Journal of Media Horizons
ISSN: 2710-4060 2710-4052 Volume 6, Issue 1, 2025

IMPACT OF GHRM ON SUSTAINABLE FIRM PERFORMANCE THROUGH GREEN DYNAMIC CAPABILITY; THE ROLE OF STRATEGIC FLEXIBILITY: AN EVIDENCE OF CONSTRUCTION INDUSTRY OF PAKISTAN

Sheraz Hassan[*1], Dr Muhammad Jehangir[2], Dr. Haider Ali Shams[3], Imran Khan[4]

*[*1]PhD Scholar at Department of HR and Information Management, Abdul Wali Khan University Mardan, Pakistan*
[2,3]Department of HR and Information Management, Abdul Wali Khan University Mardan, Pakistan
[4]NUST, Pakistan

[*1]sherazjinnah@gmail.com, [2]jehangir@awkum.edu.pk, [3]haider@nbc.nust.edu.pk, [4]imran@nbc.nust.edu.pk

DOI: https://doi.org/10.5281/zenodo.14915671

Keywords
GHRM. Green Dynamic Capability. Strategic Flexibility.

Article History
Received on 14 January 2025
Accepted on 14 February 2025
Published on 24 February 2025

Copyright @Author
Corresponding Author: *

Abstract
The purpose of the study is to assess sustainable firm performance in Pakistan's construction sector using green dynamic capability, strategic flexibility, and GHRM. The Resource-Based View Theory (RBV) and Ability Motivation Theory (AMO) serve as the foundation for this study. We gathered information from 400 workers in Pakistan's construction sector using a survey questionnaire. Smart PLS was used to evaluate the data using structural equation modeling (SEM). The findings show that GHRM significantly affect the long-term success of a firm. The relationship between GHRM and sustainable firm performance is influenced by green dynamic capability acting as a mediator. The findings also indicated that the relationship between green dynamic capability and sustainable company performance is enhanced by strategic flexibility. Moreover, the relationship between GHRM and Sustainable Firm Performance is influenced by strategic flexibility. This study presents CEOs and senior managers in developing nations like Pakistan with a novel approach to improve sustainable corporate performance. It suggests the use of green human resource management (GHRM), green dynamic capability, and strategic flexibility.

INTRODUCTION

A paradigm shift toward sustainability and environmental consciousness has occurred in recent decades, prompting scholars and practitioners to reassess their perspectives on human resource management (Nureen et al. 2023). Organizations are utilizing HRM as a strategy to achieve their goals and promote organizational green transformation. To address environmental issues, firms are developing and implementing environmentally conscious strategies, such as green human resource management (GHRM) techniques and organizational sustainability (Alam 2021).

GHRM is an emerging concept in the field of organizational studies to creatively drive the entire workforce toward sustainable environmental practices (Hameed et al. 2022). Similarly, human resource management (HRM) requires to implementation of actions that reduce risk to the environment through implementing sustainable environmentally friendly practices and safeguards. A world that is always changing, where human resource

management (HRM) must take specific action to lessen environmental threats by implementing environmentally friendly and protective policies (Shoaib et al. 2021). This thought has become increasingly important in the wake for firms and governmental policies.

In today's competitive and challenging environment, Green Dynamic Capabilities (GDC) are becoming increasingly essential to boost sustainable firm performance (Rebs et al. 2019). Improving GDC is crucial for transforming construction firms towards sustainability. Consequently, firms practicing GDC are achieving a competitive advantage by using resources dynamically. over other firms (Mohaghegh, Blasi, and Groessler 2021a). Firms are looking to enhance GDC because it is crucial for adapting swiftly to environmental change. Firms with GDC innovate and achieve employee engagement ultimately enhancing sustainability. GDC is of paramount importance in the construction industry of Pakistan for improving sustainable practices, reducing its ecological footprint, and contributing positively to the environment.

Strategic flexibility (SF) enables organizations to take proactive measures in adapting to changing environmental norms, legislation, and stakeholder expectations (Cingöz and Akdoğan 2013a). It guarantees that GHRM procedures stay pertinent and efficient. Strategic flexibility allows employees to make substantial contributions to sustainability efforts. Employees' engagement to the organization is stronger when they feel engaged in green activities and perform innovatively (Cingöz and Akdoğan 2013b). SF is important in the construction industry of Pakistan as it allows firms to adapt swiftly to these changes, ensuring resilience and competitiveness.

Studies show that effective and efficient HRM practices enhance firm performance with the inclusion of dynamic and innovative behavior (Koseoglu, Yucel, and Ulucak 2022). The role of dynamic capability in a firm is becoming increasingly crucial in the context of environmental sustainability and business performance, which may pose significant challenges if not implemented (Hadi, 2023). Prior studies could not explore a complete framework for understanding the relationship between dynamism, flexibility, and sustainability in the construction industry. Comparably little research has been done on how strategic flexibility of businesses affects the construction sector in Pakistan, where there are significant issues with environmental sustainability and the availability of qualified labor.

This research intends to investigate how the implementation of Green Human Resource Management (GHRM), in conjunction with green dynamic capability and strategic flexibility, can improve Sustainable Firm Performance (SFP) by focusing on the construction industry. The construction sector plays a substantial role in the global economy and offers numerous job possibilities. However, it also has detrimental effects on the environment and contributes to the exacerbation of global warming (Lima et al., 2021). In our study, we utilised the ability motivation opportunity (AMO) theory proposed by Appelbaum (2000) and the resource-based view (RBV) theory proposed by Barney (1991) to examine how GHRM affects GDC in order to improve company performance. The study's findings provide valuable insights into the field of GHRM, GDC, SF, and SFP. Our work provides novel and pragmatic insights that focus on resolving organisational problems by expanding upon previous research on the correlation between GHRM, GDC, SF, and SFP. While prior studies have primarily concentrated on examining this relationship from a theoretical perspective, our research delves deeper into investigating how the interplay between GHRM and GDC can result in enhanced SFP. Furthermore, our research aims to enhance the comprehension of the Resource-Based View (RBV) and Ambidexterity-Mediated Effects (AMO) theories in the construction sector. We will demonstrate how the implementation of Human Resource Management practices and Green Design and Construction initiatives help to enhancing the overall performance of construction firms. The study investigated the direct and indirect influence of GHRM on SFP, providing empirical evidence on how strategic flexibility facilitates the relationship between GHRM and GDC.

The research objectives are the following: -

To examine the relationship between GHRM and sustainable firm performance;

To examine whether green dynamic capabilities significantly mediate between GHRM and sustainable firm performance and
to examine whether strategic flexibility significantly moderates green dynamic capabilities and sustainable firm performance.

2. Theoretical background and hypothesis development

To attain sustainable firm performance, a comprehensive strategy is necessary that combines the principles of the Ability, Motivation, Opportunity (AMO) model with the Resource-Based View (RBV) theory (Chowdhury, Mendy, and Rahman 2023) . The AMO model highlights the significance of synchronizing personnel competencies, drive, and chances to promote enduring results (Bos-Nehles et al. 2023a). Organizations can improve their capacity to innovate and successfully implement environmentally sustainable practices by equipping staff with the requisite information, skills, and resources (Bos-Nehles et al. 2023b). In addition, cultivating staff motivation through incentives, acknowledgment, and a supportive organizational culture enhances involvement and dedication to sustainability endeavors, resulting in enhanced environmental performance and stakeholder contentment.

Furthermore, the RBV theory emphasizes the importance of utilizing internal resources and talents to attain a lasting competitive advantage (Kaliannan et al. 2023). By making strategic investments in green human resource management (GHRM) techniques, firms can cultivate a staff that possesses specialized knowledge and expertise in environmental sustainability (Papademetriou et al. 2023) . This human capital serves as a valuable asset that allows the firm to distinguish itself from competitors, mitigate environmental risks, and take advantage of green opportunities. Organizations can increase their potential to generate lasting value for stakeholders and reduce harmful environmental effects by aligning human resources with sustainability goals and incorporating green concepts into fundamental business operations (Nikseresht, Golmohammadi, and Zandieh 2023).

2.2 GHRM and SFP

In the current dynamic business environment, companies function in a unique climate that differs from previous times (Johnson, Rötzel, and Frank 2023). The rapid rate of manufacturing requires a higher consumption of raw materials, leading to a rise in waste generation and carbon emissions. The environmental concerns mentioned have a substantial impact on climate change and global warming (Zandalinas et al., 2021). Green Human Resource Management (GHRM) incorporates environmentally conscious techniques into key HRM tasks to address these challenges. This encompasses cultivating environmentally conscious behaviour among personnel, advocating for eco-friendly advancements, and giving utmost importance to ecological sustainability in organizational growth (Shafaei et al., 2020).

Studies show that Human Resource Management (HRM) practices have a substantial impact on improving work performance and organizational efficiency in both Green Human Resource Management (GHRM) and ecological enhancement efforts (Ogbeibu et al. 2021). The effective implementation of HRM operations, such as training, remuneration, and development, has a direct positive impact on job efficiency among employees (Wang and Juo 2021). This, in turn, contributes to overall organizational performance in a good manner (Pham et al., 2020; Yong et al., 2019).

An essential instrument for implementing sustainable business practices in today's changing corporate climate is GHRM practices (Razab, Udin, and Osman 2015). Organisations may get the most out of their human capital and the benefits of a sustainable environment by including environmental considerations into HRM processes like hiring, training, and performance reviews. Both the environmental performance of corporations and their social and economic impacts can be improved via the use of GHRM strategies (Obereder, Müller-Camen, and Renwick 2022). Environmentally friendly training programs, green employee engagement activities, work-life balance promotion, and other initiatives are some of the ways in which GHRM promotes a culture that values its employees' health and the environment. Employee happiness, output, and retention all rise as a result. Crucial

factors are on top of that, GHRM policies help businesses adjust to new regulations, lessen environmental hazards, and improve their image as good corporate citizens. In order to succeed in the long run, it is crucial to use GHRM practices; this is how it gives businesses an edge and helps them succeed. GHRM practices essentially improve sustainable firm performance by integrating all practices like green training, green reward and green green culture in an organization.

In the field of environmental sustainability, GHRM (Green Human Resource Management) has a noticeable and beneficial effect on environmental efficiency (Yin and Yu 2022). More precisely, GHRM efforts promote increased employee understanding of ecological issues, incentivize the adoption of environmentally friendly practices, stimulate innovative thinking about sustainability, and improve overall environmental efficiency (Tan, & Alias, 2020). Significantly, implementing interventions such as green training and fostering strong staff engagement greatly enhances the environmental efficiency of a company. In addition, GHRM activities play a role in fostering a sustainable corporate culture, hence enhancing the overall environmental effectiveness inside firms (Ghouri et al., 2020). Empirical evidence indicates that businesses that follow structured environmental management schemes are more likely to achieve higher levels of environmental efficiency (Singh et al., 2020). Within this systematic framework for environmental protection, GHRM regulations and procedures play a crucial role. However, construction industries have obstacles in implementing GHRM activities due to issues related to environmental sustainability (Hameed et al., 2020).

H1: GHRM Practices are significantly and positively related to sustainable firm performance.

2.3 GHRM and GDC

Green Training is part of GHRM practices and enhances employee in role and extra role behavior (Japir Bataineh, Ghasemi, and Ghadiri Nejad 2023) besides instilling dynamism. The theoretical framework of green training and development contains important guidelines for knowledge enhancement((Mishra 2017)). Green training is aimed at training employees of organizations for better assimilation and understanding of all GHRM practices with a full focus on its application in environmentally sustainable organizations (Barakat et al. 2023). Green training is an important facet of organizations where employees are encouraged to adopt green practices in an organization. Training parameters and standard SOPs are defined for enhancing the capacity building of employees focusing on enhanced ecological protection, skill development, and green learning employees who work well without any barriers in functioning (Khan and Muktar 2023).

Thus, green training becomes an essential facet to remove barriers to practicing GHRM and enhancing sustainable firm performance. Green training and development is a much-desired phenomenon for which employees look to enhance their skills, knowledge, and abilities(Obereder et al. 2022). Green training and development are also linked to improving green dynamic capability. The organization's hierarchy focuses on green training and development and performance management. The absorption capacity of employees for sustainable firm performance is contingent upon green training and development (Shoaib et al. 2022). Thus, green training and development improve the firm performance of the employees. Green training also improves employees' sense of responsibility, creativity, green behavior, and green attitudes.

Application of GHRM practices is contingent upon good green training and development. Green training and development enhance employees' capacity to adopt green practices and remove any pitfalls or barriers to sustainable practices. Green training and development also encourage employees to show innovative behavior. Researchers have explored the impact of green training and innovation on sustainable firm performance, which is significant and positive (Shahzad, Jianguo, and Junaid 2023). The integrated impact of green training and green performance management is also significant for employee motivation, dynamism, innovation, and green behavior.

Following AMO theory, Individual performance is backed by an employee's intrinsic motivation, which can be supported by GHRM practices (Yu et al. 2020a). Performance is a tangible phenomenon that works in association with other attributes like reward,

compensation, and dedication in the organization. Green Performance Management is the ability to evaluate employee performance based on actions about environmental sustainability. Employees with dynamic capability and innovative behavior can radiate their ability to change in an organization. It is also believed that through efficient performance management employees work to achieve organizational goals and objectives (Felsberger et al. 2022). Executives are looking to improve firm performance through good employee performance management with the help of various ways and methods(Rasool et al. 2019). Many organizations focus on green performance management for environmental sustainability because this transformation takes some time to make greener. The firms that are ahead of required targets have devised efficient key performance indicators for better performance and synchronizing efforts of the employees (Singh et al. 2023).

Green performance management has worked well in transforming employees to adopt sustainable practices. More organizations are getting control over green performance management because it has become the most important factor in training, equipping, and grooming employees to adopt green HRM practices. Hence, performance management is being adopted in organizations because green HRM practices are less effective without good and tangible measures of performance management(Mousa and Othman 2020). Previous studies show that good methods and techniques of performance management are adopted to attract skillful and highly trained employees in practices of environmental sustainability. Firms with better retention of trained employees are practicing good performance management. Performance management has become more methodical, objective-oriented, and result-seeking with time. Green performance management has become the backbone of the competitive environment in the organization. Firms seeking immediate measures of environmental sustainability have worked with various methodologies to improve the sense of recognition, reward, and compensation in the organization (Epstein 2018).

Green performance is linked to many important facets, such as motivation, reward, compensation, and retention. Firms practicing environmental sustainability are eagerly looking for the retention of employees. Performance management is also linked to the perception of employees about the organization. Employees attaining good scores in performance management seem to enjoy firm support and enhance their commitment. Green performance management is linked with the dynamic capability of employees to absorb change in the organization. Employees feel a sense of accomplishment and achievement with an acknowledgment and reward culture in the organization. Retention of employees is the foremost important aspect of highly competitive organizations with larger market share (Subramaniam, Choo, and Johari 2019). Green performance management also becomes the foundation for hiring highly skilled, knowledgeable, and competent employees who can serve better. Green performance management can be linked with the dynamic capabilities of employees who have a sense of innovation and dynamism for transforming organizations into environmentally sustainable practices (Mohaghegh, Blasi, and Groessler 2021b).

In an organization, rewards become an essential part of GHRM practices. Employees' motivation, recognition of work, and compensation are contingent upon rewards, compensation, and benefits (Yu et al. 2020b). The more prudent and effective the rewards system, the more employees will be encouraged towards the organization. Reward brings motivation, enhances the ability to demonstrate in-role and extra-role behavior, and employee retention. It is one of the core HRM practices, especially when organizations seek environmental sustainability and green practices.

GHRM practices focus on green employee selection, training, reward, and appraisal. The training, performance management, and reward of green employees are a focus area of firms striving for sustainable development goals. The green reward is attributed to financial and non-financial rewards (Yusliza et al. 2019). Financial rewards include monetary benefits, bonuses, and salary increments for employees implementing GHRM practices in organizations. Non-monetary rewards include recognition of employee's work in monthly meetings,

declaring the best employee of the month, adventure trips, and related non-financial rewards.

Green rewards are given to encourage employees to reduce waste, carbon emissions, recycle, reuse of products, environmental sustainability, and show green behavior. The salary increases of senior executives also improve their performance and apply pressure on them to fulfill their ability to achieve sustainable developmental goals. Organizations promoting incentives for green innovations and dynamic capability remain ahead and enjoy better competitive advantage.

H2: GHRM Practices are positively and significantly related to green dynamic capability.

2.3 Green Dynamic Capability and Sustainable Firm Performance

Green Dynamic Capability is the ability to utilize the creative and innovative ability to produce new products with the use and reuse of current products along with dynamic and unique knowledge (Yuan and Cao 2022). Dynamic capability is an utmost factor in organizations where many firms are looking for environmental sustainability. This capability can enhance the firm's unique ability to produce more and remain sustainable thus reducing carbon emissions. The construction industry requires more dynamic capability and innovation because sustainability is more affected by non-adherence to sustainable practices (Rodríguez-Espíndola et al. 2022). Previous studies found that green dynamic capability and innovation enhance sustainable firm performance.

The green dynamic capability provides an organization with an innovative ability to achieve a competitive advantage (Qiu et al. 2020a). This capability has enhanced the firm sustainable performance. Through the integrated impact of GHRM practices and green dynamic capability, firms increase sustainable performance and achieve higher competitive advantage. Firms looking for change also create a dynamic environment where employees absorb change and shoulder the responsibility of sustainable performance (Ruan, Chen, and Zhu 2022).

Businesses actively seek out and reward employees that demonstrate innovative conduct.. Organizations seeking to change their internal and external environment cannot achieve sustainable firm performance without green dynamic capability, justified response at the organizational level, and innovation (Nazir et al. 2019). The implementation of green dynamic capability aligns with the UN's sustainable developmental goals for 2030. Firms also show strategic flexibility to achieve green dynamic capability. Therefore, firms are enhancing GHRM practices with dynamism, innovation, and strategic flexibility to achieve sustainable firm performance.

H3: GDC is significantly and positively related to SFP.

2.5 Mediating role of green dynamic capabilities

Green dynamic capability is developed by making strategies for incorporating innovation and dynamism among employees (Singh et al. 2022). Such capability can make connections between implementing GHRM practices and sustainable firm performance. The role of management is of utmost importance to implement green dynamic capability to accrue maximum benefits for sustainable firm performance (Ferreira, Coelho, and Moutinho 2020a).

The economic perspective is an essential factor through which management decides an extent to implement dynamic capability (Ferreira, Coelho, and Moutinho 2020b). However, this capability is also helpful in the wake of reusing strategies and economizing effects. With the help of green dynamic capabilities, firms can work out product reuse and recycling, thus linking green dynamic capabilities and sustainable firm performance (Qiu et al. 2020b).

The natural resource-based view (NRBV) suggests that green dynamic capability and innovation can help link environmental resources, GHRM practices, and sustainable firm performance (Niazi et al. 2023). The firm needs to tailor and modify its resources for optimum production, thus increasing performance for the satisfaction of various stakeholders. Green dynamic capabilities – sensing, seizing, and reconfiguring, enable a firm to utilize its competencies dynamically by utilizing tangible and intangible assets (Mohaghegh, Blasi, and Groessler 2021c). Therefore, green dynamic capability can essentially link GHRM practices and sustainable firm performance to improve sustainable goals. Therefore, it is hypothesized that:-

H3: Green dynamic capabilities significantly mediate GHRM Practices and sustainable firm performance.

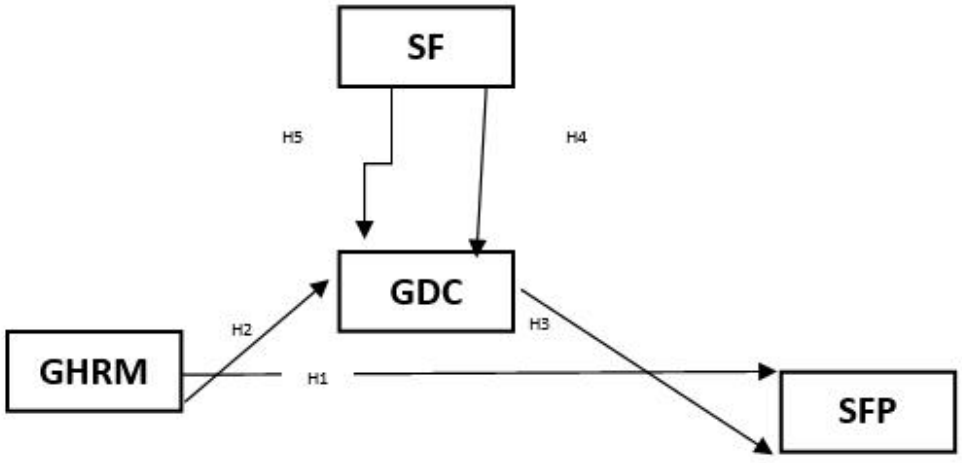
2.6 Moderating Role of Strategic Flexibility

The strategic flexibility of a firm is the ability to transform an organization by making important strategic decisions to utilize and relocate resources efficiently. While adopting strategic flexibility, firms dynamically manage internal and external environments (Zakariyyah, John, and Ijaola 2021a). Strategic flexibility rejuvenates management to make innovative decisions, improve the allocation of resources and efficiency of the organization, and increase the dynamic capability of employees. Firms having strategic flexibility create a more substantial impact of dynamism in the organization. Strategic flexibility has also created a dynamic effect on environmental sustainability, thus allowing employees to work efficiently and effectively (Zakariyyah, John, and Ijaola 2021b). Strategically flexible organizations have moved forward in achieving environmental stress sustainability and reducing the effects of climate change. Strategic flexibility creates a stronger impact on the relationship between green dynamic capability and sustainable firm performance.

In the wake of recent climate changes, organizations that show dynamism, innovation, and flexibility have achieved satisfactory results. On the one hand, strategic flexibility improves the relationship between green dynamic capability and sustainable firm performance. Conversely, it also attracts customers' loyalty, satisfaction, and decision preferences. Firms having greater strategic flexibility also perform well in an environment of dynamism and innovation thus improving sustainable firm performance. Organizations with more robust and higher strategic flexibility often allocate and utilize resources amicably with the imaginative and innovative use of resources creating a competitive advantage (Ferreira, Coelho, and Moutinho 2020c). Therefore, firms practicing GHRM show dynamic capability with the effects of strategic flexibility, thus ultimately improving firm performance. Existing studies explored the moderating effects of strategic flexibility between startup performance and exploratory innovation (Daradkeh and Mansoor 2023), technological capability and exploitation(Zhou and Wu 2010), and organizational ambidexterity–firm performance relationship [84]. The relationship between strategic flexibility and firm performance is also explored (Yousuf et al. 2021). However, scant evidence prevails in the context of environmental sustainability that how strategic flexibility strengthens the relationship between GHRM practices and sustainable firm performance. Therefore, it is hypothesized that: -

H4: Strategic Flexibility moderates the relationship between GHRM and SFP.

H5: Strategic Flexibility moderates the relationship between GDC and SFP.



Research Methodology

3. Research Methodology

3.1 **Population and Sampling**

This study utilized quantitative methods to measure many aspects like GHRM practices, GDC, SF, and

Sustainable business performance. These measurements were obtained through the use of modified questionnaire instruments. The study population focused on senior, middle, and lower managers in Pakistan's construction industry. The employees were chosen from relatively larger firms in Pakistan. The employees were chosen based on prior interviews with selected persons of the company to know who could respond to such a questionnaire effectively. A convenience sampling method was used with a sample of 400, based on previous studies conducted to explore the impact of GHRM practices on sustainable firm performance. Samples taken from various companies' construction industry helped generalize our research. This helped to reduce biases in sample bias.

3.2 Measure

The study utilized measurement scales that had been previously employed in research investigations. To quantify GHRM practices, a ten-item scale was adopted for this aim (Tang et al., 2018). The researchers Pavlou and El Sawy (2011) modified a scale consisting of seven items to assess green dynamic capabilities. The scale was derived from Pavlou and El Sawy's (2011) research to assess green dynamic capabilities. The researchers Nadkarni and Herrmann (2010) utilized a modified version of a strategic flexibility scale consisting of 5 items to assess individual strategic flexibility. In addition, a total of fifteen elements were modified in order to assess the level of sustainable company performance, as described by Paulraj in 2011. The variables were assessed using a 5-point Likert scale, with a range of 1 to 5, where 1 represents severe disagreement and 5 represents strong agreement.

3.3 Response Rate and Demographic Data

A total of 476 correspondents were given the survey instrument, and 400 responses were collected from individuals in senior (16.4%), middle, and lower management positions across all three tiers. A total of 76 replies were excluded from the analysis due to insufficient information. An 84% response rate was obtained from the survey participants, with 61.5% being male and 38.5% being female. The participants had various qualifications, including 24.4% with a Bachelor's degree, 27.3% with a Master's degree, 39.8% with an MS/MPhil degree, and 8.5% with a PhD degree. The participants possess professional job experience ranging from less than 3 years (46.3%), 3 to 5 years (27.4%), 5 to 10 years (18.3%), 10 to 15 years (5.1%), and more than 15 years (2.9%). Table 1 displays the condensed information regarding demographic data.

Table 1. Demographic results from a survey.

Demographic	Item	Frequency	Percent
Gender	Male	288	72
	Female	112	28
Education	Bachelor Degree	88	22
	Master Degree	98	24.5
	MS/MPhil Degree	184	46
	Ph.D. Degree	30	7.5
Experience	< 3 Year	161	40.25
	3 to 5 Years	90	22.5
	5 to 10 Years	81	20.25
	10 to 15 Years	19	4.75
	> 15 Years	57	14.25
Management	Senior Managers	74	18.5
	Mid Managers	176	44
	Lower Managers	150	37.5

3.4 Results

We performed reliability and validity tests to evaluate the internal and external consistency of the data acquired using the research instrument. The study measures were assessed for reliability and validity using Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE). Table 2 and Fig. 1 demonstrate that Fig. 2 reveals that each factor loading above the threshold criteria of 0.70 and is statistically significant, as determined by Hair et al. (2017). The alpha values varied between 0.78 and 0.91, and the composite reliability ratings varied between 0.79 and 0.90. The values demonstrate that the measures used in the study are reliable and indicate strong convergent validity, above the criterion of 0.50, as proposed by Fornell & Larcker (1981).

Table 2. Cronbach's alpha, composite reliability, and average variance extracted

Variables	No. of items	Alpha	CR	AVE
GHRM	10	0.89	0.91	0.62
GTL	6	0.90	0.92	0.55
GDC	8	0.91	0.92	0.71
SFP	6	0.94	0.94	0.55

Note: CR = Composite Reliability; AVE = Average Variance Extracted.

Table 3. Summary of correlation analysis.

Variables	M	SD	1	2	3	4
GHRM	3.80	.58	1			
GDC	3.57	.66	.166**	1		
SF	3.52	.88	.027	-.082	1	
Sustainable Firm Performance	3.83	.67	.324**	.268**	.108*	1

Note: * p < 0.05, ** p < 0.01; GDC=Green Dynamic Capability; GHRM=Green Human Resource Management; SFP=Sustainable Firm Performance; SF= Strategic Flexibility

The mean values varied from a maximum of 3.83 to a minimum of 3.52. The SFP findings showed the highest level of conformity, with a mean of 3.83 and a standard deviation of 0.67. The indicator for SF is the lowest, with a mean of 3.52 and a standard deviation of 0.88. Pearson's Correlation was employed to quantify the association between two continuous variables and their covariance. The correlation coefficient was calculated between GHRM practices, SF, and GDC with SFP. The findings demonstrate a noteworthy and favorable correlation between GHRM practices, GDC and SF, and the overall performance of the firm. All of the results have a p-value that is less than 0.01.

Table 4. Testing of Hypothesis

	Original Sample (O)	Sample mean (M)	Standard Deviation (STDEV)	T	P values
GHRM -> SFP	0.306	0.313	0.055	5.568	0.000
GHRM -> GDC	0.187	0.193	0.061	3.050	0.002
GHRM->GDC>SFP	0.040	0.041	0.019	2.097	0.036
GDC -> SFP	0.211	0.214	0.066	3.182	0.001
SF -> SFP	0.152	0.166	0.061	2.500	0.012
SF x GDC->SFP	-0.161	-0.161	0.079	2.034	0.042
SF x GHRM-> SFP	0.179	0.161	0.082	2.184	0.029

Note: * p < 0.05, ** p < 0.01; GDC=Green Dynamic Capability; GHRM=Green Human Resource Management; SFP=Sustainable Firm Performance; SF= Strategic Flexibility

Besides the validity, the reliability was examined by calculating Cronbach's alpha to check that reliability is well above the threshold of 0.70 for all study variables. Accordingly, the reliability test of all items was performed. Cronbach's alpha values for all the variables were greater than 0.80, which showed exceptional internal consistency among items except big data adoption which was 0.76. The summary of validity and reliability analyses is presented in Table 2.

To test the research hypothesis, regression analysis was employed (Anderson, Sweeney, and Williams 2011) and moderation occurs when "the effect of an independent variable varies on the dependent variable varies across levels of the moderating variable" (Williams 2011). The interaction term's regression coefficient estimates the effect of moderation (Hair et al., 2018).

3.3 Testing of Hypotheses

The technique of structural equation modelling was employed to analyse the proposed hypotheses. The study found that GHRM has a strong and positive influence on sustainable company performance, as indicated by a regression coefficient (b) of 0.313 and a p-value of 0.000. Therefore, we may conclude that GHRM is a substantial predictor of sustainable firm performance, supporting hypothesis H1. In addition, the study examined the influence of GHRM on sustainable GDC, revealing a substantial and favourable correlation with a coefficient of 0.187 and p-values of 0.002. Therefore, H2 is confirmed, suggesting that GHRM is a substantial predictor of GDC. An analysis was conducted to examine the influence of GDC on SFP.

The findings indicate that there is a substantial and positive relationship between GDC and SFP, with a coefficient (b) of 0.214 and p-values of 0.001. Therefore, H3 was accepted. During the mediation study, the Green Dynamic Capability (GDC) acts as a mediator, facilitating the interaction between the Green Human Resource Management (GHRM) and the Strategic Firm Performance (SFP) with a coefficient of 0.41 and a p-value of 0.036. The findings of the moderation analysis indicate that SF has a moderating role in the association between GHRM and SFP. The regression coefficient (b) is 0.179, and the p-value is 0.029, which suggests that the moderation effect is statistically significant. Therefore, we accept hypothesis H4. The study additionally examined the moderating effect of SF, revealing that SF influences the association between GDC and SFP (b=-0.161, P-value=0.042). Therefore, H5 is confirmed. The findings are displayed in Table 4.4.

Discussion, Implication, and limitations

4.1 Discussion

This study examined how Green Human Resource Management (GHRM) affects the sustainable performance of firms in Pakistan's Construction Industry. It also investigated the role of Green Dynamic Capability (GDC) as a mediator and Strategic Flexibility (SF) as a moderator in this relationship. The analysis uncovers various crucial observations: The user did not provide any text.

The findings highlight the importance of GHRM techniques in improving environmental sustainability in the construction industry. Organisations may develop an employee base that is well-informed, driven, and capable of promoting sustainability projects by including environmental factors in HR procedures like recruiting, training, and performance review. This supports prior research that emphasises the favourable correlation between GHRM (Green Human Resource Management) and environmental performance.

Furthermore, the involvement of GDC as a mediator emphasises the significance of organisational capacities in effectively converting GHRM practices into long-lasting business performance. GDC empowers organisations to perceive shifts in the environment, capitalise on eco-friendly prospects, and adjust their plans and operations accordingly. Through the allocation of resources towards staff training and the cultivation of a sustainable culture, organisations can cultivate the adaptable skills and abilities required to generate novel ideas and prosper within an environmentally conscious economy.

Furthermore, the role of SF in moderating highlights the significance of organisational agility and adaptation in optimising the efficacy of GHRM approaches. Sustainable foresight empowers organisations to take proactive measures in addressing environmental uncertainties and problems, hence strengthening their capacity to

utilise GHRM efforts to gain a competitive edge. Organisations that have high levels of sustainable finance (SF) are in a better position to take advantage of green opportunities and reduce environmental risks, which ultimately improves their sustainable performance as a company.

In summary, the debate emphasises the intricate relationship between GHRM (Global Human Resource Management), GDC (Global Digital Competence), and SF (Sustainable Firm Performance) in influencing long-lasting success in Pakistan's Construction Industry. By comprehending these connections, organisations can formulate strategic methods to include environmental sustainability in their HR operations and bolster their competitive standing in the market.

This study is consistent with previous research on GHRM practices, green dynamic capability, and sustainable company performance (Alzyoud 2021; Joshi et al. 2023). This research demonstrates the positive influence of Green Human Resource Management (GHRM) on sustainable company performance. It suggests that organisations that invest in teaching green practices and develop green dynamic capability can improve their sustainable firm performance.

The findings emphasise that companies that implement GHRM practices by utilising green dynamic capabilities and strategic flexibility improve their sustainable company performance. These organisations also have a beneficial impact on environmental sustainability and ensure that staff are well-informed about and follow green practices. They achieve this through effective methods such as green training and development, green awards, and green performance appraisal. This study aligns with the findings of Ababneh (2021), who proposed that GHRM has a beneficial influence on green behaviour. Seman et al. (2019) found that green innovation has a beneficial impact on sustainable performance. Countries such as Pakistan, who are still in the process of growing and developing, have seen significant adverse impacts as a result of climate change and global warming. This has made it imperative for them to adopt and implement Green Human Resource Management (GHRM) methods. Organisations should proactively adopt environmentally-friendly procedures due to the increasing effects of weather threats. Waste minimization, product reutilization, and efficient promotional tactics are crucial for fostering GHRM consciousness among all stakeholders, encompassing customers, senior managers/executives, and staff.

This study also examines the role of strategic flexibility as an intermediary factor between GHRM and sustainable business performance. The findings reveal a strong and positive link, indicating that strategic flexibility acts as a moderator between GHRM and sustainable firm performance. Organisations that possess strategic flexibility in implementing GHRM principles outperform organisations that lack dynamic capabilities. The statement suggests that the strategic phenomena is not extensively studied and that organisations lack effective methods. It emphasises the necessity for senior executives to foster a culture of innovation and dynamism.

4.2. Study Implication

4.2.1 Practical Implication

This study has many important implications for all stakeholders, policymakers, and society. First, opting for green dynamic capability in GHRM practices will benefit all stakeholders. Customer retention will increase with innovative and dynamic product development, packaging, and distribution operations. Customers are attracted by innovative products supporting environmental sustainability. GHRM practices can be implemented with green training and development, green performance management, and green rewards. The managers can run short courses to increase employees' required knowledge, skills, and ability to implement green practices. By implementing GHRM practices, sustainable firm performance is enhanced and social corporate responsibility is implemented.

Secondly, organizations that invest more in training and development produce more innovative and dynamic employees who adopt any change and innovation required. Organizations can include green performance appraisal in assessing employees' ability to implement green practices and look for areas for improvement. The key performance indicators list can include a green performance appraisal for grading employees according to skill and knowledge. This way, more prudent and

dynamic employees will create an organization that quickly absorbs and implements change. Such employees, who shoulder green responsibilities can be rewarded and encouraged for more employees encouragement. This reward culture will undoubtedly positively impact an organization striving for sustainable firm performance.

Thirdly, this study is beneficial for the construction of Pakistan, which needs to implement GHRM practices with dynamism and flexibility. Senior managers and executives can implement green practices and create a positive environment. This study will help firms adopt green behaviors and cultures that permeate green values and innovation.

4.2.2 Theoretical implications

The study contributes significantly to the Ability-Motivation-Opportunity (AMO) and Resource-Based View (RBV) theories. The incorporation of environmental issues into HR operations, known as GHRM practices, aligns with the Resource-Based View (RBV) theory. This alignment is based on the idea that GHRM practices provide distinct and irreplaceable resources that contribute to a firm's competitive advantage. These activities enhance the firm's capacity to develop a workforce that is highly skilled and motivated to participate in sustainable practices. This aligns with the AMO framework by enhancing employees' skills, motivation, and opportunity for engaging in pro-environmental behaviour. Strategic flexibility enhances organisations' ability to quickly adjust and react to changes in the environment, therefore promoting a culture of ongoing innovation and organisational change. Green dynamic capability (GDC) improves adaptability by enabling enterprises to effectively incorporate and rearrange both internal and external resources to proactively tackle environmental concerns. These factors work together to enhance a company's long-term performance by integrating sustainability into its fundamental strengths and strategic ambitions. This integration not only improves the firm's competitive advantage, as suggested by the Resource-Based View (RBV), but also guarantees that employees are empowered and motivated to contribute to the firm's sustainability goals, aligning with the concepts of the Ability-Motivation-Opportunity (AMO) framework.

4.3. Study limitations and future recommendations

Besides being a unique addition to the existing body of literature, this study has some limitations. This study has focused on SF as a moderator between GHRM and sustainable firm performance; future studies can focus on other important aspects like green creativity, green transformational leadership, and green intellectual capital. Future studies should focus on flexibility at the organizational and individual levels to achieve desired goals and how to create an environment of adaptability and transformation in an organization. Researchers can focus on different aspects of flexibility and transformation to motivate employees to implement green transformations in combating environmental issues. Adopting green culture, green behavior and environmental commitment are the areas for researchers to explore.

Future research can focus on industry, manufacturing, energy production sectors, farming, etc. The research should focus on employees' innovative behavior to respond to such changes efficiently and effectively. Adopting green dynamic capability and strategic flexibility will help firms practice GHRM, ultimately improving firm performance. Such abilities are required to be inculcated among employees to respond positively to changes in an organization. Adoption of dynamism and flexibility in the areas of environmental sustainability will help managers to impart green practices in an organization. Similarly, sustainable firm performance will be more pronounced after global warming and climate change. Firms should look for employees with an aptitude to respond to green dynamic capabilities and green flexibility for improving sustainable firm performance. Secondly, strategic flexibility is recommended for firms across Pakistan to achieve sustainable firm performance. The ability to transform to green practices will help managers adopt GHRM practices in flood-hit and economically depressed societies quickly.

5. Conclusion

This study highlights the critical role of green human resource management (GHRM) in delivering sustainable corporate performance. By integrating the environment into HR practices, GHRM provides

employees who are not only environmentally conscious but also actively participate in environmentally friendly activities. The mediating role of green dynamic capability (GDC) is important, as it enables firms to manage and reconfigure resources to address and exploit environmental opportunities and challenges. GDC ensures that sustainable development is deeply embedded in the company's strategic and operational plans, resulting in continuous improvement. Managers need to understand the challenges and impacts of environmental sustainability and demonstrate a flexible approach to improve the organizational process, therefore improvement sustainability increases collaboration.

REFERENCES

Ababneh, Omar Mohammed Ali. 2021. "How Do Green HRM Practices Affect Employees' Green Behaviors? The Role of Employee Engagement and Personality Attributes." Journal of Environmental Planning and Management 64(7):1204–26.

Alam, Mohammad Ashraful Alam. 2021. "Impact of GHRM on Organization's Environmental Performance: Mediating Role of Green Employee Empowerment." Journal of Business 6(2):15–30.

Alzyoud, Adel Ali Yassin. 2021. "The Impact of Green Human Resource Management Practices and Knowledge Sharing on Sustainable Performance: A Conceptual Framework." International Journal of Education Humanities and Social Science 4(2):115–32.

Anderson, David Ray, Dennis J. Sweeney, and Thomas Arthur Williams. 2011. Fundamentals of Business Statistics. Cengage Learning.

Barakat, Bashar, Marwan Milhem, Gehad Mohammed Ahmed Naji, Mohammed Alzoraiki, Habsah Binti Muda, Ali Ateeq, and Zahida Abro. 2023. "Assessing the Impact of Green Training on Sustainable Business Advantage: Exploring the Mediating Role of Green Supply Chain Practices." Sustainability 15(19):14144.

Bos-Nehles, Anna, Keith Townsend, Kenneth Cafferkey, and Jordi Trullen. 2023a. "Examining the Ability, Motivation and Opportunity (AMO) Framework in HRM Research: Conceptualization, Measurement and Interactions." International Journal of Management Reviews 25(4):725–39.

Bos-Nehles, Anna, Keith Townsend, Kenneth Cafferkey, and Jordi Trullen. 2023b. "Examining the Ability, Motivation and Opportunity (AMO) Framework in HRM Research: Conceptualization, Measurement and Interactions." International Journal of Management Reviews 25(4):725–39.

Chowdhury, Shah Ridwan, John Mendy, and Mahfuzur Rahman. 2023. "A Systematic Literature Review of GHRM: Organizational Sustainable Performance Reimagined Using a New Holistic Framework." Sustainability 15(9):7513.

Cingöz, Ayşe, and A. Asuman Akdoğan. 2013a. "Strategic Flexibility, Environmental Dynamism, and Innovation Performance: An Empirical Study." Procedia-Social and Behavioral Sciences 99:582–89.

Cingöz, Ayşe, and A. Asuman Akdoğan. 2013b. "Strategic Flexibility, Environmental Dynamism, and Innovation Performance: An Empirical Study." Procedia-Social and Behavioral Sciences 99:582–89.

Daradkeh, Mohammad, and Wathiq Mansoor. 2023. "The Impact of Network Orientation and Entrepreneurial Orientation on Startup Innovation and Performance in Emerging Economies: The Moderating Role of Strategic Flexibility." Journal of Open Innovation: Technology, Market, and Complexity 9(1):100004.

Epstein, Marc J. 2018. Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental and Economic Impacts. Routledge.

Felsberger, Andreas, Fahham Hasan Qaiser, Alok Choudhary, and Gerald Reiner. 2022. "The Impact of Industry 4.0 on the Reconciliation of Dynamic Capabilities: Evidence from the European Manufacturing Industries."

Production Planning & Control 33(2–3):277–300.

Ferreira, Jorge, Arnaldo Coelho, and Luiz Moutinho. 2020a. "Dynamic Capabilities, Creativity and Innovation Capability and Their Impact on Competitive Advantage and Firm Performance: The Moderating Role of Entrepreneurial Orientation." Technovation 92:102061.

Ferreira, Jorge, Arnaldo Coelho, and Luiz Moutinho. 2020b. "Dynamic Capabilities, Creativity and Innovation Capability and Their Impact on Competitive Advantage and Firm Performance: The Moderating Role of Entrepreneurial Orientation." Technovation 92:102061.

Ferreira, Jorge, Arnaldo Coelho, and Luiz Moutinho. 2020c. "Dynamic Capabilities, Creativity and Innovation Capability and Their Impact on Competitive Advantage and Firm Performance: The Moderating Role of Entrepreneurial Orientation." Technovation 92:102061.

Fornell, Claes, and David F. Larcker. 1981. "Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics."

Hameed, Zahid, Rana Muhammad Naeem, Marria Hassan, Muhammad Naeem, Muhammad Nazim, and Adnan Maqbool. 2022. "How GHRM Is Related to Green Creativity? A Moderated Mediation Model of Green Transformational Leadership and Green Perceived Organizational Support." International Journal of Manpower 43(3):595–613.

Japir Bataineh, Mohammed Ahmed, Matina Ghasemi, and Mazyar Ghadiri Nejad. 2023. "The Role of Green Training in the Ministry of Education's Corporate Environmental Performance: A Mediation Analysis of Organizational Citizenship Behavior towards the Environment and Moderation Role of Perceived Organizational Support." Sustainability 15(10):8398.

Johnson, Matthew P., Theresa S. Rötzel, and Brigitte Frank. 2023. "Beyond Conventional Corporate Responses to Climate Change towards Deep Decarbonization: A Systematic Literature Review." Management Review Quarterly 73(2):921–54.

Joshi, Akanksha, Aakanksha Kataria, Mansi Rastogi, Nicholas J. Beutell, Shoeb Ahmad, and Yusliza Mohd Yusoff. 2023. "Green Human Resource Management in the Context of Organizational Sustainability: A Systematic Review and Research Agenda." Journal of Cleaner Production 139713.

Kaliannan, Maniam, Darshana Darmalinggam, Magiswary Dorasamy, and Mathew Abraham. 2023. "Inclusive Talent Development as a Key Talent Management Approach: A Systematic Literature Review." Human Resource Management Review 33(1):100926.

Khan, Muhammad Hamza, and Syaharizatul Noorizwan Muktar. 2023. "Green Employee Empowerment: The Missing Linchpin between Green HRM and Sustainable Organizational Performance." Journal of Cleaner Production 139812.

Koseoglu, Ahmet, Ali Gokhan Yucel, and Recep Ulucak. 2022. "Green Innovation and Ecological Footprint Relationship for a Sustainable Development: Evidence from Top 20 Green Innovator Countries." Sustainable Development 30(5):976–88.

Mishra, Pavitra. 2017. "Green Human Resource Management: A Framework for Sustainable Organizational Development in an Emerging Economy." International Journal of Organizational Analysis 25(5):762–88.

Mohaghegh, Matin, Silvia Blasi, and Andreas Groessler. 2021a. "Dynamic Capabilities Linking Lean Practices and Sustainable Business Performance." Journal of Cleaner Production 322:129073.

Mohaghegh, Matin, Silvia Blasi, and Andreas Groessler. 2021b. "Dynamic Capabilities Linking Lean Practices and Sustainable Business Performance." Journal of Cleaner Production 322:129073.

Mohaghegh, Matin, Silvia Blasi, and Andreas Groessler. 2021c. "Dynamic Capabilities Linking Lean Practices and Sustainable Business Performance." Journal of Cleaner Production 322:129073.

IEER
Institute for Excellence in Education & Research

Mousa, Sharifa K., and Mohammed Othman. 2020. "The Impact of Green Human Resource Management Practices on Sustainable Performance in Healthcare Organisations: A Conceptual Framework." Journal of Cleaner Production 243:118595.

Nadkarni, Sucheta, and P. O. L. Herrmann. 2010. "CEO Personality, Strategic Flexibility, and Firm Performance: The Case of the Indian Business Process Outsourcing Industry." Academy of Management Journal 53(5):1050–73.

Nazir, Sajjad, Amina Shafi, Mian Muhammad Atif, Wang Qun, and Syed Muhammad Abdullah. 2019. "How Organization Justice and Perceived Organizational Support Facilitate Employees' Innovative Behavior at Work." Employee Relations: The International Journal 41(6):1288–1311.

Niazi, Umair Imran, Qasim Ali Nisar, Nadia Nasir, Shumaila Naz, Shahbaz Haider, and Waqas Khan. 2023. "Green HRM, Green Innovation and Environmental Performance: The Role of Green Transformational Leadership and Green Corporate Social Responsibility." Environmental Science and Pollution Research 30(15):45353–68.

Nikseresht, Ali, Davood Golmohammadi, and Mostafa Zandieh. 2023. "Sustainable Green Logistics and Remanufacturing: A Bibliometric Analysis and Future Research Directions." The International Journal of Logistics Management.

Nureen, Naila, Da Liu, Muhammad Irfan, and Cem Işik. 2023. "Nexus between Corporate Social Responsibility and Firm Performance: A Green Innovation and Environmental Sustainability Paradigm." Environmental Science and Pollution Research 30(21):59349–65.

Obereder, Lisa, Michael Müller-Camen, and Douglas W. S. Renwick. 2022. "GHRM in Sustainability Reporting: An Exploratory Analysis across Six Countries Using the AMO Framework." Pp. 141–66 in Green Human Resource Management Research: Issues, Trends, and Challenges. Springer.

Papademetriou, Christos, Konstantina Ragazou, Alexandros Garefalakis, and Ioannis Passas. 2023. "Green Human Resource Management: Mapping the Research Trends for Sustainable and Agile Human Resources in SMEs." Sustainability 15(7):5636.

Paulraj, Antony. 2011. "Understanding the Relationships between Internal Resources and Capabilities, Sustainable Supply Management and Organizational Sustainability." Journal of Supply Chain Management 47(1):19–37.

Pavlou, Paul A., and Omar A. El Sawy. 2011. "Understanding the Elusive Black Box of Dynamic Capabilities." Decision Sciences 42(1):239–73.

Qiu, Lu, Xiaowen Jie, Yanan Wang, and Minjuan Zhao. 2020a. "Green Product Innovation, Green Dynamic Capability, and Competitive Advantage: Evidence from Chinese Manufacturing Enterprises." Corporate Social Responsibility and Environmental Management 27(1):146–65.

Qiu, Lu, Xiaowen Jie, Yanan Wang, and Minjuan Zhao. 2020b. "Green Product Innovation, Green Dynamic Capability, and Competitive Advantage: Evidence from Chinese Manufacturing Enterprises." Corporate Social Responsibility and Environmental Management 27(1):146–65.

Rasool, Samma Faiz, Madeeha Samma, Mansi Wang, Yan Zhao, and Yanping Zhang. 2019. "How Human Resource Management Practices Translate into Sustainable Organizational Performance: The Mediating Role of Product, Process and Knowledge Innovation." Psychology Research and Behavior Management 1009–25.

Razab, Muhamad Firdaus, Zulkifli Mohamed Udin, and Wan Nadzri Osman. 2015. "Understanding the Role of GHRM towards Environmental Performance." Journal of Global Business and Social Entrepreneurship (GBSE) 1(2):118–25.

IEER
Institute for Excellence in Education & Research

Rebs, Tobias, Daniel Thiel, Marcus Brandenburg, and Stefan Seuring. 2019. "Impacts of Stakeholder Influences and Dynamic Capabilities on the Sustainability Performance of Supply Chains: A System Dynamics Model." Journal of Business Economics 89(7):893–926.

Rodríguez-Espíndola, Oscar, Ana Cuevas-Romo, Soumyadeb Chowdhury, Natalie Díaz-Acevedo, Pavel Albores, Stella Despoudi, Chrisovalantis Malesios, and Prasanta Dey. 2022. "The Role of Circular Economy Principles and Sustainable-Oriented Innovation to Enhance Social, Economic and Environmental Performance: Evidence from Mexican SMEs." International Journal of Production Economics 248:108495.

Ruan, Rongbin, Wan Chen, and Zuping Zhu. 2022. "Linking Environmental Corporate Social Responsibility with Green Innovation Performance: The Mediating Role of Shared Vision Capability and the Moderating Role of Resource Slack." Sustainability 14(24):16943.

Seman, Noor Aslinda Abu, Kannan Govindan, Abbas Mardani, Norhayati Zakuan, Muhamad Zameri Mat Saman, Robert E. Hooker, and Seckin Ozkul. 2019. "The Mediating Effect of Green Innovation on the Relationship between Green Supply Chain Management and Environmental Performance." Journal of Cleaner Production 229:115–27.

Shahzad, Muhammad Asim, Du Jianguo, and Muhammad Junaid. 2023. "Impact of Green HRM Practices on Sustainable Performance: Mediating Role of Green Innovation, Green Culture, and Green Employees' Behavior." Environmental Science and Pollution Research 30(38):88524–47.

Shoaib, Muhammad, Zuhair Abbas, Muhammad Yousaf, Roman Zámečník, Junaid Ahmed, and Shahnawaz Saqib. 2021. "The Role of GHRM Practices towards Organizational Commitment: A Mediation Analysis of Green Human Capital." Cogent Business & Management 8(1):1870798.

Shoaib, Muhammad, Ayesha Nawal, Roman Zámečník, Renata Korsakienė, and Asad Ur Rehman. 2022. "Go Green! Measuring the Factors That Influence Sustainable Performance." Journal of Cleaner Production 366:132959.

Singh, Arpit, Ashish Dwivedi, Dindayal Agrawal, and Anurag Chauhan. 2023. "A Framework to Model the Performance Indicators of Resilient Construction Supply Chain: An Effort toward Attaining Sustainability and Circular Practices." Business Strategy and the Environment.

Singh, Sanjay Kumar, Manlio Del Giudice, Charbel Jose Chiappetta Jabbour, Hengky Latan, and Amrik Singh Sohal. 2022. "Stakeholder Pressure, Green Innovation, and Performance in Small and Medium-sized Enterprises: The Role of Green Dynamic Capabilities." Business Strategy and the Environment 31(1):500–514.

Subramaniam, Chandrakantan, Ling Suan Choo, and Johanim Johari. 2019. "What Makes Employees Want to Stay? A Study in the Malaysian Manufacturing Sector." Global Business and Organizational Excellence 38(5):33–43.

Tang, Guiyao, Yang Chen, Yuan Jiang, Pascal Paillé, and Jin Jia. 2018. "Green Human Resource Management Practices: Scale Development and Validity." Asia Pacific Journal of Human Resources 56(1):31–55.

Williams, Anderson Sweeney Williams Anderson Sweeney. 2011. "Statistics for Business and Economics." South-Western, Eighth Edition.[29] CC Liu, JL Chen,"A TRIZ.

Yousuf, Allam, Vahid Zeynvand Lorestani, Judit Oláh, and János Felföldi. 2021. "Does Uncertainty Moderate the Relationship between Strategic Flexibility and Companies' Performance? Evidence from Small and Medium Pharmaceutical Companies in Iran." Sustainability 13(16):9157.

IEER
Institute for Excellence in Education & Research

Yu, Wantao, Roberto Chavez, Mengying Feng, Chee Yew Wong, and Brian Fynes. 2020a. "Green Human Resource Management and Environmental Cooperation: An Ability-Motivation-Opportunity and Contingency Perspective." International Journal of Production Economics 219:224–35.

Yu, Wantao, Roberto Chavez, Mengying Feng, Chee Yew Wong, and Brian Fynes. 2020b. "Green Human Resource Management and Environmental Cooperation: An Ability-Motivation-Opportunity and Contingency Perspective." International Journal of Production Economics 219:224–35.

Yuan, Baolong, and Xueyun Cao. 2022. "Do Corporate Social Responsibility Practices Contribute to Green Innovation? The Mediating Role of Green Dynamic Capability." Technology in Society 68:101868.

Yusliza, M. Y., Nurul Aimi Norazmi, Charbel José Chiappetta Jabbour, Yudi Fernando, Olawole Fawehinmi, and Bruno Michel Roman Pais Seles. 2019. "Top Management Commitment, Corporate Social Responsibility and Green Human Resource Management: A Malaysian Study." Benchmarking: An International Journal 26(6):2051–78.

Zakariyyah, Kudirat Ibilola, Iniobong Beauty John, and Irewolede Aina Ijaola. 2021a. "Cultural Orientations and Strategic Capability for the Adoption of Building Information Modeling in Construction Firms." Engineering Reports 3(11):e12417.

Zakariyyah, Kudirat Ibilola, Iniobong Beauty John, and Irewolede Aina Ijaola. 2021b. "Cultural Orientations and Strategic Capability for the Adoption of Building Information Modeling in Construction Firms." Engineering Reports 3(11):e12417.

Zhou, Kevin Zheng, and Fang Wu. 2010. "Technological Capability, Strategic Flexibility, and Product Innovation." Strategic Management Journal 31(5):547–61.

IEER
Institute for Excellence in Education & Research