

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

Mohammed N. Elziny

Faculty of Tourism and Hotel Management, Helwan University, Cairo

Abstract

Human Resources Management (HRM) embraces considering environmental practices to increase their employees' commitment and to improve better performance on the issues of environmental management. The research aim is to determine the impact of Green Human Resources Management (GHRM) on employees' eco-friendly behavior. This research reports the findings of a survey from hotel employees who had at least one-year work experience in Cairo. A survey of 220 employees was conducted from January 2019 till June 2019. The survey included six statements related to the GHRM and one statement related to the employees' eco-behavior. Five hypotheses were verified and all of them were supported. Structural equation modeling (SEM) was used to test the measurements model using AMOS 4. The results demonstrate that green human resource management promotes employees' eco-friendly behavior. Finally, this study presents a useful model of green human resources management policies that hotel HR managers should establish to support their environmental practices.

Keywords: Green Human Resources Management (GHRM), Employees' Eco-friendly Behavior, Cairo Hotels.

1. Introduction

The word "green" can be characterized into four major aspects regarding green human resources management GHRM (Opatha, 2013). These aspects are (a) caring of the environment, (b) protecting the nature, (c) minimizing pollution, and (d) exploiting eco fields and natural human scenery. Green efforts in service industries such as hotels include waste reduction, energy and water conservation in their operations and educating both of customers and staff the concept of environmental implications (Bohdanowicz *et al.*, 2011 and Rahman *et al.*, 2012). For example, Hilton has set operational objectives and environmentally friendly programs for environmental protection and has developed reporting tools to assess its progress. As a result, Hilton Worldwide in 2009 reduced its total water consumption by 14.1% and energy consumption by 14.5% (Kim *et al.*, 2019).

Nowadays, Green Human Resources Management GHRM may play an essential role in environmental management (Paillé *et al.*, 2014). The term of "GHRM" is referred to the management of green human resources which include ecological objectives in all HRM sub-areas (Harris & Tregidga, 2012). These sub-areas involve all the activities of hiring and maintaining of eco-friendly staff, environmental training, and eco-friendly contributions of employees that aims at making them of an organization green (Opatha, 2013). Consequently, the employees environmentally friendly behavior lead to a success of GHRM, as their behavior improves the overall environmental performance of the hotel as a whole (Faleye & Trahan, 2011).

Most of previous studies have examined environmental management practices in hospitality sectors mainly on the consumer views (Kim & Choi, 2013; Hsiao *et al.*, 2014; and Molina-Azorín *et al.*, 2015). Meanwhile, hotel employees have an important role in improving environmental outcomes (Harris & Crane, 2002, and Bohdanowicz, 2005). Few researches have examined the relationship between GHRM practices and eco-friendly behavior of hotel employees. In summary, there was a significant lack of research investigating how GHRM stimulates employees' eco-friendly behavior to improve their environmental performance.

Based on these arguments, this research aims to investigate the relation between GHRM and employees' eco-friendly behavior. This study will first discuss a review of relevant literature on the importance of GHRM elements, employees' green behavior, and eco-friendly organizational culture. Then, the survey methodology followed by results and findings summary. Finally, these findings were used to develop specific advices on how to improve the concept of green human resources management in hotel, in order to get better performance on environmental management.

2. Literature review

2.1. Green HRM and its elements in hotel industry

Most researches nowadays demonstrate that hotel performance is improved by environmental issues (Opatha, 2013). Thus, many hotels become interested in ecological practices, noting that environmental protection is in their best interest (Beard & Rees, 2000 and Jabbour *et al.*, 2010). In this context, a new approach has emerged that is related to human resources management, which is concerned with including a set of environmental objectives in all areas of human resources management (Bangwal & Tiwari, 2015). This approach starts from employee job analysis and ending with

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

employee motivation and development, to their evaluation and influence on working conditions (Molina-Azorín *et al.*, 2015).

Opatha (2013) as well as Opatha and Arulrajah (2014) defined GHRM as "*all the activities involved in development, implementation and on-going maintenance of a system that aims at making employees of an organization green*". Human resource management practices are also defined as a set of processes and techniques that relate to how employees are managed within organizations (Gerhart *et al.*, 2000; Huselid & Becker, 2000). Similarly, GHRM practices are the implementation and application of a range of green human resources management programs aimed to reduce the negative impacts of organizations and to improve the environmental behavior amongst their employees (Sudin, 2011 and Rani & Mishra, 2014).

In 2017, Wehrmeyer was the first researcher who pays attention to the concept of green human resources management. This was reflected in one of his works when he merged the human resource management with the environmental management (Stojanoska, 2016). Hence, GHRM has an increased attention and many researches have emerged that seeking to push the institutions management i.e. hotels to reduce waste, and to bring about green behavior (Renwick *et al.*, 2013). Hence, these actions will establish activities like e-filing, ride participation, job sharing, teleconferencing and virtual interviews, recycling, telemarketing, online training, and development of energy-efficient office spaces (Sharma & Gupta, 2015).

Many organizations are working to increase the environmental behavior of employees (Masri & Jaaron, 2017). However, many studies have found that there is no relationship between the company's environmental policy and the actual behavior of employees (Haddock-Millar *et al.*, 2016). It should be noted that recent studies have highlighted the relationship between GHRM elements and the successful implementation of environmental management system (EMS) (Jabbour & Jabbour, 2016). HR factors can be listed as green job analysis and planning, green job advertising and selection process, green training and development, green compensation systems, green performance appraisal, and green empowerment and employee relations (Arulrajah *et al.*, 2015; Masri & Jaaron, 2017; Bombiak & Marciniuk-Kluska, 2018; and Kim *et al.*, 2019).

- Green Employee Job Analysis and Planning

Job analysis is the first step in the concept of GHRM, using the principles of environment-friendly jobs and each job role defines the environmental

protection tasks (Opatha, 2013). Human resources managers take into consideration a number of tasks, duties and responsibilities related to environmental protection during job analysis phase (Renwick *et al.*, 2008).

Nowadays a lot of human resources managers in hotels place a number of environmental responsibilities in the job description of each job. Moreover, employees should have environmental requirements in their specifications as possible. For example, HR managers should include safety duties, as well as the allocation of environmental reporting roles (Jabbour *et al.*, 2010).

- Green Job Advertising and Selection Process

After the completion of job analysis and the inclusion of the environmental requirements in the organizations' job description, these organizations seek to focus on attracting and selecting employees who are interested in supporting and preserving the environment (Renwick *et al.*, 2013). Hence, hotels should create an environmental reputation influenced by the belief that these hotels are sensitive to the environment (Guerci *et al.*, 2016).

Green job advertising refers to the importance of organization's green culture that new recruits should understand and committed (Jackson & Seo, 2010).

Research indicates that most new graduates tend to choose organizations renowned for their corporate environmental responsibility (Mandip, 2012). In addition, applicants should be notified in the selection context that one of the selection criteria is the environmental issue. Therefore, when interviewing applicants or assessing them, environmental issues should be a significant component of the assessment process (Revill, 2000).

- Green Training and development.

A considerable role of green HRM is to provide the employee with environmental training to develop the necessary abilities and expertise. This will be useful in implementing the environmental management programs (Jackson *et al.*, 2011). The researchers also recommend certain green training and development practices such as training staff to produce green analysis of workspace, waste reduction, development of green personal skills, recycling and energy saving training.

Nowadays, some hotels are seriously analyzing and identifying employees' environmental training requirements to make them more workforces involved with the environment. Based on environmental training needs of employees, these hotels carry out serious and systematic education, training and development programs which are given to the employees to provide them

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

with the necessary knowledge, skills and attitudes for good environmental management (Jabbour, 2011).

- Green Compensation and Rewards.

Motivating employees to undertake environmentally-friendly activities is an important role in the effectiveness of implementing of Green HRM elements (Urbaniak, 2017). There are many types of effective tools consist of awards and compensation practices to green skills acquisition for promoting environmental actions across organizations (Ramus & Steger, 2000).

Rewards can be on the form of financial incentives e.g. bonuses, premiums, other non-financial incentives include e.g. sabbaticals, leave, and gifts; and positive rewards e.g. praise, grants for environmental projects, (Phillips, 2007; Renwick *et al.*, 2013 and Opatha, 2013).

- Green Performance Appraisal.

Assessment of employee ecological performance of job is one of the key functions in green HRM through measuring employees' contribution to the advancement of environmental practices (Ahmad, 2015). Without this practice, organization will not be able to guarantee real, environmental effectiveness (Renwick *et al.*, 2013 and Opatha, 2013). Environmental Management Information Systems (EMIS) must be established by organizations to maintain good environmental efficiency (Jackson & Seo, 2010).

The main purpose of applying EMIS is to monitor resource flows and environmental audits and to monitor efficiently the big amount of pollution, resource usage, power and regulatory requirements an organization encounters (Jackson *et al.*, 2011 and Arulrajah *et al.*, 2015). In addition, managers need to regularly provide feedback to staff on their role in attaining environmental objectives to improve their ecological performance (Jackson *et al.*, 2011 and Arulrajah *et al.*, 2015); this feedback will help staff to improve their behavioral and technical competencies related to environmental.

- Green Employee Relations.

In order to implement an effective environmental management system, HR executives should encourage their staff to participate in developing and designing new eco-friendly ideas through empowering them (Jabbour & Santos, 2008 and Ahmad, 2015). For this purpose, employees can negotiate with their managers in green suggestion schemes and problem-solving circles where they offer unique ideas to manage important issues (Liebowitz, 2010).

Moreover, Sudin (2011) indicated that encouraging employee participation produces socially or ecologically oriented entrepreneurs within the organization.

Employees should therefore be engaged in formulating the organization's environmental plan to generate and develop the required expertise to market green products and services (Margaretha & Saragih, 2012). This participation will help managers to expand preventive solutions inside their organizations, manage emergency circumstances and identify pollution sources. These practices finally lead to improve positive employees' eco-friendly behavior resulting in a good environmental performance (Boiral & Paille, 2012 and Renwick *et al.*, 2013).

2.2. Employees' green culture eco-friendly behavior

Recently, a concept called organizational citizenship behavior for the environment (OCBE) has emerged in the literature. This concept is one of the scientific approaches that seek to support environmentally friendly behavior within institutions (Daily *et al.*, 2009 and Paillé *et al.*, 2013). Moreover, Daily *et al.* (2009, p. 246) defined (OCBE) as “*discretionary acts by employees within the organization not rewarded or required that are directed toward environmental improvement*”. Some researchers found that OCBE is limited to only voluntary and discretionally behaviors. Meanwhile, eco-friendly conduct focuses on such particular behaviors that are appropriate in the hotels context linked to energy use, water use, and waste reduction (Kim *et al.*, 2019). This search assumes that GHRM practices will have a significant positive impact on hotels employees' eco-friendly behavior.

All in all, it must be stressed that environmentally friendly GHRM practices lead to the growth of "green" human assets, i.e. highly qualified employees who follow and comprehend the values of ecological development. Hence, Literature confirms the importance of GHRM in improving employee's environmental performance. Therefore, the researcher focuses on the GHRM in hotel sector. Following these views, six hypotheses and a proposed model (see Fig. 1) are presented below.

- H1.** Green employee job analysis and planning practices have a positive impact on employees' eco-friendly behavior.
- H2.** Green employee job Advertising and selection practices have a positive impact on employees' eco-friendly behavior.
- H3.** Green employee training and development practices have a positive impact on employees' eco-friendly behavior.
- H4.** Green employee compensation and reward practices have a positive impact on employees' eco-friendly behavior.

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

- H5. Green employee performance appraisal practices have a positive impact on employees' eco-friendly behavior.
- H6. Green employee relations practices have a positive impact on employees' eco-friendly behavior.

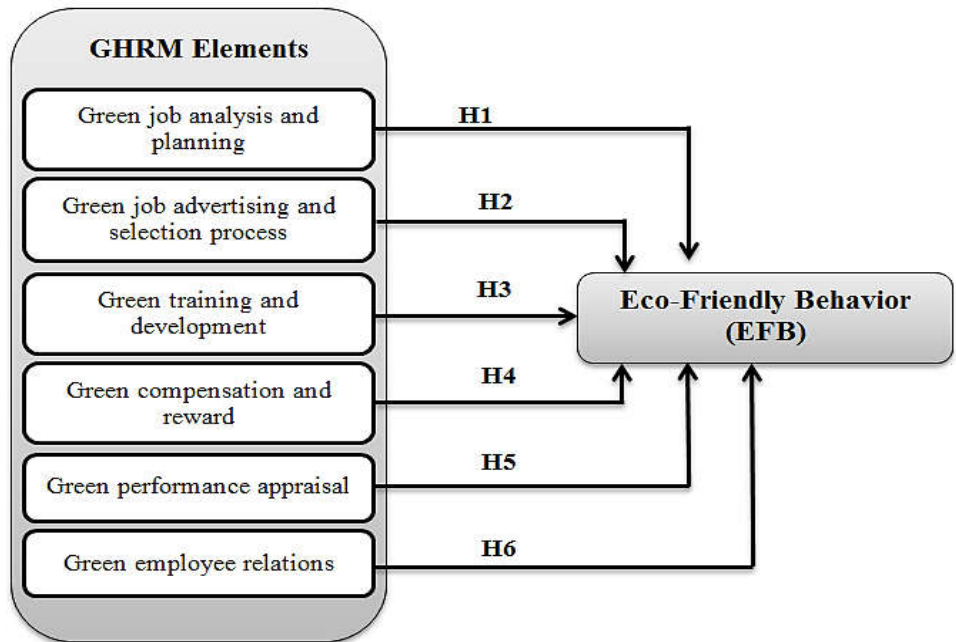


Fig. 1: Proposed research model of the association between GHRM and employees' eco-friendly behavior in hotels

3. Research methodology

This study provides an investigation of the interrelationship between hotels' GHRM and employees' environmentally performance in hotel sector. The purpose of this research is to identify the impact of GHRM on hotel employees' eco-friendly behavior. A questionnaire was distributed from January 2019 through June 2019. This questionnaire was conducted with 220 employees from 6 hotels applied GHRM using convenience sampling technique.

3.1. Survey Structure

The study employed a questionnaire survey as the data-gathering instrument. The GHRM elements scale was adapted and revised from "Arulrajah *et al.*,

2015; Masri & Jaaron, 2017; Bombiak & Marciniuk-Kluska, 2018 and Kim *et al.*, 2019". The survey was fine-tuned through discussions with various hotel employees who had more than one year experience.

The final version of the survey was divided into three main sections. The first section asked employees for profiling information (i.e., gender, age, length of employment, education level, working positions, job role, and department). In the second section, employees were asked to rate 23 items on a five-point Likert-type scale ranging from: ‘never’ (1); to ‘always’ (5) about their opinions regarding how human resources management applies the green elements in hotel. In the third section employees were asked to rate 10 items on a five-point Likert-type scale ranging from: ‘never’ (1); to ‘always’ (5) to evaluate their eco-friendly behavior. The 33 items are divided into seven variables: green employee job analysis and planning (5 items), green employee job advertising and selection (4 items), green employee training and development (4 items), green employee compensation and reward (3 items), green employee performance appraisal (4items), green employee relations (3 items), and employees’ eco-friendly behavior (10 items).

3.2. Research Population and Sampling Technique

The target population for this study was five-star hotel employees who may have an interest and/or influence. In summary, the survey was designed to measure the relationship between GHRM and employees' eco-friendly behavior. The minimal sample size requirement to use Structural Equation Model (SEM) should be 10 times the number of variables being analyzed (Floyd & Widaman, 1995). Accordingly, in this research, three hundred questionnaires distributed, two hundred and twenty (n 220) valid questionnaires were completed and returned, thus achieving a response rate of 73.3 percent (See table 1).

Table 1: Employees' response rate

Hotel Code	Distributed No.	Response Rate		Valid Percentage
		Valid	Invalid	
1. H001	50	36	14	72%
2. H002	50	45	5	90%
3. H003	50	32	18	64%
4. H004	50	38	12	76%
5. H005	50	29	21	58%
6. H006	50	40	10	80%
Total	300	220	80	73.3%

3.3. Data Analysis

Data analysis involved three key steps: (1) checking data for incompleteness, (2) coding data and (3) choosing the right statistics. In this research all these steps have been adopted. For the descriptive analysis, SPSS version 20 was used to analyze the relationship between GHRM and employees' eco-friendly

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

behavior scale descriptively. On the other hand, Structural equation modeling (SEM) was used to test the measurement model of GHRM and employees' eco-friendly behavior using AMOS 4. Moreover, goodness-of-fit measures were utilized to assess the structural fit of the hypothesized model. The final questionnaire items are listed in Table 2 along with their sources.

Table 2: Construct measurements

Construct	Code	Measure	Mean	Std. dev.
Green Job Analysis	G.JA1	HRM incorporates a number of environmental protection related duties and responsibilities in each job in the hotel.	2.50	.846
	G.JA2	HRM uses cross-functional teams as job design techniques to successfully manage the environmental issues of the hotel.	2.60	.903
	G.JA3	HRM interests in including the environmental dimension as a duty in job description.	2.85	.756
	G.JA4	HRM interests in including the green competencies as a part of competency requirements in job specification.	3.37	.720
	G.JA5	HRM designs new jobs and positions in order to focus exclusively on environmental aspects of the hotel.	3.85	.734
Green Job Adv. and Selection	G.J&S1	HRM expresses certain environmental values in the job advertisements of the hotel.	2.35	.799
	G.J&S2	HRM indicates the preference of the hotel to recruit candidates who have competency to ecological knowledge and skills in the recruitment message.	2.03	.947
	G.J&S3	HRM selects applicants who are sufficiently aware of greening to fill job vacancies.	3.15	.920
	G.J&S4	HRM announces you about your commitment to ecology during the personal interview.	3.79	.735
Green Training and Development	G.T&D1	HRM identifies the hotel's employee needs of environmental issues when training requirement analyzed	4.68	.504
	G.T&D2	HRM provides ecological training for employees and managers to increase their environmental awareness	4.42	.739
	G.T&D3	Training materials are available online for employee to reduce paper cost	3.25	1.11
	G.T&D4	Providing opportunities to everybody to be trained on environmental management aspects.	3.96	.733
Green Compensation and Rewards	G.C&R1	HRM develops rewards system for completion of ecological projects (awards, subsidies to wages).	3.33	.672
	G.C&R2	HRM offers incentives to encourage environmentally friendly activities and behaviors.	3.33	.851
	G.C&R3	HRM provides advisory services and support to solve ecological problems.	3.10	.850
Green Performance Appraisal	G.PA1	HRM establishes a clear set of rules and regulations which regulates employees to be concerned with environmental protection.	2.93	.793
	Cont.			

			Cont.	
		HRM observes employees' environmentally-attitudes when performing professional tasks (such as paper use reduction).	2.77	.892
	G.PA3	HRM formulates and publishes the rules of conduct relating to eco-behavior.	2.61	1.03
	G.PA4	HRM sets penalties or dismissal for environmental management breaches.	1.84	.851
Green Employee Relations	G.ER1	HRM involves employee in formulating environmental strategy of the hotel.	3.17	.768
	G.ER2	Top managers use teamwork to successfully manage and produce awareness of the environmental issues of the hotel.	3.61	3.61
	G.ER3	HRM implements environmental strategies to prevent various health problems/ in order to improve health and safety of employees in the hotel.	3.26	.903
Employees' Eco-friendly Behavior	EFB1	I turn off the electric appliances, such as computers, TV monitor, etc before i get off work.	4.51	.637
	EFB2	I turn off the light when I leave a room that is unoccupied.	4.56	.573
	EFB3	I sort and recycle garbage in the workplace.	3.06	.779
	EFB4	I conserve materials at work	3.46	.796
	EFB5	I limit water use in toilet to save water.	4.35	.691
	EFB6	I pay close attention to water leak	4.35	.716
	EFB7	I involve and participate in ecological suggestion schemes in the hotel.	3.01	1.02
	EFB8	Green practices improve corporate reputation of our hotel.	4.12	.681
	EFB9	I feel proud of my environmentally friendly practices within my hotel.	4.38	.655
	EFB10	Environmental practices helped me to develop my practical performance	4.50	.630

Source: Adopted from (Kim *et al.*, 2019; Bombiak and Marciniuk-Kluska, 2018; Masri and Jaaron, 2017; and Arulrajah *et al.*, 2015)

4. Analysis of Findings

4.1. Respondents' Profiles

The responses of the participants regarding the hotel profiles (as presented in table 3) show that employees were from various age groups, with the largest group (i.e., 46.4 percent) aged from 21 up to 30 years old. In addition, employees comprised 65.0 percent males and 35.0 percent females. With regards to length of employment, the majority of employees had a less than five years of work experience (i.e., 77.3 percent). In terms of education, the majority of employees had a university degree (i.e., 65.5 percent). Finally, the majority of employees work in the departments of food and beverage and rooms with percentage of 36.4 and 31.8 respectively.

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

Table 3: Profile of respondents (N=220)

Demographic Data		Frequency	%
Age	Less than 21	42	19.1
	21 up to 30	102	46.4
	31 up to 40	67	30.5
	More than 40	9	4.1
Gender	Male	143	65.0
	Female	77	35.0
Length of Employment	1 up to 5	170	77.3
	6 up to 10	47	21.4
	11 up to 15	2	.9
	More than 15	1	.5
Educational Level	Primary	2	.9
	Secondary	35	15.9
	University	144	65.5
	Post	39	17.7
Department	Rooms	70	31.8
	F&B	80	36.4
	Sales and Marketing	30	13.6
	Human Resources	28	12.7
	Maintenance	9	4.1
	Other (Specify.....)	3	1.4

4.2. Structural Equation Modeling Confirmatory factor analysis (CFA)

This study adopted a lot of strategies to ensure the validity of the questionnaire survey. The first strategy included an external auditing procedure; some parts of this study were reviewed by internal reviewers. The second strategy was adopting peer review or debriefing as the research methods were discussed and reviewed with many peers studying in the same field. The third strategy was a rich description of the survey issues to participants.

Moreover, Confirmatory Factor Analysis (CFA) was used to measure the reliability and validity of the six GHRM practices scale and eco-friendly behavior scale. As shown in table 4, the initial model was not a satisfactory fit and so some modification indices were suggested to improve the model fit. More accuracy, five items were removed from scale. The first item was from green job advertising and selection process scale (i.e., G.J&S4). Moreover, two items were removed from green employee relations (i.e., G.ER2 and G.ER3). The other two items were removed from employee eco-friendly behavior (EEP5 and EEP10). In addition, the remaining item of green

employee relations scale was transferred to green compensation and rewards scale for the intensity of its bonding. As a result of moving this item, the group name has been changed to "green compensation, rewards and empowerment" to fit its own items.

Finally, a good model fit was achieved for the measurement model: incremental fit index (IFI) = 0.936, Tucker–Lewis index (TLI) = 0.925, comparative fit index (CFI) = 0.935, which were all greater than the recommended level of 0.90 and root mean square error of approximation (RMSEA) = 0.049, lower than the cut off value of 0.05 (Arbuckle, 2011). The results of CFA showed that the lowest value of CR and Cronbach’s α for all of the constructs was 0.74, which exceeded the minimum acceptable value of 0.70(Pallant, 2005), proving that data are considered to be reliable. Additionally, the values of Average Variance Extracted (AVE) for all constructs exceeded the minimum acceptable value of 0.50 indicating good convergent validity (Hair *et al.*, 2010).

Table 4: Factor loadings, validity analysis, and reliability test of the measurement model

Construct	Factor Loading	CR	A	AVE
Green Job Analysis and Planning		0.863	0.865	0.564
G.JA1	.699			
G.JA2	.906			
G.JA3	.856			
G.JA4	.664			
G.JA5	.580			
Green Job Advertising and Selection Process		0.829	0.817	0.621
G.J&S1	.684			
G.J&S2	.920			
G.J&S3	.741			
Green Training and Development		0.766	0.740	0.528
G.T&D1	.748			
G.T&D2	.835			
G.T&D3	.572			
Green Compensation, Rewards and Empowerment		0.880	0.878	0.653
G.C&R1	.619			
G.C&R2	.833			
G.C&R3	.962			
G.ER1	.780			
Green Performance Appraisal		0.850	0.843	0.587
G.PA1	.749			
G.PA2	.795			
G.PA3	.719			
G.PA4	.798			
Employees' Eco-friendly Behavior		0.897	0.894	0.528
EFB1	.744			
EFB2	.632			
Cont.				

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

Cont.				
EFB3	.725			
EFB4	.586			
EFB6	.630			
EFB7	.600			
EFB8	.835			
EFB9	.973			

Note: All factor loadings were significant at $\leq .001$; CR = Composite reliability; α = Alpha reliability; AVE = average variance extracted.

Structural Models and Hypotheses Testing

As a result of CFA which discussed above, the research proposed model was modified. More specifically, green employee relations practices were excluded from the model, proving that it is important to restate the research hypothesizes which were formulated and presented in Fig. 1. Finally, hypotheses of the research became as follows:

- H1.** Green employee job analysis and planning practices have a positive impact on employees' eco-friendly behavior.
- H2.** Green employee job Advertising and selection practices have a positive impact on employees' eco-friendly behavior.
- H3.** Green employee training and development practices have a positive impact on employees' eco-friendly behavior.
- H4.** Green employee compensation, rewards and empowerment practices have a positive impact on employees' eco-friendly behavior.
- H5.** Green employee performance appraisal practices have a positive impact on employees' eco-friendly behavior.

Standardized path coefficients (β) were utilized to test the postulated hypotheses in a causal diagrammatic as shown in Table 5. These estimates can be described as positively strong since all of Absolute t-value > 3.29 , $p < 0.001$. The findings revealed strong relationship between green job analysis and planning; green job advertising and selection process; green training and development; green compensation, rewards and empowerment; green employee performance appraisal and employees' eco-friendly behavior, supported H1 ($\beta = 0.21$, $p < 0.001$); H2 ($\beta = 0.10$, $p < 0.001$); H3 ($\beta = 0.17$, $p < 0.001$); H4 ($\beta = 0.12$, $p < 0.001$) and H5 ($\beta = 0.13$, $p < 0.001$), respectively. In conclusion, it is noted that the GHRM practices enhances employees' eco-friendly behavior.

Table 5: Standardized parameter estimates of the structural model

Hypotheses	Path	Beta coefficients (β)	t-values	Results
H1	G.JA → Eco-behavior	0.21	8.68***	Supported
H2	G.J&S → Eco-behavior	0.10	4.78***	Supported
H3	G.T&D → Eco-behavior	0.17	8.42***	Supported
H4	G.C&R → Eco-behavior	0.12	6.61***	Supported
H5	G.PA → Eco-behavior	0.13	6.43***	Supported

*Absolute t-value > 1.96, p< 0.05; **Absolute t-value > 2.58, p< 0.01;

***Absolute

t-value > 3.29, p< 0.001.

5. Discussion and Implications

The value of this research is the identification, prioritization, and validation of GHRM practices, which influence employees' eco-friendly behavior in hotels. The analysis of the results confirms that there is a statistically positive and significant relationship between the five GHRM practices and EEP. In other words, GHRM practices such as green job analysis, advertising, employees' interviews, training, compensation, and performance appraisal had positive impacts on employees' eco-friendly behavior in hotels. This is consistent with previous study (i.e., Masri & Jaaron, 2017) which showed that there is a positive correlation between GHRM practices adopted by human resources managers in hotels and their employees' eco-behavior.

Therefore, the current study suggests that HR managers should pay more attention to the way the job is designed. For example, managers should design the job in a way that incorporates a number of environmental protection related duties. Moreover, hotel job advertising should emphasize the importance of hotels' green culture that new employees should understand. In addition, the results of this study reveal that HR managers should identify their employees' needs of environmental issues when they analyze training programs. In other words, employee who has been trained on how to preserve the environment will be more careful towards environmental behavioral practices in the hotel e.g., conserving materials. Taking this approach, HR managers also have to incentive their employees and develop a rewards system to motivate their staff to engage in environmental initiatives. Finally, respondents' analysis agreed that HRM in hotels should establish a set of rules that regulate employees' environmentally attitudes.

6. Limitations and Suggestions for Future Research

This study is based on data collected from a sample of green star hotels in Cairo. Absolutely, it was too difficult to sample all hotels in Egypt. Hence,

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

the investigated hotels were limited to those located in Cairo. Moreover, restaurants industries, travel agencies and/or tour operators that also belong to the tourism industry are not voiced in this research. So, it is suggested that in-depth case studies be performed in hospitality and tourism industries to obtain more insight into the use of GHRM practices for improved EEP, due to the scarcity of researches related to this subject. One of the methodological limitations of this study is the use of questionnaires survey. Future studies using qualitative methods, including interviews and focus groups, should provide a broader understanding of the impacts of GHRM elements or practices on employees' eco-friendly behavior.

7. References

Ahmad, S. (2015). Green Human Resource Management: Policies and Practices. *Cogent Business & Management*, 2(1), 1030817.

Arbuckle, J. (2011). *IBM SPSS AMOS 20 user's guide*. Mount Pleasant. SC: AMOS Development Corporation.

Arulrajah, A. A., Opatha, H. H. D. N. P., and Nawaratne, N. N. J. (2015). Green human resource management practices: A review. *Sri Lankan Journal of Human Resource Management*, 5(1).

Bangwal, D. and Tiwari, P. (2015). Green HRM—A Way to Greening the Environment. *IOSR Journal of Business and Management*, 17(12), 45-53.

Beard, C. and Rees, S. (2000). Green Teams and the Management of Environmental Change in a UK County Council. *Environmental Management and Health*, 11(1), 27-38.

Bohdanowicz, P. (2005). European Hoteliers' Environmental Attitudes: Greening the Business. *Cornell Hotel and Restaurant Administration Quarterly*, 46(2), 188-204.

Bohdanowicz, P., Zientara, P. and Novotna, E. (2011). International Hotel Chains and Environmental Protection: An Analysis of Hilton's We Care! Programme (Europe, 2006–2008). *Journal of Sustainable Tourism*, 19(7), 797-816.

Boiral, O. and Paillé, P. (2012). Organizational Citizenship Behaviour for the Environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445.

Bombiak, E. and Marciniuk-Kluska, A. (2018). Green Human Resource Management As A Tool for the Sustainable Development of Enterprises: Polish Young Company Experience. *Sustainability*, 10(6), 1739.

Daily, B. F., Bishop, J. W. and Govindarajulu, N. (2009). A Conceptual Model for Organizational Citizenship Behavior Directed Toward the Environment. *Business & Society*, 48(2), 243-256.

Faleye, O. and Trahan, E. A. (2011). Labor-friendly Corporate Practices: Is What is Good for Employees Good for Shareholders?. *Journal of Business Ethics*, 101(1), 1-27.

Floyd, F. J. and Widaman, K. F. (1995). Factor Analysis in the Development and Refinement of Clinical Assessment Instruments. *Psychological Assessment*, 7(3), 286.

Gerhart, B., Wright, P. M., MC Mahan, G. C. and Snell, S. A. (2000). Measurement Error in Research on Human Resources and Firm Performance: How Much Error is There and How Does It Influence Effect Size Estimates?. *Personnel Psychology*, 53(4), 803-834.

Guerci, M., Longoni, A. and Luzzini, D. (2016). Translating Stakeholder Pressures into Environmental Performance—the Mediating Role of Green HRM Practices. *The International Journal of Human Resource Management*, 27(2), 262-289.

Haddock-Millar, J., Sanyal, C. and Müller-Camen, M. (2016). Green Human Resource Management: A Comparative Qualitative Case Study of A United States Multinational Corporation. *The International Journal of Human Resource Management*, 27(2), 192-211.

Hair, J., Black, W., Babin, B. and Anderson, R. (2010). *Multivariate Data Analysis*. 7th Edition. New Jersey: Pearson Prentice Hall.

Harris, C. and Tregidga, H. (2012). HR Managers and Environmental Sustainability: Strategic Leaders or Passive Observers?. *The International Journal of Human Resource Management*, 23(2), 236-254.

Harris, L. C. and Crane, A. (2002). The Greening of Organizational Culture: Management Views on the Depth, Degree and Diffusion of Change. *Journal of Organizational Change Management*, 15(3), 214-234.

Hsiao, T. Y., Chuang, C. M., Kuo, N. W. and Yu, S. M. F. (2014). Establishing Attributes of An Environmental Management System for Green Hotel Evaluation. *International Journal of Hospitality Management*, 36, 197-208.

Huselid, M. A. and Becker, B. E. (2000). Comment on “Measurement Error in Research on Human Resources and Firm Performance: How much error is there and how does it influence effect size estimates?” by Gerhart, Wright, Mc Mahan, and Snell. *Personnel Psychology*, 53(4), 835-854.

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

Jabbour, C. (2011). How Green are HRM Practices, Organizational Culture, Learning and Teamwork? A Brazilian Study. *Industrial and Commercial Training*, 43(2), 98-105.

Jabbour, C. J. C. and Jabbour, A. B. L. (2016). Green Human Resource Management and Green Supply Chain Management: Linking two Emerging Agendas. *Journal of Cleaner Production*, 112, 1824-1833.

Jabbour, C. J. C. and Santos, F. C. A. (2008). The Central Role of Human Resource Management in the Search for Sustainable Organizations. *The International Journal of Human Resource Management*, 19(12), 2133-2154.

Jabbour, C. J. C., Santos, F. C. A. and Nagano, M. S. (2010). Contributions of HRM Throughout the Stages of Environmental Management: Methodological Triangulation Applied to Companies in Brazil. *The International Journal of Human Resource Management*, 21(7), 1049-1089.

Jackson, S. E., Renwick, D. W., Jabbour, C. J. and Muller-Camen, M. (2011). State-of-the-art and Future Directions for Green Human Resource Management: Introduction to the Special Issue. *German Journal of Human Resource Management*, 25(2), 99-116.

Jackson, S. E. and Seo, J. (2010). The Greening of Strategic HRM Scholarship. *Organization Management Journal*, 7(4), 278-290.

Kim, S. H. and Choi, Y. (2013). Hotel Employees' Perception of Green Practices. *International Journal of Hospitality & Tourism Administration*, 14(2), 157-178.

Kim, Y. J., Kim, W. G., Choi, H. M. and Phetvaroon, K. (2019). The Effect of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior and Environmental Performance. *International Journal of Hospitality Management*, 76, 83-93.

Liebowitz, J. (2010). The Role of HR in Achieving a Sustainability Culture. *Journal of Sustainable Development*, 3(4), 50-57.

Mandip, G. (2012). Green HRM: People Management Commitment to Environmental Sustainability. *Research Journal of Recent Sciences*, ISSN, 2277, 2502.

Margaretha, M. and Saragih, S. R. (2012). Developing New Corporate Culture Through Green Human Resource Practice.

Masri, H. A. and Jaaron, A. A. (2017). Assessing Green Human Resources Management Practices in Palestinian Manufacturing Context: An Empirical Study. *Journal of Cleaner Production*, 143, 474-489.

Molina-Azorín, J. F., Tari, J. J., Pereira-Moliner, J., Lopez-Gamero, M. D. and Pertusa-Ortega, E. M. (2015). The Effects of Quality and Environmental Management on Competitive Advantage: A mixed Methods Study in the Hotel Industry. *Tourism Management*, 50, 41-54.

Opatha, H. H. D. N. P. (2013). Green Human Resource Management A Simplified Introduction. *Proceedings of the HR Dialogue*, 1(1), 11-21

Opatha, H. H. P. and Arulrajah, A. A. (2014). Green Human Resource Management: Simplified General Reflections. *International Business Research*, 7(8), 101.

Paillé, P., Boiral, O. and Chen, Y. (2013). Linking Environmental Management Practices and Organizational Citizenship Behaviour for the Environment: A Social Exchange Perspective. *The International Journal of Human Resource Management*, 24(18), 3552-3575.

Paillé, P., Chen, Y., Boiral, O. and Jin, J. (2014). The Impact of Human Resource Management on Environmental Performance: An Employee-Level Study. *Journal of Business Ethics*, 121(3), 451-466.

Pallant, J. (2005). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS Version 12*. Second Edition. Berkshire: Open University Press.

Phillips, L. (2007). Go Green to Gain the Edge Over Rivals. *People Management*, 23(9).

Rahman, I., Reynolds, D. and Svaren, S. (2012). How “Green” are North American Hotels? An Exploration of Low-Cost Adoption Practices. *International Journal of Hospitality Management*, 31(3), 720-727.

Ramus, C. A. and Steger, U. (2000). The Roles of Supervisory Support Behaviors and Environmental Policy in Employee “Eco-Initiatives” at Leading-Edge European Companies. *Academy of Management Journal*, 43(4), 605-626.

Rani, S. and Mishra, K. (2014). Green HRM: Practices and Strategic Implementation in the Organizations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(11), 3633-3639.

Renwick, D., Redman, T. and Maguire, S. (2008). Green HRM: A Review, Process Model, and Research Agenda. *University of Sheffield Management School Discussion Paper*, 1, 1-46.

Renwick, D. W., Redman, T. and Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, 15(1), 1-14.

The Impact of Green Human Resource Management on Hotel Employees' Eco-Friendly Behavior

Revill, C. (2000). The "Greening" of Personnel. *Human Resource Management an Assessment, International Journal of Applied HRM*, 1(3), 1-30.

Sharma, S. and Gupta, N. (2015). Green HRM: An Innovative Approach to Environmental Sustainability. In *Proceeding of the Twelfth AIMS International Conference on Management*, 2-5.

Stojanoska, A. (2016). *Green Human Resource Management: The Case of Gorenje Group* (Doctoral dissertation, Univerza v Ljubljani, Ekonomska fakulteta).

Sudin, S. (2011). Strategic green HRM: A Proposed Model that Supports Corporate Environmental Citizenship. In *International Conference on Sociality and Economics Development, IPEDR*, 10, 79-83.

Urbaniak, B. (2017). Colorful Human Resource Management: What Are We Talking About?. *Human Resource Management/Zarządzanie Zasobami Ludzkimi*, 119(6).

Wehrmeyer, W. (2017). *Greening People: Human Resources and Environmental Management*. Routledge.

تأثير إدارة الموارد البشرية الخضراء على السلوك الصديق للبيئة لموظفي الفنادق

محمد ناجي الزيني

كلية السياحة والفنادق ، جامعة حلوان

تسعى العديد من المؤسسات التجارية في الأونة الأخيرة في دعم القضايا البيئية من اجل الحفاظ على الموارد الطبيعية ، وتأتي الفنادق على رأس هذه المؤسسات من خلال تطبيق نظام النجمة الخضراء. ومن هذا المنظور بدأت الإدارات المختلفة داخل القطاع الفندقي في محاولة تطبيق هذه الممارسات الخضراء داخل كل قسم على حدى. ادارة الموارد البشرية الخضراء هو تطوير لهذه الأفكار من خلال نشر ثقافة الحفاظ على البيئية لدى العاملين داخل الفنادق في مختلف دورة وظائف القسم. لذلك تهدف هذه الدراسة إلى قياس تأثير ممارسات ادارة الموارد البشرية الخضراء على السلوك البيئي لموظفي الفنادق. قدم البحث سردا مفصلا لممارسات إدارة الموارد البشرية الخضراء والتي إنحصرت في ستة ممارسات رئيسية والهدف منها في دعم السلوك البيئي لدى العاملين بالفنادق.

وفي الجانب التطبيقي قام الباحث بتصميم إستمارة إستقصاء وتوزيعها على العاملين بالفنادق التي تطبق هذه الممارسات بشرط الا تقل مده خبرة العاملين عن عام داخل هذه الفنادق. أوضحت الدراسة ان هناك عدد بسيط جدا من الفنادق يقوم بتطبيق مفهوم إدارة الموارد البشرية الخضراء ولهذا السبب كانت العينة لهذه الفنادق فقط. تم توزيع عدد ٣٠٠ إستمارة إستقصاء في ستة فنادق لمدة ستة اشهر (من يناير ٢٠١٩ وحتى يونية ٢٠١٩) وبعد التحليل وجد ان هناك عدد فقط ٢٢٠ إستمارة إستقصاء صالحة للتحليل الإحصائي. إشتملت إستمارة الإستقصاء على قياس العوامل الستة لممارسات إدارة الموارد البشرية والتم اختاذلها بعد ذلك الي خمسة عوامل فقط ، وعامل واحد مرتبط بقياس السلوك البيئي للعاملين. تم تحليل الاستبيان بإستخدام برنامج AMOS 4 حيث أكدت النتائج على وجود إرتباط وثيق بين الممارسات الخضراء لإدارة الموارد البشرية وبين السلوك البيئي لدى العاملين وقدم البحث نموذج مبسط لأكثر هذه الممارسات تأثيرا. وفي الأخير يوصي الباحث على ضرورة تطبيق هذه الممارسات في كافة الفنادق لما لها من تأثير قوي على السلوك البيئي للعاملين.