

The role of employee environmental commitment in the green HRM practices, turnover intentions and environmental sustainability nexus

Employee environmental commitment as a mediator

Received 20 June 2022
Revised 28 May 2023
4 August 2023
Accepted 8 August 2023

Abdul-Razak Suleman

*Department of Organisation and Human Resource Management,
University of Ghana, Accra, Ghana*

Kwesi Amponsah-Tawiah

*Department of Organisation and Human Resource Management,
University of Ghana, Legon, Ghana, and*

Aaron Makafui Ametorwo

University of Education Winneba, Winneba, Ghana

Abstract

Purpose – The study sought to examine the mediating effect of employee environmental commitment (EEC) in the relationships between green human resource management practices (Green HRMPs) and environmental sustainability (ES) and employee turnover intentions (ETI).

Design/methodology/approach – Using a cross-sectional survey approach, data was sourced from 296 respondents from five manufacturing firms listed on the Ghana Stock Exchange. Data was analysed using descriptive and inferential statistics with the help of Statistical Package for Social Sciences (SPSS) and SmartPLS.

Findings – Results showed that EEC had a partial mediation effect on the relationship between Green HRMPs and ES at the organisational level but fully mediated the relationship between Green HRMPs and ETI at the individual level.

Practical implications – It is evident from the findings that Green HRMPs improve ES and employee stability. Therefore, practitioners and educational institutions should consider integrating environmental concerns into their functional processes and operations. In addition, governments as policymakers should formulate and strengthen the enforcement of already-existing environmental management and sustainability policies that promote the integration of green practices and initiatives in both private and public entities.

Originality/value – Little is known about Green HRM and its effect on organisational and individual-level outcomes, especially in Sub-Saharan Africa. This study presents empirical evidence from an emerging economy.

Keywords Green human resource management practices, Environmental sustainability, Employee turnover intentions, Employee environmental commitment, Manufacturing firms

Paper type Research paper

1. Introduction

Advancing a culture of sustainable development in an organisation today is a necessity, and the human resource management (HRM) department must design and implement strategies to expand it. As such, [Bangwal and Tiwari \(2015\)](#) posit that it is necessary to integrate

Since acceptance of this article, the following author(s) have updated their affiliation(s): Abdul-Razak Suleman is at the School of Business and Law, Centre for People, Place and Planet, Edith Cowan University, Joondalup, Australia and Aaron Makafui Ametorwo is at the Department of Human Resource and Organisational Development, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.



environmental management into the practice of HRM, conceptualised as Green HRM. The term Green HRM was first coined by Wehrmeyer (1996) when the first edition of his book titled “*Green policies can help to bear fruit*” was published. Subsequently, Wehrmeyer (2017) defined Green HRM as a concept that fosters sustainable practices by educating employees and engaging them in environmental sustainability. Thus, Green HRM implies the adoption and implementation of eco-friendly HR initiatives to accomplish greater efficiency and employee involvement; this helps organisations reduce the carbon footprint of employees. For this reason, it is prudent for organisations to build a green sense among employees (Yong *et al.*, 2020). Moreover, recent studies have revealed that when employees pay attention to the environment within which they work, it gives them insight into the concepts of environmental sustainability and Green HRM. This eventually reduces their carbon footprint and costs, improves efficiency, and engages employees through e-record keeping, e-learning, carpooling, teleconferences, virtual interviews, among others (Cao *et al.*, 2023; Saeed *et al.*, 2022; Shafaei and Nejati, 2023; Suleman *et al.*, 2022a).

Extant literature on Green HRM suggests that for organisations to sustain and survive, they need to pay attention to their social, environmental, economic and financial factors (Acquah *et al.*, 2021; Huang *et al.*, 2023; Rizvi and Garg, 2021; Yusliza *et al.*, 2019). In that regard, Anaman *et al.* (2023) assert that forward-looking organisations need to ultimately balance their industrial growth with ensuring a well-preserved environment within which they operate. Consequently, the United Nations formulated 17 sustainable development goals (SDGs) and 169 targets built on the Millennium Development Goals (MDGs). These goals are unified and integrated into three perspectives of sustainable development (i.e. economic, social, and environmental). According to Taylor *et al.* (2012, p. 790), “HRM is a core partner in organizational environmental sustainability”; therefore, the link between Green HRM and SDGs is perceived as a “means to an end” (Chams and García-Blandón, 2019). In this context, the fundamental task of Green HRM is the supervision and utilisation of human resources towards sustainable performance. In line with this, Freitas *et al.* (2020) perceive Green HRM as the managerial control of human capabilities and skills to achieve not only economic gains but also social and environmental sustainability.

Previous studies indicate that the focus on specific SDGs relevant to organisational contexts (e.g. SDGs; 8 – decent work and economic growth, 12 – responsible consumption and production, and 13 – climate change) has led to improvement in both organisational and individual outcomes (Chams and García-Blandón, 2019; Ren *et al.*, 2018; Shafaei *et al.*, 2020). In this regard, several studies have examined the relationship between Green HRM and organisational citizenship behaviour (Aboramadan and Karatepe, 2021), sustainable performance (Raza and Khan, 2022), enhanced corporate image (Yusliza *et al.*, 2019) and employee green commitment and creativity (Leidner *et al.*, 2019). Despite this progress, there is a dearth of literature on the nexus between Green HRM and employee turnover intentions (Shafaei *et al.*, 2020; Yong *et al.*, 2020), especially from developing countries of which Ghanaian is no exception (Acquah *et al.*, 2021; Anlesinya and Susomrith, 2020). According to Hancock *et al.* (2013), employee turnover intentions correlate positively to the actual voluntary turnover rate, and that turnover intentions in the manufacturing industry are largely dependent on employees’ commitment to their work environment. In line with this, Pham *et al.* (2019b) revealed that Green HRMPs predict employee environmental commitment and employee turnover intentions. Furthermore, recent research by KPMG (2023) has revealed that almost one in every two UK workers (46%) want the company they work for to demonstrate a commitment to environmental sustainability, while one in every five (20%) has turned down a job offer or may have an intention to leave when the company’s environmental commitments are not in line with their values. Therefore, this study was guided by two objectives. First, the study sought to investigate the relationship between Green HRMPs and employee turnover intentions as well as environmental sustainability among manufacturing companies listed on the Ghana Stock Exchange (GSE). The second objective was to assess the mediating effect of employee environmental commitment (EEC) in the relationships between Green HRMPs and environmental sustainability (ES) as well as

employee turnover intentions (ETI) to augment the existing literature on Green HRM (Islam *et al.*, 2020; Suleman *et al.*, 2022a). Regarding philosophical basis, the tenets of the current research associate with four areas that constitute positivism (Denscombe, 2002) – search for cause and effect, independence of the research, standardisation and use of neutral research tools, and empirical observation. The study of the constructs under review are of social and natural phenomena in terms of cause and effect, and they have been objectively examined and assessed by the researchers through the use of standardised tools. This is an empirical study and throughout, the researchers have been neutral in assessments and interpretation of outcomes of analysis.

The subsequent sections look at the literature review and hypotheses formulation, methods, data analysis, results and findings, discussions of findings, theoretical and practical implications, and lastly, limitations of the study and future research.

2. Literature review and hypotheses formulation

2.1 Legitimacy theory

The legitimacy theory is premised on the fact that “Businesses are part of the society within which they operate, and hence they owe the society a duty of care as good corporate citizens” (Dowling and Pfeffer, 1975, p. 122). Dowling and Pfeffer (1975, p. 122) assert that legitimacy theory is the result of the concept of organisational legitimacy, which they define as “. . . a condition or status which exists when an entity’s value system is congruent with the value system of the larger system of which the entity is a party”. According to them, when there is an actual or potential disparity between the two value systems then, there is a tendency for the entity’s legitimacy to be revoked. Thus, an organisation that seeks to create and maintain legitimacy with its society would have to voluntarily report its activities and their impact on the environment within which they operate (Jijelava and Vanclay, 2017; Zhang *et al.*, 2019).

Legitimacy theory focuses on the concept of a social contract, which implies that a firm’s survival is contingent on how well it operates within the bounds and standards of its society (Suleman *et al.*, 2022a). Against this background explanation of the theory, Jijelava and Vanclay (2017) argue that the society fulfils its part of the contract by providing businesses with their legal standing, attributes, and the authority to own and use natural resources and to hire its members as employees. From the discussions above, it is evident that this study finds support with the legitimacy theory, in the light of firms attracting, training, and maintaining prospective employees who are environmentally conscious via the implementation of Green HRMPs to ensure ES and subsequently justify their existence. Based on this, the study employs the legitimacy theory as grounds for the relationship between Green HRMPs and ES at the organisational level.

2.2 Social identity theory

In explaining the understudied relationships at the individual level, the Social Identity Theory (SIT) as propounded by Tajfel *et al.* (1979) was employed as the theoretical basis. Specifically, SIT provides a resilient foundation for explaining the relationship between Green HRMPs and ETI. The theory posits that people develop a positive self-concept by first classifying themselves into groups and then identifying themselves as members of that particular group (Hogg, 2020; Stets and Burke, 2000). Thus, individuals tend to associate themselves with high-status groups to enhance their self-esteem. In line with SIT, the enhanced prestige of an organisation is likely to induce prospective and existing employees to seek and maintain their membership with it to boost their self-esteem and hence, self-concept (Chaudhary, 2019; Turner and Tajfel, 1986).

Rubel *et al.* (2021) assert that employees as members of a responsible organisation, take pride in the organisational activities, support its values and are loyal to the organisation. In this

view, it is expected that by reflecting the ecological attitude of an organisation, Green HRMPs would differentiate the organisation from the others and make it a more favourable place to work, as compared to its competitors (Chaudhary, 2018; Pham *et al.*, 2019a). Thus, going by the assumption of SIT, employees would want to be associated with an ecologically responsible organisation to experience pride and enhanced self-concept. Based on the above explanations, the researchers argue that when employees are attracted to an eco-friendly organisation, they are more likely to be committed and thereby reduce their turnover intentions, as they may find their current engagement as prestigious and worth protecting, especially in this era of climate quitting (KPMG, 2023). As far as this study is concerned, employee environmental commitment refers to: commitment to an eco-friendly organisation or work environment.

2.3 Green human resource management

Green HRM is a significant emerging area in the business and management context (Yusoff *et al.*, 2020). It is characterised as a comprehensive approach to ensure that an organisation's operational processes, functional practices, and complete human resource management systems are friendly environmentally, and ecologically balanced (Bangwal and Tiwari, 2015). For instance, Acquah *et al.* (2021) defined Green HRM as the firm's policies, procedures, and strategies that benefit the firm, the natural environment, the employees, and the society by making employees of the organisation green-oriented.

Yu *et al.* (2020) define Green HRM as aligning HR policies and procedures (i.e. recruiting, training, developing, compensating, and employee interactions) with the organisational ecological goals. As a result, Green HRM is directly responsible for ensuring that the firm's green objectives are met throughout the HRM processes of recruiting, hiring, training, compensating, developing, and advancing its human capital, as well as developing a green workforce that understands, values, and practices green initiatives (Suleman *et al.*, 2022a).

2.4 Green HRMPs and ES

In an attempt to empirically establish the relationship between Green HRMPs and ES, Bangwal *et al.* (2017) reported that Green HRM significantly and positively affects environmental performance. Likewise, Hadjri *et al.* (2019) revealed a significant direct relationship between green recruitment and selection, green training, green compensation, and the environmental performance of the hospitals they studied. Similarly, Likhitkar and Verma (2017), in a systematic review of the literature, reported that the Green HRMPs result in greater efficiencies, lower cost and ultimately ensure ES in the organisational context. Moreover, Afum *et al.* (2020) indicated that green manufacturing practices have a significant and positive effect on sustainable (i.e. economic, environmental, and social) performance.

On the other hand, Malik *et al.* (2020) found that out of the five dimensions of Green HRMPs, only two dimensions (i.e. green rewards and green recruitment and selection) had a significant positive effect on the firms' sustainability. Jerónimo *et al.* (2020) reported that green hiring and green training play significant roles in organisations' rationale for sustainability, whereas green compensation was deemed irrelevant. Based on the legitimacy theory as the theoretical foundation for explaining the relationship between Green HRMPs and ES and inferences from the above mixed, inconsistency and fragmented empirical evidence, this study hypothesised that:

H1. Green HRMPs will positively and significantly predict ES.

2.5 Green HRMPs and ETI

Warner and Zhu (2018) argued that for the current generation of employees to be committed to an organisation and stay longer in the organisation, it depends on diverse value systems,

beliefs and attitudes based on current business trends and processes. Thus, the current crop of employees are committed to organisations that are open to new technologies, processes and innovation. Consequently, [Ren et al. \(2018\)](#) reiterate that Green HRMPs are the means by which organisations get employees to be committed due to the current global demands for ES. Thus, due to the current global warming concerns and technological advancement and its integration into business processes (i.e. HRM practices), employees are more willing to be associated with green employers. Even though there are limited studies that have examined the direct relationship between Green HRMPs and ETI, the few available are presented in the subsequent paragraphs.

In the quest to examine the effect of Green HRMPs on organisational outcomes, [Bangwal and Tiwari \(2015\)](#) concluded that implementing Green HRMPs enhance the organisational image, improve the productive and efficient use of resources which eventually leads to the retention of employees. Similarly, [Sarode and Patil \(2016\)](#) reported that integrating green initiatives like online training, e-filing, ride-sharing, e-recruitment, teleconferencing and virtual interviews, building more energy-efficient office spaces into the traditional HRM practices and job designs results in greater efficiencies and employee retentions.

Moreover, [Likhitkar and Verma \(2017\)](#) observed that Green HRMPs positively predict organisational sustainability and employee retention. Again, [Islam et al. \(2020\)](#) examined the effect of Green HRMPs on millennial turnover intentions and found that Green HRMPs had a significant negative effect on turnover intentions. Furthermore, [Qadri et al. \(2022\)](#) investigated the impact of GHRM practices (e.g. green pay attention and rewards, green performance management, green involvement, green recruitment and selection, and green training role) on millennial employees' turnover intention (METI) in the Malaysian hotel industry and found that only green rewards and green involvement have a significant impact on METI. Finally, [Karatepe et al. \(2022\)](#) reported that Green HRM enhances employees' perceptions of organisational support for the environment, while perceived organisational support for the environment fosters work engagement and task-related pro-environmental behaviour and reduces quitting intentions in the Taiwan hotel industry. Inferring from the above-discussed empirical studies and adopting the SIT as theoretical support for explaining the nexus between Green HRMPs and ETI, this study hypothesised that:

H2. Green HRMP will significantly predict Employee Turnover Intention negatively.

2.6 EEC as a mediator between green HRMPs and ES

Although the relationship between EEC and ES has been scantily examined empirically, this study identified and critically reviewed the few pieces of evidence available. In the view of [Tang et al. \(2017\)](#), organisations with employees who are highly committed to the environment exhibit higher tendencies of adopting green initiatives that ultimately result in ES. [Yusliza et al. \(2019\)](#) contend that EEC is crucial in the quest to ensure that business cases for ES are achieved. Likewise, [Colwell and Joshi \(2013\)](#) postulated that when internal stakeholders (i.e. business owners, top management, and employees) are dedicated and willing to support environmentally friendly practices, they are motivated to ensure the conservation and protection of the natural environment.

[Tilleman \(2012\)](#) examined the relationship between EEC and ES practices at the individual level. The findings indicated a positive and significant relationship between employees' level of environmental commitment and their firms' ES practices. Similarly, [Liu et al. \(2018\)](#) found that a perception of clear political commitment to environmental protection across multiple governmental levels and units positively affects business efforts towards sustainable environmental practices regardless of the enforcement intensity.

Furthermore, [Sendawula et al. \(2020\)](#) examined the effect of environmental commitment on ES as a dimensional construct in the manufacturing context. The findings revealed that

environmental commitment positively and significantly influenced all the dimensions of ES, thus, eco-friendly packaging, energy efficiency, waste management, and water conservation. Again, Saputro and Nawangsari (2021) observed that Green HRMPs had an indirect effect on the firm's environmental performance through green organisational citizenship behaviour of the employees. Drawing inferences from the above studies, and drawing on the legitimacy theory, it is hypothesised thus:

H3. EEC will significantly mediate the relationship between Green HRMPs and ES.

2.7 EEC as a mediator between green HRMPs and ETI

Generally, employee commitment has been reported to negatively predict ETI (Ashar *et al.*, 2013; Kim *et al.*, 2017). According to Park and Min (2020), turnover intention among employees is dependent on numerous factors, including perceived organisational support (Dawley *et al.*, 2010), job stress (Shin and Cho, 2013), work-life balance (Suifan *et al.*, 2016), availability of "better" alternative offers (Kim *et al.*, 2017) among others. However, the most contributing factor is employee commitment because all other factors contribute to it.

Ashar *et al.* (2013) examined the effect of affective commitment on employee turnover intentions with employees from the telecommunication and banking sector. The study found that affective commitment negatively and significantly predicts ETI. Similarly, Suliman and Al-Junaibi (2010) revealed that employee commitment had a significant negative effect on employees' intention to quit. Likewise, Salleh *et al.* (2012) reported that organisational commitment and ETI are negatively and significantly related.

Moreover, Riaz *et al.* (2017) reported from their study that effective leadership had an indirect significant and negative effect on turnover intentions through employee commitment. According to Islam *et al.* (2020), Green HRMPs tend to reduce employees' intention to leave an organisation significantly. Seeking support from SIT and making reference to the findings of the above-discussed studies, it is imperative to indicate that when top managers and the leadership of organisations ensure the effective implementation of Green HRMPs, there is the possibility of enhancing the commitment levels of their employees towards the environment and thereby reduce their intentions to quit. Therefore, this study hypothesised that:

H4. EEC will significantly mediate the relationship between Green HRMPs and ETI

3. Methods

This study adopted a cross-sectional survey research design. To collect data in a cross-sectional field survey, questionnaires were used to collect data from a representative sample of the research population in an office situation (Creswell, 2009; Malik *et al.*, 2020).

The scope of the study was limited to Greater Accra Region-based manufacturing companies listed on the GSE. The rationale for choosing manufacturing companies is that the Ghanaian manufacturing industry contributes a lot to national development as it provides about 85% of employment in the private sector (Afum *et al.*, 2020). However, the environmental cost of the sector was about 10% of GDP and it was also considered the highest contributor of greenhouse gas in Ghana (UNEP, 2013). Also, Greater Accra Region was chosen because the companies selected have their headquarters where critical policies are formulated. These companies are regulated by recognized national bodies like the Environmental Protection Agency (EPA), and the Securities and Exchange Commission (SEC), among others (Suleman *et al.*, 2022a).

In all, the study's target population consisted of both managerial and non-managerial employees of five listed manufacturing companies. Enquiries from the participating companies showed that the total workforce (i.e. managers and employees) working at their head offices were

estimated at one thousand and ninety-two (1,092). The study initially adopted the stratified technique to put all managers in one stratum and all non-managerial employees in another stratum. Subsequently, the study adopted a probability sampling technique, precisely, the simple random sampling method to collect data from each stratum. This technique was selected because it gives respondents within each stratum or the selected sample an equal chance of being selected and aids in carrying out valid analysis and producing accurate results (Saunders *et al.*, 2019). Based on the Miller and Brewer (2003) sample size determination formula, a total sample size of 293 was estimated. However, the researchers were able to retrieve data from 296 respondents electronically and in-person which was used for the analysis (see Table 1).

3.1 Instrumentation

The constructs outlined in Figure 1 conceptual framework were measured with existing measuring scales (see Appendix) found in the reviewed literature; this was to ensure content validity. Thus, Green HRMPs were assessed using a nineteen-item instrument developed by Tang *et al.* (2017) with a sample item including “*Our organisation attracts green job candidates who use green criteria to select organisations*”. Also, EEC and ES were measured

Variable	Frequency	Percentage
<i>Gender</i>		
Male	164	55.4
Female	132	44.6
<i>Age</i>		
20–29 years	155	52.3
30–39 years	76	25.7
40–49 years	36	12.2
50–59 years	27	9.1
60 years and above	2	0.7
<i>Educational qualification</i>		
Diploma	24	8.1
Higher National Diploma (H.N.D)	39	13.2
Bachelor's Degree	184	62.2
Master's Degree	45	15.2
Doctorate Degree	4	1.4
<i>Marital status</i>		
Single	171	57.8
Married	116	39.2
Divorced	6	2.0
Widowed	1	0.3
Separated	2	0.7
<i>Length of service</i>		
1–5 years	157	53.0
6–10 years	96	32.4
11–15 years	28	9.5
16–20 years	8	2.7
Above 20 years	7	2.4
<i>Role</i>		
Managerial	83	28.0
Non-managerial	213	72.0

Source(s): Field Survey (2022)

Table 1.
Summary of
respondents'
background
information

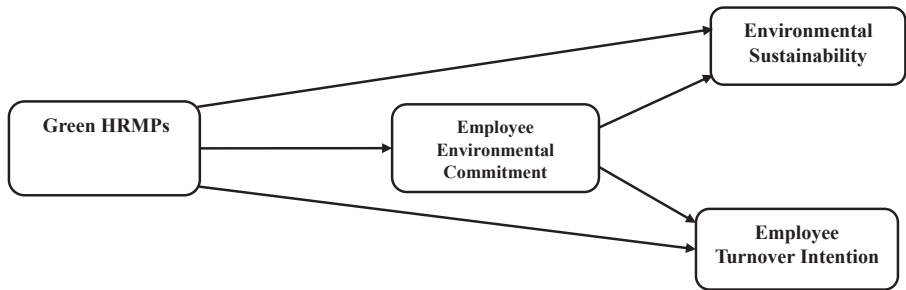


Figure 1.
Conceptual framework

Source(s): Authors’ Construct (2022)

using seven-item scales developed by [Raineri and Paillé \(2016\)](#) and [Bangwal et al. \(2017\)](#) with sample items including “*I feel a sense of duty to support the environmental efforts of this firm*” and “*We prefer to buy or produce environmental-friendly products to the others*”, respectively. Finally, ETI was measured using a three-item scale developed by [Mobley et al. \(1979\)](#) with a sample item “*As soon as possible, I will leave this organisation*”. Subsequently, a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree was used to obtain responses for all constructs because of its accuracy and reliability ([Adu et al., 2020](#); [Tang et al., 2017](#)). It is worth noting that apart from ES with which data was sourced from managers (managerial), data was sourced from employees (non-managerial) for all the other constructs.

4. Data analysis, results and findings

The structural equation modelling (SEM) in SMART PLS 3.3.5 was utilised in testing the direct and indirect relationships between the latent constructs because it provides the researchers with the ability to reduce possible measurement errors through Confirmatory Factor Analysis (CFA) ([Brown and Moore, 2012](#); [Zaman et al., 2019](#)). Again, SEM allowed the researchers to concomitantly assess the multiple hypothesised relationships rather than individually assessing them, hence, greater accuracy in estimating the path coefficients is assured. The analysis and interpretations were done in two distinct phases.

First, preliminary tests were conducted to check the reliability and validity of the measurement instrument used in assessing the model’s fitness via CFA. Thus, the Standardised Root Mean Square Residual (SRMR) and the Normed Fit Index (NFI) were within the recommended threshold (i.e. SRMR = 0.078 < 0.08, NFI = 0.687 > 0.5) see [Table 2](#). Also, the results as summarised and presented in [Table 3](#) show that the factor loadings,

Fitness indices	Recommended thresholds	Author (s)	Final CFA model
SRMR	<0.08, excellent, 0.08–0.10 acceptable	Hu and Bentler (1999) Bagozzi (2010) Henseler et al. (2015)	0.078
NFI	>0.5, acceptable, 0.70–1.0 excellent	Bentler and Bonett (1980) Sivo et al. (2006) Dijkstra and Henseler (2015)	0.687

Table 2.
Summary of model fitness indices

Note(s): NB: SRMR = Standardised Root Mean Square Residual, NFI = Normed Fit Index
Source(s): Field Survey (2022)

Latent variable	Items	Factor loadings	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)	Employee environmental commitment as a mediator	
Green Human Resource Management Practices	GRS1	0.682		0.944	0.573		
	GRS2	0.599					
	GRS3	0.592					
	GT1	0.616	0.938				
	GT2	0.672					
	GT3	0.680					
	GPR1	0.637					
	GPR2	0.761					
	GPR3	0.694					
	GPM1	0.740					
	GPM2	0.677					
	GPM3	0.704					
	GPM4	0.648					
	GI1	0.732					
	GI2	0.752					
	GI3	0.687					
GI4	0.781						
GI5	0.712						
GI6	0.661						
Employee Environmental commitment	EEC1	0.623		0.885	0.525		
	EEC2	0.691					
	EEC3	0.716					
	EEC4	0.655	0.848				
	EEC5	0.788					
	EEC6	0.797					
	EEC7	0.783					
Environmental Sustainability	ES1	0.553		0.886	0.528		
	ES2	0.754					
	ES3	0.773					
	ES4	0.781	0.849				
	ES5	0.729					
	ES6	0.741					
	ES7	0.729					
Employee Turnover Intentions	ET1	0.950		0.957	0.882		
	ET2	0.939	0.933				
	ET3	0.928					

Source(s): Field Survey (2022)

Table 3.
Summary results of measurement scales and model indicators

composite reliability (CR), Cronbach's alpha and average variance extracted (AVE) values affirm reliability in measuring each of the latent constructs, the existence of internal consistency and convergent validity among the model's constructs. Thus, all the factor loadings and AVE values exceeded the minimum accepted value of 0.5 (Hair *et al.*, 2012) as well as the CR and Cronbach's alpha values were above 0.7 (Henseler *et al.*, 2015; Sarstedt and Cheah, 2019). Likewise, the discriminant validity of the constructs was assessed by conducting the Fornell-Larcker and Hetrotrait-Monotrait (HTMT) Ratio tests. As presented in Table 3 the results demonstrated discriminant validity since the square roots of AVE coefficients were higher than the inter-correlations of the latent variables (Fornell and Larcker, 1981) and the HTMT values were below 0.85 (Henseler *et al.*, 2015). Finally, the results as presented in Table 4 show that the data collected was free from common method bias (CMB) as all the inner variance inflation factors (VIFs) resulting from the collinearity test were less than the recommended threshold of 3.3 (Kock, 2015; Suleman *et al.*, 2022b).

		Fornell-Larcker Test Results				
		1	2	3	4	
	1	Green HRMPs	0.725			
	2	EEC	0.665	0.726		
	3	ES	0.572	0.605	0.688	
	4	ETI	-0.194	-0.071	-0.055	0.939
		Hetrotrait-Monotrait (HTMT) Ratio Test Results				
	1	Green HRMPs	-			
	2	EEC	0.762	-		
	3	ES	0.225	0.108	-	
	4	ETI	0.622	0.654	0.124	
		Common Method Bias (Inner VIF Values)				
	1	Green HRMPs	-	1.829	1.691	1.945
	2	EEC	2.635	-	1.763	2.648
	3	ES	2.534	1.833	-	2.887
	4	ETI	1.066	1.007	1.056	-

Table 4.
Discriminant validity tests and common method bias (inner VIFs)

Source(s): Field Survey (2022)

Second, the relationships between the variables were established by conducting Pearson's product-moment correlation analysis in SPSS. Subsequently, the structural model was generated and used to test the hypothesised relationships, as shown in [Figure 2](#). The bootstrapping method was used to generate standard errors, t-statistics and significance in defining the precise paths effect level in the structural model ([Adu et al., 2020; Wong, 2013](#)).

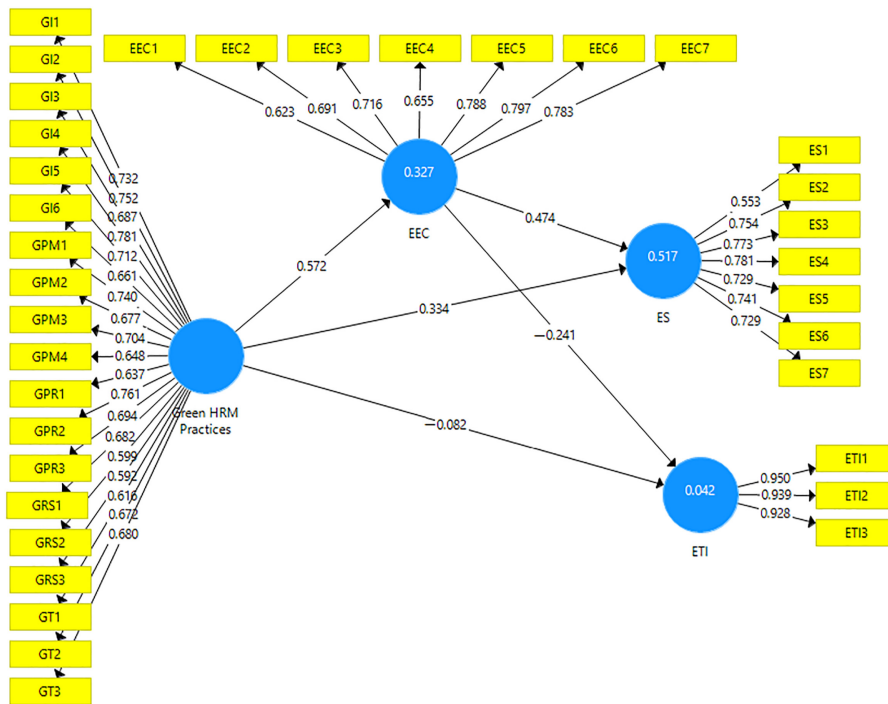
As shown in [Table 5](#), Green HRMPs has a significant positive relationship with EEC ($r = 0.554, p < 0.01$) and ES ($r = 0.588, p < 0.01$). However, there is an insignificant negative relationship between Green HRMPs and ETI ($r = -0.040, p > 0.05$). In the case of EEC and ES, there was a significant positive relationship ($r = 0.649, p < 0.01$). Lastly, the results show a significant negative correlation between EEC and ETI ($r = -0.198, p < 0.01$). The demographic variables were not controlled for in the model because there was no significant relationship between any of them with the dependent variables ([Becker, 2005](#)).

Evident from [Table 6](#), Green HRMPs significantly predicted ES ($\beta = 0.334, p < 0.01$) and EEC ($\beta = 0.572, p < 0.001$) positively providing support for [H1](#) and [H3](#) respectively. However, Green HRMPs had an insignificant negative effect on ETI ($\beta = -0.082, p > 0.05$), indicating non-support for [H2](#).

4.1 The mediation analysis

To test the mediation effect of EEC in the relationships between Green HRMPs and the outcome variables (i.e. ES and ETI), the causal-effect model of mediation analysis by [Baron and Kenny \(1986\)](#) was considered based on the results from PLS-SEM. As presented in [Table 7](#), the results reveal a significant indirect effect between Green HRMPs and ES through EEC (i.e. Green HRMPs \rightarrow EEC \rightarrow ES: $\beta = 0.271, p < 0.01$). Thus, EEC is proven to be a partial mediator in the relationship between Green HRMPs and ES. Likewise, Green HRMPs predicted ETI significantly through EEC (i.e. Green HRMPs \rightarrow EEC \rightarrow ETI: $\beta = -0.137, p < 0.05$). Thus, EEC is proven to be a full mediator in the relationship between Green HRMPs and ETI.

Employee environmental commitment as a mediator



Source(s): Field Survey (2022)

Figure 2. The CFA model measurement with standardised item loadings

5. Discussion of findings

The current study set out to the relationship between Green HRMPs and ETI as well as ES. Subsequently, the study sought to assess the mediating effect of EEC in these relationships among listed manufacturing companies on the GSE. The study’s results provide support for almost all the hypotheses formulated. Particularly, we found that Green HRMPs is a significant predictor of ES at the organisational level. Thus, Green HRMPs play a crucial role in improving ES. Theoretically, this finding lends support to the legitimacy theory which states that firms and the society within which they operate are inextricably linked, resulting in a “social contract” between them (Dowling and Pfeffer, 1975). That is, firms do not operate in a vacuum hence, whatever firms do has a direct and indirect effect on the society (environment). Therefore, when organisations are environmentally sensitive and implement Green HRMPs, negative outcomes like environmental depletion, air pollution, and land degradation, would be minimised which would significantly improve ES. Likewise, the finding is consistent with an empirical study by Bangwal *et al.* (2017) who found a significant positive effect of Green HRMPs on environmental performance in the Indian energy sector. They argued that when firms include green initiatives in their HRM practices, it eliminates environmental pollution and helps improve environmental performance. This finding is also consistent with that of Hadjri *et al.* (2019) who reported that Green HRMPs predict environmental performance significantly and positively in the Indonesian health sector. Similarly, the finding is in line with a systematic review by Likhitkar and Verma (2017), who

Table 5.
Summary results of the
correlational analysis
among study variables

Variables	Mean	SD	1	2	3	4	5	6	7
1 Gender	1.45	0.498	—						
2 Age	2.70	1.090	0.042	—					
3 Educational Qualification	2.89	0.807	-0.066	0.211 ^{**}	—				
4 Marital Status	1.47	0.626	0.098	0.486 ^{**}	0.134 [*]	—			
5 Green HRMPs	3.8810	0.63736	-0.010	0.242 ^{**}	0.112	0.081	—		
6 EEC	3.6312	0.72434	-0.061	0.236 ^{**}	0.116 [*]	0.031	0.554 ^{***}	—	
7 ES	3.9025	0.69081	-0.075	0.117	0.056	0.082	0.588 ^{***}	0.649 ^{***}	—
8 ETI	2.8604	1.30161	-0.047	-0.083	-0.144	0.043	-0.040	-0.198 ^{**}	-0.078

Note(s): NB: ^{**}, ^{*} Correlation is significant at 1% and 5% respectively (2-tailed)
Source(s): Field Survey (2021)

Employee environmental commitment as a mediator

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P values
Green HRMPs →EEC	0.572	0.580	0.056	10.134	0.000
Green HRMPs →ES	0.334	0.336	0.072	4.629	0.000
Green HRMPs →ETI	-0.082	-0.098	0.097	0.851	0.395
EEC→ES	0.474	0.474	0.067	7.107	0.000
EEC→ETI	-0.241	-0.257	0.085	2.828	0.005

Source(s): Field Survey (2022)

Table 6.
The summary results of the direct effects

Path2	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P values
Green HRMPs →EEC→ES	0.271	0.276	0.055	4.917	0.000
Green HRMPs →EEC→ETI	-0.137	-0.152	0.058	2.368	0.018

Source(s): Field Survey (2022)

Table 7.
Mediation effects through specific indirect effects

reported that Green HRMPs such as recruitment and selections, induction, rewards and recognitions, organisational culture, employment relations, and compensation result in greater efficiencies, lower cost and ultimately ensures ES in the organisational context. This, in essence, suggest that when organisations are proactive and sensitive towards environmental concerns by implementing Green HRMPs then eco-destruction would be significantly reduced which will ultimately warrant improvement in ES.

However, we found that Green HRMPs negatively but insignificant predict ETI. Hence, the study's second hypothesis was not supported statistically. This is more so in the Ghanaian context because of the high rate of unemployment and most employees usually do not want to risk their current employment for non-financial reasons (Adu *et al.*, 2020). Nonetheless, the negative effect of Green HRMPs on ETI finds support with the social identity theory which is based on the primary assumption that individuals tend to associate themselves with high-status groups to enhance their self-esteem (Tajfel *et al.*, 1979). In line with this, Rubel *et al.* (2021) assert that employees as members of a responsible organisation, take pride in the organisational activities, support its values and are loyal to the organisation. Thus, it is expected that by reflecting the ecological attitude of an organisation, Green HRMPs would differentiate the organisation from the others and make it appear a more favourable place to work, as compared to its competitors. Hence, employees would want to be associated with an ecologically responsible organisation to experience pride and enhanced self-concept. This finding is consistent with that of Nasuridin *et al.* (2018) who reported that HRM practices had no significant direct effect on Malaysian nurses' turnover intentions except through organisational commitment. Also, Islam *et al.* (2020) found that two of the five dimensions of

Green HRMPs had a significant negative effect on turnover intentions. Qadri *et al.* (2022) revealed that only green rewards and green involvement have a significant impact on millennial ETI. Contrary to the findings of this study, Sarode and Patil (2016) noted that integrating green initiatives results in greater efficiencies and significantly reduces ETI. Again, Bangwal and Tiwari (2015) noted that the implementation of Green HRMPs would significantly reduce the rate of turnover intentions of employees.

The results also showed that Green HRMPs positively and significantly predict EEC. This outcome of the study is in line with that of Ren *et al.* (2018) who reported that Green HRMPs are the means by which organisations get employees to be committed due to the current global demands for ES. Thus, due to the current global warming concerns and technological advancement and its integration into business processes (i.e. HRM practices), employees are more willing to be associated with green employers. Similarly, the findings of this study support that of Pham *et al.* (2019b) who revealed that Green HRMPs predict EEC positively and that there is a two-way interaction of green training and green organisational culture which enhances EEC more. Mandip (2012) advanced that paying attention to the development of an environmentally sensitive management system can help nurture and reinforce employees' green attitudes and thereby make them environmentally committed. Warner and Zhu (2018) further argued that for employees to be committed to an organisation and stay longer depends on diverse value systems, beliefs, and attitudes based on current business trends and processes. Organisations that are open to new technologies, processes, and innovation attract the best talents, and employees' regular and active participation in an organisation's environmental activities strengthen their understanding of corporate environmental targets and policies, which in turn result in their sense of attachment, responsibility, and commitment towards the environmental issues (Yusoff *et al.*, 2020). For example, Green training provides employees with an environmental understanding and assists them in absorbing and adopting green attitudes and abilities, resulting in long-term employee commitment to the environment (Suleman *et al.*, 2022a).

Furthermore, we found that EEC mediates the relationship between Green HRMPs and ES. Thus, EEC is a partial mediator in the Green HRMPs and ES nexus, which indicates that the integration of environmental concerns into HRM practices induces employees' commitment towards green behaviours and subsequently improves ES. Our results corroborate the findings of a study by Sendawula *et al.* (2020), who found that environmental commitment positively and significantly influenced all the dimensions of ES. Also, the present results are consistent with that of Tilleman (2012), who indicated that there is a positive and significant relationship between employees' level of environmental commitment and their firms' ES practices. Likewise, Saputro and Nawangsari (2021) found that Green HRMPs had a significant indirect effect on the firm's environmental performance through green organisational citizenship behaviour of the employees in the Indonesian manufacturing sector. Consequently, Colwell and Joshi (2013) postulated that when internal stakeholders (i.e. business owners, top management, and employees) are dedicated and willing to support environmentally friendly practices, they are motivated to ensure the conservation and protection of the natural environment. This aligns with the idea that employees who are genuinely committed to environmental concerns are more likely to engage actively in sustainable practices, thereby amplifying the impact of organisational green initiatives on environmental outcomes.

Finally, an intriguing discovery emerges as EEC was found to be a complete mediator in the link between Green HRMPs and ETI. This implies that the extent to which Green HRMPs affect ETI is entirely mediated through the level of employee commitment towards environmental issues. This finding is consistent with that of Pham *et al.* (2019b) who revealed that Green HRM also plays a vital role in the commitment levels of employees towards the environment, as they examined the relationship between Green HRMPs and EEC in the Vietnamese hospitality industry. Again, our results corroborate a prior study by Karatepe *et al.* (2022), who found that

Green HRM enhances employees' perceptions of organisational support for the environment, while perceived organisational support for the environment fosters work engagement and task-related pro-environmental behaviour and reduces quitting intentions in the Taiwan hotel industry. Also, this finding is in support of that of [Islam et al. \(2020\)](#) who examined the effect of Green HRMPs on millennial employees' intention to quit in the Malaysian tourism industry. The researchers reported that Green HRMPs tend to reduce employees' intention to leave an organisation significantly. Therefore, organisations that successfully foster a culture of environmental commitment among their workforce are more likely to mitigate turnover intentions. This could be attributed to the perception that employees who align with an organisation's environmentally sustainable practices are more inclined to stay with the company, believing in its broader mission and values.

6. Contribution to theory

Our study helps us to better understand that indulging in Green HRMPs would enhance the environmental commitment of employees thereby promoting ES at the organisational level and employee stability at the individual level. It significantly contributes to the existing literature in the area of Green HRMPs in the manufacturing industry by providing new evidence from an emerging economy (Ghana). Also, our research is one of the few studies that extend knowledge by employing legitimacy theory ([Dowling and Pfeffer, 1975](#)) in a Green HRM and ES context. Thus, our findings indicate that EEC plays a critical role in predicting ES through Green HRMPs, unlike the usual environmental disclosures tenet of the theory employed in sustainability studies ([Welbeck et al., 2017](#)). We argue that firms may fulfil part of their social contract with stakeholders by attracting, training, and maintaining prospective employees who become environmentally conscious via the implementation of Green HRMPs to ensure ES and subsequently justify their existence. Finally, previous studies have established that Green HRMPs predict employees' intentions to quit (see [Likhitkar and Verma, 2017](#); [Qadri et al., 2022](#); [Karatepe et al., 2022](#)). However, our study serves as additional empirical evidence, especially from Africa, which confirms that the implementation of Green HRMPs reduces ETI, exclusively highlighting the role of EEC. This contributing card is relevant, especially in this era of climate quitting ([KPMG, 2023](#)).

7. Contributions to practice and policy

This study has a number of interesting implications for practice and policy. First, it is evident from the findings that Green HRMPs improve ES and employee stability. This implies the urgency for HR managers to integrate ecological concerns into their functional processes by adopting green practices like online tools and platforms for attracting, selecting, involving, measuring, paying, and rewarding the performance of employees. These practices contribute significantly to employee well-being at the workplace, thereby reducing ETI. Second, higher education institutions and professional bodies must inculcate green concerns in their curricula, teaching pedagogy and delivery. This will help develop potential employees who are more environmentally conscious, committed to green practices, environmentally knowledgeable and pro-environmental managers for the future. Finally, the government as a policymaker should formulate and strengthen the enforcement of already-existing environmental management and sustainability policies that promote the integration of green practices and initiatives in HRM functions in both private and public entities. A well-thought-out policy would help companies to be committed to upholding, preserving, and cultivating the culture of environmental management and sustainability thereby contributing to the achievement of relevant SDGs.

8. Limitations of the study and future research directions

Regardless of the insightful findings and contributions of this study, it is not free from drawbacks. First, this study cannot provide causal evidence due to its research design. Thus, the current study adopted the cross-sectional survey approach and this did not allow the researchers to assess the changes in the responses of research participants because of changes in time. Consequently, future studies could carry out experimental research or collect data at different times (longitudinal) to establish these casual effects. Second, the findings of this study are limited to only manufacturing companies listed on the GSE and hence they may not be applicable in other contexts, restricting the generalisation of the study's findings to other sectors. Therefore, future researchers can explore the same or similar studies in other manufacturing sectors in other developing countries or other sectors. Finally, the study model included both organisational and individual-level outcomes all in one. Even though data was taken from two sources (i.e. managerial and non-managerial employees) to verify these outcomes, there is still a tendency for CMB threat. To effectively minimise CMB threat, future studies can source data in phases from different sources to examine the relationship between Green HRMPs and both organisational and individual level outcomes such as operational firm performance and employee green behaviours separately.

9. Conclusion

In sum, this study advances our understanding of the intricate dynamics between Green HRMPs, EEC, ES and ETI. The mediation effects observed underscore the pivotal role of EEC in shaping the outcomes of Green HRM initiatives at both the organisational and individual levels. These insights offer valuable directions for organisational practice, educational institutions and policy formulation, thereby contributing to the overall pursuit of sustainability in the business landscape.

References

- Aboramadan, M. and Karatepe, O.M. (2021), "Green human resource management, perceived green organizational support and their effects on hotel employees' behavioral outcomes", *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 10, pp. 3199-3222, doi: [10.1108/IJCHM-12-2020-1440](https://doi.org/10.1108/IJCHM-12-2020-1440).
- Acquah, I.S.K., Agyabeng-Mensah, Y. and Afum, E. (2021), "Examining the link among green human resource management practices, green supply chain management practices and performance", *Benchmarking*, Vol. 28 No. 1, pp. 267-290, doi: [10.1108/BIJ-05-2020-0205](https://doi.org/10.1108/BIJ-05-2020-0205).
- Adu, I.N., Boakye, K.O., Suleman, A.-R. and Bingab, B.B.B. (2020), "Exploring the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 14 No. 2, pp. 215-228.
- Afum, E., Osei-Ahenkan, V.Y., Agyabeng-Mensah, Y., Owusu, J.A., Kusi, L.Y. and Ankomah, J. (2020), "Green manufacturing practices and sustainable performance among Ghanaian manufacturing SMEs: the explanatory link of green supply chain integration", *Management of Environmental Quality: An International Journal*, Vol. 31 No. 6, pp. 1457-1475.
- Anaman, P.D., Ahmed, I.A., Suleman, A.-R. and Dzakah, G.A. (2023), "Environmentally sustainable business practices in micro, small, and medium enterprises: a sub-saharan African country perspective", *Business Perspectives and Research*, (ahead-of-print).
- Anlesinya, A. and Susomrith, P. (2020), "Sustainable human resource management: a systematic review of a developing field", *Journal of Global Responsibility*, Vol. 11 No. 3, pp. 295-324, doi: [10.1108/jgr-04-2019-0038](https://doi.org/10.1108/jgr-04-2019-0038).
- Ashar, M., Ghafoor, M., Munir, E. and Hafeez, S. (2013), "The impact of perceptions of training on employee commitment and turnover intention: evidence from Pakistan", *International Journal of Human Resource Studies*, Vol. 3 No. 1, p. 74.

- Bagozzi, R.P. (2010), "Structural equation models are modelling tools with many ambiguities: Comments acknowledging the need for caution and humility in their use", *Journal of Consumer Psychology*, Vol. 20 No. 2, pp. 208-214.
- Bangwal, D. and Tiwari, P. (2015), "Green HRM – a way to greening the environment", *IOSR Journal of Business and Management Ver. I*, Vol. 17 No. 12, pp. 2319-7668, doi: [10.9790/487X-171214553](https://doi.org/10.9790/487X-171214553).
- Bangwal, D., Tiwari, P. and Chamola, P. (2017), "Green HRM, work-life and environment performance", *International Journal of Environment, Workplace and Employment*, Vol. 4 No. 3, pp. 244-268.
- Baron, R.M. and Kenny, D.A. (1986), "The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.
- Becker, T.E. (2005), "Potential problems in the statistical control of variables in organizational research: a qualitative analysis with recommendations", *Organizational Research Methods*, Vol. 8 No. 3, pp. 274-289.
- Bentler, P.M. and Bonett, D.G. (1980), "Significance tests and goodness of fit in the analysis of covariance structures", *Psychological Bulletin*, Vol. 88 No. 3, pp. 1-588.
- Brown, T.A. and Moore, M.T. (2012), "Confirmatory factor analysis", in *Boston University*, 1st ed.
- Cao, Y., Yan, B. and Teng, Y. (2023), "Making bad things less bad? Impact of green human resource management on counterproductive work behaviors of grassroots employees: evidence from the hospitality industry", *Journal of Cleaner Production*, Vol. 397 December 2022, 136610, doi: [10.1016/j.jclepro.2023.136610](https://doi.org/10.1016/j.jclepro.2023.136610).
- Chams, N. and García-Blandón, J. (2019), "On the importance of sustainable human resource management for the adoption of sustainable development goals", *Resources, Conservation and Recycling*, Vol. 141, pp. 109-122.
- Chaudhary, R. (2018), "Can green human resource management attract young talent? An empirical analysis", *Evidence-Based HRM*, Vol. 6 No. 3, pp. 305-319, doi: [10.1108/EBHRM-11-2017-0058](https://doi.org/10.1108/EBHRM-11-2017-0058).
- Chaudhary, R. (2019), "Effects of green human resource management: testing a moderated mediation model", *International Journal of Productivity and Performance Management*, Vol. 70 No. 1, pp. 201-216, doi: [10.1108/IJPPM-11-2018-0384](https://doi.org/10.1108/IJPPM-11-2018-0384).
- Colwell, S.R. and Joshi, A.W. (2013), "Corporate ecological responsiveness: antecedent effects of institutional pressure and top management commitment and their impact on organizational performance", *Business Strategy and the Environment*, Vol. 22 No. 2, pp. 73-91.
- Creswel, J.W. (2009), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, University of Nebraska–Lincoln, Los Angeles.
- Dawley, D., Houghton, J.D. and Bucklew, N.S. (2010), "Perceived organizational support and turnover intention: the mediating effects of personal sacrifice and job fit", *The Journal of Social Psychology*, Vol. 150 No. 3, pp. 238-257.
- Denscombe, M. (2002), *Ground Rules for Good Research: A 10 Point Guide for Social Research*, Open University Press, Buckingham.
- Dijkstra, T.K. and Henseler, J. (2015), "Consistent partial least squares path modeling", *MIS Quarterly*, Vol. 39 No. 2, pp. 297-316.
- Dowling, J. and Pfeffer, J. (1975), "Organizational legitimacy: social values and organizational behavior", *Pacific Sociological Review*, Vol. 18 No. 1, pp. 122-136.
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
- Freitas, W.R.D.S., Caldeira-Oliveira, J.H., Teixeira, A.A., Stefanelli, N.O. and Teixeira, T.B. (2020), "Green human resource management and corporate social responsibility: evidence from Brazilian firms", *Benchmarking*, Vol. 27 No. 4, pp. 1551-1569, doi: [10.1108/BIJ-12-2019-0543](https://doi.org/10.1108/BIJ-12-2019-0543).
- Hadjri, M.I., Perizade, B., Zunaidah and Farla, W. (2019), "Green human resource management, green organizational culture, and environmental performance: an empirical study", *Advances in*

- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2012), "Partial least squares: the better approach to structural equation modeling?", *Long Range Planning*, Vol. 45 Nos 5-6, pp. 312-319.
- Hancock, J.I., Allen, D.G., Bosco, F.A., McDaniel, K.R. and Pierce, C.A. (2013), "Meta-analytic review of employee turnover as a predictor of firm performance", *Journal of Management*, Vol. 39 No. 3, pp. 573-603.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.
- Hogg, M.A. (2020), in Burke, P.J. (Ed.), *Social Identity Theory*, Stanford University Press, Contempora.
- Hu, L. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6 No. 1, pp. 1-55.
- Huang, L., Guo, Z., Deng, B. and Wang, B. (2023), "Unlocking the relationship between environmentally specific transformational leadership and employees' green behaviour: a cultural self-representation perspective", *Journal of Cleaner Production*, Vol. 382 November 2021, 134857, doi: [10.1016/j.jclepro.2022.134857](https://doi.org/10.1016/j.jclepro.2022.134857).
- Islam, M.A., Jantan, A.H., Yusoff, Y.M., Chong, C.W. and Hossain, M.S. (2020), "Green human resource management (GHRM) practices and millennial employees' turnover intentions in tourism industry in Malaysia: moderating role of work environment", *Global Business Review*, Vol. 10 No. 1, pp. 1-21, doi: [10.1177/0972150920907000](https://doi.org/10.1177/0972150920907000).
- Jerónimo, H.M., Henriques, P.L., Lacerda, T.C.D., da Silva, F.P. and Vieira, P.R. (2020), "Going green and sustainable: the influence of green HR practices on the organizational rationale for sustainability", *Journal of Business Research*, Vol. 112 June, pp. 413-421, doi: [10.1016/j.jbusres.2019.11.036](https://doi.org/10.1016/j.jbusres.2019.11.036).
- Jijelava, D. and Vanclay, F. (2017), "Legitimacy, credibility and trust as the key components of a social licence to operate: an analysis of BP's projects in Georgia", *Journal of Cleaner Production*, Vol. 140, pp. 1077-1086.
- Karatepe, O.M., Hsieh, H. and Aboramadan, M. (2022), "The effects of green human resource management and perceived organizational support for the environment on green and non-green hotel employee outcomes", *International Journal of Hospitality Management*, Vol. 103 February, 103202, doi: [10.1016/j.ijhm.2022.103202](https://doi.org/10.1016/j.ijhm.2022.103202).
- Kim, S., Tam, L., Kim, J.-N. and Rhee, Y. (2017), "Determinants of employee turnover intention", *Corporate Communications: An International Journal*, Vol. 22 No. 3, pp. 308-328.
- Kock, N. (2015), "Common method bias in PLS-SEM: a full collinearity assessment approach", *International Journal of E-Collaboration (Ijec)*, Vol. 11 No. 4, pp. 1-10.
- KPMG (2023), "Climate quitting - younger workers voting with their feet on employer's ESG commitments", available at: <https://kpmg.com/uk/en/home/media/press-releases/2023/01/climate-quitting-younger-workers-voting-esg.html>
- Leidner, S., Baden, D. and Ashleigh, M.J. (2019), "Green (environmental) HRM: aligning ideals with appropriate practices", *Personnel Review*, Vol. 48 No. 5, pp. 1169-1185.
- Likhitkar, P. and Verma, P. (2017), "Impact of green HRM practices on organization sustainability and employee retention", *International Journal for Innovative Research in Multidisciplinary Field*, Vol. 3 No. 5, pp. 152-157.
- Liu, N., Tang, S., Zhan, X. and Lo, C.W. (2018), "Political commitment, policy ambiguity, and corporate environmental practices", *Policy Studies Journal*, Vol. 46 No. 1, pp. 190-214.
- Malik, S.Y., Cao, Y., Mughal, Y.H., Kundi, G.M., Mughal, M.H. and Ramayah, T. (2020), "Pathways towards sustainability in organizations: empirical evidence on the role of green human resource

- management practices and green intellectual capital”, *Sustainability (Switzerland)*, Vol. 12 No. 8, pp. 1-24, doi: [10.3390/SU12083228](https://doi.org/10.3390/SU12083228).
- Mandip, G. (2012), “Green HRM: people management commitment to environmental sustainability”, *Research Journal of Recent Sciences*, Vol. 1 No. 12, pp. 244-252, doi: [10.3390/SU11123257](https://doi.org/10.3390/SU11123257).
- Miller, R.L. and Brewer, J.D. (2003), *The AZ of Social Research: A Dictionary of Key Social Science Research Concepts*, Sage, Thousand Oaks, California.
- Mobley, W.H., Griffeth, R.W., Hand, H.H. and Meglino, B.M. (1979), “Review and conceptual analysis of the employee turnover process”, *Psychological Bulletin*, Vol. 86 No. 3, pp. 493-522.
- Nasurudin, A.M., Ling, T.C. and Khan, S.N. (2018), “The relation between turnover intention, high performance work practices (Hpwps), and organisational commitment: a study among private hospital nurses in Malaysia”, *Asian Academy of Management Journal*, Vol. 23 No. 1, pp. 23-51.
- Park, J. and Min, H.K. (2020), “Turnover intention in the hospitality industry: a meta-analysis”, *International Journal of Hospitality Management*, Vol. 90 No. 1, pp. 1-11.
- Pham, N.T., Hoang, H.T. and Phan, Q.P.T. (2019a), “Green human resource management: a comprehensive review and future research agenda”, *International Journal of Manpower*, Vol. 41 No. 7, pp. 845-878, doi: [10.1108/IJM-07-2019-0350](https://doi.org/10.1108/IJM-07-2019-0350).
- Pham, T.N., Tučková, Z. and Phan, Q. (2019b), “Greening human resource management and employee commitment towards the environment: an interaction model”, *Journal of Business Economics and Management*, Vol. 20 No. 3, pp. 446-465.
- Qadri, S.U., Bilal, M.A., Li, M., Ma, Z., Qadri, S., Ye, C. and Rauf, F. (2022), “Work environment as a moderator linking green human resources management strategies with turnover intention of millennials: a study of Malaysian hotel industry”, *Sustainability (Switzerland)*, Vol. 14 No. 12, doi: [10.3390/su14127401](https://doi.org/10.3390/su14127401).
- Raineri, N. and Paillé, P. (2016), “Linking corporate policy and supervisory support with environmental citizenship behaviors: the role of employee environmental beliefs and commitment”, *Journal of Business Ethics*, Vol. 137 No. 1, pp. 129-148.
- Raza, S.A. and Khan, K.A. (2022), “Impact of green human resource practices on hotel environmental performance: the moderating effect of environmental knowledge and individual green values”, *International Journal of Contemporary Hospitality Management*, Vol. 34 No. 6, pp. 2154-2175, doi: [10.1108/IJCHM-05-2021-0553](https://doi.org/10.1108/IJCHM-05-2021-0553).
- Ren, S., Tang, G. and Jackson, S.E. (2018), “Green human resource management research in emergence: a review and future directions”, *Asia Pacific Journal of Management*, Vol. 35 No. 3, pp. 769-803, doi: [10.1007/s10490-017-9532-1](https://doi.org/10.1007/s10490-017-9532-1).
- Riaz, H., Akhtar, N., Moazzam, A., Luqman, R., Naz, H. and Tufail, H.S. (2017), “Leadership effectiveness, turnover intention and the mediating role of employee commitment: a case of academic institutions of Pakistan”, *European Online Journal of Natural and Social Sciences*, Vol. 6 No. 4, p. 526.
- Rizvi, Y.S. and Garg, R. (2021), “The simultaneous effect of green ability-motivation-opportunity and transformational leadership in environment management: the mediating role of green culture”, *Benchmarking*, Vol. 28 No. 3, pp. 830-856, doi: [10.1108/BIJ-08-2020-0400](https://doi.org/10.1108/BIJ-08-2020-0400).
- Rubel, M.R.B., Kee, D.M.H. and Rimi, N.N. (2021), “The influence of green HRM practices on green service behaviors: the mediating effect of green knowledge sharing”, *Employee Relations: The International Journal*, Vol. 43 No. 5, pp. 2121-2142.
- Saeed, A., Rasheed, F., Waseem, M. and Tabash, M.I. (2022), “Green human resource management and environmental performance: the role of green supply chain management practices”, *Benchmarking*, Vol. 29 No. 9, pp. 2881-2899, doi: [10.1108/BIJ-05-2021-0297](https://doi.org/10.1108/BIJ-05-2021-0297).
- Salleh, R., Nair, M.S. and Harun, H. (2012), “Job satisfaction, organizational commitment, and turnover intention: a case study on employees of a retail company in Malaysia”, *International Journal of Economics and Management Engineering*, Vol. 6 No. 12, pp. 3429-3436.
- Saputro, A. and Nawangsari, L.C. (2021), “The effect of green human resource management on organization citizenship behaviour for environment (OCBE) and its implications on employee

-
- performance at Pt Andalan Bakti Niaga”, *European Journal of Business and Management Research*, Vol. 6 No. 1, pp. 174-181.
- Sarode, A.P. and Patil, J. (2016), “A study of green HRM and its evaluation with existing HR practices in industries within Pune region”, *International Journal of Research in Engineering, IT and Social Sciences*, Vol. 6 No. 4, pp. 49-67.
- Sarstedt, M. and Cheah, J.-H. (2019), “Partial least squares structural equation modeling using SmartPLS: a software review”, *Journal of Marketing Analytics*, Vol. 7 No. 1, pp. 196-202.
- Saunders, M.N.K., Lewis, P. and Thornhill, A. (2019), *Research Methods for Business Students*, 8th ed., Pearson, Harlow.
- Sendawula, K., Bagire, V., Mbidde, C.I. and Turyakira, P. (2020), “Environmental commitment and environmental sustainability practices of manufacturing small and medium enterprises in Uganda”, *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 15 No. 4, pp. 215-233.
- Shafaei, A. and Nejati, M. (2023), “Green human resource management and employee innovative behaviour: does inclusive leadership play a role?”, *Personnel Review*, (ahead-of-print), doi: [10.1108/PR-04-2021-0239](https://doi.org/10.1108/PR-04-2021-0239).
- Shafaei, A., Nejati, M. and Mohd Yusoff, Y. (2020), “Green human resource management: a two-study investigation of antecedents and outcomes”, *International Journal of Manpower*, Vol. 41 No. 7, pp. 1041-1060, doi: [10.1108/IJM-08-2019-0406](https://doi.org/10.1108/IJM-08-2019-0406).
- Shin, H.-R. and Cho, Y.-C. (2013), “Relationship between job stress and turnover intention among nurses in university hospitals”, *Journal of the Korea Academia-Industrial Cooperation Society*, Vol. 14 No. 8, pp. 3958-3970.
- Sivo, S.A., Fan, X., Witta, E.L. and Willse, J.T. (2006), “The search for ‘optimal’ cutoff properties: fit index criteria in structural equation modeling”, *The Journal of Experimental Education*, Vol. 74 No. 3, pp. 267-288.
- Stets, J.E. and Burke, P.J. (2000), “Identity theory and social identity theory”, *Social Psychology Quarterly*, Vol. 63 No. 3, pp. 224-237.
- Suifan, T.S., Abdallah, A.B. and Diab, H. (2016), “The influence of work life balance on turnover intention in private hospitals: the mediating role of work life conflict”, *European Journal of Business and Management*, Vol. 8 No. 20, pp. 126-139.
- Suleman, A.-R., Amponsah-Tawiah, K., Adu, I.N. and Boakye, K.O. (2022a), “The curious case of green human resource management practices in the Ghanaian manufacturing industry; a reality or a mirage?”, *Management of Environmental Quality: An International Journal*, Vol. 33 No. 3, pp. 739-755, doi: [10.1108/MEQ-12-2021-0269](https://doi.org/10.1108/MEQ-12-2021-0269).
- Suleman, A.-R., Bingab, B.B.B., Boakye, K.O. and Sam-Mensah, R. (2022b), “Job rotation practices and employees performance: do job satisfaction and organizational commitment matter?”, *SEISENSE Business Review*, Vol. 2 No. 1, pp. 13-27.
- Suliman, A.A. and Al-Junaibi, Y. (2010), “Commitment and turnover intention in the UAE oil industry”, *The International Journal of Human Resource Management*, Vol. 21 No. 9, pp. 1472-1489.
- Tajfel, H., Turner, J.C., Austin, W.G. and Worchel, S. (1979), “An integrative theory of intergroup conflict”, *Organizational Identity: A Reader*, Vol. 56 No. 65, pp. 445-530.
- Tang, G., Chen, Y., Jiang, Y., Paillé, P. and Jia, J. (2017), “Green human resource management practices: scale development and validity”, *Asia Pacific Journal of Human Resources*, Vol. 56 No. 1, pp. 31-55, doi: [10.1111/1744-7941.12147](https://doi.org/10.1111/1744-7941.12147).
- Taylor, S., Egri, C. and Osland, J. (2012), “HRM’s role in sustainability: systems, strategies, and practices”, *Human Resources Management*, Vol. 51 No. 6, pp. 789-798.
- Tilleman, S. (2012), “Is employee organizational commitment related to firm environmental sustainability?”, *Journal of Small Business and Entrepreneurship*, Vol. 25 No. 4, pp. 417-431.

- Turner, J.C. and Tajfel, H. (1986), "The social identity theory of intergroup behavior", *Psychology of Intergroup Relations*, Vol. 5, pp. 7-24.
- United Nations Environment Programme (UNEP) (2013). Global environmental outlook 2013 Report, available at: <https://www.unenvironment.org/resources/global-environment-outlook-2013>
- Warner, M. and Zhu, Y. (2018), "The challenges of managing 'new generation' employees in contemporary China: setting the scene", *Asia Pacific Business Review*, Vol. 24 No. 4, pp. 429-436.
- Wehrmeyer, W. (1996), *Green Policies Can Help to Bear Fruit*, Greenleaf Publishing. Personnel Publications, Sheffield.
- Wehrmeyer, W. (2017), *Greening People: Human Resources and Environmental Management*, Routledge, Abingdon, Oxfordshire.
- Welbeck, E.E., Owusu, G.M.Y., Bekoe, R.A. and Kusi, J.A. (2017), "Determinants of environmental disclosures of listed firms in Ghana", *International Journal of Corporate Social Responsibility*, Vol. 2 No. 1, doi: [10.1186/s40991-017-0023-y](https://doi.org/10.1186/s40991-017-0023-y).
- Wong, K. K.-K. (2013), "Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS", *Marketing Bulletin*, Vol. 24 No. 1, pp. 1-32.
- Yong, J.Y., Yusliza, M.Y. and Fawehinmi, O.O. (2020), "Green human resource management: a systematic literature review from 2007 to 2019", *Benchmarking*, Vol. 27 No. 7, pp. 2005-2027, doi: [10.1108/BJJ-12-2018-0438](https://doi.org/10.1108/BJJ-12-2018-0438).
- Yu, W., Chavez, R., Feng, M., Wong, C.Y. and Fynes, B. (2020), "Green human resource management and environmental cooperation: an ability-motivation-opportunity and contingency perspective", *International Journal of Production Economics*, Vol. 219 August 2018, pp. 224-235, doi: [10.1016/j.ijpe.2019.06.013](https://doi.org/10.1016/j.ijpe.2019.06.013).
- Yusliza, M.Y., Norazmi, N.A., Jabbour, C.J.C., Fernando, Y., Fawehinmi, O. and Seles, B.M.R.P. (2019), "Top management commitment, corporate social responsibility and green human resource management: a Malaysian study", *Benchmarking*, Vol. 26 No. 6, pp. 2051-2078, doi: [10.1108/BJJ-09-2018-0283](https://doi.org/10.1108/BJJ-09-2018-0283).
- Yusoff, Y.M., Nejati, M., Kee, D.M.H. and Amran, A. (2020), "Linking green human resource management practices to environmental performance in hotel industry", *Global Business Review*, Vol. 21 No. 3, pp. 663-680, doi: [10.1177/0972150918779294](https://doi.org/10.1177/0972150918779294).
- Zaman, U., Nawaz, S., Tariq, S. and Humayoun, A.A. (2019), "Linking transformational leadership and "multi-dimensions" of project success: moderating effects of project flexibility and project visibility using PLS-SEM", *International Journal of Managing Projects in Business*, Vol. 13 No. 1, pp. 103-127, doi: [10.1108/IJMPB-10-2018-0210](https://doi.org/10.1108/IJMPB-10-2018-0210).
- Zhang, S., Wang, Z. and Zhao, X. (2019), "Effects of proactive environmental strategy on environmental performance: mediation and moderation analyses", *Journal of Cleaner Production*, Vol. 235, pp. 1438-1449, doi: [10.1016/j.jclepro.2019.06.220](https://doi.org/10.1016/j.jclepro.2019.06.220).

Further reading

- Ababneh, O.M.A. (2021), "How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes", *Journal of Environmental Planning and Management*, Vol. 64 No. 7, pp. 1204-1226.

(The Appendix follows overleaf)

SECTION A: PERSONAL BACKGROUND

Please tick (√) in the appropriate box:

1. Gender: a. Male [] b. Female []
2. Age: a. 20-29 years [] b. 30-39 years [] c. 40-49 years []
d. 50-59 years [] e. 60 years and Above []
3. Educational Qualification: a. Diploma [] b. H.N.D [] c. Bachelor's Degree []
d. Masters [] e. Doctorate [] f. Professional [] g. Other
.....
4. Marital Status: a. Single [] b. Married [] c. Divorced []
d. Widowed [] e. Separated []
5. Length of Service: a. 1-5years [] b. 6-10years []
c. 11-15 years [] d. 16-20 years [] e. 20 years and Above []
6. Role: a. Managerial [] b. Non-Managerial []

NB: Please, after Section A, kindly proceed to Section E (on page 3) if you are a managerial staff. Thank you

SECTION B: GREEN HRM PRACTICES

Please indicate your response to the following statements by circling an option from 1 (strongly disagree) to 5 (strongly agree)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

<i>Green Recruitment and Selection</i>						
1	Our organisation attracts green job candidates who use green criteria to select organisations	1	2	3	4	5
2	Our organisation uses green employer branding to attract green employees	1	2	3	4	5
3	Our firm recruits employees who have green awareness	1	2	3	4	5
<i>Green Training</i>						
4	Our firm develops training programmes in environmental management to increase environmental awareness, skills and expertise of employees	1	2	3	4	5
5	The firm has integrated training to create the emotional involvement of employees in environmental management	1	2	3	4	5
6	Our firm has green knowledge management (linking environmental education and knowledge to behaviours to develop preventative solutions).	1	2	3	4	5
<i>Green Performance Management</i>						
7	Our firm uses green performance indicators in its performance management system and appraisals.	1	2	3	4	5
8	Our firm sets green targets, goals and responsibilities for managers and employees.	1	2	3	4	5
9	In our firm, managers set objectives for achieving green outcomes included in appraisals.	1	2	3	4	5
10	In our firm, there are dis-benefits in the performance management system for non-compliance or not meeting environmental management goals.	1	2	3	4	5

Employee
environmental
commitment as
a mediator

<i>Green Pay and Reward</i>						
11	Our firm makes green benefits (transport/travel) available rather than giving out pre-paid cards to purchase green products	1	2	3	4	5
12	In our firm, there are financial or tax incentives (bicycle loans, use of less polluting cars)	1	2	3	4	5
13	Our firm has recognition-based rewards in environmental management for staff (public recognition, awards, paid vacations, time off, gift certificates)	1	2	3	4	5
<i>Green Involvement</i>						
14	Our company has a clear developmental vision to guide the employees' actions in environmental management.	1	2	3	4	5
15	In our firm, there is a mutual learning climate among employees for green behaviour and awareness in my company.	1	2	3	4	5
16	In our firm, there are a number of formal or informal communication channels to spread green culture in our company	1	2	3	4	5
17	In our firm, employees are involved in quality improvement and problem-solving on green issues.	1	2	3	4	5
18	Our firm offer practices for employees to participate in environmental management, such as newsletters, suggestion schemes, problem-solving groups, low-carbon champions and green action teams.	1	2	3	4	5
19	Our company emphasizes a culture of environmental protection.	1	2	3	4	5

SECTION C: EMPLOYEE ENVIRONMENTAL COMMITMENT

Please indicate your response to the following statements by circling an option from 1 (strongly disagree) to 5 (strongly agree)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1	I really care about the environmental concern of this organisation.	1	2	3	4	5
2	I would feel guilty about not supporting the environmental efforts of this organisation.	1	2	3	4	5
3	The environmental concern of this organisation means a lot to me.	1	2	3	4	5
4	I feel a sense of duty to support the environmental efforts of this organisation.	1	2	3	4	5
5	I really feel like this organisation's environmental problems are my own.	1	2	3	4	5
6	I feel personally attached to the environmental concern of this organisation.	1	2	3	4	5
7	I strongly value the environmental efforts of this organisation.	1	2	3	4	5

SECTION D: EMPLOYEE TURNOVER INTENTION

Please indicate the extent to which these statements correspond to your work by circling an option from 1 (strongly disagree) to 5 (strongly agree)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

<i>Employee Turnover Intention</i>						
1	I think a lot about quitting my job	1	2	3	4	5
2	I am actively searching for an alternative to my present job	1	2	3	4	5
3	As soon as possible, I will leave this organisation	1	2	3	4	5

**SECTION E: ENVIRONMENTAL SUSTAINABILITY
(MANAGERIAL EMPLOYEES ONLY)**

Please indicate your response to the following statements by circling an option from 1 (strongly disagree) to 5 (strongly agree)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

1	We prefer to buy or produce environmental-friendly products than the others.	1	2	3	4	5
2	We constantly encourage employees to engage in environmental initiatives at work.	1	2	3	4	5
3	Our employees have practice green at work because of our policies.	1	2	3	4	5
4	Significantly the generation of hazardous materials (or those that cause degradation) from our activities has reduced in the environment.	1	2	3	4	5
5	Internal and external re-utilization and recycling of waste are encouraged.	1	2	3	4	5
6	Significantly, environmental problems have been reduced through green practices.	1	2	3	4	5
7	Significantly, input consumption (water, energy, raw materials, etc.) has been reduced.	1	2	3	4	5

THANK YOU FOR YOUR TIME.

Corresponding author

Abdul-Razak Suleman can be contacted at: abdulrazaksuleman10@gmail.com

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com