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Green Human Resource Management and Organizational Commitment: The Mediating Role of Green Human Capital in Pakistan's Dairy Sector

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Abstract

Prior literature has devoted limited attention to examining the relationship between green human resource management (GHRM) and organizational commitment. Additionally, the intermediary function of green human capital remains largely underexplored. To overcome this limitation, the current study extends the ability–motivation–opportunity (AMO) framework to investigate both the direct and indirect effects of GHRM within dairy firms, a sector that has received little scholarly focus in Pakistan. Using a convenience sampling method, data were collected from 287 respondents via a self-administered questionnaire. The measurement and structural models were assessed using SmartPLS (3.2.9). The results indicate that green recruitment and selection, as well as green training and development, exert a significant direct influence on organizational commitment. Furthermore, green human capital serves as a critical mediator in the relationships between green recruitment and selection, green training and development, and organizational commitment. Overall, the findings highlight the importance of GHRM practices in supporting environmental policies that encourage sustainable workplace behaviors. The study offers practical implications for policymakers and managers seeking to strengthen environmental culture and foster employees' green conduct within organizations.

Keywords: GHRM, Organizational commitment, Green human capital, Pakistan, AMO theory

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Introduction

In recent years, Green Human Resource Management (GHRM) has gained considerable interest among researchers and practitioners alike [1]. Existing studies have explored GHRM across multiple organizational settings, including multinational enterprises [2], health-care organizations [3], the sports industry [4], and manufacturing firms [1, 5-7]. Nevertheless, there remains a need for further investigation in diverse sectors such as the dairy industry. As a result, GHRM has become an increasingly important topic for scholars, managers, and policymakers.

The adoption of GHRM provides organizations with numerous advantages, including the attraction and retention of skilled employees [8], cost efficiency and competitive advantage creation [9], improved environmental productivity [10], enhanced operational effectiveness, strengthened business sustainability, and higher employee well-being and performance [4]. Organizational commitment refers to employees' readiness to remain with an organization and actively contribute toward achieving its goals. Cheema *et al.* [11] reported that many organizations have integrated HRM practices aimed at advancing environmental sustainability, with a particular focus on reducing pollution and environmental deterioration. Workforce greening can be understood as an HRM strategy that seeks to enhance employee skills, motivation, and commitment levels [12]. Organizational commitment reflects the extent of employees' identification, loyalty, and involvement within the



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organization [13]. Generally, HRM practices are designed to shape employee attitudes and improve overall workforce effectiveness [14]. Jawaad *et al.* [15] emphasized that organizations must adopt motivational initiatives to ensure sustained employee commitment.

Importantly, Hussain *et al.* [16] called for further scholarly efforts to enhance sustainability and competitiveness in both service-oriented and non-service-oriented organizations. Strong empirical evidence demonstrates the benefits of implementing GHRM practices. For example, Wal-Mart reported savings of 12,000 USD through reductions in paper usage. Similarly, E.ON Company achieved cost savings of £106,000 by training employees to switch off electrical equipment when not required. The growing emphasis on environmental awareness has driven HR departments to adopt GHRM initiatives such as minimizing paper consumption, reducing carbon emissions, and limiting waste generation [17]. Alkhateeb [18] argued that rapid economic and financial expansion has significantly increased CO₂ emission levels, and that GHRM can play a vital role in mitigating environmental damage. This is largely because GHRM prioritizes environmental protection and efficient resource utilization [19].

The primary rationale for focusing on the manufacturing industry in this study is that this sector generates greater environmental consequences than the service sector [20]. Due to its close proximity to end consumers within the supply chain, manufacturing organizations frequently act as pioneers in adopting GHRM practices and implementing environmental sustainability programs. Furthermore, manufacturing activities have long been associated with environmental challenges [21]. It is broadly acknowledged that human actions contribute negatively to environmental degradation, and the application of GHRM practices within manufacturing firms can help alleviate these environmental problems.

Pakistan is largely a rural and agriculture-based economy and ranks as the fifth largest milk-producing country globally [22]. The Pakistani government has introduced several initiatives aimed at advancing the agri-food sector, with particular emphasis on the dairy industry [22, 23]. Rapid changes in the business environment have compelled organizations to maintain high productivity levels. Consequently, firms continuously strive to streamline and improve their operational processes. Organizations increasingly recognize that human resources play a critical role in sustaining competitive advantage. As a result, retaining skilled and capable employees has emerged as a significant challenge for organizations [24].

This research makes a meaningful contribution to existing literature by addressing several unresolved research gaps. Studies on GHRM remain at an early developmental stage. In addition, the present research extends prior work by analyzing the mediating role of green human capital in the GHRM framework. Empirical investigations examining GHRM and organizational commitment within the dairy sector remain scarce. This study seeks to address this contextual limitation as well. Moreover, the study advances GHRM scholarship by applying the AMO theoretical framework. Previous research has largely concentrated on GHRM practices in developed economies [25]. By contrast, the current study focuses on an emerging economy—Pakistan—by evaluating the effect of GHRM on organizational commitment in dairy firms from a developing-country perspective, grounded in the ability–motivation–opportunity (AMO) theory.

Literature review

Theoretical perspective

Ability–Motivation–Opportunity (AMO)

Appelbaum *et al.* [26] explained that the AMO framework emphasizes HRM practices that strengthen organizational human capital, whereby enhanced employee abilities lead to higher productivity, reduced waste, improved quality, and increased profitability. The relationship between GHRM and environmental performance can be effectively interpreted through the AMO perspective, as this framework clarifies how HRM practices influence overall organizational outcomes [27].

Renwick *et al.* [25] suggested that GHRM supports environmental sustainability by developing employees' green abilities (A) through recruitment, selection, and training processes. In addition, it fosters green motivation (M) by encouraging employees via environmental initiatives and provides green opportunities (O) that enable employees to actively participate in organizational sustainability efforts. Since acquired green skills are considered more valuable than innate environmental awareness, green training plays a vital role in strengthening employee capabilities and improving performance outcomes [28]. Earlier research has employed the AMO framework to explore the effects of corporate social responsibility (CSR), GHRM practices, and environmental sustainability within the textile sector [11]. Pinzone *et al.* [3] examined the health-care industry by investigating GHRM practices and commitment to environmental management. Similarly, Pham *et al.* [29] analyzed the relationship between GHRM practices and organizational citizenship behavior for the environment (OCBE) in the hospitality sector. Yu *et al.* [30] focused on the automobile industry by assessing the role of GHRM, internal green supply chain management (GSCM), and environmental collaboration with both consumers and suppliers.

The relationship between green human resource management and organizational commitment

Green human resource management practices have been shown to strengthen organizational commitment [31]. This relationship can be understood through individuals' broader commitment to environmental sustainability [32]. Employees who perceive that their organization prioritizes environmental protection throughout its operations are more likely to

demonstrate higher levels of commitment. Accordingly, GHRM practices can be viewed as an important driver of enhanced organizational commitment [7].

The mechanism through which GHRM fosters employee commitment operates across multiple employee–organization interaction points [33]. Commitment emerges when employees recognize and value the organization’s green initiatives, motivating them to support and promote sustainable practices embedded in organizational activities and outputs [34]. Employee commitment is further reinforced when individuals actively participate in environmentally responsible behaviors that fulfill their social and psychological need to contribute to environmental preservation [35].

Furthermore, commitment arising from GHRM involves the implementation of eco-friendly HR initiatives that lead to improved employee competencies, reduced operating costs, and higher engagement levels [33]. These outcomes, in turn, enable organizations to lower employee-related carbon emissions through practices such as telecommuting and online training programs [36].

Employee commitment may be defined as the psychological attachment or bond between employees and their organization [37]. To enhance such commitment, organizations are encouraged to design effective incentive systems and motivational strategies [15]. Commitment is reflected in employees’ attitudes and behaviors and is associated with organizational outcomes such as job satisfaction, affective commitment, and employee retention [38]. Additionally, organizational commitment encompasses the degree of employee identification, involvement, and loyalty toward the organization [39].

H1: Green HRM will be positively associated with green human capital

H2: Green HRM will be positively associated with organizational commitment

The mediating role of green human capital

Green human capital refers to the collective environmental knowledge, skills, experience, creativity, wisdom, and commitment possessed by employees in relation to environmental protection and green innovation, which resides within individuals rather than organizations [40]. In organizational research, green human capital has emerged as a key construct [1] and is widely recognized as a critical factor in the effective implementation of green human resource management practices [41].

Prior studies suggest that employees’ sustainability-related competencies and expertise play a crucial role in facilitating the adoption of green human resource management initiatives [42]. Conversely, employees’ environmental knowledge and skills tend to improve when they perceive a strong organizational commitment to environmental sustainability [43], which in turn enhances their level of commitment to the organization. Based on this reasoning, green human capital is proposed to function as a mediating mechanism linking green human resource management and employee commitment [44].

H3: Green human capital positively influences organizational commitment

H4: Green human capital mediates the relationship between green HRM and organizational commitment

Materials and Methods

Sampling design and data collection

This study follows a positivist research paradigm and employs a survey-based methodology. An explanatory research design was developed to examine causal relationships between variables [45]. In alignment with the positivist stance, a deductive reasoning approach was adopted to construct the research framework and formulate the study hypotheses.

A quantitative research strategy was applied, involving 287 employees from dairy firms operating in Pakistan. The objective was to analyze the effect of GHRM practices on organizational commitment. Data were collected using a non-random, non-probability convenience sampling method. Partial least squares (PLS) analysis was utilized to evaluate the proposed framework, and SmartPLS (3.2.9) software was employed to assess both the measurement and structural models. The empirical data were gathered from dairy companies based in Pakistan to test the theoretical model.

The questionnaire survey was distributed among employees of Engro Foods, Nestlé Foods, and Haleeb Foods, which represent major firms in the dairy sector. Convenience sampling was used, and data collection occurred between September 2019 and March 2020. Power analysis is considered an appropriate technique within the PLS-SEM literature for determining an adequate sample size [46]. According to Hair *et al.* [47], power analysis should be conducted based on the construct with the largest number of predictors in the model.

A total of 600 questionnaires were physically distributed to employees across the selected dairy companies. Of these, 287 valid and usable responses were returned. The use of this sampling approach was justified based on considerations of feasibility, cost, and practicality. The resulting response rate was 47.83% (i.e., 287 usable questionnaires). There is no universally accepted minimum threshold for response rates [48]. However, Malhotra and Grover [49] noted that response rates below 20% are generally considered inadequate. Cohen [50] recommended a minimum sample size of 103 for PLS-SEM analysis. Accordingly, the final sample size of 287 responses exceeds this requirement.

Demographic profile of the sample

The sample comprised 78% male respondents and 22% female respondents. In terms of age distribution, 37.6% of participants were between 30 and 40 years old, while 10.8% were younger than 30 years. Additionally, 34.1% of respondents fell within the 40–50 age group. Regarding departmental affiliation, 25.8% of the respondents were associated with HRM functions related to environmental sustainability, indicating a strong relevance to GHRM practices. Furthermore, 32.8% of participants reported having more than 10 years of work experience (**Table 1**).

Table 1. Demographic profile of the sample

Demographic Variable	Characteristic	Percentage (%)	Frequency
Gender	Male	78	224
	Female	22	63
	Total	100	287
Age	Under 30	10.8	31
	30–40	37.6	108
	40–50	34.1	98
	Above 50	17.5	50
	Total	100	287
Department	Finance	17.1	49
	Health safety & Environment	10.5	30
	HRM	25.8	74
	Marketing	13.2	38
	QEC	11.1	32
	Other	22.3	64
	Total	100	287
Work Experience	Less than 1	9.40	27
	1–3	12.5	36
	4–6	26.5	76
	7–10	18.8	54
	Above 10	32.8	94
	Total	100	287

n = 287

Source: Authors' field investigation, September 2019–March 2020

Construct measurement

All measurement instruments used in this study were drawn from well-established prior research. To ensure consistency, each construct was operationalized using a five-point Likert-type scale, where 1 = completely disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = completely agree. All scale items were framed positively. Measures for Green Recruitment and Selection were sourced from Jabbour *et al.* [51]. The three indicators assessing green training and development were adapted from Jabbour *et al.* [51]. Green Human Capital was operationalized using Chen's [40] scale, while Organizational Commitment was measured based on the instrument developed by Mowday *et al.* [52].

Data analysis was conducted using SmartPLS 3.2.9, employing the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique, which was appropriate due to the presence of multiple latent constructs in the model. Indicator loadings for each construct are reported in **Table 2**. All observed variables demonstrated acceptable loading values on their intended constructs. The lowest loading value was approximately 0.43, while the highest reached approximately 0.83. Furthermore, variance inflation factor (VIF) values for all indicators remained below the critical cut-off of 5 [53], confirming that multicollinearity did not pose a concern. **Table 2** presents a comprehensive summary of all constructs, indicators, and their respective loading coefficients.

Table 2. Factor loadings, composite reliability, and AVE

Construct	Indicator	Cross-Loadings	Indicator Reliability	VIF	rho-A	Cronbach's Alpha	AVE	Composite Reliability
Green Human Capital	GHC1	0.769	0.769	4.267	0.797	0.76	0.521	0.84
	GHC2	0.796	0.796	4.520				
	GHC3	0.750	0.750	1.706				
	GHC4	0.794	0.794	1.600				
	GHC5	0.433	0.433	1.079				
Green Human Resource Management	GRS1	0.614	0.614	3.953	0.876	0.855	0.535	0.888

	GRS2	0.815	0.815	5.301				
	GRS3	0.719	0.719	1.782				
	GRS4	0.837	0.837	3.198				
	GRS5	0.640	0.640	4.247				
	GTD2	0.768	0.768	4.480				
	GTD3	0.697	0.697	2.336				
Organizational Commitment	OC1	0.619	0.619	1.968	0.795	0.745	0.428	0.817
	OC3	0.591	0.591	1.960				
	OC5	0.758	0.758	1.363				
	OC6	0.662	0.662	2.201				
	OC7	0.641	0.641	2.165				
	OC8	0.645	0.645	1.824				

Results and Discussion

The empirical analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 3.2.9. This technique was selected over covariance-based SEM (CB-SEM) because CB-SEM requires normally distributed data, whereas PLS-SEM does not impose such assumptions. Consequently, PLS-SEM is more robust when data deviate from normality, ensuring unbiased estimation results [54].

Discriminant validity was assessed using the Fornell–Larcker [55] criterion. The results confirmed that all constructs satisfied both fundamental and stringent discriminant validity requirements. Specifically, the diagonal values (highlighted in bold) in **Table 3** represent the square roots of the AVE values, all of which exceeded 0.50. Additionally, each construct's AVE was greater than its correlations with other constructs across both rows and columns, thereby validating discriminant validity [55].

Table 3. Fornell–Larcker discriminant validity

Construct	GHRM	Green Human Capital	R ²	Organizational Commitment	Q ²	Adjusted R ²
GHRM	0.731	0.439	–	0.533	–	–
Green Human Capital	0.375	0.722	0.140	0.628	0.066	0.137
Organizational Commitment	0.489	0.542	0.389	0.655	0.139	0.385

Square roots of average variance extracted (AVE's) shown on diagonal

Source: Authors' calculations using SmartPLS 3.2.9

Structural equation modeling—Hypotheses testing

To test the proposed hypotheses, path coefficients, standard errors, t-statistics, and significance levels (p-values) were estimated using a bootstrapping procedure with 5000 re-samples [56]. Following confirmation of overall model adequacy, path analysis was conducted to evaluate the hypothesized causal relationships among the constructs. This phase of analysis examined both direct and mediated effects of GHRM practices on organizational commitment within the Pakistani dairy sector.

Direct effect

The results indicate that GHRM practices are significantly associated with green human capital (GHC) ($\beta = 0.374$, $t = 7.32$). In addition, GHRM shows a statistically significant positive relationship with organizational commitment ($\beta = 0.333$, $t = 5.82$). Green human capital also exhibits a strong positive effect on organizational commitment ($\beta = 0.416$, $t = 6.65$) (**Table 4**).

Table 4. Path coefficient hypothesis relationship

Hypothesis	Path	β	t-value	p-value	Result
H1	GHRM → Green Human Capital	0.374	7.32	0.00	Supported
H2	GHRM → Organizational Commitment	0.333	5.82	0.00	Supported
H3	Green Human Capital → Organizational Commitment	0.416	6.65	0.00	Supported
Hypothesis	Indirect Effect	Total Effect	Variance Accounted For (VAF)	Result	
H4	GHRM → Green Human Capital → Organizational Commitment	0.156	0.489	32%	

Indirect effect (Mediating effect)

The mediating role of green human capital was evaluated using the variance accounted for (VAF) method. VAF was computed by dividing the indirect effect by the total effect. The resulting VAF value was 32%, indicating that green human capital partially mediates the relationship between GHRM and organizational commitment (**Figure 1**).

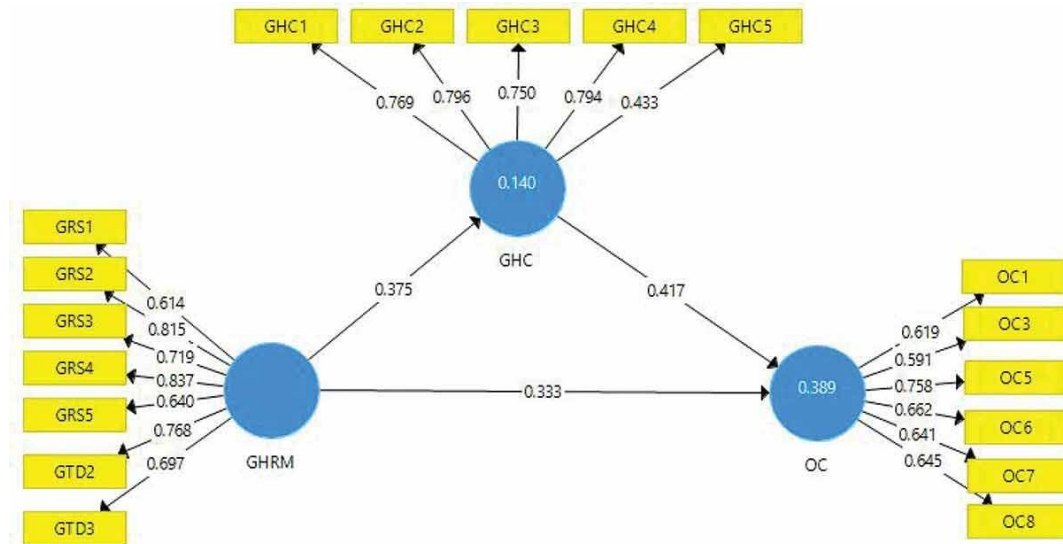


Figure 1. Path analysis model (Extracted from SmartPLS 3.2.9)

The findings reveal that green human resource management (GHRM) has a statistically significant positive influence on organizational commitment ($\beta = 0.333$, $P = 0.000$). This outcome supports existing theoretical perspectives, suggesting that the integration of green HR practices strengthens employees' attachment to their organizations. Moreover, the analysis confirms that GHRM significantly enhances green human capital ($\beta = 0.374$, $P = 0.000$), reinforcing the view that GHRM is a key driver of employees' environmentally related knowledge and capabilities [43].

In addition, this study tested the hypothesized association between green human capital and organizational commitment [57]. The results demonstrate a strong and positive relationship between these variables ($\beta = 0.416$, $P = 0.000$), consistent with prior theoretical arguments that green human capital plays a central role in fostering organizational commitment [41].

Previous research has emphasized the need to examine green human capital as a mediating mechanism between green human resource management and organizational commitment [44]. The mediation analysis conducted in this study confirms that green human capital partially mediates this relationship. These findings suggest that when organizations implement GHRM practices, employees develop stronger green competencies and environmental knowledge, which subsequently translate into higher levels of commitment toward the organization.

Theoretical implications

This study offers several important theoretical contributions. First, it addresses a contextual gap by investigating the implementation of GHRM practices within Pakistan's dairy sector. Second, it expands the application of the Ability–Motivation–Opportunity (AMO) theory within the literature. Third, it examines the mediating influence of green human capital, which has been largely overlooked in previous research.

The findings provide practical guidance for policymakers regarding the adoption of HRM strategies that encourage environmentally responsible behavior among employees in dairy organizations. Developing training programs that enhance environmental knowledge and skills is essential, as employees equipped with such competencies are more likely to engage in pro-environmental actions. Additionally, the study highlights the pivotal role of green human capital in operationalizing strategies that promote sustainability. GHRM practices can enable decision-makers to leverage employees' environmental expertise and knowledge to generate effective solutions to workplace ecological challenges.

Conclusion

The primary objective of this research was to investigate the effects of GHRM practices on organizational commitment within dairy companies, incorporating an analysis of green human capital as a mediating variable. This study contributes to the literature by applying the AMO theoretical framework to examine employee pro-environmental behavior. A survey-based methodology was employed, and statistical analyses were conducted using SmartPLS software to test the proposed model. Results demonstrate that green recruitment and selection, as well as green training and development, have a direct positive effect on organizational commitment. Furthermore, green human capital partially mediates the relationships between these GHRM practices and organizational commitment. The findings also support the applicability of AMO theory in promoting sustainability within dairy firms. Overall, the study offers actionable recommendations for policymakers, managers, and top executives to design HR policies that cultivate a green workplace culture.

Limitations and future research

Despite its contributions, this study has two notable limitations. First, data were collected exclusively from the manufacturing sector. Future research could extend this investigation to the service sector to examine whether the observed relationships hold in other contexts. Additionally, future studies may consider applying multilevel modeling and exploring potential moderating variables to further refine the conceptual model. Second, this study focused solely on green human capital as a mediator. Future research could incorporate additional variables, such as green intellectual capital, green social capital, green work–life balance, and green health and safety, to provide a more comprehensive understanding of the relationship between GHRM and organizational commitment.

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References

1. Yong JY, Yusliza MY, Ramayah T, Fawehinmi O. Nexus between green intellectual capital and green human resource management. *J Clean Prod.* 2019;215:364–74.
2. Haddock-Millar J, Sanyal C, Müller-Camen M. Green human resource management: A comparative qualitative case study of a United States multinational corporation. *Int J Hum Resour Manag.* 2016;27(2):192–211.
3. Pinzone M, Guerci M, Lettieri E, Huisinigh D. Effects of ‘green’ training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *J Clean Prod.* 2019;226:221–32.
4. Gholami H, Rezaei G, Saman MZM, Sharif S, Zakuan N. State-of-the-art Green HRM System: Sustainability in the sports center in Malaysia using a multi-methods approach and opportunities for future research. *J Clean Prod.* 2016;124:142–63.
5. Nejati M, Rabiei S, Jabbour CJC. Envisioning the invisible: Understanding the synergy between green human resource management and green supply chain management in manufacturing firms in Iran in light of the moderating effect of employees’ resistance to change. *J Clean Prod.* 2017;168:163–72.
6. Yusliza MY, Othman NZ, Jabbour CJC. Deciphering the implementation of green human resource management in an emerging economy. *J Manag Dev.* 2017;36(10):1230–46.
7. Yusliza MY, Norazmi NA, Jabbour CJC, Fernando Y, Fawehinmi O, Seles BMPR. Top management commitment, corporate social responsibility and green human resource management: A Malaysian study. *Benchmark Int J.* 2019;26(6):2051–78.
8. Muster V, Schrader U. Green work-life balance: A new perspective for green HRM. *Ger J Hum Resour Manag.* 2011;25(2):140–56.
9. Carmona-Moreno E, Céspedes-Lorente J, Martínez-del-Río J. Environmental human resource management and competitive advantage. *Manag Res.* 2012;10(2):125–42.
10. Kim YJ, Kim WG, Choi HM, Phetvaroon K. The effect of green human resource management on hotel employees’ eco-friendly behavior and environmental performance. *Int J Hosp Manag.* 2019;76:83–93.
11. Cheema S, Javed F, Nisar T. The effects of corporate social responsibility toward green human resource management: The mediating role of sustainable environment. *Cogent Bus Manag.* 2017;4(1):1310012.
12. Elrehail H, Harazneh I, Abuhjeeleh M, Alzghoul A, Alnajdawi S, Ibrahim HMM. Employee satisfaction, human resource management practices and competitive advantage. *Eur J Manag Bus Econ.* 2019;29(2):125–49.
13. Singh KD, Onahring BD. Entrepreneurial intention, job satisfaction and organisation commitment – construct of a research model through literature review. *J Glob Entrep Res.* 2019;9(1):1–18.
14. Li C, Naz S, Khan MAS, Kusi B, Murad M. An empirical investigation on the relationship between a high-performance work system and employee performance: Measuring a mediation model through partial least squares–structural equation modeling. *Psychol Res Behav Manag.* 2019;12:397.
15. Jawaad M, Amir A, Bashir A, Hasan T. Human resource practices and organizational commitment: The mediating role of job satisfaction in emerging economy. *Cogent Bus Manag.* 2019;6(1):1608668.
16. Hussain K, Abbas Z, Gulzar S, Jibril AB, Hussain A, Foroudi P. Examining the impact of abusive supervision on employees’ psychological wellbeing and turnover intention: The mediating role of intrinsic motivation. *Cogent Bus Manag.* 2020;7(1):1818998.

17. Ahmad S. Green human resource management: Policies and practices. *Cogent Bus Manag.* 2015;2(1):1–14.
18. Alkhateeb TTY. GHRM, financial markets and pollution nexus in Saudi Arabia.
19. Jain N, D'lima C. Green HRM—a study on the perception of Generation Y as prospective internal customers. *Int J Bus Excell.* 2018;15(2):199–208.
20. Guerci M, Longoni A, Luzzini D. Translating stakeholder pressures into environmental performance – the mediating role of green HRM practices. *Int J Hum Resour Manag.* 2016;27(2):262–89.
21. Zailani S, Jeyaraman K, Vengadasan G, Premkumar R. Sustainable supply chain management (SSCM) in Malaysia: A survey. *Int J Prod Econ.* 2012;140(1):330–40.
22. FAO. Food and Agriculture Organization. 2011. Available from: <http://faostat.fao.org/site/291/default.aspx>
23. Younas M. The dairy value chain: A promoter of development and employment in Pakistan. ICDD. 2013.
24. Farrukh M, Wei Ying C, Abdallah Ahmed NO, Nisar T. Organizational commitment: Does religiosity matter? *Cogent Bus Manag.* 2016;3(1):1239300.
25. Renwick DWS, Redman T, Maguire S. Green human resource management: A review and research agenda. *Int J Manag Rev.* 2013;15(1):1–14.
26. Appelbaum E, Bailey T, Berg P, Kalleberg A. Manufacturing advantage: Why high-performance work systems pay off. Ithaca, NY: Cornell University Press; 2000.
27. Boselie P, Dietz G, Boon C. Commonalities and contradictions in HRM and performance research. *J Hum Resour Manag.* 2005;15(3):67–94.
28. Subramanian N, Abdulrahman MD, Wu L, Nath P. Green competence framework: Evidence from China. *Int J Hum Resour Manag.* 2016;27(2):151–72.
29. Pham NT, Tučkova Z, Jabbour CJC. Greening the hospitality industry: How do green human resource management practices influence organisational citizenship behaviour in hotels? A mixed-methods study. *Tour Manag.* 2019;72:386–99.
30. Yu W, Chavez R, Feng M, Wong CY, Fynes B. Green human resource management and environmental cooperation: An ability-motivation opportunity and contingency perspective. *Int J Prod Econ.* 2020;219:224–35.
31. Jyoti K. Green HRM—people management commitment to environmental sustainability. In: Proceedings of 10th International Conference on Digital Strategies for Organizational Success. 2019.
32. Sharma P, Kong TTC, Kingshott RP. Internal service quality as a driver of employee satisfaction, commitment and performance. *J Serv Manag.* 2016;27(5):773–97.
33. Singh D, Pandey A. Green HRM: An organizational commitment. *JIMS8M J Indian Manag Strategy.* 2020;25(1):14–18.
34. Likhitar P, Verma P. Impact of green HRM practices on organization sustainability and employee retention. *Int J Innov Res Multidiscip Field.* 2017;3(5):152–57.
35. Das SC, Kumar Singh R. Green HRM and organizational sustainability: An empirical review. *Kegels J Soc Sci.* 2016;8:227–36.
36. Dumont J, Shen J, Deng X. Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Hum Resour Manag.* 2017;56(4):613–27.
37. Rahman MM, Uddin MJ, Miah MS. The role of human resource management practices on job satisfaction and organizational commitment in banking sector of Bangladesh – A comparative analysis. *J Fac Bus Admin (JFBA), Islamic Univ Stud.* 2013;10(1):1–13.
38. Rubel MRB, Rimi NN, Yusliza MY, Kee DMH. High commitment human resource management practices and employee service behaviour: Trust in management as mediator. *IIMB Manag Rev.* 2018;30(4):316–29.
39. Devananda S, Onahrng B. Entrepreneurial intention, job satisfaction and organisation commitment – construct of a research model through literature review. *J Glob Entrep Res.* 2019;9(16).
40. Chen Y-S. The positive effect of green intellectual capital on competitive advantages of firms. *J Bus Ethics.* 2008;77(3):271–86.
41. Chen Y-S, Chang C-H. Utilize structural equation modeling (SEM) to explore the influence of corporate environmental ethics: The mediation effect of green human capital. *Qual Quant.* 2013;47(1):79–95.
42. Campbell BA, Coff R, Kryscynski D. Rethinking sustained competitive advantage from human capital. *Acad Manag Rev.* 2012;37(1):376–95.
43. Chahal H, Bakshi P. Effect of intellectual capital on competitive advantage and business performance: Role of innovation and learning culture. *Int J Learn Intellect Cap.* 2014;11(1):52–70.
44. Delgado-Verde M, Amores-Salvadó J, Martín-de Castro G, Navas-López JE. Green intellectual capital and environmental product innovation: The mediating role of green social capital. *Knowl Manag Res Pract.* 2014;12(3):261–75.
45. Creswell JW, Creswell JD. Research design: Qualitative, quantitative, and mixed methods approaches. Sage; 2017.
46. Hair J, Hollingsworth CL, Randolph AB, Chong AYL. An updated and expanded assessment of PLS-SEM in information systems research. *Ind Manag Data Syst.* 2017;117(3):442–58.

47. Hair JF, Risher JJ, Sarstedt M, Ringle CM. When to use and how to report the results of PLS-SEM. *Eur Bus Rev.* 2019;31(1):2–24.
48. Mellahi K, Harris LC. Response rates in business and management research: An overview of current practice and suggestions for future direction. *Br J Manag.* 2016;27(2):426–37.
49. Malhotra MK, Grover V. An assessment of survey research in POM: From constructs to theory. *J Oper Manag.* 1998;16(4):407–25.
50. Cohen J. A power primer. *Psychol Bull.* 1992;112(1):155.
51. Jabbour CJC, Santos FCA, Nagano MS. Contributions of HRM throughout the stages of environmental management: Methodological triangulation applied to companies in Brazil. *Int J Hum Resour Manag.* 2010;21(7):1049–89.
52. Mowday RT, Steers RM, Porter LW. The measurement of organizational commitment. *J Vocat Behav.* 1979;14(2):224–47.
53. Diamantopoulos A, Siguaw JA. Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *Br J Manag.* 2006;17(4):263–82.
54. Goodhue DL, Lewis W, Thompson R. Does PLS have advantages for small sample size or non-normal data?. *MIS Q.* 2012;981–1001.
55. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *J Mark Res.* 1981;18(1):39–50.
56. Ramayah T, Cheah J, Chuah F, Ting H, Memon MA. Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated and practical guide to statistical analysis. Pearson; 2018.
57. Norhasnina M, Dato Mohamad N, Wan N. The effects of human resources management (HRM) practices on employee performance with the mediating role of employee engagement: Preparing for industrial revolution 4.0. 1st National Conference on Multidisciplinary Research and Practice; 2018.