Empirical evidence on impact of green human resource management practices and organization's sustainability

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Abstract

The purpose of this study was to investigate the impact of green human resource management practices (GHRMP) on an organization's sustainability, which are intertwined and fragmented in a resource based view discipline. For this purpose a survey was conducted in healthcare services and manufacturing organizations in Saudi Arabia. But the study applies equally to hotels. Non probability chain sampling was used a total 136 completed questionnaires were used in the analysis. Descriptive and inferential statistics such as mean, standard deviation, cronbach alpha confirmatory factor analysis CFA, measurement and structural models were also used. For this purpose SPSS 25 and AMOS-SEM 18 were used for statistical analysis. The model shows that GHRMP have a positive and significant impact upon sustainability. This explains that GHRMP gives organizations an opportunity to achieve an important competitive advantage in today's highly competitive global village environment. This research has implications for Saudi organizations to gain an advantage by implementing GHRMP. This study also has significance for academicians and scholars

Introduction

Several reasons may motivate organizations to adopt sustainable strategies which may have impact upon climate, environment and society. Thus, it is in line with strategies of international organizations such as the United Nations Organisation (UN), Western countries, and environmental groups etc. Foundations of a resource based view (RBV) as Wright, Dunford and Snell, (2001) argue allow organizations to get a competitive advantage by implementing green human resource management practices. Specifically, organizations may get a sustainable competitive advantage by implementing green human resource management practices (GHRMP). Based on this fact it could be said that GRHRMP have a synergistic impact on environmental and sustainability issues. In order to survive in these competitive markets, organizations use unique strategies such as amongst others adding value, enhanced skills, inducting environmentally aware employees, and offering training program (Raut, Narkhede, & Gardas, 2017).

An organization having adopted sustainability models require those human resources whose focus is primarily on sustainability problems. For example, launching of new services or products requires unique skills for sustainable production/services. Therefore, the workforce must exhibit a green culture for offering valuable and quality services and products to people (Singh, 2018). In line with above discussion the aim of this study was to identify those GHRMP attributes which are crucial for sustainability.

Theoretical Basis

Organizations have tangible and intangible assets such as intellectual capital, brand name, trade mark, and a skilled workforce. According to a resource based view RBV, these assets are not easy to copy and use by competitors. These assets are thus sources of competitive advantage for firms. Furthermore, Yong, Yusliza, Ramayah, Jabbour, Sehnem and Mani (2019) highlighted the significance of internal sources like people as sources of competitive advantage for firms and sustainability. Past studies conducted on HR practices and productivity, HR practices and firm competitive strategy confirmed that talented and productive employees and workforce are assets for organizations (Huselid, 1995; Koch & McGrath, 1996; Wright et al., 2001; Yong et al., 2019).

Green Human Resource Management (GHRM)

Alignment of typical human resource management practices with organization's environment and goals is called green human resource management (Jabbour, 2013: 147-148; Yong et al., 2019, pp-03). Field of green HRM has importance for other departments such as green financing, green marketing, green culture, green supply chain management. Green HRM aligns employees with the environmental strategy of organizations. It can be said that those actions which focus on green activities are very complex to start because employees have to accept change (Mishra, Sarkar & Kirnamai, 2014). Past research considered all HRM practices such as recruitment and selection, training and development, performance evaluation and rewards as 'greened' (Yong et al., 2019; Alshalma & Alhamawndi, 2020; Mukhezakule, 2019).

Green Recruitment and selection

Talent hunting is very complex and difficult process. It is a challenge for HR professionals to attract, hire and retain a highly qualified, trained and talented workforce. Now, being a green employer its importance and significance have been realized and firms use it as tool, and strategy to attract talented employees (Yong et al., 2019). While on other hand, green selection refers to people who are loyal and involved towards contributing towards the environmental management of a firm (Tang, Chen, Jiang, Paille & Jia, 2017).

Green Environmental Training

Whenever firms want to bring change the very first step taken was always providing training to their existing employees. It is also called green or environmental training. It provides knowledge and skills to employees how to contribute towards environmental policy of organization, which attitudes and behaviors are essential for successful implementation (Jabbour et al., 2010).

Green Performance Evaluation

According to Jabbour (2011) organizations have set targets for environmental issues and evaluate workforce contributions towards environmental management. Such cases and their respective examples are ISO 14001 certifications etc. Green performance evaluation and its assessment help organizations to determine the level of performance delivered by employees to reduce environmental pollution and development of innovations in environmental programs Jabbour et al., 2010).

Green Rewards

Rewards are used to motivate, attract, and retain employees. These rewards used to link organizational goals with individual goals. Green rewards mean financial and non-financial rewards provided to hardworking employees to work for environmental management (Jackson et al., 2011). In the United Kingdom, 8% of organizations are using green rewards as a tool for environmental management.

Sustainability

Due to climate change, and lot of social pressure, organizations show high concern for sustainability. Elkington (1997) introduced the triple bottom line principle (TBLP). This principle has three pillars such as economic, environmental and social. Economic sustainability refers to production of goods and provision of services and earning profit for firm's survival. While, environmental sustainability refers to effect of business on the environment and preserving natural resources. In the same way, and corporate social responsibility is concerned with fair distribution of money, resources, employment opportunities, health and education.
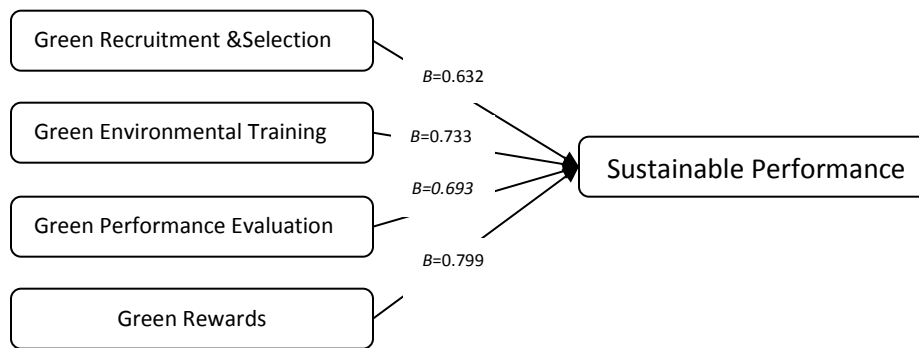

Figure 1. Conceptual Model

Research Methods

Positivistic philosophy was used to support this study. Positivist researchers deal with scientific, hypothetico-deductive research approach. In this approach, a researcher deals with social reality, Hypotheses are developed to test the theory (Sekaran, 2013; 2016). A survey approach was used for data collection. The aim of the survey was to save time, be cost effective, and a big amount of data can be collected from a large population in less time. Secondly, this is most common and valid method of study in areas of social sciences and health management.

Population and sampling

The population of this study was 58 public and private organizations from services as well as the manufacturing sector in the Qassim state of Saudi Arabia. Total population of the HR managers working in these organizations was 174. Hence, 174 questionnaires were mailed to respondents. Non-probability snowball technique was used also called chain sampling. An advantage of chain sampling is that one source recruits the other source for data collection so the sample grows like

a snowball. Krejcie and Morgan's (1970) table was used for selecting sample size. According to that table 122 sample size is calculated. But the researcher distributed 174 questionnaires to all respondents.

Measurement

The sustainability instrument was adapted from Zhu, Sarkis and Lai (2008). It comprised fifteen items scale, five items for each construct. In addition, it was measured on 7-point scale ranging from 7 (to a very great extent) and 1 (not at all). Green HRM was measured on four dimensions i.e. green recruitment and selection (4 items), green training (3 items) green performance (3 Items) and green rewards (3 items), it was adapted from Young and Mohd-Yusoff (2016) and Yong et al (2019).

Results

Table 1. Profile of Respondents

Variables	Characteristics	N	Percentage
Gender	Male	103	76
	Female	33	24
Designation	Senior manager HR	56	41
	Manager HR	27	20
	Assistant manager HR	53	39
Experience	1-10 Years	58	42.5
	11-20 years	46	34
	20 years and above	32	23.5
Sector	Services sector	13	09.56
	Manufacturing sector	123	90.44

Table-1 shows demographic information of respondents. There were 103 male respondents (76%) and 33 female (24%). Further, questions were asked about the designation of respondents. The majority of respondents were senior managers 56 (41%) followed by assistant managers 53 (39%) and managers were 27 (20%). Respondents were asked about their length of service i.e. experience of job, it was found that 58 respondents had experience of 1-10 years (42.5%) followed by 46 respondents with experience of 11-20 years and a number of respondents had more than 20 years of experience at 32 (23.5%). The results also revealed that 13 (9.56%)of respondents were from the services sector and the remaining 123 belonged to the manufacturing sector (90.44%) respectively.

Table 2. Reliability and validity

Construct	Ist order items	2nd order items	Alpha(α)	EFA Loadings	CFA Loadings	AVE	CR
Green Human Resource Management Practices	4 items	Green R & S	0.745	0.699-0.873	0.57-0.67	0.567	0.823
	3 items	Green ET	0.823	0.72-0.89	0.57-062	0.687	0.851
	3 items	Green PE	0.787	0.78-0.81	0.54-0.80	0.731	0.855
	3 items	Green Reward	0.810	0.85-0.91	0.85-0.98	0.598	0.831
Sustainability	15 items	Economic	0.701	0.76-0.88	0.58-0.77	0.633	0.743
		Environmental	0.763	0.80-0.93	0.77-0.90	0.566	0.892
		Social	0.805	0.69-0.87	0.81-0.86	0.539	0.876

Reliability of the instrument was checked by Cronbach alpha. Its value ranges between 0-1. According to Field (2013) value of 0.7 is acceptable, 0.8 is very good and value of 0.9 and above

is excellent. From table-2, reliability of green recruitment and selection is 0.745, green environmental training is 0.823, and green performance evaluation is 0.787 while green rewards reliability is 0.810. Furthermore, item total correlations (ITC) of all items were also checked. ITC explains the internal consistency of items. Its threshold value is 0.40 (Hair et al., 2007). ITC <0.40 might be excluded but in this study all ITCs were above cut off level so no item is excluded from analysis and all instruments are considered and reported reliable. Validity of the instrument was checked by exploratory factor analysis (EFA). In EFA, firstly sampling adequacy was checked by the Kaiser Mayer Olkin (KMO) test. The value of this test tells us whether this sample size is adequate for EFA or not. KMO value is acceptable at 0.50 and above. After that, Bartlett's test of Sphericity (BTS) was run and it was significant as it showed that the data is reliable to run EFA. In the third step, a decision on how many factors could be retained was made on the basis of Eigen values. Eigen values 1 is considered as standard for retaining factors, it is also called Kaiser Criterion (Field, 2013). The above criteria was used for un-rotated factor solution. In a second step, EFA was again run to investigate the rotated solution. In this step oblique rotation and Promax was used as it allowed the items to be correlated. Principal component analysis was used to reduce number of items, criteria to retain items on basis of factor loadings was >0.40.

From table-2, results revealed that all the constructs have factor loadings higher than threshold values. Furthermore, in order to check validity, average extracted and construct reliability was determined. Criteria for AVE and CR was given by Hair et al (2017), according to that, AVE must be >0.50 and CR>0.70. Table-2 shows that all AVEs and CRs for all constructs are greater than the cut off levels, thus, the instruments used in this study is considered consistent and valid.
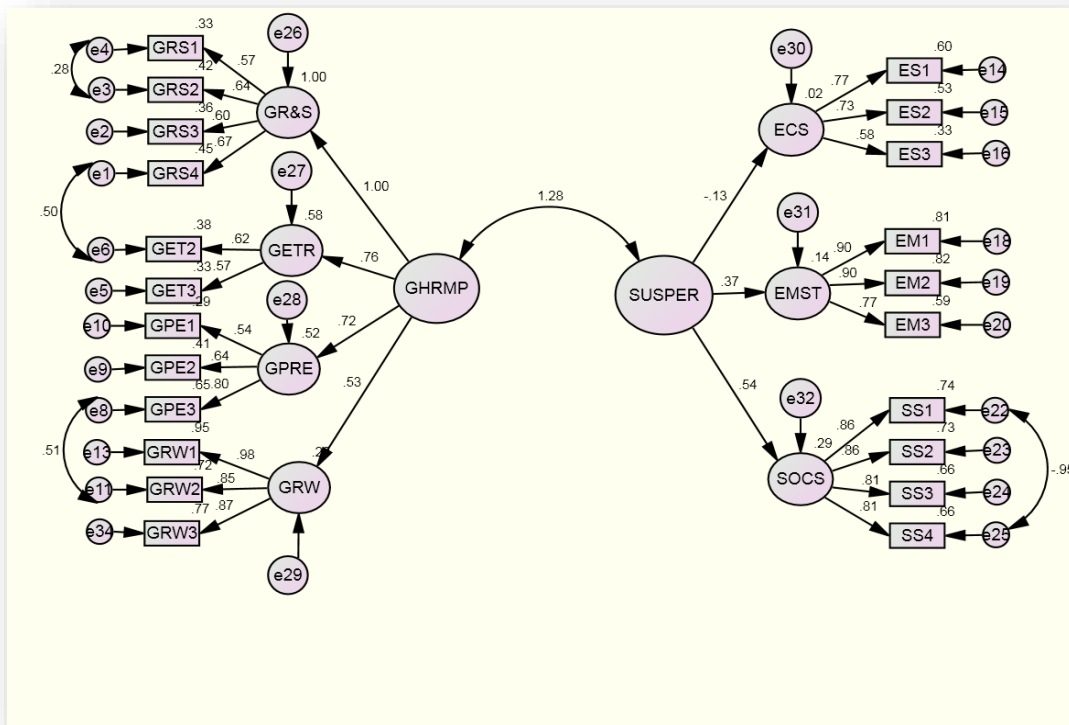

Figure 2. Second Order Measurement Model Confirmatory Factor analysis

AMOS-SEM 18 was used for second order measurement model. Above figure-2 represents confirmatory factory analysis of GHRMPs and sustainable performance factors. Hair et al (2017) criteria for factor loadings average variance extracted and construct reliability was used. Factor loadings of all latent constructs were >0.50 as recommended by Hair et al (2017).

Table 3: Correlation Matrix

H$_{1a}$: There is positive and significant relationship between Green HRM Practices and Sustainable performance

	GR&S	GET	GPE	GR	Sustainability
GR&S	1.000				
GET	0.530	1.000			
GPE	0.641	0.764	1.000		
GR	0.752	0.575	0.651	1.000	
Sustainability	0.632	0.733	0.693	0.779	1.000

The relationship between green recruitment and selection and sustainability is r = 0.632, p<0.01, relationship between green environmental performance and sustainability is r = 0.733, p<0.01, it was also found that relationship between green performance evaluation and sustainability is r = 0.693, p<0.01 and green rewards and sustainability is r = 0.799, p<0.01. The results explained that if organizations implement green human resource practices, it would enhance organizational sustainable performance. All the relationships are positive and significant so, H$_1$ is accepted.

H$_{2a}$: There is positive and significant impact of Green HRM Practices on Sustainable performance

Table-4: Regression Results

D.V	I.V	R	R^2	F	β	p
SP	Constant	0.632	0.459	2324.98		0.000
	GR&S				0.632	0.000
SP	Constant	0.733	0.594	133.76		0.000
	GET				0.733	0.000
SP	Constant	0.693	0.732	367.51		0.000
	GPE				0.693	0.000
SP	Constant	0.799	0.750	547.12		0.000
	GR				0.799	0.000

Simple linear regression was run. In model 1, sustainable performance was criterion and green recruitment and selection (GR&S) were predictors. From results, it is evident that GR&S shows 45.9% variance upon sustainable performance. Goodness of fit index i.e. F=2324.98, p<0.05 and β= 0.632, p<0.05 explain that one percent change in GR&S practices would change or enhance sustainable performance by 63.2%. Similarly, in model 2, green environmental training shows 59.4% variance upon sustainable performance, hence, model was found fit i.e. F=133.76, p<0.05 and β=0.733, p<0.05 illustrates that one percent increase or decrease in green environmental training would increase or decrease sustainable performance by 73.3%.

Green performance appraisal shows 73.2% variance and model fitness was F= 367.51,p<0.05 β= 0.693, p<0.05 predicts that green PE enhances sustainable performance by 69.3% and similarly, green rewards shows 75% variance upon sustainable performance, goodness of fit index is F=547.12, p<0.05 β= 0.799, p<0.05 i.e. 79.9% impact on sustainable performance. Based on our results, thus H$_2$ was substantiated and accepted.

Discussion and Conclusions

Green human resource management and sustainable performance is a relatively new concept and organizations realized its importance and this is why firms are taking a keen interest to implement GHRMPs in organizations. By implementing GHRMPs, firms can gain a competitive advantage over their competitors and it also helps organizations to retain talented staff, reduce turnover, and increase sustainable performance. The resource based view theory supports this idea that green practices are crucial for organizations nowadays. As far as the researcher's knowledge is concerned, it is first empirical study conducted in Qassim state Kingdom of Saudi Arabia.

Yong et al (2019) reported only two attributes of green human resource management practices, which significantly contributed towards sustainable performance. The theoretical contribution of this study in resource based view theory is evident from results that all green human resource management practices have significantly contributed to sustainability. Green practices thus give the edge to firms for competitive advantage. This implies that green HRM helps organizations to attain a sustainable performance.

In terms of relationship, green HRMPs have a positive relationship with sustainable performance. These results are consistent with Yong et al (2019). Furthermore, the findings of Jabbour (2011) also support the findings of this study. From the above discussion, both hypotheses 1 and 2 are justified and accepted.

Managerial Implications

Besides theoretical contributions, this study has implication for services as well as manufacturing organizations. Due to a shortage of natural resources, organizations might implement green HRM practices for dealing with environmental issues. Implementing this model in organizations can result in a more sustainable performance as well as enhanced social and financial performance.

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