

Green human resource management: a comprehensive review and future research agenda

Nhat Tan Pham

*Faculty of Management and Economics,
Tomas Bata University in Zlin, Zlin, Czech Republic*

Hung Trong Hoang

*College of Economics, Faculty of Business Administration,
Hue University, Hue City, Vietnam, and*

Quyên Phú Thi Phan

*College of Economics, Faculty of Marketing,
University of Da Nang, Da Nang City, Vietnam*

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Abstract

Purpose – Green human resource management (GHRM), seen as a current research trend, plays an important role in organizations' sustainable development strategies. However, there is still a research gap in the systematization and integration of the available GHRM-related knowledge to suggest detailed future directions. Thus, the purpose of this paper is to conduct a systematic literature review on GHRM aimed at proposing detailed research gaps and agendas for future study.

Design/methodology/approach – First, this work reviews 74 articles, including 61 research/empirical articles and 13 review articles, linked with the GHRM field from the Scopus and Web of Science databases. These publications are then coded and classified into ten categories before the main findings linked with GHRM knowledge are identified. Last, the study addresses existing research gaps and proposes detailed recommendations and a research framework for further studies.

Findings – Analysis of the relevant literature is presented in the following main sections: an overview that illustrates the existing findings related to GHRM coded and classified; a description that stresses research gaps and proposes in detail 16 recommendations; and a research framework that focuses on GHRM for a future research agenda.

Originality/value – This review is important for researchers orient the research in GHRM by identifying research gaps and providing detailed recommendations. It is the first work that proposes a full research framework for future studies, especially suggestions of development related to green behavior outside of organizations, the circular economy, and technology based perspectives/Industry 4.0.

Keywords Human resource management, Sustainable development, Systematic literature review, Green human resource management, Future research agenda

Paper type Literature review

1. Introduction

Concern for environmental protection and the implementation of environmental and cleaner production policies is increasing (Jabbour, 2013). Environmental pressures have stimulated organizations' awareness of meeting increased demands from consumers and the market, as well as the law (Pham, Tučková and Jabbour, 2019). Therefore, organizations are now more responsible for sustainable outcomes in general and specifically for the environmental effects caused by their activities (Koberg and Longoni, 2019), especially the role of human resource management (HRM). HRM elements are critical to enhancing sustainability in organizations, and in this aspect such elements are understood as "green human resource management" (GHRM) (Renwick *et al.*, 2013), which has recently emerged as a new research trend (Jabbour and De Sousa Jabbour, 2016).



Discussion of the concept of GHRM was begun by a small number of previous scholars (Jabbour and Santos, 2008). It has been noted that the term has attracted more and more scholars in recent years. The effects of GHRM practices on corporate environmental performance have been explored in prior studies (Masri and Jaaron, 2017; Kim *et al.*, 2019). There have been a number of studies investigating the links between GHRM practices and green supply chain management (GSCM) (Jabbour *et al.*, 2017; Nejati *et al.*, 2017), as well as green behavior (Pinzone *et al.*, 2016; Pham, Tučková and Jabbour, 2019). In addition to quantitative studies, there have been several literature reviews on GHRM conducted by prior scholars (e.g. Renwick *et al.*, 2013; Ren *et al.*, 2018).

Regarding published literature reviews, although a number of recent reviews have attempted to understand the effects of GHRM practices and their antecedents and consequences on the sustainability of an organization, there remains a lack of a literature review providing a complete overview capable of proposing a research framework for future investigations. In terms of recent literature reviews, Renwick *et al.*'s (2013) study provides a clear concept of GHRM practices based on the three components of developing green ability, motivating green employees and providing green opportunity. This paper was one of the first publications on GHRM, and its contribution to a future research framework only makes the suggestion that further papers need to concentrate on the roles of GHRM processes and internal aspects of organizations (e.g. firm performance and environmental performance). More recently, on the theoretical basis of the function-based perspective, Ren *et al.* (2018) have addressed the necessity for measurement and conceptualization of GHRM, as well as offering a research framework for GHRM-related antecedents, contingencies and results. Ren *et al.*'s publication has provided many research opportunities for researchers. However, their suggestions for future investigations have concentrated on the influences of external pressures (e.g. external stakeholder expectations, law and regulations) and antecedents and consequences of GHRM which are related to internal perspectives (e.g. green behavior, commitment and performance). Yong, Yusliza and Fawehinmi (2019), Yong, Yusliza, Ramayah and Fawehinmi (2019) have proposed critical suggestions for further studies on the green management strategy. Their review has given essential contributions through addressing the recommendations based on analysis of a general area of GHRM literature (e.g. review and implementation of GHRM, the outcome of GHRM at individual and organizational levels), methodologies and theories applied, and national context. Despite its importance, this review has undeveloped the role of the external environment, technology based perspectives, the circular economy as well as the important outcomes of GHRM application (e.g. green attitude/behavior outside the organization, green human capital, corporate social responsibility (CSR) and reviewing outcomes of GHRM application needs a more detailed analysis.

GSCM also seen as an important aspect of the roadmap toward the circular economy and Industry 4.0 (De Sousa Jabbour *et al.*, 2018) has attracted researchers. Jabbour and De Sousa Jabbour's (2016) review provide a research agenda for integrating GHRM and GSCM. Although this work provides interesting implications on the integration of GHRM and GSCM for scholars and practitioners to enhance sustainability, GSCM is only one of many antecedents and consequences of GHRM, and the GHRM perspective therefore needs to be further investigated. In general, the existing literature reviews have not yet included: a complete and detailed review of what has been explored by published papers to date and what scholars need to devote further attention to (e.g. future researchers may be encouraged to focus on examining job descriptions and analysis and green organizational learning, instead of only green training and rewards, or conducting empirical research in Africa instead of only in Asia, Europe and America); and a review that concentrates on new perspectives, such as green behavior outside of organizations, the circular economy, and technology based perspectives/Industry 4.0 (e.g. big data, Internet of Things), which are currently considered to be emerging research trends (De Sousa Jabbour *et al.*, 2018).

On these grounds, it is necessary to conduct a study aimed at systematizing and integrating the available GHRM-related knowledge in order to propose research gaps and agendas for future study. The originality of this review is to address two abovementioned limitations of previous papers by: analyzing entirely in detail continents, industries/economic sectors, GHRM practices applied, and the consequences of GHRM application toward both individual and organizational levels, especially new perspectives such as green attitude and behavior outside of the organization, the circular economy, and technology based perspective/ Industry 4.0; and identifying research gaps and proposing detailed future directions in the GHRM perspective. Consequently, this research addresses the following research questions:

RQ1. What have published studies explored to date?

RQ2. What are the research gaps to guide the framework for studies on HRM in the future?

This work contributes to the existing literature on GHRM as follows:

- Although there have been some previous reviews of GHRM literature, our paper focuses on an overview of relevant publications in GHRM and other aspects related to available knowledge in the GHRM field. Thus, this review is important in identifying research gaps and making detailed recommendations that may be meaningful for scholars in this field.
- This work is, to our knowledge, the first review that proposes a full research framework for future works aimed at filling the detailed research gaps and develops the body of knowledge in HRM in general and GHRM in particular. Importantly, whereas existing literature typically explores the consequences of GHRM which are linked with internal perspectives (e.g. green behavior and corporate green performance), our paper suggests new recommendations related to green behavior outside of organizations, the circular economy, technology based perspectives/Industry 4.0.

2. A brief background on green human resource management

GHRM is defined as the HRM-related aspects of environmental management (EM), and focuses on the role of HRM in pollution prevention through an organization's operational processes (Renwick *et al.*, 2013). GHRM practices involve both traditional HRM practices which are aligned with environmental goals and their strategic HRM dimensions in organizations (Gholami *et al.*, 2016). The importance of greening HRM practices has been recognized; for example, Jackson and Seo (2010) state that the Academy of Management (USA) has chosen the topic "Green Management Matters" as the theme of its annual conference. Therefore, scholars have begun to consider the application of GHRM in organizations as a new research trend in EM, aimed at organizing HRM practices (Jabbour *et al.*, 2015).

According to Renwick *et al.* (2013), three components of GHRM practices may be developed. Recent scholars following Renwick *et al.* have taken on and applied these components (Table I), which are: developing green ability (recruitment and selection, training and development, job description); motivating green employees (performance management/appraisal; pay and reward system); and providing green opportunities (employee involvement and empowerment, supportive climate/culture, unions' role in EM, organizational learning) (e.g. Moraes *et al.*, 2018; Tang *et al.*, 2018).

3. Research methodology and procedures

This study employs a systematic review to investigate the research gaps of previous studies in this field, which are then used to guide the research framework for future research. The systematic literature review process aims to indicate the theoretical perspectives and the main characteristics of published papers, as well as to portray emerging issues and identify

GHRM practice	Definition	Additional references
Recruitment/selection	The highlighting of environmental aspects in recruitment and selection processes (Longoni <i>et al.</i> , 2018)	Ren <i>et al.</i> (2018), Zaid <i>et al.</i> (2018)
Training and development	Policies to heighten employees' environmental awareness, to equip them with environmental skills, and to raise green ability and expertise for employees in the organization (Renwick <i>et al.</i> , 2013)	Jabbour (2013), Guerci, Longoni and Luzzini (2016), Pham <i>et al.</i> (2019), Saeed <i>et al.</i> (2018)
Job description and analysis	The inclusion of environmental issues in employees' job descriptions, linked not only to their usual activities but also further environmental obligations in their work (Jabbour <i>et al.</i> , 2010)	Renwick <i>et al.</i> (2013), Roscoe <i>et al.</i> (2019)
Performance management/appraisal	Policies for monitoring and evaluating employees' performance in terms of attaining environmental goals (Govindarajulu and Daily, 2004)	Gupta (2018), Longoni <i>et al.</i> (2018)
Pay and reward system	A system of monetary and non-monetary rewards for those who contribute toward environmental management goals (Jabbour <i>et al.</i> , 2010)	Masri and Jaaron (2017), Gupta (2018)
Employee involvement and empowerment	An HRM system aimed at providing opportunities for employees to participate in environmental management initiatives and activities (Gupta, 2018)	Pinzone <i>et al.</i> (2016), Tang <i>et al.</i> (2018)
Organizational culture	An organization's assumptions, values, symbols and artifacts reflecting their desire or need to pursue environmentally sustainable goals (Harris and Crane, 2002)	Jabbour and Santos (2008), Masri and Jaaron (2017), Gupta (2018)
Role of unions in environmental management	Trade unions' encouragement of top management to create new environment-related jobs and extend their sphere of influence at work (Renwick <i>et al.</i> , 2013)	Gholami <i>et al.</i> (2016), Renwick <i>et al.</i> (2008)
Organizational learning	Managerial levels' development of environment-related knowledge acquisition, discussion, ideas and information sharing (Jabbour <i>et al.</i> , 2010)	Jabbour and Santos (2008)
Work-life balance	Work-life balance is defined as an employee's working-private life balance in relation to green values, attitudes and behavior (Muster and Schrader, 2011)	Ren <i>et al.</i> (2018)
Green health and safety	Green health and safety also emphasizes employees' lives through health and safety procedures aligned with environmental management (Shah, 2019)	

Table I.
Brief descriptions of green human resource management practices

Q5

challenges in order to propose a future framework (Amui *et al.*, 2017). Similarly, a literature review helps scholars to classify and summarize prior studies (Tseng *et al.*, 2019) and identify gaps and limitations in the existing literature. Therefore, the literature review method is suitable to be applied in this study to answer the research questions.

In order to conduct this study, a number of steps are involved, following the suggestions of Junior and Godinho Filho (2010), Jabbour (2013) and Amui *et al.* (2017):

- Step 1: we conducted a survey based on reputable databases to collect published papers related to GHRM.
- Step 2: we developed a classification system using structured coding and applied this system in order to clarify and present GHRM-related existing knowledge.
- Step 3: from the papers identified and analyzed in Step 2, we identified the main findings.
- Step 4: the research gaps were analyzed in order to propose the research framework for future study.

The first step was implemented between January 2018 and August 2019. To identify the relevant data, we selected publications (research and review articles) through the ISI Web of Science and Scopus databases, which are the two most reputable scientific databases globally. These databases have been used for data collection in prior systematic review studies (e.g. Amui *et al.*, 2017). To achieve an effective search for GHRM, it was necessary to plan a set of search keywords. We conducted this work by searching for the appearance of keywords in papers' titles, abstracts, and text. The keywords selected were related to the scope of this paper and included the themes of GHRM. The words used to search in this study were as follows:

- “Green human resource management,” “GHRM,” “green HRM,” “greening HRM,” “green human resource”.
- “Environmental human resource management,” “environmental HRM”.
- “Environmental management & human resource management,” “environmental management & HRM,” “sustainability & human resource management,” “sustainability & HRM.”

Although keywords, including “Environmental management & human resource management,” “environmental management & HRM,” “sustainability & human resource management,” “sustainability & HRM,” were not directly linked GHRM, they helped authors search some publications related to the GRHM literature. Therefore, we decided to use such keywords for searching published papers on this field.

A total of 325 publications in English were found through this search.

The next step is to screen the initial data. This study only chose journal papers, as articles published in journals are common resources used to obtain information and new findings (Ngai *et al.*, 2008). Jabbour *et al.* (2018) also support this method, because journal articles are available in full for in-depth analysis. Thus, documents, such as conference papers and editorial material, were discarded. As a result, 228 articles remained after this initial refinement. We also continued the search by reviewing citations from published papers or reputable authors in the GHRM field (e.g. Jabbour C.J.C.; Renwick D.W.S). This was intended to avoid omissions in the previous searching process and ensure a better search result. At the end of this stage, five additional relevant articles were found.

A process of determination is necessary to sort those papers suitable for systematic review. The titles and abstracts of the 233 publications identified were first read in order to choose papers which were relevant to GHRM. Each of these papers was then carefully analyzed through the in-depth reading stage. In this way, we excluded 159 papers, leaving 74 potential publications, including 13 review papers and 61 research papers, called as empirical papers, to be considered for further analysis. To investigate the insights of these articles in order to explore research gaps and make proposals for future studies, we chose to focus on empirical papers; thus, 61 publications were ultimately analyzed in-depth.

4. Classification and coding

After the collection of publications, the selected articles were classified and coded. The classification scheme followed ten major subjects, including: national contexts, continents, research methods, industries/economic sectors, GHRM practices applied, the role of GHRM for employees, the roles of GHRM for organizations, the role of the external environment, technology based perspective/Industry 4.0 and the circular economy.

Classification and coding of these categories was performed based on previous publications and recent emerging issues. Specifically, the categories “national contexts,” “continents,” “research methods,” “industries/economic sectors” were created following Amui *et al.* (2017) suggestion. For the categories “GHRM practices applied,” “the role of

GHRM for employees” and “the role of GHRM for organizations,” although there remains a lack of previous review papers analyzing those categories, classification and coding of such categories are necessary to identify in details what published papers have done and future works need to concentrate on. To avoid mistakes of the classification and coding, prior papers need to be assessed carefully. Therefore, we reviewed those publications in order to select categories and items. The category of GHRM practices applied reflect three core components, including developing green ability, creating green motivation, and providing green opportunities for employees (Renwick *et al.*, 2013). Items of this category were chosen by reviewing theoretical studies such as Jabbour *et al.* (2010), Renwick *et al.* (2013), Ren *et al.* (2018) and empirical works (e.g. Gupta, 2018). For instance, Ren *et al.* (2018) have proposed GHRM practices such as recruitment and selection, training and development, performance management, compensation or pay and reward system, employee involvement, empowerment and work-life balance. Additionally, previous studies have addressed job description and organizational learning (Jabbour *et al.*, 2010), organizational culture and the role of unions in EM (Renwick *et al.*, 2013) and green health and safety (Shah, 2019). Based on such GHRM practices, 11 items were classified and coded in Table II.

In terms of the role of GHRM for employees, an effective GHRM policy may stimulate employees’ green attitude and behavior (e.g. commitment, organizational citizenship behavior for the environment (OCBE), green competences, job performance and turnover (Ren *et al.*, 2018). Green practices also influence employees’ green human capital (e.g. environmental knowledge, skills, capabilities) (Chen, 2008), and their green attitude and behavior outside the organization (Rayner and Morgan, 2018). On the basis of such outputs, a group of five items was categorized in Table II. For the role of GHRM for the organization, it was classified and coded into 12 items (see Table II) based on theoretical suggestions and empirical outputs of GHRM application; for instance, environmental performance (e.g. Zhang *et al.*, 2019; Moraes *et al.*, 2018), organizational performance and financial performance (e.g. Longoni *et al.*, 2018; Zaid *et al.*, 2018), sustainable performance (e.g. Singh and El-Kassar, 2019; Zaid *et al.*, 2018).

Similarly, in accordance with Ren *et al.* (2018), we proposed the category “the role of the external environment.” Although there are very few GHRM-linked publications focusing on both aspects of “technology based perspective/Industry 4.0,” on the basis of previous works (e.g. Dao *et al.*, 2011; Liboni *et al.*, 2019), we recognize the importance of this category toward the application of GHRM and organizations’ environmental sustainability. Similarly, following the arguments of Jabbour *et al.* (2018), we suggest that the integration of HRM and the circular economy is necessary to improve sustainability, and thus propose the last category of “the circular economy.”

The categories were numbered from 1 to 10 as follows with letters (A, B, C, D and so on) utilized to further code within each category (Table II).

5. Findings

5.1 Descriptive statistics

This work analyzes 74 publications. The authors also examine publication trends based on an analysis of the number of publications per year (Figure 1), the distribution of publications by journal (Figure 2) and the quantity of publications by country (Figure 3). Using the ISI Web of Science and Scopus databases, we collected papers published in Journals between 2008 and 2019 (from January to August). Figure 1 illustrates the distribution of published articles per year. It seems that increasing scholarly interest in the GHRM field can be recognized by the fact that 42 papers (56.76 percent) were published from January 2018 to August 2019. With 19 articles (25.68 percent) found in 2018, and this upward trend takes a peak (23 articles – 31.01 percent) and continues to be observed in the first eight months of 2019.

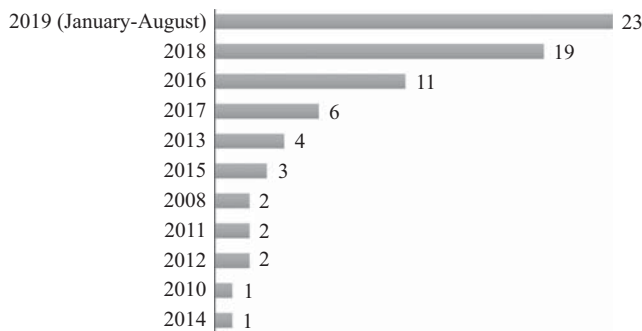
Classifications	Codes
<i>1. National contexts</i>	
Developed countries	1.A
Developing countries	1.B
Multi-countries	1.C
<i>2. Continents</i>	
America	2.A
Europe	2.B
Asia	2.C
Oceania	2.D
Africa	2.E
<i>3. Research methods</i>	
Quantitative	3.A
Qualitative	3.B
Mixed-methods	3.C
Empirical	3.D
Theoretical	3.E
Survey	3.F
Case study/interview	3.G
<i>4. Industries/economic sectors</i>	
Manufacturing	4.A
Service	4.B
Multi-industries	4.C
Not applicable	4.D
<i>5. GHRM practices</i>	
Recruitment/selection	5.A
Training/development	5.B
Job description/analysis	5.C
Performance management/appraisals	5.D
Pay and reward system	5.E
Employee involvement and empowerment, teamwork	5.F
Organizational culture	5.G
Role of unions in environmental management	5.H
Organizational learning	5.I
Work-life balance	5.J
Green health and safety	5.K
General GHRM	5.L
<i>6. The role of GHRM for employees</i>	
Green human capital (e.g. skill, knowledge, ability)	6.A
Green passion/attitude/behavior (e.g. commitment, organizational citizenship behavior for the environment (OCBE))	6.B
Green employee performance	6.C
Employee satisfaction/job performance/turnover	6.D
Green attitude/behavior/activities outside the organization	6.E
<i>7. The roles of GHRM for organizations</i>	
Environmental performance	7.A
Organizational performance/financial performance	7.B
Sustainable performance and development	7.C
Green reputation/organizational reputation and attractiveness	7.D
Service quality/customer satisfaction	7.E
Collective green attitude/behavior	7.F

Table II.
Classifications
and codes

(continued)

Classifications	Codes
Green innovation	7.H
Green intellectual capital	7.I
Implementation, practical contribution, challenges and drivers of GHRM and environmental management system	7.J
Levels of green management maturity	7.K
Corporate social responsibility (CSR) (adoption, performance)	7.L
Attracting candidates and job intention	7.M
<i>8. The role of the external environment</i>	
External stakeholder expectations (e.g. authorities, customers, suppliers)	8.A
Laws and regulations	8.B
Environmental activists and NGOs	8.C
National cultural values	8.D
<i>9. Technology-based perspective/Industry 4.0</i>	
Big data/Information Technology (IT) systems	9.A
Industry 4.0 (Internet of Things, Cloud manufacturing, Cyber-physical systems, Additive manufacturing)	9.B
<i>10. The Circular economy</i>	
Sustainable/green supply chain management	10.A
Sustainable/green consumption	10.B
General Circular economy	10.C

Table II.



Note: $n=74$ papers including 61 research/empirical articles and 13 review articles

Figure 1.
Distribution of
publication per year

Regardless of the number of articles published by journal as summarized in Figure 2, the most popular journals are the *Journal of Cleaner Production* (17 publications – 22.97 percent) and the *International Journal of Human Resource Management* (nine publications – 12.16 percent). Additionally, journals which accepted GHRM-related articles include *Corporate Social Responsibility and Environmental Management* (four papers – 5.41 percent), the *Journal of Business Ethics* (three papers – 4.05 percent), *Business Strategy and the Environment* (three papers – 4.05 percent), *Benchmarking: An International Journal* (three papers – 4.05 percent), *German Journal of Human Resource Management* (two papers – 2.7 percent), *Sustainability* (two papers – 2.7 percent), *Asia Pacific Journal of Human Resources* (two papers – 2.7 percent), the *Journal of Environmental Management* (two papers – 2.7 percent), the *International Journal of Production Economics* (two papers – 2.7 percent) and the *Journal of Sustainable Tourism*



Figure 2.
Quantity of published
papers by journal

Notes: $n=74$ papers. Journals presented have at least two articles

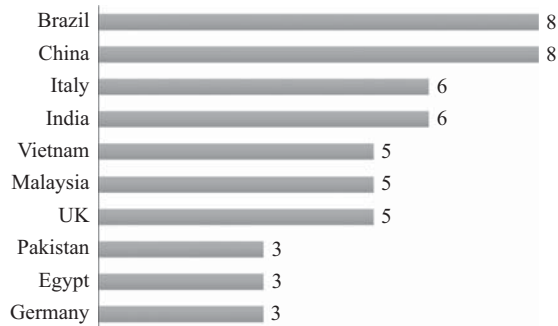


Figure 3.
Distribution
of publication
by country

Notes: $n=61$ research/empirical articles. Countries presented
have at least three articles

(two papers – 2.7 percent). This suggests that such works have been accepted not only in disciplinary journals focusing on HRM such as the *International Journal of Human Resource Management*, but also in interdisciplinary journals which integrate different research scopes, including both HRM and EM; for example, the *Journal of Cleaner Production*. This is consistent with the current trend, which emphasizes interdisciplinary research activities and outcomes.

By analyzing 61 empirical publications, Figure 3 depicts the number of publications conducted by country. As presented, Brazil and China lead the number of published papers in GHRM field with eight publications (13.11 percent), followed by Italy and India (six papers per nation – 9.84 percent), Vietnam, Malaysia and the UK (five papers – 8.20 percent) and Pakistan, Egypt and Germany (three papers each – 4.92 percent).

5.2 Insights of green human resource management

The 61 papers selected for this analysis stage are empirical publications aimed at exploring insights of GHRM application in organizations; subsequently, in order to identify the research gaps in the existing literature and to propose a research framework, we thoroughly analyzed these texts. Through this process, ten categories were formed, based on the results of the classifications and codes.

In the first category, the published papers were organized by national context. Following Amui *et al.* (2017), national context is seen as an important element which needs to be considered. The result, shown in Figure 4, depicts that the majority of works have been conducted in developing countries, with 42 publications (68.85 percent). This is entirely appropriate with the results of publication by country, which present many publications from developing countries such as Brazil, China, India, Vietnam and Malaysia.

The second category, the number of papers organized by continent, is emphasized by Tseng *et al.* (2019). Figure 5 illustrates that Asia has the highest number of GHRM-linked papers (35 publications – 37.38 percent), followed by Europe (14 papers – 22.95 percent) and America (ten papers – 16.39 percent). Many of these works are distributed in China, India, Malaysia, Vietnam (Asia), UK, Italy (Europe) and Brazil (America). Meanwhile, there are few publications based in Africa (three papers – 4.92 percent) and Oceania (two papers – 3.28 percent).

Regarding the third category, research methods, papers were classified as quantitative, qualitative, mixed-methods, empirical, theoretical, survey and case study/interview, as suggested by Amui *et al.* (2017). Figure 6 demonstrates that most publications apply the quantitative method (53 works – 86.89 percent) and survey technique (53 works – 86.89 percent) from a total of 61 empirical papers. By contrast, 12 papers (19.67 percent)

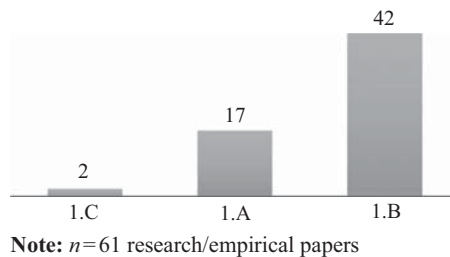


Figure 4.
Distribution of
national contexts

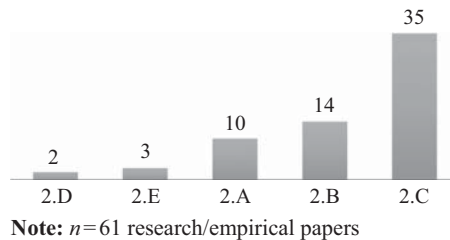


Figure 5.
Distribution of
continents

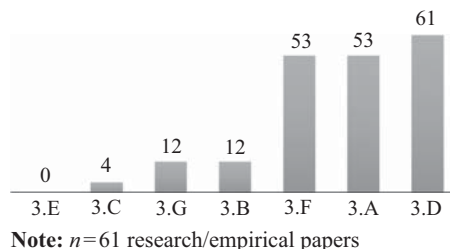


Figure 6.
Distribution of
research methods

utilized qualitative methods and the case study/interview technique, while four works (6.56 percent) chose mixed-methods for carrying out these studies.

Regarding the fourth category, the distribution of industry/economic sectors as addressed by Amui *et al.* (2017), Figure 7 shows the balance among different industries. Publications based in the manufacturing sector top the list with 22 publications (36.07 percent), followed by service and multi-industries (17 papers – 27.87 percent).

For the fifth category, we analyze which GHRM practices were applied in organizations. These green practices were summarized from previous studies (e.g. Renwick *et al.*, 2013; Gupta, 2018). Based on the results of Figure 8, among the 61 papers selected for this analysis, green training/development (42 papers – 68.85 percent) is the most prevalent practice in the GHRM literature. Increasing green practices such as green pay and reward system (30–49.18 percent), green employee relations (involvement, empowerment, teamwork) (28), green performance management/appraisals (28–45.90 percent) and green recruitment/selection (27–44.26 percent) were also observed in the existing literature. In total, 17 publications (27.87 percent) investigated the role of GHRM through a general construct; for example, Kim *et al.* (2019) measure GHRM by applying a general factor instead of independent green practices (e.g. training, pay and reward). Figure 11 also shows a limited number of prior articles that apply job description/analysis (11–18.03 percent) and green organizational culture (10–16.39 percent). Meanwhile, the three remaining practices – organizational learning (2–3.28 percent), both green health and safety and the role of union in EM (1–1.64 percent), and work-life balance (0–0 percent) – continue a big gap for further studies.

HRM practices are important to increasing individuals' outcomes (Edgar *et al.*, 2018; Nam and Lee, 2018), there are publications extending it in green context. With the sixth category, we examine the role of GHRM application for employees (e.g. green attitude and behavior, green human capital), as illustrated in several published papers (Ren *et al.*, 2018;

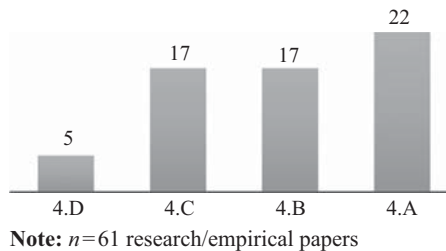


Figure 7.
Distribution of
industries sectors

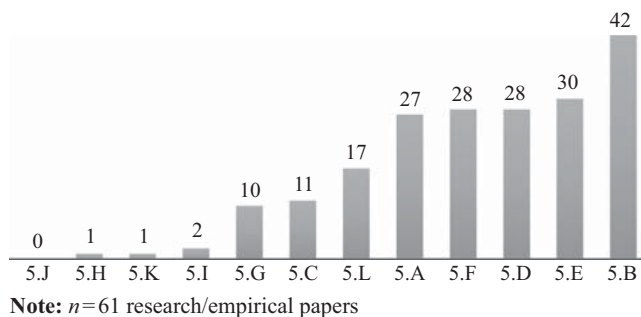


Figure 8.
GHRM practices

Kim *et al.*, 2019). As analyzed in Figure 9, with 21 articles (33.42 percent), the relationship between GHRM practices and green attitude/behavior (e.g. OCBE, commitment) is the most interesting topic for scholars. However, there are very few articles that study the role of GHRM in enhancing employee satisfaction/job performance/turnover (3–4.92 percent), green employee performance (2–3.28 percent), both green attitude/behavior/activities outside the organization and green human capital (1–1.64 percent).

Concerning the seventh category, the role of GHRM application in organizations (e.g. environmental performance, firm performance, reputation, CSR), Figure 10 indicates that corporate environmental performance is seen as the most popular subject, appearing in 17 published studies (27.87 percent), followed by a few publications which consider implementation, practical contribution, challenges and drivers of GHRM and EM systems (7–11.46 percent), organizational performance/financial performance (6–9.85 percent), and sustainable performance and development (4–6.56 percent). Only very few scholars who have explored the roles of GHRM in organizations include the factors of attracting candidates and job intention (3–4.92 percent), levels of green management maturity (2–3.28 percent), CSR strategy (2–3.28 percent), green reputation/organizational reputation and attractiveness (1–1.64 percent), green innovation/innovation (1–1.64 percent), green intellectual capital (1–1.64 percent), service quality/customer satisfaction (0–0 percent), and collective green attitude/behavior (0–0 percent).

Regarding the eighth category, relating to the influence of the external environment (e.g. external stakeholder expectations, laws and regulations, environmental activists and NGOs, national cultural values), Figure 11 depicts that there are very few publications in this category. Indeed, there is only two papers (3.28 percent), conducted by Guerci, Longoni and Luzzini (2016) and Yu *et al.* (2020), which illustrate the linkages between GHRM and two factors of the external environment: external stakeholder expectations and laws and regulations; and the environmental cooperation with customers and suppliers, respectively.

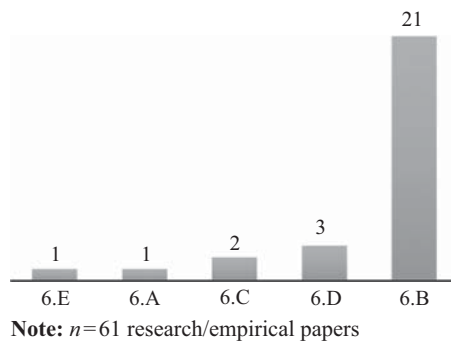


Figure 9.
The role of GHRM
for employees

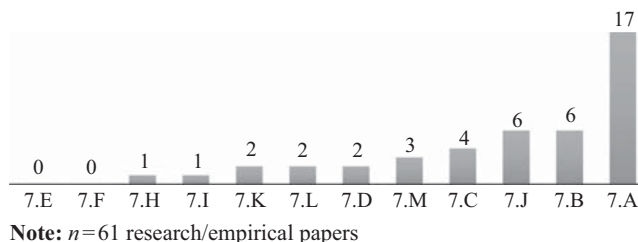


Figure 10.
The role of GHRM
for organizations

Similarly, in the ninth category, visualized in Figure 12, although the roles of the technological perspective and Industry 4.0 (e.g. IT systems, big data, Internet of Things, cloud manufacturing, cyber-physical systems, additive manufacturing) in organization's HRM activities have been emphasized recently (Dao *et al.*, 2011; Liboni *et al.*, 2019) we found only one paper (1.64 percent), by Singh and El-Kassar (2019), which investigates the interaction between GHRM application and Big data, influencing sustainable performance.

For the last category, relating to the role of the circular economy, following previous works (e.g. De Sousa Jabbour *et al.*, 2018), we emphasize both sustainable/GSCM and sustainable/green consumption as two important processes of the circular economy. Figure 13 indicates that only eight publications (13.11 percent) linked with sustainable/GSCM and GHRM practices have been found. By contrast, the existing literature contains no articles investigating the linkage between GHRM practices and sustainable/green consumption as well as the circular economy.

6. Emerging gaps, recommendations and research framework for future study

This process discusses the analysis results, with the intention of responding to the research objectives. The purpose of this study is to address research gaps based on the existing literature in the GHRM field and to guide the future research agenda. A systematic literature review has been conducted to highlight the following research questions:

RQ1. What have published studies explored to date?

RQ2. What are the research gaps to guide the framework for studies on HRM in the future?

Figure 11.
The role of the external environment

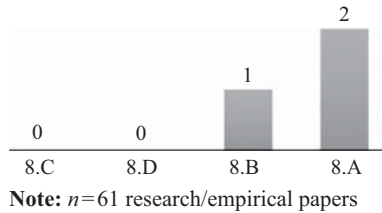


Figure 12.
Technology based perspective/Industry 4.0

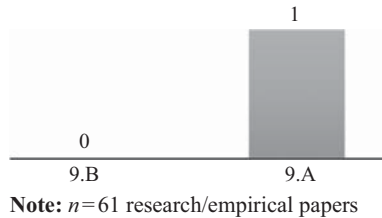


Figure 13.
The circular economy

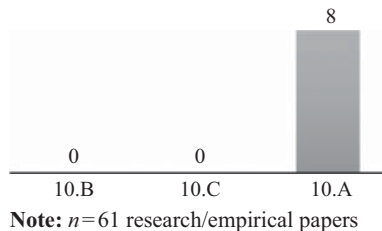
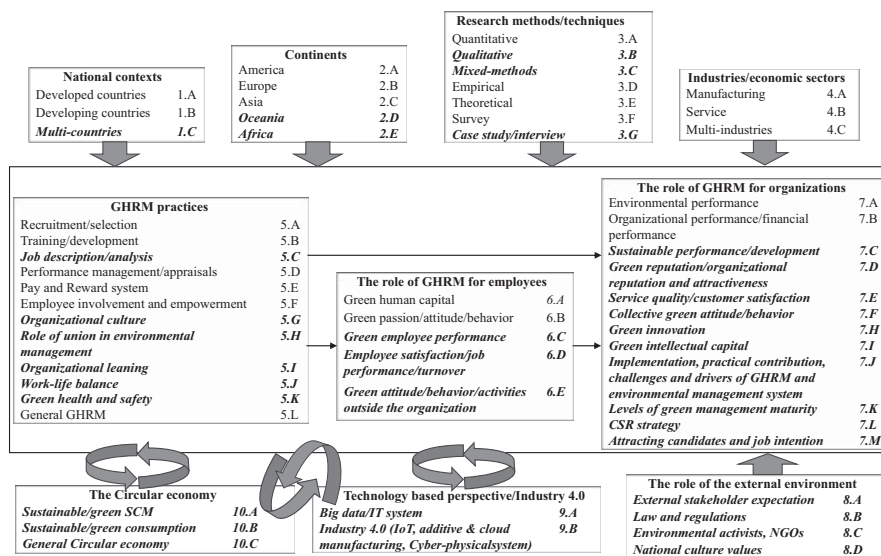


Figure 14 depicts emerging research issues and recommendations for further studies.

The results of the first category point out a research opportunity for scholars to investigate the application of GHRM and its role in multi-country studies. Comparative analysis between developing and developed countries is necessary to deeply explore the new insights of GHRM practices. This is in line with Baughn *et al.*'s (2007) conclusion which stresses the important role of a nation's economic development in supporting CSR policies, especially in environmental and social aspects. In developed countries, firms' environment-related policies and activities are strictly supervised by authorities and governments as well as consumers. Therefore, companies always follow environmental laws and regulations as necessary conditions or as a sustainable development strategy. Meanwhile, although developing nations have been trying to manage environmental issues, barriers such as weak infrastructure, illogical policies and unsuccessful environmental regulation, as well as financial and human challenges, have caused difficulty for organizations in implementing EM systems; for example, ISO 14001 (Massoud *et al.*, 2010). Thus, research exploring differences and similarities between developed and developing countries in applying GHRM should be investigated. On this basis:

Recommendation 1: further studies are needed to compare GHRM application and its roles in different national contexts.

Analysis of the second category indicates that scholars have paid more attention to GHRM works in Asia, Europe and America than in Oceania and Africa. This limitation provides research opportunities for researchers in investigating GHRM practices in Oceania and Africa. For example, in the case of Africa, Hardoy *et al.* (2013) emphasize the serious environmental degradation and environment-linked humanitarian disasters in developing countries, especially in Africa, which are key concerns of their governments and communities. The solutions to reduced environmental protection should be a focus of governments, organizations and scholars in Africa. In addition, following institutional



Note: Bold-italic rows are the main aspects suggested for further study

Figure 14. Framework for future research agenda

theory (Meyer and Rowan, 1977), different external factors (social and environmental) among different nations can lead to varying effects on firms' decisions and management activities. Thus, although there are GHRM-related publications found in Asia, Europe and America, it is critical to conduct further studies in Africa and Oceania. Consequently:

Recommendation 2: further studies need to investigate GHRM application and its roles in organizations in Africa and Oceania.

The third category, regarding research methods and techniques, shows a variety of methods and techniques being applied. Based on the existing literature, quantitative methods, empirical studies, theoretical studies and surveys have been commonly chosen. However, there is a lack of publications employing qualitative methods, mixed-methods, and case study/interview techniques, which need to be considered, although some scholars have recently begun to focus on GHRM with a qualitative approach (e.g. Pham, Tučková and Jabbour, 2019; Jabbour *et al.*, 2017). Following Saunders *et al.*'s (2009) arguments, due to the complexity of GHRM application in organizations, qualitative methods should be adopted in further studies aimed at gaining a comprehensive and deep understanding of GHRM implementation and its roles. In addition, a mixed-methodology is desirable to gain a clear understanding of the complexity of the research problem; for example, GHRM application, and provide better findings and advances validity and reliability (Pham, Tučková and Jabbour, 2019). Thus:

Recommendation 3: further studies need to apply qualitative methods, mixed-methods and case study/interview techniques.

For the fourth category, manufacturing is the most commonly studied industry/economic sector in previous publications, followed by multi-industries and the service sector. From the analyzed results, while the literature on GHRM has motivated scholars to focus on all industries, a limited number of empirical works have compared sustainability in HRM among industries; for example considering the manufacturing and service sectors together. This is entirely in line with Ren *et al.*'s (2018) arguments, which suggest the role of industry/economic sector as an important moderator influencing GHRM application and its contributions in organizations. We argue that firms working in different industries typically follow dissimilar internal policies and regulations for environmental protection, leading to dissimilar green skills/practices utilized and their contributions. For instance, hotel staff need to concentrate on identifying hazardous waste and saving water and energy consumption at hotels; meanwhile, workers in agricultural companies need to understand how to save water and energy for watering trees and to reduce the negative environmental impact of pesticides. Thus:

Recommendation 4: further studies need to compare GHRM application and its roles in different industries/economic sectors (e.g. manufacturing and service sector).

In the fifth category, the findings reveal the limitations of investigating the application of certain GHRM practices in organizations, such as green organizational culture, job description and analysis, green organizational learning, green health and safety, work-life balance and the role of unions in EM. This provides research guidance for future investigations. The importance of these GHRM practices is suggested by a few prior publications (e.g. Renwick *et al.*, 2013). For instance, green organizational learning helps stimulate the sharing of EM-linked ideas and information (Jabbour *et al.*, 2010), while policies for green health and safety administration lead to green initiatives to decrease employees' stress and work-related sickness, linking environmental issues (Shah, 2019). Even so, however, there are still few empirical works focusing on these areas. Thus:

Recommendation 5: further studies need to explore the implementation and roles of suggested GHRM practices (e.g. green organizational culture, job description and analysis, green organizational learning, green health and safety, work-life balance, and the role of unions in EM).

Regarding the sixth category, the absence of publications aimed at investigating the roles of GHRM application toward employees, such as green employee performance, employee satisfaction/job performance/turnover, green attitude/behavior/activities outside of the organization and green human capital should be considered by scholars. Following Katou and Budhwar's (2010) arguments, it is argued that GHRM policies may play a key role in unlocking employees' green outcomes, categorized as employee green performance, employee satisfaction, job performance and turnover. For green activities outside of firms (e.g. home, supermarket), based on the theory of planned behavior (TPB) (Ajzen, 1991) and its several extensions, we argue that the application of GHRM practices in firms – for example, green training – advances employees' environmental awareness, knowledge and skills (Jabbour *et al.*, 2010; Daily *et al.*, 2012), and motivates individuals' green behavior/attitudes (Pham, Tučková and Jabbour, 2019), which in turn stimulate employees' concern for green activities even outside of the company context (e.g. purchasing bio-products at supermarket, sorting waste at home). With green human capital, defined as employees' environmental knowledge, skills, capabilities, experience, attitude, wisdom, creativity and commitments, etc., these are embedded in the employee, not in the organization (Chen, 2008). Although there are no published papers comprehensively studying the linkage between GHRM and green human capital, Chen (2008) also implies that green human capital may be influenced by green practices such as training and education. Thus it is possible to suggest a number of research opportunities encapsulated as Recommendation 6:

- Recommendation 6.1: further studies need to explore the effects of GHRM practices on green employee performance, employee satisfaction, job performance and turnover.
- Recommendation 6.2: further studies need to explore the effects of GHRM practices on employees' green attitude/behavior/activities outside of the organization.
- Recommendation 6.3: further studies need to explore the effects of GHRM practices on employees' green human capital.

With the seventh category, based on the available knowledge of GHRM, the subjects of levels of green management maturity, green reputation/organizational reputation and attractiveness, green innovation, collective green attitude/behavior, service quality/customer satisfaction, green intellectual capital, CSR strategy, and attracting candidates and job intention have not emerged as popular topics until recently. First, green management maturity has three levels, including the reactive level, the preventive level and the proactive level, which are affected by not only technical but also human aspects (Jabbour, 2015). Jabbour also emphasizes the role of GHRM practices, especially green training, in boosting the green management maturity of organizations. Second, following Ren *et al.*'s (2018) suggestions, we argue that an effective policy of GHRM application may stimulate organizations' green innovation, collective green attitude/behavior, green reputation/organizational reputation and attractiveness, and service quality/customer satisfaction. Third, organizations' green intellectual capital is considered as an environmental concept that an organization has to comply environmental regulation, meet increasing consumers' green awareness, and make organization's value (Yong, Yusliza and Fawehinmi, 2019; Yong, Yusliza, Ramayah and Fawehinmi, 2019). Consequently, it can boost organizations' green advantage to gain competitive position. Yong, Yusliza and Fawehinmi's (2019), Yong, Yusliza, Ramayah and Fawehinmi's (2019) publication is the first to investigate the linkage between green intellectual capital and GHRM, and hence it needs to be concentrated on by further works. Lastly, HRM plays an important role not only in enhancing the adoption of CSR policies (Voegtlin and Greenwood, 2016), but also in attracting candidates' attention through the recruitment process (Guerci, Montanari, Scapolan and Epifanio, 2016). In line with this reasoning, greening HRM policies may support the adoption and implementation of CSR

policies (Al Kerdayy, 2018) and contribute to attracting applicants (Guerci, Montanari, Scapolan and Epifanio, 2016). Consequently, Recommendation 7 contains a number of research propositions:

- Recommendation 7.1: further studies need to investigate the linkage between GHRM practices and green management maturity.
- Recommendation 7.2: further studies need to investigate the linkage between GHRM practices and organizations' green innovation, collective green attitude/behavior, green reputation/organizational reputation and attractiveness, and service quality/customer satisfaction.
- Recommendation 7.3: further studies need to investigate the linkage between GHRM practices and organizations' green intellectual capital.
- Recommendation 7.4: further studies need to investigate the linkage between GHRM practices, CSR and candidate attraction.

As illustrated in the analysis of the eighth category, the result indicates research gaps related to external environmental factors (e.g. external stakeholder expectations, laws and regulations, environmental activists and NGOs, national cultural values). In accordance with stakeholder theory (Freeman, 1994), we argue that external stakeholders could put more or fewer pressures on firms' environmental goals in order to stimulate them, implementing green activities and avoiding environmental issues-related penalties and fines. This, accordingly, encourages firms to pursue green strategies in general and GHRM implementation in particular. For instance, Guerci, Longoni and Luzzini's (2016) publication is one of very few works exploring the link between stakeholders' environmental pressures and GHRM. Regarding national cultural context, Pham, Tučková and Jabbour (2019) also suggest for future study that organizational culture's influence by the national culture of top management needs to be considered as an important factor in enhancing GHRM application. Additionally, GHRM policies and practices in multinational organizations may be influenced by their head quarter in their home country. From these arguments:

Recommendation 8: further studies need to explore the role of external environmental factors (e.g. external stakeholder expectations, laws and regulations, environmental activists and NGOs, national cultural values) in enhancing GHRM implementation and performance.

Considering the ninth category, the roles of the technological perspective and Industry 4.0 (e.g. IT systems, big data, Internet of Things, cloud manufacturing, cyber-physical systems, additive manufacturing) still present a significant opportunity for scholars. Dao *et al.* (2011) state the necessity of the integration of HRM and IT systems aimed at strengthening sustainability for organizations. Liboni *et al.* (2019) address the importance of HRM as a "glue" in the system for the development of Industry 4.0. They also point out the potential influences of Industry 4.0 on HRM. In the green context, Singh and El-Kassar's (2019) study is the first work to analyze the role of GHRM application in motivating the relationship between big data and organizations' sustainable capabilities. Even so, integrating GHRM into Big data/IT systems and Industry 4.0 in order to develop organizations' sustainability remains a research gap that needs to be addressed. Thus:

Recommendation 9: further studies need to investigate the integration of GHRM practices, big data/IT systems and Industry 4.0 for organizations' sustainable development.

For the last category, although there are some published papers concerning the linkage between GHRM and GSCM (e.g. Nejati *et al.*, 2017), the roles of the circular economy and its important dimensions (e.g. sustainable/green consumption and sustainable supply chain management (SCM)) have not emerged. The circular economy is being widely investigated by scholars, and focuses on the reuse of resources in the supply chain and the separation of economic growth from environmental damage (Elia *et al.*, 2017). Following

Jabbour *et al.* (2018), the circular economy is linked with suppliers, producers and consumers through processes of raw material input, design, production, distribution, consumption, collection and recycling. In order to achieve the potential success of the circular economy, the role of human resources is critical, even though its technological aspects, such as big data, have been emphasized so far. Elia *et al.* (2017) also emphasize the importance of human activities to the circular economy; for example, sustainable consumption. With sustainable/green SCM, Dao *et al.* (2011) state that interaction between HRM and SCM is necessary for organizations' sustainable development. With the role of GHRM, some publications (e.g. Jabbour and De Sousa Jabbour, 2016) address the importance of GHRM toward sustainability in SCM strategies. For instance, the barriers to sustainable SCM development related to human and organizational issues may be addressed by GHRM practices (e.g. training, performance evaluation). For sustainable/green consumption, based on TPB theory, the environmental knowledge, attitudes and perceptions of consumers may influence their sustainable/green purchasing behavior or intentions (Sharma and Foropon, 2019) and may be affected by the green policies of companies and sellers delivering services and products. A company with an effective GHRM policy will allow its employees understand consumers' green consumption trends and how to satisfy them. Accordingly, we make:

Recommendation 10: further studies need to investigate the integration of GHRM practices, the circular economy, sustainable/green SCM and sustainable/green consumption for organizations' sustainable development.

In addition, although we recommend the independent integration of GHRM with the circular economy and with technological perspectives and Industry 4.0, the necessity of connections between the circular economy and Industry 4.0 has been emerging in the work of recent scholars (e.g. Jabbour *et al.*, 2018). De Sousa Jabbour *et al.* (2018) also propose a roadmap for Industry 4.0 and the circular economy, aimed at advancing sustainable operations management. As argued above, human activities in general and HRM in particular are critical points highlighted by De Sousa Jabbour *et al.* (2018), implying that on the basis of the resource-based view theory, organizational resources and capabilities (e.g. human resource) are fundamental for developing the circular economy based on Industry 4.0. For example, in the literature, integrating HRM, SCM and IT systems supports sustainable development (Dao *et al.*, 2011). Extending this reasoning to the green context, interaction among GHRM, the circular economy and Industry 4.0/technological aspects (e.g. big data, IT systems) should be considered by future investigation. Thus:

Recommendation 11: further studies need to investigate the integration of GHRM practices, the circular economy, Industry 4.0 and technological perspectives for organizations' sustainable development.

7. Conclusion

This review aims to identify research gaps, suggest recommendations and propose a research framework for future studies to further develop the GHRM field. This work reviews 74 GHRM-related publications found in the Scopus and Web of Science databases, which have been classified and coded based on the ten categories of national contexts, continents, research methods, industries/economic sectors, GHRM practices applied, the role of GHRM for employees, the roles of GHRM for organizations, the role of the external environment, technology-based perspectives/Industry 4.0 and the circular economy. The analyzed results reveal 16 important recommendations and a research framework for future investigations.

On the basis of the features of above roadmap, several theoretical and practical implications are proposed. The paper theoretically contributes to the existing literature on GHRM through discussing sustainability in the HRM field and extending it to new aspects;

for example, intellectual capital, the circular economy, big data and Industry 4.0. This contribution is expressed by highlighting ten categories linked to the application of GHRM and identifying the lack of current publications available for scholars in investigating these research gaps, which have not identified by previous publications. This work also suggests detailed recommendations and proposes a research framework for further development on sustainability in HRM activities, aimed at bridging gaps in the existing GHRM literature. The brief recommendations advocate a focus on:

- investigation of the integration of GHRM, technology-based perspectives/Industry 4.0 and the circular economy in developing organizations' sustainability;
- GHRM application in Oceania and Africa and comparing results among different countries;
- application of qualitative and mixed-methods approaches as well as case study/interview techniques in exploring GHRM practices applied in organizations;
- research investigating the differences and similarities of GHRM application between manufacturing and service sectors;
- work exploring GHRM practices which have not been focused on; for example, green organizational leaning, green health and safety, work-life balance, and the role of unions in EM;
- investigation of the relationships between GHRM practices and employee-related factors, such as green employee performance, green activities outside of the organization and green human capital;
- the relationships between GHRM practices and organization-related factors, such as levels of green management maturity, organizational reputation, green innovation, service quality/customer satisfaction, green intellectual capital; and
- further work studying the contributions of external environmental factors (e.g. laws and regulations, national cultural values) toward GHRM application.

In terms of practical implications, based on empirical studies, this review reveals GHRM practices, such as training and development, pay and reward system, performance management, and recruitment and selection, as essential factors to generate environmentally sustainable development of the organization. Therefore, such green practices may be potential for green-oriented companies in order to apply them effectively. Additionally, given that every organization, especially big companies, has faced external environmental pressure: for instance, customer expectation, law and legislation, and national cultural values. Thus, the framework proposed in this study suggests the important role of the external environment, seeing as a critical direction to develop the organization's competitive advantage. Finally, it is advised that integrating new aspects (e.g. the circular economy, technology based perspective and Industry 4.0) and GHRM policy is necessary to enhance the effectiveness of the organization's sustainable development strategy. For example, Singh and El-Kassar (2019) state that the integration among three components of GHRM policy, Big Data and GSCM (understood as an aspect of the circular economy) may boost organization' sustainable capabilities, leading to greater sustainable performance.

Finally, it is necessary to indicate some limitations of this study. First, searching for articles based on keywords does not ensure entirely comprehensive results. Although we have tried to overcome this obstacle by seeking further GHRM-related publications through reputable authors and articles, we do not claim that our work represents the best possible way to search for published articles. Second, in relation to the search method, it is clear that

choosing only papers published in journals indexed in the Scopus and Web of Science databases guarantees the quality of the work included. However, other important sources, such as doctoral dissertations, reports published on reputable websites and non-English papers were not explored. This is in line with Koeborg and Longoni's (2019) work. Thus, future studies should investigate these sources. The final limitation is related to our approach to the GHRM literature. This paper generally investigates categories to address research gaps, but it lacks a deep investigation aimed at pointing out relationships between GHRM practices and existing factors which need to be considered. For instance, the influences of GHRM practices on organizations' green reputation, or the roles of interactions among GHRM practices in organizational performance.

References

(The * mentioned papers that compose the data set for the review).

Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.

Q1 *Al Kerdawy, M.M.A. (2018), "The role of corporate support for employee volunteering in strengthening the impact of green human resource management practices on corporate social responsibility in the Egyptian firms", *European Management Review*, available at: <https://doi.org/10.1111/emre.12310>

*Alnajdawi, S., Emeagwali, O.L. and Elrehail, H. (2017), "The interplay among green human resource practices, organization citizenship behavior for environment and sustainable corporate performance: evidence from Jordan", *Journal of Environmental Accounting and Management*, Vol. 5 No. 3, pp. 171-184.

*Al-Romeedy, B.S. (2019), "Green human resource management in Egyptian travel agencies: constraints of implementation and requirements for success", *Journal of Human Resources in Hospitality & Tourism*, available at: <https://doi.org/10.1080/15332845.2019.1626969>

Q2 Amui, L.B.L., Jabbour, C.J.C., De Sousa Jabbour, A.B.L. and Kannan, D. (2017), "Sustainability as a dynamic organizational capability: a systematic review and a future agenda toward a sustainable transition", *Journal of Cleaner Production*, Vol. 142, pp. 308-322.

Baughn, C.C., Bodie, N.L. and McIntosh, J.C. (2007), "Corporate social and environmental responsibility in Asian countries and other geographical regions", *Corporate Social Responsibility and Environmental Management*, Vol. 14 No. 4, pp. 189-205.

*Bombiak, E. (2019), "Green human resource management – the latest trend or strategic necessity?", *Entrepreneurship and Sustainability Issues*, Vol. 6 No. 4, pp. 1647-1662.

Q3 *Bombiak, E. and Marciniuk-Kluska, A. (2018), "Green human resource management as a tool for the sustainable development of enterprises: Polish young company experience", *Sustainability*, Vol. 10 No. 6.

*Cabral, C. and Dhar, R.L. (2019), "Green competencies: construct development and measurement validation", *Journal of Cleaner Production*, Vol. 253, pp. 887-900.

*Chaudhary, R. (2018), "Can green human resource management attract young talent? An empirical analysis", *Evidence-Based HRM*, Vol. 6 No. 3, pp. 305-319.

*Chaudhary, R. (2019a), "Green human resource management and job pursuit intention: examining the underlying processes", *Corporate Social Responsibility and Environmental Management*, available at: <https://doi.org/10.1002/csr.1732>

*Chaudhary, R. (2019b), "Green human resource management and employee green behavior: an empirical analysis", *Corporate Social Responsibility and Environmental Management*, available at: <https://doi.org/10.1002/csr.1827>

*Chaudhary, R. (2019c), "Green human resource management in Indian automobile industry", *Journal of Global Responsibility*, Vol. 10 No. 2, pp. 161-175.

-
- Chen, Y.S. (2008), "The driver of green innovation and green image – green core competence", *Journal of Business Ethics*, Vol. 81 No. 3, pp. 531-543.
- *Daily, B.F., Bishop, J.W. and Massoud, J.A. (2012), "The role of training and empowerment in environmental performance: a study of the Mexican maquiladora industry", *International Journal of Operations and Production Management*, Vol. 32 No. 5, pp. 631-647.
- *Dangelico, R.M. (2015), "Improving firm environmental performance and reputation: the role of employee green teams", *Business Strategy and the Environment*, Vol. 24 No. 8, pp. 735-749.
- Dao, V., Langella, I. and Carbo, J. (2011), "From green to sustainability: information technology and an integrated sustainability framework", *Journal of Strategic Information Systems*, Vol. 20 No. 1, pp. 63-79.
- De Sousa Jabbour, A.B.L., Jabbour, C.J.C., Foropon, C. and Filho, M.G. (2018), "When titans meet – can industry 4.0 revolutionise the environmentally-sustainable manufacturing wave? The role of critical success factors", *Technological Forecasting and Social Change*, Vol. 132, pp. 18-25.
- *Dumont, J., Shen, J. and Deng, X. (2017), "Effects of green HRM practices on employee workplace green behavior: the role of psychological green climate and employee green values", *Human Resource Management*, Vol. 56 No. 4, pp. 613-627.
- Edgar, F., Geare, A. and Zhang, Z.A. (2018), "Accentuating the positive: the mediating role of positive emotions in the HRM–contextual performance relationship", *International Journal of Manpower*, Vol. 39 No. 7, pp. 954-970.
- Elia, V., Gnoni, M.G. and Tornese, F. (2017), "Measuring circular economy strategies through index methods: a critical analysis", *Journal of Cleaner Production*, Vol. 142, pp. 2741-2751.
- Freeman, R.E. (1994), "The politics of stakeholder theory: some future directions", *Business Ethics Quarterly*, Vol. 4 No. 4, pp. 409-421.
- *Gholami, H., Rezaei, G., Saman, M.Z.M., Sharif, S. and Zakuan, N. (2016), "State-of-the-art green HRM system: sustainability in the sports center in Malaysia using a multi-methods approach and opportunities for future research", *Journal of Cleaner Production*, Vol. 124, pp. 142-163.
- Gilal, F.G., Ashraf, Z., Gilal, N.G., Gilal, R.G. and Chaana, N.A. (2019), "Promoting environmental performance through green human resource management practices in higher education institutions: a moderated mediation model", *Corporate Social Responsibility and Environmental Management*, available at: <https://doi.org/10.1002/csr.1835>
- *Guerci, M. and Carollo, L. (2016), "A paradox view on green human resource management: insights from the Italian context", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 212-238.
- *Guerci, M., Longoni, A. and Luzzini, D. (2016), "Translating stakeholder pressures into environmental performance – the mediating role of green HRM practices", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 262-289.
- *Guerci, M., Montanari, F., Scapolan, A. and Epifanio, A. (2016), "Green and nongreen recruitment practices for attracting job applicants: exploring independent and interactive effects", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 129-150.
- *Gupta, H. (2018), "Assessing organizations performance on the basis of GHRM practices using BWM and Fuzzy TOPSIS", *Journal of Environmental Management*, Vol. 226, pp. 201-216.
- *Haddock-Millar, J., Sanyal, C. and Müller-Camen, M. (2016), "Green human resource management: a comparative qualitative case study of a United States multinational corporation", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 192-211.
- Hardoy, J.E., Mitlin, D., Satterthwaite, D., Mitlin, D. and Satterthwaite, D. (2013), *Environmental Problems in an Urbanizing World*, Routledge, Abingdon.
- *Harvey, G., Williams, K. and Probert, J. (2013), "Greening the airline pilot: HRM and the green performance of airlines in the UK", *International Journal of Human Resource Management*, Vol. 24 No. 1, pp. 152-166.

- *Jabbour, C.J.C. (2013), "Environmental training in organisations: from a literature review to a framework for future research", *Resources, Conservation and Recycling*, Vol. 74, pp. 144-155.
- *Jabbour, C.J.C. (2015), "Environmental training and environmental management maturity of Brazilian companies with ISO14001: empirical evidence", *Journal of Cleaner Production*, Vol. 96, pp. 331-338.
- *Jabbour, C.J.C. and De Sousa Jabbour, A.B.L. (2016), "Green human resource management and green supply chain management: linking two emerging agendas", *Journal of Cleaner Production*, Vol. 112, pp. 1824-1833.
- *Jabbour, C.J.C. and Renwick, D.W.S. (2018), "The soft side of environmentally-sustainable organizations", *RAUSP Management Journal*, Vol. 53 No. 4, pp. 622-627.
- *Jabbour, C.J.C. and Santos, F.C.A. (2008), "Relationships between human resource dimensions and environmental management in companies: proposal of a model", *Journal of Cleaner Production*, Vol. 16 No. 1, pp. 51-58.
- Jabbour, C.J.C., De Sousa Jabbour, A.B.L. and Sarkis, J. (2018), "Unlocking effective multi-tier supply chain management for sustainability through quantitative modelling: lessons learned and discoveries to be made", *International Journal of Production Economics*, available at: <https://doi.org/10.1016/j.ijpe.2018.08.029>
- *Jabbour, C.J.C., Mauricio, A.L. and De Sousa Jabbour, A.B.L. (2017), "Critical success factors and green supply chain management proactivity: shedding light on the human aspects of this relationship based on cases from the Brazilian industry", *Production Planning and Control*, Vol. 28, pp. 671-683.
- *Jabbour, C.J.C., Santos, F.C.A. and Nagano, M.S. (2008), "Environmental management system and human resource practices: is there a link between them in four Brazilian companies?", *Journal of Cleaner Production*, Vol. 16 No. 17, pp. 1922-1925.
- *Jabbour, C.J.C., Santos, F.C.A. and Nagano, M.S. (2010), "Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil", *International Journal of Human Resource Management*, Vol. 21 No. 7, pp. 1049-1089.
- Jabbour, C.J.C., Jugend, D., De Sousa Jabbour, A.B.L., Gunasekaran, A. and Latan, H. (2015), "Green product development and performance of Brazilian firms: measuring the role of human and technical aspects", *Journal of Cleaner Production*, Vol. 87 No. 1, pp. 442-451.
- *Jabbour, C.J.C., Sarkis, J., de Sousa Jabbour, A.B.L., *et al.* (2019), "Who is in charge? A review and a research agenda on the 'human side' of the circular economy", *Journal of Cleaner Production*, Vol. 222, pp. 793-801.
- Jackson, S.E. and Seo, J. (2010), "The greening of strategic HRM scholarship", *Organisation Management Journal*, Vol. 7 No. 4, pp. 278-290.
- *Jackson, S.E., Renwick, D.W.S., Jabbour, C.J.C. and Muller-Camen, M. (2011), "State-of-the-art and future directions for green human resource management", *German Journal of Human Resource Management*, Vol. 25 No. 2, pp. 99-116.
- *Jia, J., Liu, H., Chin, T. and Hu, D. (2018), "The continuous mediating effects of GHRM on employees' green passion via transformational leadership and green creativity", *Sustainability*, Vol. 10 No. 9.
- Junior, M.L. and Godinho Filho, M. (2010), "Variations of the kanban system: literature review and classification", *International Journal of Production Economics*, Vol. 125 No. 1, pp. 13-21.
- Katou, A.A. and Budhwar, P.S. (2010), "Causal relationship between HRM policies and organisational performance: evidence from the Greek manufacturing sector", *European Management Journal*, Vol. 28 No. 1, pp. 25-39.
- *Kim, Y.J., Kim, W.G., Choi, H.M. and Phetvaroon, K. (2019), "The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance", *International Journal of Hospitality Management*, Vol. 76, pp. 83-93.
- Koberg, E. and Longoni, A. (2019), "A systematic review of sustainable supply chain management in global supply chains", *Journal of Cleaner Production*, Vol. 207, pp. 1084-1098.

-
- *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.
- Liboni, L.B., Cezarino, L.O., Jabbour, C.J.C., Oliveira, B.G. and Stefanelli, N.O. (2019), "Smart industry and the pathways to HRM 4.0: implications for SCM", *Supply Chain Management: An International Journal*, Vol. 24 No. 1, pp. 124-146.
- *Longoni, A., Luzzini, D. and Guerci, M. (2018), "Deploying environmental management across functions: the relationship between green human resource management and green supply chain management", *Journal of Business Ethics*, Vol. 151 No. 4, pp. 1081-1095.
- *Luu, T.T. (2018), "Employees' green recovery performance: the roles of green HR practices and serving culture", *Journal of Sustainable Tourism*, available at: <https://doi.org/10.1080/09669582.2018.1443113>
- *Luu, T.T. (2019), "Green human resource practices and organizational citizenship behavior for the environment: the roles of collective green crafting and environmentally specific servant leadership", *Journal of Sustainable Tourism*, available at: <https://doi.org/10.1080/09669582.2019.1601731>
- *Masri, H.A. and Jaaron, A.A.M. (2017), "Assessing green human resources management practices in Palestinian manufacturing context: an empirical study", *Journal of Cleaner Production*, Vol. 143, pp. 474-489.
- Massoud, M.A., Fayad, R., Kamleh, R. and El-Fadel, M. (2010), "Environmental management system (ISO 14001) certification in developing countries: challenges and implementation strategies", *Environmental Science & Technology*, Vol. 44 No. 6, pp. 1884-1887.
- Meyer, J.W. and Rowan, B. (1977), "Institutionalized organizations: formal structure as myth and ceremony", *American Journal of Sociology*, Vol. 83 No. 2, pp. 340-363.
- *Moraes, S.D.S., Jabbour, C.J.C., Battistelle, R.A.G., Rodrigues, J.M., Renwick, D.S.W., Foropon, C. and Roubaud, D. (2018), "When knowledge management matters: interplay between green human resources and eco-efficiency in the financial service industry", *Journal of Knowledge Management*, available at: <https://doi.org/10.1108/JKM-07-2018-0414>
- *Muster, V. and Schrader, U. (2011), "Green work-life balance: a new perspective for green HRM", *German Journal of Human Resource Management*, Vol. 25 No. 2, pp. 140-156.
- Nam, J. and Lee, H. (2018), "High commitment human resource practices and employee behavior: a multi-level analysis", *International Journal of Manpower*, Vol. 39 No. 5, pp. 674-686.
- *Nejati, M., Rabiei, S. and Jabbour, C.J.C. (2017), "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", *Journal of Cleaner Production*, Vol. 168, pp. 163-172.
- Ngai, E.W.T., Moon, K.K.L., Riggins, F.J. and Yi, C.Y. (2008), "RFID research: an academic literature review (1995-2005) and future research directions", *International Journal of Production Economics*, Vol. 112 No. 2, pp. 510-520.
- *Obeidat, S.M., Al Bakri, A.A. and Elbanna, S. (2018), "Leveraging 'green' human resource practices to enable environmental and organizational performance: evidence from the Qatari Oil and Gas Industry", *Journal of Business Ethics*, available at: <https://doi.org/10.1007/s10551-018-4075-z>
- *O'Donohue, W. and Torugsa, N.A. (2016), "The moderating effect of 'green' HRM on the association between proactive environmental management and financial performance in small firms", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 239-261.
- *Pham, N.T., Tučková, Z. and Jabbour, C.J.C. (2019), "Greening the hospitality industry: how do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study", *Tourism Management*, Vol. 72, pp. 386-399.
- *Pham, N.T., Tučková, Z. and Phan, Q.P.T. (2019), "Greening human resource management and employee commitment toward the environment: an interaction model", *Journal of Business Economics and Management*, Vol. 20 No. 3, pp. 446-465.

-
- *Pham, N.T., Phan, Q.P.T., Tučková, Z., Vo, N. and Nguyen, L.H.L. (2018), "Enhancing the organizational citizenship behavior for the environment: the roles of green training and organizational culture", *Management & Marketing*, available at: <https://doi.org/10.2478/mmcks-2018-0030>
- *Pinzone, M., Guerci, M., Lettieri, E. and Huisingsh, D. (2019), "Effects of 'green' training on pro-environmental behaviors and job satisfaction: evidence from the Italian healthcare sector", *Journal of Cleaner Production*, Vol. 226, pp. 221-232.
- *Pinzone, M., Guerci, M., Lettieri, E. and Redman, T. (2016), "Progressing in the change journey towards sustainability in healthcare: the role of 'green' HRM", *Journal of Cleaner Production*, Vol. 122, pp. 201-211.
- *Ragas, S.F.P., Tantay, F.M.A., Chua, L.J.C. and Sunio, C.M.C. (2017), "Green lifestyle moderates GHRM's impact on job performance", *International Journal of Productivity and Performance Management*, Vol. 66 No. 7, pp. 857-872.
- *Rayner, J. and Morgan, D. (2018), "An empirical study of 'green' workplace behaviours: ability, motivation and opportunity", *Asia Pacific Journal of Human Resources*, Vol. 56 No. 1, pp. 56-78.
- *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.
- *Renwick, D.W.S., Redman, T. and Maguire, S. (2013), "Green human resource management: a review and research agenda*", *International Journal of Management Reviews*, Vol. 15 No. 1, pp. 1-14.
- *Renwick, D.W.S., Jabbour, C.J.C., Muller-Camen, M., Redman, T. and Wilkinson, A. (2016), "Contemporary developments in green (environmental) HRM scholarship", *International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 114-128.
- *Roscoe, S., Subramanian, N., Jabbour, C.J.C. and Chong, T. (2019), "Green human resource management and the enablers of green organisational culture: enhancing a firm's environmental performance for sustainable development", *Business Strategy and the Environment*, available at: <https://doi.org/10.1002/bse.2277>
- *Saeed, B.B., Afsar, B., Hafeez, S., Khan, I., Tahir, M. and Afridi, M.A. (2018), "Promoting employee's proenvironmental behavior through green human resource management practices", *Corporate Social Responsibility and Environmental Management*, available at: <https://doi.org/10.1002/csr.1694>
- Saunders, M.N.K., Lewis, P. and Thornhill, A. (2009), *Research Methods for Business Students*, 5th ed., Prentice Hall, New York, NY.
- *Shah, M. (2019), "Green human resource management: development of a valid measurement scale", *Business Strategy and the Environment*, available at: <https://doi.org/10.1002/bse.2279>
- Sharma, A. and Foropon, C. (2019), "Green product attributes and green purchase behavior", *Management Decision*, Vol. 57 No. 4, pp. 1018-1042.
- *Shen, J., Dumont, J. and Deng, X. (2018), "Employees' perceptions of green HRM and non-green employee work outcomes: the social identity and stakeholder perspectives", *Group & Organization Management*, Vol. 43 No. 4, pp. 594-622.
- *Singh, S.K. and El-Kassar, A.N. (2019), "Role of big data analytics in developing sustainable capabilities", *Journal of Cleaner Production*, Vol. 213, pp. 1264-1273.
- *Siyambalapatiya, J., Zhang, X. and Liu, X. (2018), "Green human resource management: a proposed model in the context of Sri Lanka's tourism industry", *Journal of Cleaner Production*, Vol. 201, pp. 542-555.
- *Stefanelli, N.O., Teixeira, A.A., Caldeira De Oliveira, J.H., Antonio Ferreira, M. and Sehnem, S. (2019), "Environmental training: a systematic review of the state of the art of the theme", *Benchmarking: An International Journal*, available at: <https://doi.org/10.1108/BIJ-12-2018-0449>
- *Tang, G., Chen, Y., Jiang, Y., Pailé, P. and Jia, J. (2018), "Green human resource management practices: scale development and validity", *Asia Pacific Journal of Human Resources*, Vol. 56 No. 1, pp. 31-55.

-
- *Tariq, S., Jan, F.A. and Ahmad, M.S. (2016), "Green employee empowerment: a systematic literature review on state-of-art in green human resource management", *Quality and Quantity*, Vol. 50 No. 1, pp. 237-269.
- *Teixeira, A.A., Jabbour, C.J.C. and De Sousa Jabbour, A.B.L. (2012), "Relationship between green management and environmental training in companies located in Brazil: a theoretical framework and case studies", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 318-329.
- *Teixeira, A.A., Jabbour, C.J.C., De Sousa Jabbour, A.B.L., Latan, H. and Oliveira, J.H.C.D. (2016), "Green training and green supply chain management: evidence from Brazilian firms", *Journal of Cleaner Production*, Vol. 116, pp. 170-176.
- Tseng, M.-L., Islam, M.S., Karia, N., Fauzi, F.A. and Afrin, S. (2019), "A literature review on green supply chain management: trends and future challenges", *Resources, Conservation and Recycling*, Vol. 141, pp. 145-162.
- *Tung, A., Baird, K. and Schoch, H. (2014), "The relationship between organisational factors and the effectiveness of environmental management", *Journal of Environmental Management*, Vol. 144, pp. 186-196.
- Voegtlin, C. and Greenwood, M. (2016), "Corporate social responsibility and human resource management: a systematic review and conceptual analysis", *Human Resource Management Review*, Vol. 26 No. 3, pp. 181-197.
- *Wagner, M. (2013), "'Green' human resource benefits: do they matter as determinants of environmental management system implementation?", *Journal of Business Ethics*, Vol. 114 No. 3, pp. 443-456.
- *Yong, J., Yusliza, M. and Fawehinmi, O. (2019), "Green human resource management", *Benchmarking: An International Journal*, available at: <https://doi.org/10.1108/BIJ-12-2018-0438>
- *Yong, J.Y., Yusliza, M.-Y., Ramayah, T. and Fawehinmi, O. (2019), "Nexus between green intellectual capital and green human resource management", *Journal of Cleaner Production*, Vol. 215, pp. 364-374.
- *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, pp. 224-235.
- *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: An International Journal*, available at: <https://doi.org/10.1108/BIJ-09-2018-0283>
- *Yusoff, Y.M., Nejati, M., Kee, D.M.H. and Amran, A. (2018), "Linking green human resource management practices to environmental performance in hotel industry", *Global Business Review*, Vol. 21 No. 3, pp. 1-18.
- *Zaid, A.A., Jaaron, A.A.M. and Bon, A.T. (2018), "The impact of green human resource management and green supply chain management practices on sustainable performance: an empirical study", *Journal of Cleaner Production*, Vol. 204, pp. 965-979.
- *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.
- *Zibarras, L.D. and Coan, P. (2015), "HRM practices used to promote pro-environmental behavior: a UK survey", *International Journal of Human Resource Management*, Vol. 26 No. 16, pp. 2121-2142.

Further reading

- El-Kassar, A.N. and Singh, S.K. (2018), "Green innovation and organizational performance: the influence of big data and the moderating role of management commitment and HR practices", *Technological Forecasting and Social Change*, available at: <https://doi.org/10.1016/j.techfore.2017.12.016>

Appendix 1

Green human
resource
management

Publications	1	2	3	4	5	6	7	8	9	10
1. Yu <i>et al.</i> (2020) – published in June 2019	1.B	2.C	3.A, 3.D, 3.F	4.A	5.L	–	–	8.A	–	10.A
2. Al-Romeedy (2019)	1.B	2.E	3.A, 3.D, 3.F	4.B	5.A, 5.B, 5.C, 5.D, 5.E	–	7.J	–	–	–
3. Chaudhary (2019a)	1.B	2.C	3.A, 3.D, 3.F	4.D	5.L	–	7.D, 7.M	–	–	–
4. Luu (2019)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.L	6.B	–	–	–	–
5. Bombiak (2019)	1.A	2.B	3.A, 3.D, 3.F	4.C	5.A, 5.B, 5.C, 5.D, 5.E, 5.F	–	7.J	–	–	–
6. Cabral and Dhar (2019)	1.B	2.C	3.A, 3.B, 3.C, 3.D, 3.F, 3.G	4.B	5.B	6.A, 6.B	–	–	–	–
7. Chaudhary (2019b)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E, 5.F	6.B	–	–	–	–
8. Pinzone <i>et al.</i> (2019)	1.A	2.B	3.A, 3.D, 3.F	4.B	5.B	6.B, 6.D	–	–	–	–
9. Stefanelli <i>et al.</i> (2019)	–	–	3.B, 3.E	–	5.B	–	–	–	–	–
10. Leidner <i>et al.</i> (2019)	1.A	2.B	3.B, 3.D, 3.G	4.C	5.A, 5.B, 5.C, 5.F, 5.E	6.B	–	–	–	–
11. Jabbour <i>et al.</i> (2019)	–	–	3.B, 3.E	–	5.L	–	–	–	–	10.C
12. Yusliza <i>et al.</i> (2019)	1.B	2.C	3.A, 3.D, 3.F	4.C	5.A, 5.B, 5.C, 5.D, 5.E	–	7.L	–	–	–
13. Zhang <i>et al.</i> (2019)	1.C	2.A, 2.B, 2.C	3.A, 3.D, 3.F	4.A	5.L	–	7.A	–	–	–
14. Gilal <i>et al.</i> (2019)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.L	6.B	7.A	–	–	–
15. Chaudhary (2019c)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E, 5.F	6.B	–	–	–	–
16. Yong, Yusliza and Fawehinmi (2019), Yong, Yusliza, Ramayah and Fawehinmi (2019)	–	–	3.B, 3.E	–	5.L	–	–	–	–	–
17. Shah (2019)	1.B	2.C	3.A, 3.D, 3.F	4.C	5.A, 5.B, 5.C, 5.D, 5.E, 5.F, 5.K	–	–	–	–	–
18. Pham, Tučková and Phan (2019)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.B, 5.E, 5.G	6.B	–	–	–	–
19. Roscoe <i>et al.</i> (2019)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.C, 5.D, 5.E, 5.F, 5.G	–	7.A	–	–	–
20. Singh and El-Kassar (2019)	1.C	2.C, 2.E	3.A, 3.D, 3.F	4.C	5.B, 5.L	–	7.C, 7.H	–	9.A	10.A
21. Pham, Tučková and Jabbour (2019)	1.B	2.C	3.A, 3.B, 3.C, 3.D, 3.F, 3.G	4.B	5.B, 5.D, 5.F	6.B	–	–	–	–
22. Kim <i>et al.</i> (2019)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.L	6.B	7.A	–	–	–
23. Yong, Yusliza and Fawehinmi (2019), Yong, Yusliza, Ramayah and Fawehinmi (2019)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.C, 5.D, 5.E	–	7.I	–	–	–
24. Pham <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.B, 5.G	6.B	–	–	–	–

(continued)

Table AI.
Classifications
and codes of
relevant articles

Publications	1	2	3	4	5	6	7	8	9	10
25. Saeed <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E, 5.F	6.B	-	-	-	-
26. Gupta (2018)	1.B	2.C	3.B, 3.D, 3.G	4.A	5.A, 5.B, 5.D, 5.E, 5.F, 5.G	-	7.J	-	-	-
27. Moraes <i>et al.</i> (2018)	1.B	2.A	3.A, 3.D, 3.F	4.B	5.B, 5.F	-	7.A	-	-	-
28. Obeidat <i>et al.</i> (2018)	1.A	2.C	3.A, 3.D, 3.F	4.A	5.L	-	7.A, 7.B	-	-	-
29. Siyambalapitiya <i>et al.</i> (2018)	1.B	2.C	3.A, 3.B, 3. C, 3.D, 3.F, 3.G	4.B	5.A, 5.B, 5.D, 5.E, 5.F	-	7.A	-	-	-
30. Zaid <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.F	-	7.A, 7.B, 7.C	-	-	10.A
31. Rayner and Morgan (2018)	1.A	2.D	3.A, 3.D, 3.F	4.C	5.L	6.B, 6.E	-	-	-	-
32. Yusoff <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.A, 5.B, 5.D, 5.E	-	7.A	-	-	-
33. Al Kerdawy (2018)	1.B	2.E	3.A, 3.D, 3.F	4.C	5.B, 5.C, 5.D, 5.E	-	7.L	-	-	-
34. Bombiak and Marciniuk-Kluska (2018)	1.A	2.B	3.A, 3.D, 3.F	4.D	5.A, 5.B, 5.C, 5.D, 5.E, 5.F, 5.G	-	7.C, 7.J	-	-	-
35. Chaudhary (2018)	1.B	2.C	3.A, 3.D, 3.F	4.D	5.A	-	7.M	-	-	-
36. Tang <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.C	5.A, 5.B, 5.D, 5.E, 5.F	-	-	-	-	-
37. Jia <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.L	6.B	-	-	-	-
38. Luu (2018)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.B, 5.E, 5.F	6.B, 6.C	-	-	-	-
39. Shen <i>et al.</i> (2018)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.L	6.B, 6.C, 6.D	-	-	-	-
40. Jabbour and Renwick (2018)	-	-	3.B, 3.E	-	5.L	-	-	-	-	-
41. Ren <i>et al.</i> (2018)	-	-	3.B, 3.E	-	5.A, 5.B, 5.D, 5.E, 5.F	-	-	-	-	-
42. Longoni <i>et al.</i> (2018)	1.A	2.B	3.A, 3.D, 3.F	4.C	5.A, 5.B, 5.D, 5.E, 5.F	-	7.A, 7.B	-	-	10.A
43. Nejati <i>et al.</i> (2017)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E, 5.F	-	-	-	-	10.A
44. Jabbour <i>et al.</i> (2017)	1.B	2.A	3.B, 3.D, 3.G	4.A	5.A, 5.B, 5.D, 5.E	-	-	-	-	10.A
45. Masri and Jaaron (2017)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E, 5.F, 5.G	-	7.A	-	-	-
46. Alnajdawi <i>et al.</i> (2017)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.A, 5.B, 5.D, 5.E	6.B	7.A, 7.B, 7.C	-	-	-
47. Ragas <i>et al.</i> (2017)	1.B	2.C	3.A, 3.D, 3.F	4.C	5.L	6.D	-	-	-	-
48. Dumont <i>et al.</i> (2017)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.L	6.B	-	-	-	-
49. Pinzone <i>et al.</i> (2016)	1.A	2.B	3.A, 3.D, 3.F	4.B	5.B, 5.D, 5.F	6.B	-	-	-	-
50. O'Donohue and Torugsa (2016)	1.B	2.C	3.A, 3.D, 3.F	4.A	5.L	-	7.B	-	-	-

Table AI.

(continued)

Publications	1	2	3	4	5	6	7	8	9	10
51. Jabbour and De Sousa Jabbour (2016)	-	-	3.B, 3.E	-	5.L	-	-	-	-	10.A
52. Guerci, Longoni and Luzzini (2016)	1.A	2.B	3.A, 3.D, 3.F	4.C	5.B, 5.D, 5.E, 5.F	-	7.A	8.A, 8.B	-	-
53. Guerci, Montanari, Scapolan and Epifanio (2016)	1.A	2.B	3.A, 3.D, 3.F	4.D	5.A	-	7.M	-	-	-
54. Renwick <i>et al.</i> (2016)	-	-	3.B, 3.E	-	5.L	-	-	-	-	-
55. Gholami <i>et al.</i> (2016)	1.B	2.C	3.A, 3.D, 3.F	4.B	5.A, 5.B, 5.D, 5.E, 5.F, 5.G, 5.H	-	-	-	-	-
56. Tariq <i>et al.</i> (2016)	-	-	3.B, 3.E	-	5.F	-	-	-	-	-
57. Teixeira <i>et al.</i> (2016)	1.B	2.A	3.A, 3.D, 3.F	4.C	5.B	-	-	-	-	10.A
58. Guerci and Carollo (2016)	1.A	2.B	3.B, 3.D, 3.G	4.C	5.A, 5.B, 5.C, 5.D, 5.E, 5.F	-	-	-	-	-
59. Haddock-Millar <i>et al.</i> (2016)	1.A	2.B	3.B, 3.D, 3.G	4.B	5.L	6.B	-	-	-	-
60. Jabbour (2015)	1.B	2.A	3.A, 3.D, 3.F	4.C	5.B	-	7.K	-	-	-
61. Zibarras and Coan (2015)	1.A	2.B	3.A, 3.D, 3.F	4.C	5.B, 5.E, 5.F	6.B	-	-	-	-
62. Dangelico (2015)	1.A	2.A	3.A, 3.D, 3.F	4.C	5.F	-	7.A, 7.B, 7.D	-	-	-
63. Tung <i>et al.</i> (2014)	1.A	2.D	3.A, 3.D, 3.F	4.A	5.B, 5.E, 5.F, 5.G	-	7.A	-	-	-
64. Renwick <i>et al.</i> (2013)	-	-	3.B, 3.E	-	5.A, 5.B, 5.D, 5.E, 5.F, 5.G, 5.H	-	-	-	-	-
65. Harvey <i>et al.</i> (2013)	1.A	2.B	3.B, 3.D, 3.G	4.B	5.L	-	7.A	-	-	-
66. Jabbour (2013)	-	-	3.B, 3.E	-	5.B	-	-	-	-	-
67. Wagner (2013)	1.A	2.B	3.A, 3.D, 3.F	4.A	5.L	-	7.J	-	-	-
68. Daily <i>et al.</i> (2012)	1.B	2.A	3.A, 3.D, 3.F	4.A	5.B, 5.F	-	7.A	-	-	-
69. Teixeira <i>et al.</i> (2012)	1.B	2.A	3.B, 3.D, 3.G	4.C	5.B	-	7.K	-	-	-
70. Jackson <i>et al.</i> (2011)	-	-	3.B, 3.E	-	5.A, 5.B, 5.D, 5.E, 5.G	-	-	-	-	-
71. Muster and Schrader (2011)	-	-	3.B, 3.E	-	5.J	-	-	-	-	-
72. Jabbour <i>et al.</i> (2010)	1.B	2.A	3.A, 3.B, 3.C, 3.D, 3. F, 3.G	4.D	5.A, 5.B, 5.C, 5.D, 5.E, 5.F, 5.G, 5.I	-	-	-	-	-
73. Jabbour and Santos (2008)	-	-	3.B, 3.E	-	5.A, 5.B, 5.D, 5.E, 5.F, 5.G, 5.I	-	-	-	-	-
74. Jabbour <i>et al.</i> (2008)	1.B	2.A	3.B, 3.D, 3.G	4.A	5.A, 5.B, 5.D, 5.E, 5.F, 5.G, 5.I	-	7.J	-	-	-

Publication	Main GHRM-related purpose of article	Journal
1. Yu <i>et al.</i> (2020) – published in June 2019	The study explores the influence of GHRM on environmental cooperation with customers and suppliers, and the moderating roles of internal GSCM	<i>International Journal of Production Economics</i>
2. Al-Romeedy (2019)	The aim of this work is to identify GHRM practices adopted in Egyptian travel agencies, the constraints facing implementation, and the critical requirements for their success	<i>Journal of Human Resources in Hospitality and Tourism</i>
3. Chaudhary (2019a)	Study's objective is to illuminate the linkage between GHRM and job pursuit intention, and the mediating roles of organizational reputation and attractiveness	<i>Corporate Social Responsibility and Environmental Management</i>
4. Luu (2019)	This work seeks to explore the impact of GHRM on OCBE at both team and individual levels as well as the mechanisms underlying such links	<i>Journal of Sustainable Tourism</i>
5. Bombiak (2019)	The purpose of the paper is to investigate the relevance of Green Human Resource Management to the operations of the organizations, indicate GHRM practices which can be used in the field and suggest application as a tool for building sustainable development of the organizations	<i>Entrepreneurship and Sustainability Issues</i>
6. Cabral and Dhar (2019)	The paper aims to develop a green competencies scale and investigate the linkage between green training and green competencies	<i>Journal of Cleaner Production</i>
7. Chaudhary (2019b)	This work is to investigate the influence of GHRM practices on employee green behaviors (task-related and voluntary) with organizational identification as a mediator, and the moderating role of employee personal environmental values and gender	<i>Corporate Social Responsibility and Environmental Management</i>
8. Pinzone <i>et al.</i> (2019)	This work aims to explore the role of GHRM practices, in which green training considered as a key element to influence OCBE and job satisfaction	<i>Journal of Cleaner Production</i>
9. Stefanelli <i>et al.</i> (2019)	The paper aims at conducting a literature review of the environmental training and proposing a research agenda for future studies	<i>Benchmarking: An International Journal</i>
10. Leidner <i>et al.</i> (2019)	The aim of the study explores how GHRM application can elicit employees' green behavior	<i>Personnel Review</i>
11. Jabbour <i>et al.</i> (2019)	The goal is to propose an integrative GHRM framework for enterprises developing the circular economy	<i>Journal of Cleaner Production</i>
12. Yusliza <i>et al.</i> (2019)	The paper analyzes the relationship between GHRM, top management commitment, and corporate social responsibility	<i>Benchmarking: An International Journal</i>
13. Zhang <i>et al.</i> (2019)	This work aims at test the influences of GHRM and environmental legitimacy on environmental performance as well as the mediating effect of the implementation of green operational practices	<i>Journal of Cleaner Production</i>

Table AII.
Brief description
of chosen articles

(continued)

Publication	Main GHRM-related purpose of article	Journal
14. Gilal <i>et al.</i> (2019)	This paper examines the link between GHRM practices and environmental performance in higher education institutions	<i>Corporate Social Responsibility and Environmental Management</i>
15. Chaudhary (2019c)	This research examines the status of implementation of GHRM application in the automobile companies in India. Additionally, the study also measures the impact of GHRM practices on employees' task-related and voluntary green behaviors	<i>Journal of Global Responsibility</i>
16. Yong, Yusliza and Fawehinmi (2019), Yong, Yusliza, Ramayah and Fawehinmi (2019)	The paper is to review GHRM literature of various scopes, approaches and contexts; to identify different focus areas in the GHRM literature; and to propose areas for future study	<i>Benchmarking: An International Journal</i>
17. Shah (2019)	The objective of this work is to develop a valid measurement scale for GHRM.	<i>Business Strategy and the Environment</i>
18. Pham, Tučková and Phan (2019)	The paper aims to explore the direct and interactive influences of GHRM practices on employee environmental commitment	<i>Journal of Business Economics and Management</i>
19. Roscoe <i>et al.</i> (2019)	The paper explores the relationship between GHRM practices, green organizational culture and corporate environmental performance	<i>Business Strategy and the Environment</i>
20. Singh and El-Kassar (2019)	The article investigates sustainable capabilities which are motivated by organizational commitment caused by the integration of big data, GSCM, and GHRM, and how these capabilities can improve organizational performance	<i>Journal of Cleaner Production</i>
21. Pham, Tučková and Jabbour (2019)	The paper is to examine the role of GHRM application in enhancing OCBE in hotels, especially the roles of interactive influences of GHRM practices	<i>Tourism Management</i>
22. Kim <i>et al.</i> (2019)	This work aims to understand how to stimulate hotels' OCBE and environmental performance through the application of GHRM practices	<i>International Journal of Hospitality Management</i>
23. Yong, Yusliza and Fawehinmi (2019), Yong, Yusliza, Ramayah and Fawehinmi (2019)	The study identifies the relationships between green intellectual capital and GHRM	<i>Journal of Cleaner Production</i>
24. Pham <i>et al.</i> (2018)	This paper analyzes the roles of green training and green organizational culture in enhancing OCBE in hotels	<i>Management & Marketing</i>
25. Saeed <i>et al.</i> (2018)	The study investigates the influences of GHRM practices, such as green recruitment and selection, green training and development, green performance management and appraisal, green reward and compensation, and green empowerment, on employee pro-environmental behavior	<i>Corporate Social Responsibility and Environmental Management</i>
26. Gupta (2018)	The objective of this article is to explore required GHRM practices and assess the performance of manufacturing firms applying these practices	<i>Journal of Environmental Management</i>

(continued)

Table AII.

Publication	Main GHRM-related purpose of article	Journal
27. Moraes <i>et al.</i> (2018)	This work examines the role of GHRM application in enhancing eco-efficiency in the financial sector	<i>Journal of Knowledge Management</i>
28. Obeidat <i>et al.</i> (2018)	This paper aims to investigate the antecedents and outcomes of GHRM application in Oil and Gas firms in Qatar	<i>Journal of Business Ethics</i>
29. Siyambalapitiya <i>et al.</i> (2018)	The purpose of this study is to depict GHRM practices as applied in organizations, to explore the effects of GHRM practices on environmental performance and to propose a conceptual model of the linkage between GHRM practices and environmental performance	<i>Journal of Cleaner Production</i>
30. Zaid <i>et al.</i> (2018)	The study identifies the relationship between GHRM practices and GSCM, as well as the impact of both on corporate sustainable performance	<i>Journal of Cleaner Production</i>
31. Rayner and Morgan (2018)	This publication aimed to study green behavior at work and home, to identify benchmark measurements in order to achieve green behavior and greater sustainability, to examine the moderating roles of line managers toward environmental knowledge and AMO, and to investigate whether the levels of carbon emissions in different industries moderate green behavior in the workplace	<i>Asia Pacific Journal of Human Resources</i>
32. Yusoff <i>et al.</i> (2018)	The paper aims to examine the contributions of GHRM practices in enhancing green performance in hotels	<i>Global Business Review</i>
33. Al Kerdawy (2018)	This work studies the moderating effect of corporate support for employee volunteering in the relationship between GHRM and adopting CSR policy	<i>European Management Review</i>
34. Bombiak and Marciniuk-Kluska (2018)	The aim of this study is to explore the GHRM practices applied in young Polish companies and identify the priorities which influence their sustainable development	<i>Sustainability</i>
35. Chaudhary (2018)	The paper aims to investigate the effect of perceived GHRM on the job pursuit intentions of prospective employees	Evidence-based HRM
36. Tang <i>et al.</i> (2018)	This publication aims to propose and validate an instrument to measure GHRM	<i>Asia Pacific Journal of Human Resources</i>
37. Jia <i>et al.</i> (2018)	The article studies the variance of employees' green creativity according to the contributions of transformational leadership, GHRM and employees' green passion	<i>Sustainability</i>
38. Luu (2018)	This paper examines the influences of GHRM practices (training, empowerment, and reward) in boosting green recovery performance of employees	<i>Journal of Sustainable Tourism</i>
39. Shen <i>et al.</i> (2018)	The purpose of this work is to investigate the linkage between perceived GHRM and employees' non-green behavior at work	<i>Group & Organization Management</i>
40. Jabbour and Renwick (2018)	This article aims to discuss the "soft and human" side of organizations' sustainable development related to the application of GHRM	<i>RAUSP Management Journal</i>

Table AII.

(continued)

Publication	Main GHRM-related purpose of article	Journal
41. Ren <i>et al.</i> (2018)	This paper makes a systematic review to develop the conceptual and empirical development of GHRM	<i>Asia Pacific Journal of Management</i>
42. Longoni <i>et al.</i> (2018)	This publication is aimed at testing the influence of GHRM practices on firm performance, including environmental performance and financial performance, and investigating the contributions of applying GHRM to enhancing GSCM	<i>Journal of Business Ethics</i>
43. Nejati <i>et al.</i> (2017)	This work analyzes the effect of GHRM on GSCM and examines the moderating roles of employees' resistance to change toward that effect	<i>Journal of Cleaner Production</i>
44. Jabbour <i>et al.</i> (2017)	A paper aimed at investigating the roles of GHRM practices in the relationship between critical success factors and the adoption of GSCM practices in manufacturing companies in Brazil	<i>Production Planning & Control</i>
45. Masri and Jaaron (2017)	This paper aims to assess and measure GHRM's effect on environmental performance in Palestinian manufacturing companies	<i>Journal of Cleaner Production</i>
46. Alnajdawi <i>et al.</i> (2017)	This work determines the link between GHRM practices and organizations' sustainable performance through the mediating effect of OCBE	<i>Journal of Environmental Accounting and Management</i>
47. Ragas <i>et al.</i> (2017)	The purpose of this paper is to explore the influence of GHRM on employees' job performance through the moderating effect of green lifestyle	<i>International Journal of Productivity and Performance Management</i>
48. Dumont <i>et al.</i> (2017)	This article provides a new insight into GHRM's influence on employees' green behavior	<i>Human Resource Management</i>
49. Pinzone <i>et al.</i> (2016)	This paper intends to analyze the relationship between GHRM practices and OCBE through the mediating effect of collective environmental commitment	<i>Journal of Cleaner Production</i>
50. O'Donohue and Torugsa (2016)	The aim of this work is to investigate the moderating roles of HRM in the relationship between proactive environmental management and corporate financial performance	<i>International Journal of Human Resource Management</i>
51. Jabbour and De Sousa Jabbour (2016)	The paper provides an integrative framework of the GHRM-GSCM relationship and proposes a research agenda for future study	<i>Journal of Cleaner Production</i>
52. Guerci, Longoni and Luzzini (2016)	This article aims to fill two research gaps: (1) stakeholder pressures aimed at applying GHRM practices; and (2) the mediating effects of GHRM practices on the stakeholder pressure–environmental performance relationship	<i>International Journal of Human Resource Management</i>
53. Guerci, Montanari, Scapolan and Epifanio (2016)	The paper examines the contribution of green recruitment practices in attracting applicants. This work also investigates the interactive effect of “green” and “non-green” recruitment practices on attracting applicants	<i>International Journal of Human Resource Management</i>
54. Renwick <i>et al.</i> (2016)	This work reviews the existing research literature on GHRM to frame new works aimed at extending it through a new research agenda	<i>International Journal of Human Resource Management</i>

(continued)

Table AII.

Publication	Main GHRM-related purpose of article	Journal
55. Gholami <i>et al.</i> (2016)	The aim of this work is to stimulate CSR for sustainable development through CSR-linked initiatives, especially GHRM, to facilitate companies in performing their responsibilities to society	<i>Journal of Cleaner Production</i>
56. Tariq <i>et al.</i> (2016)	This paper concentrates on a systematic literature review regarding urging workers to pursue environmental tasks through the mediating role of employee empowerment	<i>Quality and Quantity</i>
57. Teixeira <i>et al.</i> (2016)	A paper aimed at investigating the main green training characteristics that influence GSCM practices applied in Brazilian companies	<i>Journal of Cleaner Production</i>
58. Guerci and Carollo (2016)	The article identifies the HRM-related paradoxes perceived by organizations developing environmental sustainability via the role of HRM, called GHRM	<i>International Journal of Human Resource Management</i>
59. Haddock-Millar <i>et al.</i> (2016)	This paper explores the relationship between environmental training and levels of environmental management maturity in ISO14001 certified Brazilian firms	<i>Journal of Cleaner Production</i>
60. Jabbour (2015)	The publication aims to analyze the contribution of HRM elements (e.g. management support, training and reward systems) in encouraging employees to become more pro-environmental	<i>International Journal of Human Resource Management</i>
61. Zibarras and Coan (2015)	The purpose of this work is to study the linkage between organizations' environmental management capability, represented by green teams, and performance	<i>Business Strategy and the Environment</i>
62. Dangelico (2015)	The paper aims to identify the ways in which a company approaches GHRM practices in its British, German and Swedish subsidiaries	<i>International Journal of Human Resource Management</i>
63. Tung <i>et al.</i> (2014)	The objective of this article is to analyze the linkage between various elements (top management support, training, employee participation, teamwork and rewards) and the effectiveness of environmental management	<i>Journal of Environmental Management</i>
64. Renwick <i>et al.</i> (2013)	This work aims to review the existing literature on the basis of Ability–Motivation–Opportunity (AMO) theory, proposing a research framework showing that GHRM processes play a role in people-management practice	<i>International Journal of Management Reviews</i>
65. Harvey <i>et al.</i> (2013)	The purpose of this paper is to explore the potential for GHRM to influence the green performance of airlines	<i>International Journal of Human Resource Management</i>
66. Jabbour (2013)	This article attempts to propose a research agenda and a framework for addressing the major gaps in the current knowledge of environmental training	<i>Resources, Conservation and Recycling</i>
67. Wagner (2013)	This work answers whether benefits arising from “green” HRM motivate the implementation of environmental management	<i>Journal of Business Ethics</i>
68. Daily <i>et al.</i> (2012)	This publication works on a research model that measures the effects of several factors on corporate environmental performance: employee environmental empowerment, employee	<i>International Journal of Operations & Production Management</i>

Table AII.

(continued)

Publication	Main GHRM-related purpose of article	Journal
69. Teixeira <i>et al.</i> (2012)	environmental training, employee environmental teamwork, managerial environmental empowerment and managerial environmental training This paper aims to evaluate the relationship between green management and environmental training in Brazilian companies, underscoring how this relationship takes place and its most important factors	<i>International Journal of Production Economics</i>
70. Jackson <i>et al.</i> (2011)	This work aims to expand the role of HRM in pursuing environmentally sustainable business. It also proposes research opportunities for scholars at the intersection of strategic HRM and environmental management	<i>German Journal of Human Resource Management</i>
71. Muster and Schrader (2011)	The objective of this work introduces the general idea, theoretical fundamentals and possible measures of a green work-life balance as a new dimension of GHRM	<i>German Journal of Human Resource Management</i>
72. Jabbour <i>et al.</i> (2010)	This paper aims to analyze the contribution of HRM throughout the evolutionary stages of environmental management in Brazilian companies	<i>International Journal of Human Resource Management</i>
73. Jabbour and Santos (2008)	A paper to empirically examine the theoretical model proposed by Jabbour and Santos (2008) in Brazil, which aimed at investigating how the phases of the environmental management system can be linked to HRM practices in order to achieve corporate environmental performance	<i>Journal of Cleaner Production</i>
74. Jabbour <i>et al.</i> (2008)	The article investigates the major contributions of HRM dimensions in implementing and maintaining the environmental management system	<i>Journal of Cleaner Production</i>

Table AII.

About the authors

Nhat Tan Pham is Researcher at Tomas Bata University in Zlín, Zlín, Czech Republic. His research interests are human resource management, green/sustainable human resource management, sustainable tourism and sustainable consumption. He has published his research in *Tourism Management*, *The Journal of Business Economics and Management*, among others. Nhat Tan Pham is the corresponding author and can be contacted at: nhatpham1729@gmail.com

Hung Trong Hoang is currently Senior Lecturer in Management at Faculty of Business Administration, College of Economics, Hue University, Vietnam. His research interests include services marketing and management, human resource management and organizational behavior. One of his papers has won the “Best Paper Award.” His research has been published in the *International Journal of Human Resource Management*, *Australian Journal of Public Administration*, *Journal of Services Marketing*, *Journal of Global Scholars of Marketing Science*, among others.

Quyen Phu Thi Phan is currently Lecturer at Faculty of Marketing, University of Economics, The University of Da Nang, Vietnam. Her research interests include digital marketing, green HRM, sustainable marketing, sustainable tourism. Her research has been published in the *Journal of Business Economics and Management*, *Information Systems* and *E-business Management*, *The Journal of Internet Commerce*, among others.

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