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Effect of Green HRM Practices on Sustainable Performance: Mediating Role of GSCM Practices

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Abstract

The purpose of this study is to investigate the impact of GHRM practices on sustainable performance in the manufacturing sector of Gujranwala, Pakistan, with mediating role of GSCM practices. Four dimensions (i.e., Green hiring, Green training, Green performance management and Green reward & compensation) were used to operationalize Independent variable Green HRM Practices. Mediating variable GSCM was further divided into Internal GSCM and External GSCM whereas sustainability of performance was measured through environmental, social and economic performance. To procure the statistical outcomes data was collected through a questionnaire (self-administered), CFAs and SEM analysis were then carried out using SPSS and AMOS. The results of study illustrated that performance of organizations is significantly influenced by Green HRM practices. Moreover, full mediating effect of GSCM was also validate in association of GHRM and sustainable performance. This study will bridge the gap between SCM theories and HRM by providing comprehensive analysis of connectivity of these practices for accomplishing sustainability goals. In this model researcher studied GHRM practices, GSCM practices and SP in-future, this model can be extended further by considering other dimensions of on hand variables and by altering the sector. Previously published literature and studies have explored the linkage among GHRM practices and long-term performance in various countries and sectors. However, in ongoing exploration, the authors added several dimensions of GSCM practices as a mediating factor that hasn't been tested in any developing country previously.

Keywords: *GHRM Practices, IGSCM Practices, EGSCM Practices & Sustainable Performance.*

Introduction

In order to attain excellence in performance and long-term sustainability, businesses have been heavily pressured over the last few decades to implement environmentally friendly practices at all levels of their operations (Dubey et al. 2017).(Arulrajah, Opatha, and Nawaratne 2015) Preserving and shielding the

natural eco-systems' possessions has been regarded the main priority of top management and decision makers in a variety of business fields. Presently, organizations are engaging in mounting rivalry, and it requires management to keep exploring innovative ways for optimization of crucial organizational resources.

One of the indispensable success factors for boosting of performance sustainability and implementation of policies is human resource (HR) (Harel and Tzafrir 1999; Sheehan 2014)Moreover, where HR is regarded as zealous advantage for organizational success a considerable role is being contributed by HR in performance of any organization, it can lead towards efficient utilization of resources, innovation as well as sustainability in performance (El-Kassar and Singh 2019).

According to (Chan et al. 2012) in order to maintain a balance between resource consumption and economic growth, environmentally friendly actions that enhance a business's operational, environmental, social, and financial aspects are vital. Green practices (GP) are being pushed on businesses at an increasing scale because of rapid depletion of natural resources due to industrialized growth and increased pollution. Adopting such procedures will result in competitive advantage, operational development, economic gain and enhanced environmental performance(El-Kassar and Singh 2019).

According to published research, there are few empirical investigations on GSCM and GHGRM in developing nations' industrial sectors ((Jabbour and de Sousa Jabbour 2016) This research examined the effects of green management on supply chains and human resource management. The findings of the study show that GSCM and GHRM techniques can improve the long-term performance of over a hundred manufacturing enterprises in Pakistan's chemical, sports, surgical, textile, and other industries.

Despite of widespread exploration on this topic there remains a window for further exploration on the effects of corporate ethics towards society and stakeholder's view of green initiatives. Moreover, for achieving competitive advantage, conquering technological changes and enhancing environmental and economic performance it indispensable to tackle shortcomings of managerial commitments and HR practices.

This article intends to formulate a comprehensive model by integrating corporate green initiatives and stakeholder's view of green ethics to achieve sustainability in performance. The developed framework takes into consideration Green HRM practice (i.e., green hiring, green training, green performance management and green reward & compensation), mediating variable GSCM (internal GSCM & external GSCM) and sustainability of performance was measured through environmental, social and economic performance.

Contemporarily various organizations are using green techniques in order to increase their performance sustainability. Among these eco-friendly practices Green HRM remains dominant tool to ally human capital with ecological goals. Though, the exact mechanism through which Green HRM practices persuade performance sustainability is still vague. Investigating the mediating function of GSCM in the relationship between performance sustainability and GHRM practices is essential to address this shortcoming. Although past explorations have scrutinized individually the effects of both GSCM and Green HRM practices upon performance sustainability, presently there is too little comprehension of how these practices interrelate with each other to attain performance sustainability.

To be specific, the ongoing paper addresses the following questions:

- To what extent sustainability of performance is affected by Green HRM practices (i.e., Green hiring, Green training, Green performance management and Green reward & compensation)?
- To what extent connectivity among Green HRM practices and Sustainable performance is mediated by GSCM practices (internal GSCM & external GSCM)?

- What are the exact instruments through which GSCM augment the influence of GHRM practices on performance sustainability?

One of the core contributions of this study is bridging up the gap of empirical explorations on Green HRM practices in manufacturing sector that is of utmost significance, and in an emerging economy like Pakistan. Actually, this investigation into the industrial sector is the first of its kind to be carried out in Pakistan. Moreover, GSCM (internal & external GSCM) is taken into account as a mediating variable when investigating how Green HRM practices affect performance sustainability. In conclusion, a thorough conceptual framework is created that presents a persuasive mechanism and workable strategy for the industrial industry to use HR practices as a tool to achieve sustainable performance.

Researchers have looked at how GHRM and performance sustainability are intertwined in several other emerging markets, with the GSCM as a mediating factor. Additionally, the inclusion of GSCM as a mediator, in light of the research conducted in a developing market, may be considered as a significant contribution.The remaining sections of this paper are detailed below. A literature review and conceptual framework are presented in next section of the article, followed by an illustration and detailed discussion of the statistical findings. Its conclusion contains the majority of the study's findings and suggestions.

Literature Review

By adopting a green HRMP, companies can enhance their environmental performance in a sustainable way (Arulrajah et al. 2015). In order to guarantee the company's long-term success, the management has embraced GHRM practices as a new trend (Al Kerdawy 2019). Organization attempts in different ways to reduce their harmful effect to environment, whereas at the same time they seek to improve sustainability of performance(Ahmad 2015). Mousa and Othman (2020)explored the association among GHRMP and sustainable performance; they carried a study in service sector and used SEM approach for statistical analysis. Outcomes depicted positive and significant association among sustainable performance and GHRMP.

Zaid, Jaaron, and Bon (2018)too explored the connectivity among Sustainable performance and GHRM they chose a quantitative methodology to collect data on 121 manufacturing companies (a survey) and procured statistical analysis using SEM. It was discovered that GHRMP, GSCM, and sustainable performance have a significant association.

Numerous studies have examined how environmental human resource management (HRM) might enhance an organization's environmental performance. Previous literature has frequently discussed the impact of specific HRM techniques on the company's performance. The manufacturing and service sectors have not received much attention from researchers (Combs et al. 2006). Investigators are gradually understanding the connection among HR practices and performance sustainability(Jabbour et al. 2013).

Green Hiring

Organizations highlight their environmental policies and performance through well planned campaigns in order to win stakeholders' confidence(Chaudhary 2018). People read the environmental policies of the organizations seeking new recruitments through advertisement. So, the new entrants in organizations come with proper mindset in order to achieve performance sustainability through green practices(Jackson et al. 2011).

By increasing company's reputation as "green employer of choice" HR can attract more environmentally conscious employees. According to Weng, Chen, and Chen (2015) organizations that have adopted green strategies can enhance their environmental performance. In the green HRMP, the most significant dimension is green hiring since this dimension is directly connected to sustainable and environmental

performance therefore the dimension improves their EP (Zibarras and Coan 2015). Relying on the foundation of rationale provided by literature it's explicit that there is some kind of connectivity between green hiring and sustainable performance. Thus, relying on these rationales, it is hypothesized that green hiring has indispensable capacity to administer the sustainability of performance.

H1a: Green hiring has a significant impact on sustainable performance.

Green Training

According to Teixeira, Jabbour, and de Sousa Jabbour (2012) employers train their staff in green competences in order to improve the green initiatives of the organization. Fernández, Junquera, and Ordiz (2003)assert that organizations must employ environmental strategies to enhance worker abilities, knowledge, and awareness.

Employees require green training about environmental issues and sustainable performance. After training and educating employees, organizations can achieve corporate social responsibility goals and environmental goals (Ramachandran 2011). Given that training to inspire recycling and unused management, are very beneficial to decrease the harmful environmental effects of the firms(Jackson et al. 2011).

Existing Literature provides splashed substantiation concerning green training's supremacy upon sustainable performance. Subsequently, the researcher hypothesizing that green training indispensably impacts sustainability of performance.

H1b: Green training has a significant impact on sustainable performance

Green Performance Management System

Usually, sustainability is accepted by managements, societies, business leaders and customers collectively (Rayner and Morgan 2018). Researchers are gradually understanding the connection among HR practices and sustainable performance(Jabbour et al. 2013). Organizations' top management should set the green goals, target and duties for their departments and sections (Renwick, Redman, and Maguire 2013). Consequently, there would be a strong link between the HR policies that facilitate the improvement of sustainable performance and EP, EM, and economic success (Siyambalapitiya, Zhang, and Liu 2018).

Renwick et al. (2013) maintained that organizational performance management system should focus on establishing the green performance and environmental standard. All levels of the company's employee performance evaluation system must be aware of green plans, and a company-wide discussion on green products should be established (Renwick et al. 2013).

Wherefore relying on the rationale offered by above discoursed literature concerning the interactivity among green performance management system and sustainable performance it is hypothecated that green performance management system has a remarkable potential to steer the sustainability of performance:

H1c: Green performance management system has a significant impact on sustainable performance.

Green reward & Compensation

According to Jabbour et al. (2013), green reward and compensation encompass both monetary and non-monetary incentives for the organization's Owen employees. The organization's goal is to retain and inspire its workforce while also achieving its environmental objectives. Some organizations have rewarded environmental performance with green incentives and special incentives(Crosbie and Knight 1995). The lack of financial incentives has led to recognizing appreciation awards for EP in numerous organizations.

According to Renwick et al. (2013), rewards and incentives could be useful instruments for making sure that workers' efforts align with the mission and objectives of the company. Nonetheless, most researchers agree that both monetary and non-monetary awards are more effective at motivating workers. Nonfinancial rewards include performance acknowledging certificates, paid vacations etc. Employees receiving monetary and non-monetary green incentives perform effectively to achieve organization goals(Veleva and Ellenbecker 2001).

Based on the rationale offered by above literature it's explicit that there is some sort of kinship between green reward & compensation and sustainable performance. Thus, relying on these rationales, it is hypothesized that green reward & compensation has noteworthy capacity to pilot the sustainability of performance.

H1d: Green reward and compensation has a significant impact on sustainable performance.

GSCM practices on sustainable performance

GSCM approaches have been examined from various angles in the prior research's(Carter and Ellram 1998; Zsidisin and Siferd 2001). Since past explorations have focused on unidirectional aspect now businesses are looking for a multi-dimensional (Thoo et al. 2014) approach to GSCM that integrates internal and external techniques to improve their sustainability of performance(Jabbour and de Sousa Jabbour 2016; Zhu, Sarkis, and Lai 2012). Diabat, Khodaverdi, and Olfat(2013) support the link between environmental performance and green acquisition and customer engagement as part of External-GSCM practices. By engaging in educational and observational activities with dealers, organizations can enhance EP (Gimenez, Sierra, and Rodon 2012).(Koh, Gunasekaran, and Tseng 2012)Koh and coworkers (2012) Eco design is a component of Internal-GSCM that proposes cost reductions can be realized by minimizing waste and maximizing resource utilization. As per outcomes of this exploration, there is a favorable association between eco-friendly design and EP.

According to current research, there are two main ways to look at GSCM practices: internal and external (Longoni, Luzzini, and Guerci 2018; Zhu et al. 2012). It has been discovered that GSCM techniques enhance environmental performance(Holt and Ghobadian 2009)For Ext-GSCMs claim that green practices are far superior to economical practices (saving cost, sales, increase in profits, and market share). According to(Carter, Kale, and Grimm 2000) when GP rises, net revenue rises and product expenses reduce. In the long run, companies can save money by decreasing costs and increasing productivity. A global benchmark for corporate sustainability is Internal-GSCM(Gimenez et al. 2012; Rao and Holt 2005). Reduced expenses of acquired resources, unnecessary treatment, excess discharge and environmental accident penalties are all linked to improved economic performance in industrial equipment (Zhu, Sarkis, and Lai 2008). Another opinion is that GSCM will positively affect the company's earnings per share. GSCM could boost brand image, connection with investors, owners, other stakeholders and staff's motivation Xie and Breen (2012).

Additionally, it has been demonstrated that Ext-GSCM enhances an organization's financial performance (Diabat et al. 2013; Green Jr et al. 2012). Green supply chain management techniques are further subdivided into the two dimensions mentioned below:

Internal GSCM practices	External GSCM practices
Product development and production(Gimenez et al. 2012) are internal processes that reduce raw resource consumption, waste output, toxic material use, and harmful emissions.	Limiting the purchasing of products, use of hazardous materials, and waste production.

Therefore, it is hypothesized that GSCM has a notable potential to pilot the sustainability of performance based on the justification provided by the literature mentioned above regarding the interactivity among GSCM practices and sustainable performance:

H4: Ext-GSCM has a significant impact on sustainable performance.
H5: Int-GSCM has a significant impact on sustainable performance.

Green HRMP, GSCM practices and sustainable performance

Implementing a green HRMP allows organizations to improve their environmental performance in a sustainable manner(Arulrajah et al. 2015). GHRM practices are newly in trend to be adopted by the management for achieving sustainable performance within organization(Al Kerdawy 2019). According to Teixeira et al. (2012), green HRM practices have the essential ability to guide the company towards GSCM practices.

Organizations attempt in different ways to reduce their harmful effect towards environmental pollution at the same time they strive for improving sustainability of performance(Ahmad 2015). Mousa and Othman (2020)looked at the connection between sustainable performance and GHRMP. Study was conducted in services sector and SEM was applied for statistical analysis. Outcomes depicted an indispensable and positive association among sustainable performance and GHRMP.

In another exploration Ahmad (2015)examined GHRM practices, GSCM, and their long-term effectiveness. Researchers used a quantitative approach to collect data on 121 manufacturing companies (a survey) and applied SEM for use statistical analysis. The outcome showed that GHRMP, GSCM, and sustainable performance were significantly correlated. Several scholarly investigations have explored the potential for environmental HRM practices to improve an organization's environmental performance (Arda et al. 2019). Contemporarily, associations between HRM practices and GSCM that mediate environmental issues are in consultations. Previous experimental studies have demonstrated a connection between GSCM execution and GHRM practices(Teixeira et al. 2012). Organizations provide green competencies to their employees since it is believed to enhance organization’s green activities it necessary to enhance green training.

According to Jabbour et al. (2013), green reward and compensation refers to both non-financial and financial incentives given to employees of the organization with the goal of inspiring and keeping them on board to meet the organization's environmental objectives. When examining the connection between GHRM practices and environmental performance, Jackson et al. (2011)use GSCM practices as a bridge.

On the basis of complementary validation provided by literature it is of no doubt concerning the presence of connectivity among GHRM practices and GSCM practices although enormity of that connectivity is wavering with reference to different studies. Thus, based on these validations it is hypothecated that GHRM practices have a significant capability to govern the GSCM practices.

H2 a,b,c,d: GHRM practices have a significant impact on External GSCM practices.
H3 a,b,c,d: GHRM practices have a significant impact on Internal GSCM practices.

GHRM and Performance Sustainability: Mediating Role of GSCM

Certainly, the amalgamation of diverse resources can yield a sustainable edge over rivals (Hohenstein et al., 2014). It can be assumed that prior research usually concurs that GHRM is crucial to guaranteeing the best possible GSCM performance (Jabbour and de Sousa Jabbour 2016) .Archive of environmentally competent personnel stays empty without presence of superlative HRM practices, and the conventional thinking in corporate cultures may be a barrier to adopting of contemporary GSCM approaches(Jabbour et al. 2013) Because of this, this study examines sustainable performance by combining the two best green management factors.

Since GHRM served as the cornerstone for the creation of GSCM, it is without a doubt important to the spread of environmental strategies and standards by assisting in the hiring of qualified and dedicated employees to carry out environmental policies and standards (Rayner and Morgan 2018).

GSCM practices exert a mediating role among interactivity of firm performance and GHRM(Longoni et al. 2018). Keeping in view this RBV's theoretical stance a more comprehensive and systematic scrutiny is needed, regarding interactivity among sustainable performance and GSCM-GHRM practices by identifying the linkage among sustainable performance and these green practices. Based on all these affirmations, the subsequent hypotheses were developed:

H6a,b,c,d: Internal GSCM practices significantly mediate among GHRM practices and sustainable performance.
H7a,b,c,d: External GSCM practices significantly mediate among GHRM practices and sustainable performance.

Theoretical Framework

Within the ambience of ongoing study, a diagram is sketched along with inclusion of all the aspects earlier discussed variables. This projected composition is supposed to render significant contribution towards existing archive of literature by achieving the objectives of study.

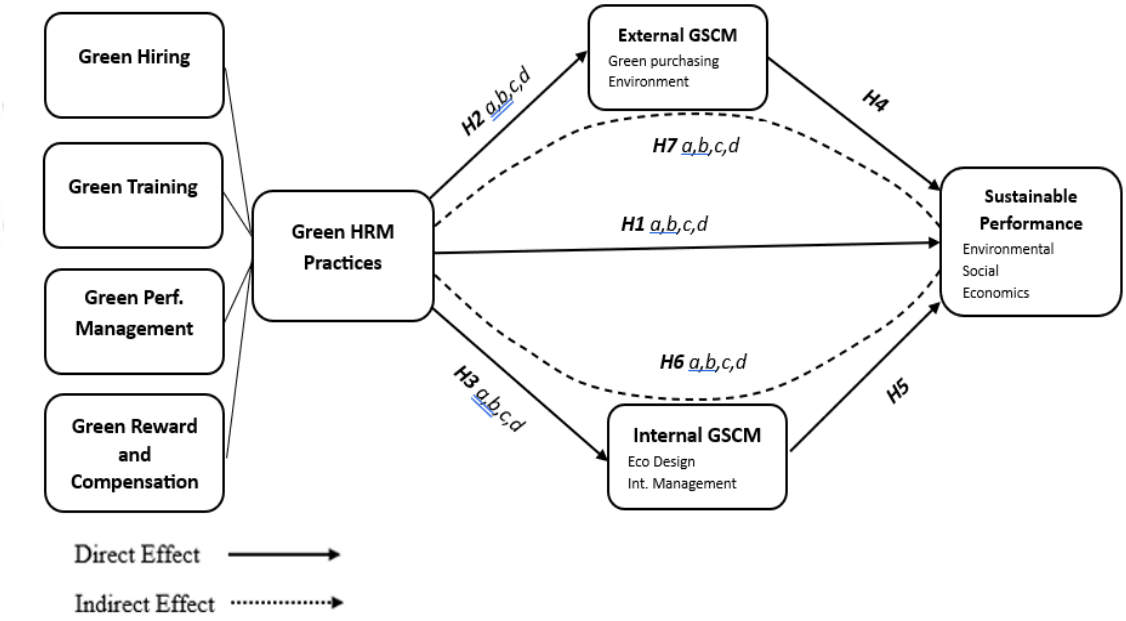

Fig 1: Theoretical Framework

Research Methodology

Ongoing study was guided by positivism, in its researchers tried to examine the linkage between GHRM practices and long-term success by examining how they interact with GSCM traditions. Since the data was collected through a questionnaire, deductive approach and quantitative methods were applied to procure the statistical outcomes.

Data Collection, Sample and Instrument

The research population is a significant part of the investigation plan since it is study population that answers the study problems(Bryman 2004)Ongoing inquiry is based on the connectivity among GHRM, GSCM, and long-term performance. Convenience sampling was utilized because of time and budgetary limitations. Data was collected from employees of manufacturing sector of Gujranwala, Pakistan through questionnaires by using five-point Likert scales. Unit of analysis were the individuals working in manufacturing sector of Gujranwala, Pakistan.

In this study author used four independents (i.e., green hiring, green training, green reward & compensation and green performance management system) one dependent and two mediating (i.e., internal GSCM and external GSCM) variables and to procure statistical figures AMOS was utilized.

Analysis

Table 1: Demographics

Demographic	Demographic Features	Frequency	Percentage
Age	Less than 20	140	38.8
	21-35	183	50.7
	Above 35	38	10.5
	Total	361	100.0
Gender	Male	314	87.0
	Female	47	13.0
	Total	361	100.0
Qualification	Matric/Inter	241	66.8
	Graduation/Master	91	25.2
	M.Phil/PHD	29	8.0
	Total	361	100.0
Job Experience	Less than 5 years	152	42.1
	5-10 years	129	35.7
	10 or Above	80	22.2
	Total	361	100.0

Table 1 demonstrates the description of demographics (gender, qualification, and age and job experience) of selected sample from manufacturing sector of Gujranwala, Punjab, Pakistan. In this survey 361 participants gave responses, out of which 314 were male and only 47 females. Moreover, 18.8 percent workers' age was less than 20, 50.7 percent workers' age was in range of 21-35 and percentage of workers with age above 35 was 10.5. Furthermore, information was obtained on the qualification, 66.8% of the employees were matric/inter, 25.2% were graduated/master. More information was attained on the profession experience, 42.1 % were in the assortment of less than 5 years of occupation experience while 35.7% of the employees were in the range of 5-10 years of job experience while 22.2% of the employees were in the range of Above 10 years.

Measurement Model

The GHRM practices were measured through scales developed by (Guerci, Longoni, and Luzzini 2016)03 items were utilized to gauge the green hiring, 04 Items were utilized to gauge green training, 03 items were

used to gauge the green reward system and green performance management system was measured by 03 items.

Int-GSCM was measured with 07 items by(Al-Sheyadi, Muyldermans, and Kauppi 2019; Zaid et al. 2018) and the Ext-GSCM was measured with 05 item by (Schermelleh-Engel, Moosbrugger, and Müller 2003)(Nejati, Rabiei, and Jabbour 2017)and sustainable performance (Environmental, Economic and Social Performance) was measured with 11 items by (Mousa and Othman 2020). outputs given in Table 2, cross loaded questions or questions having low factor loads were excluded from the opted scale.

Below given table2 shows factor loading values of all the questions used in questionnaire.

Table 2: Factor Loading Values

Scale	Item	Factor loading	CR	AVE
Green Hiring	GH1	0.53	0.738	0.542
	GH2	0.69		
	GH3	N/A		
Green Training	GT1	0.51	0.811	0.731
	GT2	0.45		
	GT3	0.86		
	GT4	0.82		
Green Performance Management	GP1	0.50	0.760	0.593
	GP2	0.69		
	GP3	0.66		
Green Reward and compensation	GR1	0.80	0.932	0.679
	GR2	0.89		
	GR3	N/A		
Internal GSCM Practices	IGS1	0.50	0.941	0.621
	IGS2	0.52		
	IGS3	0.57		
	IGS4	0.79		
	IGS5	0.88		
	IGS6	0.49		
	IGS7	0.48		
External GSCM Practices	EGS1	N/A	0.726	0.568
	EGS2	0.62		
	EGS3	0.61		
	EGS4	0.62		
	EGS5	0.62		
Environmental performance	EP1	0.74	0.834	0.666
	EP2	0.69		
	EP3	0.67		
Economics Performance	EC4	0.57		
	EC5	0.59		
	EC6	0.76		
	EC7	0.77		
Social Performance	SP8	0.57		
	SP9	0.47		
	Sp10	0.54		
	SP11	N/A		

From above given table: 2 it can be seen that all items had a factor charge value greater than or equal to 0.30. Factor loadings were to meet a minimum of 0.36 and a maximum of 0.89 (Table I). This study fit indices employed include β2-to-free ratios, root average square approach error (RMSEA) and the fitness index comparison (CFI). It fits in the following models: §2 /df 1.482; CFI 1⁄4 0.94; RMSEA 1⁄4 0.041. The fit indices are acceptable, as shown by the values(Schermelleh-Engel et al. 2003)Additionally, convergent validity results can be used as evidence

Reliability Statistics

The reliability of each variable's scale and performance structure was investigated using Cronbach's alpha (Cronbach, 1951). All scales were acceptable in terms of reliability (Nunnally and Bernstein, 1994). According to Table 3, Cronbach's alpha is 0.805, which is within the permissible range.

Table 3: Reliability Statistics

		N	%	Cronbach's Alpha	N of Items
Cases	Valid	361	100.0	.805	7
	Excluded	0	.0		
	Total	361	100.0		

Descriptive Statistics and Correlations

Below given table 4 illustrating the summary statistics and correlation analysis for all variables employed in this study. Descriptive statistics includes standard deviation and mean values of all the variables, these values are falling between 0.575 to 0.744 and 3.73 to 4.04 respectively.

Table 4: Descriptive statistics and Correlations

Constructs	Mean	SD	GHH	GTT	GPP	GRR	IGSM	EGSM	SSP
GH	3.94	.575	1						
GT	3.89	.709	.243**	1					
GP	3.73	.744	.156**	.115*	1				
GR	4.04	.601	.254**	.254**	.075	1			
Int GSCM	3.82	.648	.718**	.348**	.142**	.279**	1		
Ext GSCM	3.77	.598	.796**	.302**	.178**	.269**	.871**	1	
SP	3.83	.597	.644**	.376**	.131*	.316**	.959**	.853**	1

Furthermore, table 4 demonstrates that there were positive and substantial relationships between these variables. The correlation values are: GH and GT (r = .243, p = 0.000), GH and GP (r = .156, p = 0.000), GH and GR (r = .256, p = 0.000), GH and Int-GSCM (r = .718, p = 0.000), GH and Ext-GSCM (r = .796, p = 0.000), GH and SP (r = .644, p = 0.000) and so on for GTT, GPP, GRR, IGSM, EGSM and SPP see table 3.

Results and Discussion

A structural equation modelling (SEM) approach was used to assess the hypothesized model (see Figure 1) of the ongoing investigation and hypotheses. The first step was to compare the fit indices of the proposed model.

Table 5: Regression Weights: Direct effect

			Estimate	S.E.	C.R.	P Label	Hypothesis
SP	<---	GH	-.167	.023	-7.157	***	H1aSupported
SP	<---	GT	.033	.012	2.677	.007	H1bSupported
SP	<---	GP	-.009	.011	-.802	.422	H1c Not supported
SP	<---	GR	.050	.014	3.496	***	H1dSupported
SP	<---	Int-GSCM	.820	.026	31.536	***	H4Supported
SP	<---	Ext-EGSCM	.181	.032	5.692	***	H5Supported

Earlier sketched figure 1 depicts the correspondence of the direct path and mediation analyses. The results suggest that GHRM practices like GH is negatively associated with SP (H1a supported = p value is <0.05). GTis optimistically associated with SPP (H1b supported = p value is <0.05). These outcomes are similar to (Jackson et al. 2011; Zibarras and Coan 2015).

GP is insignificantly associated with SP (H1c Not supported = p value is >0.05) the outcome is contradicting to (Rayner and Morgan 2018). The SP has a positive correlation with the GR, Int-GSCM, and Ext-GSCM (H1d, H4, and H5 supported = p value is <0.05). These results are comparable to those of (Jabbour et al. 2013; Longoni et al. 2018; Thoo et al. 2014; Xie and Breen 2012; Zhu et al. 2008).

Above discussed results suggest that sustainability of performance is largely dependent on green practices linked with HRM & supply chain management. So, it can be concluded that GHRM practices have an indispensable role in achieving sustainable performance. Moreover, it is endorsed mangers seeking to achieve sustainability in performance have to initiate GHRM & GSCM practices for optimal results.

Table 6: Regression Weights: Indirect effect

			Estimate	S.E.	C.R.	P Label		Hypothesis
Int-GSCM	<---	GH	.741	.042	17.572	***	H2a	Supported
Ext-GSCM	<---	GH	.782	.034	22.692	***	H3a	Supported
Int-GSCM	<---	GT	.155	.034	4.547	***	H2b	Supported
Ext-GSCM	<---	GT	.085	.028	3.068	.002	H3b	Supported
Int-GSCM	<---	GP	.013	.031	.411	.681	H2c	Not supported
Ext-GSCM	<---	GP	.037	.025	1.452	.146	H3c	Not supported
Int-GSCM	<---	GR	.048	.033	1.473	.141	H2d	Not supported
Ext-GSCM	<---	GR	.073	.040	1.816	.053	H3d	Supported
SP	<---	GH	-.167	.027	-6.174	***	H1a	Supported
SP	<---	GT	.033	.013	2.645	.008	H1b	Supported
SP	<---	GP	-.009	.011	-.803	.422	H1c	Not supported
SP	<---	GR	.050	.014	3.486	***	H1d	Supported
SP	<---	IGSM	.820	.019	44.010	***	H4	Supported
SP	<---	EGSM	.181	.023	7.943	***	H5	Supported

The direct effects towards mediating variable have illustrated in above given table 6. Direct effects were examined by using structure question modeling. According to the results, GH and Int-GSCM are positively and strongly correlated (H5a supported, β =0.71, p value <0.05).

Similarly, GH is optimistically and significantly connected with Ext-GSCM too (H5b supported, β = 0.78, p value is <0.05) this outcome is similar to (Teixeira et al. 2012). The outcome of (GT→Int-GSCM, GT→Ext-GSCM) in table 5 also showing positive association (β =0.15, p value is <0.05), (β =0.08, p value

is <0.05) thus H5a and H5b is supported by this outcome and it is similar to the findings of(Mousa and Othman 2020).

Table 5 is illustrating that connectivity among (GP→Int-GSCM, GP→Ext-GSCM) is insignificant (β =0.01, p value is >0.05), (β =0. 03, p value is >0.05). These outcomes are contradicting to(Zaid et al. 2018). Moreover, table 5 presenting that the outcome of (GR→Int-GSCM) are also insignificant (not supported β =0.048, p value is >0.05) these results are similar to (Jabbour and de Sousa Jabbour 2016). However, the connectivity among (GR→Ext-GSCM) is of direct and significant nature (H5b supported, β =0. 073, p value is <0.05) this outcome is similar to the endorsement of(Arda et al. 2019).

Based on these data findings, it can be argued that in order to balance resource consumption and economic growth, environmentally friendly practices that enhance a company's operational, environmental, social, and financial aspects are required. Because natural resources are being depleted so quickly, green projects both inside and outside of organizations need to be promoted on a larger scale. To attain sustainability, managers and decision-makers should investigate every avenue for encouraging eco-friendly behavior.

Table 7:Regression Weights: Mediating role of GSCM

Hypothesis			Hypothesis		
GH--> Int-GSCM-->SP	H6a	Supported	GH-->Ext-GSCM--> SP	H7a	Supported
GT--> Int-GSCM--> SP	H6b	Supported	GT-->Ext-GSCM--> SP	H7b	Supported
GP--> Int-GSCM-->SP	H6c	Not supported	GP-->Ext-GSCM--> SP	H7c	Not supported
GR--> Int-GSCM-->SP	H6d	Not supported	GR-->Ext-GSCM--> SP	H7d	Supported

The way that GSCM activities work as a mediator to lessen the indirect effect of GHRM practices on sustainable performance is seen in Table 7 above. The impact of GH and GT on sustainable performance was revealed to be strongly mediated by internal GSCM practices by the author using a regression analysis approach. However, results indicated an insignificant mediation by internal GSCM practices in case of GP and GR. Furthermore, almost similar sort of response can be observed in case of external GSCM. Impact of green reward, green hiring and green training was successfully mediated by external GSCM.

Thus, it can be concluded that GSCM practices generally operate as a mediator in the relationship between sustainable performance and GHRM practices. These results are consistent with Longoni et al. (2018) support. Organizations seeking to attain sustainability in their financial and environmental performance must embrace a green corporate culture.

Conclusion

This study looked at the effects of GHRM practices (green hiring, green training, green incentive & pay, and green performance management system) on long-term performance in Gujranwala, Pakistan's manufacturing sector, with GSCM practices acting as a mediating factor. The broad gamut theoretical foundation and literature on the chosen variables was illustrated in second portion of the study. Out of several aspects of the problem, this exploration tried to accomplish these main objectives:

- Explore the direct impact of GHRM practices (green hiring, green training, green reward & compensation and green performance management system) on sustainable performance.
- Effect of independent variable GHRM practices (green hiring, green training, green reward & compensation and green performance management system) on mediator (GSCM practices).
- Effect of the mediator (GSCM practices) on the dependent variable (sustainable performance)

- By incorporating the effects of a mediator, examine the impact of the independent variable GHRM practices (green performance management system, green hiring, green training, and green rewards & compensation) on the dependent variable (sustainable performance).

The findings of this study suggest that GHRM and GSCM practices may play a significant role in regulating environmental, social, and economic sustainability of performance. Additionally, it was discovered that GSCM practices strongly influenced the association between GHRM practices and sustainable performance.

An analysis of the relationship between GHRM practices and sustainable performance shows that green hiring, green training, green rewards, and green performance management systems have a positive and significant influence on performance sustainability, whether it be social, economic, or environmental. Furthermore, the author concludes that the relationship between GHRM practices and sustainable performance is mediated by GSCM practices.

Theoretical, Managerial and practical implications

Exploring and illustrating the linkage among environmental strategic goals and specific aspects of green HRM of an organization (together with green supply chain management) may exert numerous practical and managerial implications as the subsequent:

- This study will bridge the gap between SCM theories and HRM by providing comprehensive analysis of connectivity of these practices for accomplishing sustainability goals
- Human considerations must be taken into account by supply chain managers responsible for implementing green supply chain strategies.
- Administrators must initiate employing green supply chain by offering empowerment, teaching, along with an obvious pay & reward arrangement.
- Regarding "green employee empowerment," supervisors might encourage forming green teams to motivate employees. Due to green groups, employees may discuss and select the best ideas for a greener supply chain.
- Management is responsible for creating incentives that are both financially and non-financially sustainable. Therefore, in order to promote more employee involvement in the company, it is possible to consider and put into place a compensation system that acknowledges green practices and projects.
- Regarding practical implication this study would enable organizations to integrate green HR to achieve higher motivation and employee engagement.
- Eco-friendly workplace policies and waste reduction helps in improving financial performance via cost reduction.

Limitations and Future Suggestions

Future researchers can solve the study's few flaws. First and foremost, one of the study's limitations is that it only included data from one Pakistani city and the manufacturing industry; it did not include data from other industries or geographical areas. Future researchers might therefore broaden this study by taking into account more industries and geographical areas. Because the study focusses on a developing Asian nation, its findings might not apply to other countries due to cultural and economic differences. Secondly, this study has only included GHRM practices as independent variable future researchers may include HRM outcomes too. Finally, in order to perform research and analyze the findings to show more noteworthy outcomes, researchers may modify their protocols and use different research software.

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