	-0.31138714	1.311387144	0.074439719	7
	Pay and compensation	9	0.069230769	-0.184867607	-0.45937874	1.459378745	0.08284033	5
	Rewards systems	18	0.138461538	-0.273760988	-0.6802705	1.6802705	0.095379053	3
	Motivation employees	9	0.069230769	-0.184867607	-0.45937874	1.459378745	0.08284033	5
	Employment empowerment	7	0.053846154	-0.157318232	-0.39092112	1.39092112	0.078954394	6
	Talent management	5	0.038461538	-0.125311405	-0.31138714	1.311387144	0.074439719	7

synthesis process in the focus group discussions were approved, including 12 important factors in the development of green human resource management in the organization. After identifying the factors of green human resources, they were ranked using the Shannon entropy in order to determine the amount of support of the findings of previous research and the subsequent interpretation.

Results

The results of ranking the factors of green human resources are shown in Table (1). As the table indicates, the most important priority of green human resources included training, recruitment, and selection, as well as reward systems.

Discussion

Training for sustainable development and environmental protection organizations is an approach in which staff are empowered to create a sustainable future and green environment. A green program implemented at all levels of the organization must be considered for new staff as an important part of the education process so that new staff understand the methods and policies of

environment protection as well as their advantages and disadvantages. In fact, employees should be educated about the details of matters relating to reducing pollution, recycling, energy consumption, etc. (Mandip, 2012). Training and development activities about environmental issues should also inform employees of the different aspects of environmental management including, but not limited to, different ways of environmental protection e.g., savings, waste management, and optimal consumption in the organization, and making them interested in enhancing their skills in dealing with environmental issues (Ahmad, 2015).

Today, recruiting high-quality employees and qualified human resources is one of the major challenges in the "war for talent". Green recruitment is defined as the process of recruiting a person who is compatible with the knowledge, skills, and behaviors of environmental management systems in the organization. The applicants with a green mentality help the organization in adopting training policies. On the other hand, the greenness should be put on top of the process of recruiting the applicants, and should be seen in the recruitment announcements, interviews, reception of documents, and records and examinations. All these measures are regarded as an investment in the environment. Recruitment practices can be

effective in the implementation of environmental management programs provided that the organization will support new recruits in understanding the environmental culture of the organization and its environmental value (Wehrmeyer, 1996).

Reward systems are designed so that employees ensure that their effective behavior is recognized in achieving organizational goals. In green human resource management, rewards could be considered a potential tool to support the environmental activities of the organization (Milliman and Ckair, 1996). Jackson et al. (2011) reports the findings of an extensive study among 469 American companies suggesting the influence of rewards on their environmental performance. Ahmad (2015) argues that modern organizations with a strategic approach to reward and encouragement of employees provide conditions for the development of ecofriendly initiatives. Therefore, top managers in organizations can consider rewards and compensations for employees as potential tools to support the environmental activities of the organization. Reward systems for contributions made by employees in environment management plans can be allocated in the forms of salary increase, cash incentives and bonuses, while non-monetary rewards are introduction of people in official events. In addition, appreciation of green efforts may include sabbaticals, special leave, and gifts to employees and their family members (Kapil, 2015).

Finally, findings suggest that among the activities of pro-environment human resource management, 'training', 'recruitment', and 'reward' were emphasized. In GHRM, human resource management is pro-environment and pro-sustainability. Through these, human resources management with an approach to green activities hopes to share today's resources with the future generations and contribute to the survival of living environment.

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