

Top management commitment, corporate social responsibility and green human resource management

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A Malaysian study

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Abstract

Purpose – The purpose of this paper is to analyse the relationship between top management commitment, corporate social responsibility (CSR) and green human resource management (GHRM).

Design/methodology/approach – A self-administered questionnaire was adopted to perform a systematic collection of data from manufacturing and service organisations in Malaysia. The partial least squares method was used for the conceptual framework of the study.

Findings – The observed findings indicate a significant positive relationship between top management commitment and CSR, as well all dimensions of GHRM. However, counterintuitively, the relationship between CSR and GHRM was found not to be as significant as expected (except for CSR and green analysis/job description), which can be explained through the emerging perspective that CSR and HRM should be linked.

Research limitations/implications – The findings provide insights as to the nature of GHRM and how it is affected by CSR and top management commitment in an emerging economy – in this particular study, Malaysia. Moreover, the observed results highlight the crucial importance of top management commitment in implementing GHRM practices and CSR efficiently in order to create positive environmental performance.

Originality/value – The authors believe that, to date, no study has explored the links between top management commitment, CSR and GHRM using empirical data from Malaysia, as well as that this research is an important emerging topic for researchers, academicians and practitioners.

Keywords Sustainability, Corporate social responsibility, Emerging economy, Top management commitment, Green human resource management

Paper type Research paper



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1. Introduction

Managing corporate environmental sustainability is a complex task, and can be considered one of the major challenges faced by organisations (Dubey *et al.*, 2015). It has become imperative for any organisation not only to act responsibly towards the environment, but also to behave in a socially responsible manner while trying to achieve its economic goals (Gupta *et al.*, 2018). In order to achieve proactive corporate environmental sustainability, organisations must mobilise their human resources in pursuing green objectives (Daily and Huang, 2001), thus linking environmental sustainability to the future of human resource management (HRM) (Jackson *et al.*, 2014). Therefore, there exists a growing need for businesses to integrate environmental management into their HRM practices (Longoni *et al.*, 2016; Jabbour and Santos, 2008; Pail e *et al.*, 2014; Renwick *et al.*, 2008, 2013, 2015; Wagner, 2011, 2013).

In response to these concerns, the concept of green human resource management (GHRM) has been devised (Ahmad, 2015; Gholami *et al.*, 2016; Haddock-Millar *et al.*, 2016; Jabbour, 2011; Jabbour and Jabbour, 2016; Jackson *et al.*, 2011; Renwick *et al.*, 2013, 2015; Yong and Mohd-Yusoff, 2016; Yusliza *et al.*, 2017) as an answer to the crucial need for the expansion of the role of HRM in the pursuit of environmentally sustainable business practices. The term “green”, added to the traditional idea of HRM, may include activities and practices that involve the preservation and conservation of the natural environment, avoidance or minimisation of environmental pollution and the generation of gardens and natural places (Jackson *et al.*, 2011). In addition, the adoption of a management system focused on environmental sustainability is also believed to provide a competitive advantage for companies (Yang Spencer *et al.*, 2013). In fact, studies have shown that GHRM practices affect voluntary behaviours towards the environment (Pinzone *et al.*, 2016), implementation of environmental management systems (Jabbour *et al.*, 2010; Wagner, 2013), environmental performance (Guerci, Longoni and Luzzini, 2016), green supply chain management (Jabbour and Jabbour, 2016; Longoni *et al.*, 2016) and employees’ green behaviour, both in-role and extra-role (Dumont *et al.*, 2016).

There are two main reasons that top management support is needed to practice corporate social responsibility (CSR) and GHRM in the context of emerging economies. First, the emerging world has received direct foreign investment to set up new manufacturing plants and create job opportunities. Some countries in the Asian region have contributed to sustainable development programmes, and most of these countries are categorised as emerging economies. Many manufacturing plants are now concentrated in the region, and green practices are attracting scholars’ attention (Fernando *et al.*, 2016). The industry should not consider revenue alone as the main indicator of business success, but perhaps more importantly need to ensure that the company employs sustainable and responsible business practices and activities for the wellbeing of stakeholders. Second, top management should lead the implementation of CSR and GHRM. These are the key drivers of GHRM implementation. The argument for the selection of Malaysia as the national setting for this topic is discussed in the following paragraphs.

The emerging global landscape may be quite different from what we have seen over the past 100 years (Hong *et al.*, 2018). Hong *et al.* (2018) also highlight that the dominant role of emerging economies is not to be underestimated. In a similar vein, focusing on a developing country is also important due to unique environmental conditions, including standard of living, level of labour productivity, degree of market failure and significant import and export growth rates (Ferdousi *et al.*, 2018; Mersha, 1997). Parry *et al.* (1998, p. 741) states that “most future growth in emissions is expected to occur in the fast-developing regions of Asia” such as Malaysia. Furthermore, global economic power is shifting away from already established and mature economies towards emerging economies, which has been the new reality in recent years (Horwitz and Budhwar, 2015). This will inherently lead to an increase in the use of energy and natural resources in these regions.

Emerging economies are expected to eventually produce 70 per cent of global GDP growth, and by the year 2025 their equity market capitalisation is expected to be 1.2 times greater than

that of developed economies, to the tune of US\$80bn dollars (Moe *et al.*, 2010). This will cause a sharp increase in the demand for energy to stimulate this economic growth. Due to the combination of increased energy consumption and strong reliance on fossil fuels, the contribution of Southeast Asian countries – such as Malaysia – to climate change has increased significantly (Hansen and Nygaard, 2014; Rock and Angel, 2005). The location chosen for this study is Malaysia due to its impressive economic growth record, with rapid development in information and communication technologies and other infrastructures that require large input in terms of electricity (Lean and Smyth, 2010; Tang, 2008; Tang and Tan, 2013). Malaysia has a record average annual growth rate of CO₂ emissions of slightly above 6 per cent, which is closely behind that of China, at 7.42 per cent (Sadorsky, 2014). Consequently, we focus on GHRM research in the context of a developing economy – Malaysia – in order to explore ways to create environmental sustainability through GHRM practices while also increasing GDP.

Research interest in GHRM for emerging economies is increasing, as is research interest in benchmarking issues for emerging economies (Hong *et al.*, 2018). Hong *et al.* (2018) further add that benchmarking can provide advice on which specific practices are transferrable from the context of advanced economies to their counterparts in emerging economies. The GHRM literature is largely based on Western countries and, given the importance of Asian economic development to environmental management, this is an important gap for future studies to reduce (Renwick *et al.*, 2013), particularly in emerging countries such as Malaysia. GHRM has been practised and researched in the USA (Rangarajan and Rahm, 2011), European countries (Guerci and Carollo, 2016; Guerci, Longoni and Luzzini, 2016; Guerci, Montanari, Scapolan and Epifanio, 2016; Haddock-Millar *et al.*, 2016; Pinzone *et al.*, 2016; Wagner, 2013; Zibarras and Coan, 2015), Middle Eastern countries (Al Kerdawy, 2018; Nejati *et al.*, 2017), certain Asian countries (Dumont *et al.*, 2016; Kim *et al.*, 2019; Luu, 2018; Mishra, 2017; Mishra *et al.*, 2014; Mukherjee and Chandra, 2018; Ragas *et al.*, 2017; Shen *et al.*, 2016; Siyambalapitiya *et al.*, 2018; Tang *et al.*, 2017), with a lack of studies from Southeast Asia, especially Malaysia (Yong and Mohd-Yusoff, 2016; Yusliza *et al.*, 2017; Yusoff *et al.*, 2018). Therefore, GHRM practices may be transferrable to Malaysia to the extent that such practices pass the test of generalisability.

Finding the key to sustainable management of people, processes and products in emerging markets is not an easy task (Singh, 2018) and organisations continually have to develop different strategies to remain competitive in business. Despite the growing importance GHRM has to modern businesses and the emphasis placed on this concept from a scholarly perspective, there is still a dearth of literature pertaining to this crucial area (Jackson *et al.*, 2014; Renwick *et al.*, 2015). Moreover, the available work focusing on GHRM is either conceptual or theoretical (Jabbour *et al.*, 2010; Renwick *et al.*, 2013; Jackson *et al.*, 2014; Renwick *et al.*, 2015). Lengnick-Hall and Lengnick-Hall (2003) urge a change in the role of GHRM to correspond to the new requirements of emerging economies. Moreover, Ji *et al.* (2012) argue that the interaction between firms' environmental attitude and HRM practices in emerging economies remains unclear.

However, as previously mentioned, effective implementation of GHRM practices, as with other HRM practices within an organisation, requires efficiency and commitment from the management team and, more specifically, top management (Green *et al.*, 2012) – a classical prerequisite of green initiatives at the organisational level (Zutshi and Sohal, 2004). Sangwan and Choudhary (2018) highlight that a performance measure, or a set of performance measures, can be used to determine the efficiency and/or effectiveness of a system, or to compare challenging alternative systems for benchmarking. Singh *et al.* (2013) identify top management commitment as one of the 11 performance measures for environmentally conscious manufacturing. Not only taking top management commitment as a major consideration, but taking it one step further, this study incorporates the concept of top management commitment specifically in terms of “greening”, or HRM practices that are environment-focused (Daily and Huang, 2001; Moini *et al.*, 2014). Wei and Lau (2005) reveal

that changes in top management commitment in emerging economies lead to greater adoption of strategic HRM practices. It is proposed that GHRM is part of a strategic HRM context (Aragão and Jabbour, 2017). Strategic HRM “involves the design and implementation of a consistent set of internal policies and practices to ensure that the human resources of a company contribute to the achievement of its business goals” (Huselid *et al.*, 1997), while GHRM denotes the association and support of HRM practices for environmental management development within an organisation (Renwick *et al.*, 2008; Jackson *et al.*, 2011).

With the presence of top management commitment, companies will be able to effectively implement their green initiatives – or, from the perspective of this study, GHRM practices – in order to achieve positive environmental performance (Yang Spencer *et al.*, 2013). The reason for this is that it is the top managers of a company who are able to enforce practices and policies to be implemented within the organisation in order to realise the company’s goals and objectives. With this enforcement, employees will be more aware of and inclined to adopt these practices in their daily operations, in the pursuit of achieving environmental goals. Furthermore, the formalisation of the “greening” of HRM practices will provide clearer guidelines for effective implementation across all levels of the organisation.

From the overall business sustainability perspective, HRM should be linked to CSR (e.g. Jamali *et al.*, 2015; Voegtlin and Greenwood, 2016). Consequently, GHRM practices can also be considered as part of firms’ CSR strategy. Furthermore, there is a dearth of understanding in the evolution of CSR, particularly in emerging economies; hence, this area deserves scholarly attention (Wang *et al.*, 2016). It is believed that the process of CSR will be different between developed and emerging economies, due to the different underlying social agreements and institutional contexts (Tilcsik and Marquis, 2013; Wang *et al.*, 2016; Zhang and Luo, 2013). For instance, it is argued that CSR activities are not usually made known to stakeholders in emerging economies (Mellahi and Wood, 2003; Rettab *et al.*, 2009). Additionally, it is opined that organisations in emerging economies may tend towards unethical practices due to the pressure to attain sustainable and global competitive advantage (Rettab *et al.*, 2009).

CSR is not considered an area that is optional for companies to engage in, but these days is rather considered to be a business imperative. This is so much the case that it has become a standard part of company strategy (Tziner *et al.*, 2011). However, to the best of our knowledge, previous literature has failed to provide a clear link (if any) between CSR and GHRM which, if established, could provide practitioners with steps and guidelines as to how organisations may be able to improve their CSR through the implementation of GHRM practices, or vice-versa. This could provide a better understanding as to how the adoption of CSR may lead to more effective implementation of GHRM practices, which is what this study will explore.

The focus of this study therefore emphasises the direct influence of top management commitment on GHRM practices, as well as the relationship between top management commitment and CSR and, finally, the relationship between CSR and GHRM. It should be highlighted that after reviewing the most significant works in the field of GHRM (such as Daily and Huang, 2001; Jackson *et al.*, 2011, 2014; Renwick *et al.*, 2013, 2015), no similar research was found. In addition, when analysing the literature on CSR and HRM, we found no clear mention of GHRM (e.g. Voegtlin and Greenwood, 2016). Finally, the literature on the relevance of top management’s commitment to GHRM is not clear regarding the potential relationship with CSR perspectives (Jabbour *et al.*, 2010; Zutshi and Sohal, 2004; Daily and Huang, 2001).

In this context, this work offers an original perspective on the relationships amongst top management commitment, CSR and GHRM. Its relevance can be justified as follows:

- no study, to the best of our knowledge, has so far explored the relationships herein considered;
- the existing literature on GHRM is largely influenced by perspectives from developed countries (Jackson *et al.*, 2014; Longoni *et al.*, 2016; Haddock-Millar *et al.*, 2016), while

existing works from developing countries (Jabbour *et al.*, 2010; Jabbour, 2011) generally do not discuss the Asian context; and

- no study has provided empirical evidence from Malaysia on the theoretical framework herein presented. The sample of manufacturing and service firms used in this study can contribute to overcoming the lack of studies on sustainability (Gunasekaran and Spalanzani, 2012).

Thus, this study aims to answer the research question of whether top management support will provide a significant driver to ensure the success of CSR and GHRM implementation. This paper is structured as follows: first, we present an overview of the literature in relation to the links between top management commitment, CSR and GHRM; next, we set out the hypotheses to be tested. We then outline the research method, which is followed by the discussion of the analysis and results. This paper concludes with the discussion of the study findings.

2. Literature review and development of hypotheses

2.1 Green human resource management (GHRM)

Environmental degradation is a major topical concern and calls for an urgent response and action from businesses in developing proactive environmental management practices (Jabbour *et al.*, 2010). Initiatives of green management and environmental management are becoming an important factor in the success and sustainability of businesses throughout the world (Daily and Huang, 2001). One of the reasons for this is the increased awareness regarding the possible impacts of organisational operations on the environment (Renwick *et al.*, 2015). In addition, the preservation of the natural environment is now being labelled as a “megatrend” in the business world (Longoni *et al.*, 2016). As a result, organisations are developing duties and practices related to cultivating environmental awareness as part of their organisational strategy – also known as green management.

In order to develop the capabilities of green management within organisations, scholars and practitioners argue that the employees of an organisation themselves must acquire skills and knowledge regarding environmental management initiatives (Jabbour and Santos, 2008; Renwick *et al.*, 2013). This is due to the fact that, as employees, they are the ones who will implement these practices and ensure that they are well incorporated to achieve the organisational goals (Du *et al.*, 2015; Santhosh and Baral, 2015). Therefore, one of the ways this initiative can be realised is through the implementation of HRM practices that place emphasis on the environmental aspects of an organisation’s business operations – a concept known as GHRM.

GHRM, as a whole, refers to the use of employees and employee-relevant aspects of business to promote sustainable practices pertaining to the environment by increasing awareness and commitment amongst employees regarding issues of environmental sustainability (Sheopuri and Sheopuri, 2015). Such initiatives involve adopting effective environmentally friendly HR practices which, amongst others, result in higher efficiency, greater cost reductions and increased employee retention and engagement.

Nowadays, with growing global concern around the effects of business operations on the environment, the number of organisations that are venturing into GHRM is increasing considerably (Daily and Huang, 2001). Renwick *et al.* (2008) specify that certain HRM practices and policies which are designed for performance management and appraisal, recruitment, training and development, pay and reward and employee relations are powerful tools that can assist in aligning employees with the organisation’s environmental strategy.

In order to discuss and explain the practices embedded within GHRM in the context of this study, it is crucial for us to first establish a clear understanding of this concept in regard to HRM practices. HRM refers to the human resources processes, programmes and

techniques that are implemented within an organisation (Osman *et al.*, 2011), which mainly include selection and recruitment, training and development, performance assessment and compensation and reward. These practices shape the HRM system and, although they are distinct from each other, they are interrelated in the proper functioning of organisations, being directed at attracting, developing and maintaining human resources (Sheopuri and Sheopuri, 2015).

GHRM however, although it includes these same practices, takes HRM one step further by emphasising the “greening” of these practices; to be more specific, it concentrates on the application of innovation throughout the organisation towards achieving sustainability, social responsibility, waste reduction and a competitive advantage (Haden *et al.*, 2009). In other words, GHRM focuses on the integration of HRM practices that support the reduction of negative impacts on the environment or the enhancement of positive environmental impacts of organisational operations, in alignment with the overall goals of the organisation. GHRM, as depicted by Haddock-Millar *et al.* (2016), refers to the planned and systematic alignment of an organisation’s HRM practices with its environmental goals. Similar to this definition, Sheopuri and Sheopuri (2015) suggest that GHRM is the “use of HRM policies to promote the sustainable use of resources within business organisations and, more generally promotes the cause of environmental sustainability” (p. 13).

Additionally, Renwick *et al.* (2013) depict GHRM as a concept that involves all organisational activities that relate to the development, maintenance and implementation of a system that strives to encourage and develop “green” employees. In other words, it is understood as the integration of human resources and corporate environmental management (Renwick *et al.*, 2008), as well as the adoption of greening aspects in the functional aspects of HRM (Jabbour *et al.*, 2010). These exemplifications of GHRM depict the meaning of this concept from the perspective of HRM processes and policies which are embedded within the environmental strategy of the organisation, with the intention of producing employees who have a high level of awareness towards the environment. The practices of such employees will assist the overall performance of the organisations. A summary of some of the definitions of GHRM provided in the literature is illustrated in Table I.

For the purposes of this study, we will follow Jabbour *et al.*’s (2010) definition of GHRM. The construct is thus defined as the “greening” of the functional aspects of HRM, which include job description and analysis of job position, selection and recruitment, training and development and performance appraisal and reward. For the purposes of this paper, however, the items for selection and recruitment as well as performance appraisal and

Author(s)	Definition of GHRM
Guerci and Carollo (2016)	GHRM is the relation between a set of specific HRM practices and environmental sustainability
Haddock-Millar <i>et al.</i> (2016)	GHRM is concerned with the “systemic, planned alignment of typical human resource management practices with the organisation’s environmental goals”
Jabbour (2011)	The act of “greening” human resources practices in terms of the functional as well as competitive dimensions of HRM
Jabbour <i>et al.</i> (2010)	Incorporating “greening” aspects into the functional dimensions of human resource management practices, which consist of job description and analysis, selection and recruitment, training and development and performance appraisal and rewards
Renwick <i>et al.</i> (2013)	GHRM practices are HRM-related aspects of green management
Renwick <i>et al.</i> (2008)	Management of human resources that integrates the aspects of corporate environmental management
Zoogah (2011)	GHRM is described as the use of HRM policies, philosophies and practices to promote the sustainable use of business resources and thwart any untoward harm arising from environmental concerns in organisations

Table I.
Definitions of GHRM

reward will be treated as separate constructs. Examples of the construction of these specific GHRM functions will be explained in the following sections.

2.1.1 Green analysis and description of job positions. From the perspective of GHRM, the description of a job position refers to the specification of the duties, tasks and responsibilities of employees, including those which are specifically related to the protection of the environment (Renwick *et al.*, 2008). According to Renwick *et al.* (2008), nowadays, in certain companies that practice GHRM, each job description includes details of employees' duties and responsibilities in this area. These responsibilities may include environmental reporting as well as health and safety related responsibilities, amongst others. Some organisations even go to the extent of introducing job positions that focus exclusively on the environmental management of their operations. Examples of specific practices that can be identified under green analysis and job descriptions include emphasising environmental aspects during the job interview and focusing on applicants' knowledge, values and beliefs regarding environmental issues (Renwick *et al.*, 2013), as well as using cross-functional teams to successfully manage issues related to the environment (Daily and Huang, 2001).

From the view of potential talent, a particular job description's focus on the perspective of environmental management may result in a higher level of attractiveness. This idea stems from the understanding that organisations which implement and emphasise the importance of good environmental practices are more likely to attract potential talent (Greening and Turban, 2000). One reason for this is that the implementation of positive practices towards the environment may be used as a signal to potential employees regarding how they will potentially be treated.

2.1.2 Green performance assessment. Another function of GHRM is the performance measurement of employees' green practices. Green performance assessment is crucial in order to identify and determine the effectiveness of environmental management practices towards the overall environmental performance of the organisation. In order to ensure that environmental performance can be sustained for a long period of time, organisations need to implement performance management and appraisal systems, such as introducing corporation-wide environmental performance standards, conducting audits and installing Green information systems (Renwick *et al.*, 2013). Amongst the practices that can be incorporated in regard to this context are environmental performance standards to be established throughout the organisation, setting green goals and responsibilities for employees (Renwick *et al.*, 2008) and providing clear and regular communication regarding the environmental concerns and policies of the organisation (Renwick *et al.*, 2013). Conducting environmental measurement is not an easy task, in addition to the various standards of environmental performance across different units and departments. However, some organisations have managed to come up with a standardised environmental performance assessment that is used throughout the organisation (Marcus and Fremeth, 2009). The data obtained can then be used for audits and to assess the success of environmental practices.

In order for this system to be effective, managers must first set specific goals and targets that aim to assist in the achievement of the organisation's environmental performance, by establishing suitable indicators within the performance measurement system and developing firm-wide communication regarding this matter (Renwick *et al.*, 2008). Additionally, the purpose of the performance assessment is not only for monitoring, but should also be integrated into the criteria used to determine the compensation and rewards to be given to employees.

2.1.3 Green recruitment. As the first step in attracting talented staff who will strive to achieve the same purpose as the organisation, the organisation has to position and portray itself in a way that will be most likely to attract the right talent. GHRM practices are known to be one of the methods used for "employer branding" in the recruitment process (Renwick *et al.*, 2013). It is believed that an organisation that practices positive values towards the environment

is more likely to attract potential employees (Greening and Turban, 2000). Green recruitment refers to organisations' emphasis on recruiting employees who are environmentally oriented and willing to engage in environmental management activities (Renwick *et al.*, 2013) in order to materialise their environmental strategy. According to Sheopuri and Sheopuri (2015), the recruitment process has to integrate sustainable development issues, which includes, amongst others, monitoring the long-term competency requirements of the organisation and providing employees with sufficient information regarding its environmental policies. Additionally, the green recruitment process encompasses the "green" aspect of the whole process of recruitment of employees; for example, the use of web-based recruitment practices instead of the traditional use of newspapers or other printed media (Renwick *et al.*, 2013).

An organisation's environmental strategy is said to be one of the important factors that potential employees take into account before applying for a job. A study carried out in the UK by the British Carbon Trust revealed that 75 per cent of employees take the environmental performance of an organisation as one of their considerations for working in the organisation (Renwick *et al.*, 2013). On top of this, studies have also observed that having a strong sustainable approach will help in attracting new talent (Greening and Turban, 2000; Phillips, 2007). Philpott and Davies (2007) are in agreement here, indicating in their study that 39 per cent of Chartered Institute of Personnel and Development (CIPD) members believe that environmental management is important in attracting and recruiting younger talent.

It is therefore crucial for organisations to create an environmentally friendly workforce, which can be achieved by establishing a green recruitment process. This is more cost effective compared to training and transforming existing employees in green practices, and is therefore considered to be one of the most important aspects of GHRM practices. One effective way that organisations can do this is to portray themselves as "green employers" (Renwick *et al.*, 2008). Further, studies have observed that in the current "war for talent", organisations that advertise themselves as placing a high emphasis on environmental issues are more likely to attract future employees, especially from the younger generation (Renwick *et al.*, 2013).

2.1.4 Green rewards. Following the green performance assessment dimension explained above, another vitally important aspect of GHRM is green rewards. It is through compensation and reward that employees feel appreciated, which, according to social exchange theory, will in turn lead to the motivation of such employees to continuously practice these environmentally friendly behaviours in order to gain continuous approval and recognition by the organisation. According to Jackson *et al.* (2014), compensation and rewards catered towards environmental goals are able to stimulate employees' actions and enhance long-term results – so much so, that some companies have included environmental assessment in their salary reviews. Green rewards can be designed from either financial or non-financial perspectives. Financial rewards comprise those that are related to cash prizes, bonuses or incentives, whereas non-financial rewards may include special recognition or awards. For example, organisations may allocate a proportion of monthly bonuses to reward practices that are dependent upon the environmental performance of employees (Sheopuri and Sheopuri, 2015). Other examples may include paid vacations, gift certificates, favoured parking and communicating the environmental achievements of employees throughout the organisation or rewarding employees for their green skills acquisition (Renwick *et al.*, 2008). Green rewards are also believed to encourage employees to become more engaged, increase their loyalty, increase the organisation's reputation and contribute to gaining competitive advantage.

2.1.5 Green selection. Whilst green recruitment is concerned with the way organisations portray themselves towards potential employees, green selection emphasises the selection of green employees who are more likely to be able to contribute towards the organisation's

green goals. In the context of green selection, organisations can opt to place potential employees' concern and interest towards the environmental management of the company as a key criterion of selection. This can be implemented by considering candidates' concern for the environment (Renwick *et al.*, 2008) and by selecting those who possess environmental knowledge and motivation (Jabbour *et al.*, 2010). In addition, employers can also opt to construct their selection criteria according to the long-term competency requirements of the organisation, based on the continuous monitoring of the business's environmental needs and requirements.

Green selection practices are crucial in the quest towards realising the environmental goals of the organisation. One of the reasons for this is related to the cost-effectiveness associated with selecting and recruiting employees who are already instilled with concern towards the environment, as opposed to providing training to those who do not (Renwick *et al.*, 2013). In line with this understanding, Renwick *et al.* (2013) suggest selecting applicants who are not only sufficiently aware of the concept of greening, but who also possess positive personal values such as openness to change.

2.1.6 Green training. Green recruitment and selection are incorporated by organisations as steps to attract and select "green talent"; green training, on the other hand, concerns organisations' existing employees. Green training is implemented as a response to necessary changes related to organisational operations pertaining to the environment. The best way to develop employees to be more engaged with and aware of the environmental initiatives of organisations, managers suggest, is the conduct of environmental training and education as well as the instilling of an eco-culture amongst employees (Jackson *et al.*, 2011; Renwick *et al.*, 2013). Green training should be developed across all levels of employees, ranging from technical safety and health training at the lower levels to strategic environmental issues at the executive and managerial levels (Sheopuri and Sheopuri, 2015). In addition, these programmes should sufficiently communicate the vision and mission of the organisation, as well as their environmental initiatives. Training in green issues is increasingly being practiced in many organisations. In the UK, for example, a CIPD report indicated that 42 per cent of organisations practiced environmental education and training for their employees (Phillips, 2007).

The creation of an environmentally concerned workforce can be promoted by conducting seminars and conferences that aim towards this purpose. Examples of this include eco-awareness training and education on environmental management (Renwick *et al.*, 2013; Jackson *et al.*, 2014). Amongst the various training events that organisations may offer are equipping employees with skills such as how to collect data on waste and increasing employees' eco-literacy (Renwick *et al.*, 2013). Others include activities such as the implementation of recycling and waste management programmes (Jackson *et al.*, 2011) and applying job rotation to green managers (Renwick *et al.*, 2008).

2.2 Top management commitment

The explanation of GHRM as set out above emphasises employees as enablers of the success of environmental management within organisations. For this reason, not only do training and development of environmental awareness have to be incorporated amongst all employees throughout the organisation, but top management must also be included (McCloskey and Maddock, 1994). The implementation of GHRM requires a high level of technical skill amongst an organisation's employees in order to create sustainable competitiveness for the organisation (Sheopuri and Sheopuri, 2015). Top management commitment is essential in ensuring that the mission of an organisation is realised to the point of improving firm performance. In this sense, it can be demonstrated that the successful realisation of any goal of an organisation is dependent upon the commitment of its top management (Williams *et al.*, 2014).

Digalwar *et al.* (2013) state that top management commitment acts as a framework for effective environmental improvement. The authors explain that top management is responsible for defining and designing which policies to establish and for communicating them thoroughly across the organisation. We believe that this definition is directly applicable to this study. Top management commitment also refers to the emphasis that top managers place on developing the capabilities of an organisation (Gavronski *et al.*, 2011). In a nutshell, it represents the emotional commitment, intention, conviction and attitude of the top management in pursuing the organisation's goals (Bagozzi, 1992); the lack of which will lead to failure to achieve these goals (Baetz and Bart, 1996).

Several case studies conducted by Mullane (2002) have indicated that the success of organisations' mission statements was highly dependent on their top management commitment. As such, the role of top management is especially crucial in realising organisations' green initiatives, due to their responsibilities in allocating resources and making decisions that are necessary to produce change within the organisation (Bansal and Roth, 2000). This aligns with the suggestion put forth by Colwell and Joshi (2013), who state that when an organisation's top management commitment is high, it is more likely that the adoption of environmentally friendly practices will be attended to. On the basis of these notions, we posit that in order for an organisation to implement successful "greening", there has to exist substantial top management commitment, in order to ensure that its implementation can reap benefits in terms of competitive advantage.

Following these beliefs, managers have come to realise that the implementation of practices that promote environmental sustainability, which can lead to competitive advantage, lies in their own commitment towards these environmental practices (Yang Spencer *et al.*, 2013). In other words, the success of the adoption of green initiatives by organisations is dependent on the organisation's top management commitment.

2.3 Corporate social responsibility

When talking about environmental management or concern towards the environmental impacts of organisational operations, the term CSR also comes to mind. CSR is a slightly broader concept, in that it not only encompasses activities related to environmental management, but also involves the social and economic aspects of organisational operations. CSR is concerned with a wider range of stakeholders, in that organisations have an increasing need to place emphasis on adhering to sustainability requirements, such as the rising power of consumers, activists, the media and non-governmental bodies (Porter and Kramer, 2006). Paluri and Mehra (2018) cite various studies which suggest that the benefits which firms derive by engaging in CSR activities go beyond a pure bottom-line outcome. A study conducted by Fortune Magazine in the US indicates that in 1990, 90 per cent of Fortune 500 firms incorporated CSR as a basic component of their annual reports, as opposed to less than half of such firms in 1977 (Lee, 2008). In India, according to the Companies Act, 2013, all companies with at least INR5 crores net profit, INR1,000 crores turnover or INR500 crores net worth are obliged to spend 2 per cent of their three-year average annual net profit on CSR activities in each financial year from the 1 April 2014 (Paluri and Mehra, 2018).

The rising awareness of and emphasis placed on CSR has led to myriad definitions of this concept in the literature (McCallum *et al.*, 2013). CSR is said to be related to the decision making process and behaviours of organisations that involve ethical and moral aspects (Branco and Rodrigues, 2006). This definition has been extended to include the notion that these processes and behaviours are voluntary in nature (Aguilera *et al.*, 2007). Viewing CSR from the stakeholder perspective, CSR also relates to attending to the needs and requirements of an organisation's stakeholders, which implies that, in addition to focusing on environmental and social consequences of operational activities, organisations need to also place emphasis on

the fulfilment of stakeholders' needs. Sustainable development of businesses is concerned with "meeting the needs of people today, without compromising the ability of future generations to fulfil their needs" (Sheopuri and Sheopuri, 2015, p. 14). It is important to note that even though CSR implementation is concerned with the environmental and social impacts of companies, it does not neglect economic performance in order to ensure the sustainability of the organisation. The concern that people now place on social and environmental impacts of businesses has made CSR one of the criteria that is being included in companies' strategy (Tziner *et al.*, 2011).

Amongst the countless reasons for the adoption of CSR amongst organisations, CSR implementation is said to establish a good image and reputation, which will in turn contribute to overall organisational performance and create a sustainable competitive advantage (Porter and Kramer, 2006). A good example can be seen in the design of Toyota's hybrid vehicle, the Prius. This innovation was not only environmentally friendly, but also received wide interest amongst consumers due to its technological attributes (McCallum *et al.*, 2013). On the other hand, organisations' negligence towards the negative environmental impacts that can occur as a result of their operations was evident in the recent occurrence of a widespread haze that was caused by deforestation by an Indonesian paper producing company, Asia Pulp and Paper (Channel NewsAsia, 2015). In response, the Singapore Environment Council ordered a withdrawal of their products from all stores in Singapore. This incident clearly highlights the powerful effect that compliance with environmental issues can have on organisations' economic performance.

In addition, improved firm performance is said to be achieved through the influence that CSR exerts on an organisation's employees (Lee *et al.*, 2013; Greening and Turban, 2000). Employees are considered to be a firm's most valuable asset. This has led to myriad studies focusing on the connection between CSR and HRM. Due to the focus of this study on environmental outcomes as a result of business operations, we attempt to investigate the influence of CSR implementation specifically on GHRM.

2.4 The relationship between top management commitment and GHRM

As mentioned previously, top management commitment is considered to be one of the key capabilities in an organisation that assists in the development and implementation of corporate environmental practices. As a key factor, top management is also responsible for determining the direction of the HRM practices that are incorporated in organisations. As such, it is believed that when an organisation's top management is aware of the importance of environmental performance, this will lead to the implementation of HRM practices that are directed towards the environmental outcomes of the organisation (Bansal and Roth, 2000).

In addition, as suggested by Williams *et al.* (2014), the commitment of top management is essential in ensuring that the organisation's missions and goals are realised; in this paper, GHRM. The implementation of these green initiatives is said to involve all employees throughout the organisation, and therefore inevitably fosters the need for commitment from the HR department.

As a response, due to the fact that HRM is one of the main bridges organisations can use to connect their goals to their intended performance, and due to the role of top management commitment in driving the direction of HRM practices, we posit that top management commitment can positively influence GHRM practices. Therefore, we hypothesise that:

H1a. Top management commitment positively influences green analysis and description of job positions.

H1b. Top management commitment positively influences green performance assessment.

- H1c.* Top management commitment positively influences green recruitment.
- H1d.* Top management commitment positively influences green rewards.
- H1e.* Top management commitment positively influences green selection.
- H1f.* Top management commitment positively influences green training.

2.5 The relationship between CSR and GHRM

As discussed above, CSR is concerned with business sustainability in terms of the social, economic and environmental aspects of businesses. GHRM, however, is concerned more specifically with the environmental outcomes which result from business operations, and which can be achieved through the proper management of HRM practices, as opposed to the overall concept of CSR, which focuses on the performance of the triple bottom line. Sheopuri and Sheopuri (2015) add that the human resource departments of organisations play a critical role in ensuring the implementation of CSR programmes, which provides an indication of the existing relationship between HRM and CSR. However, Voegtlin and Greenwood (2016) suggest that there also exists a reverse correlation between the two concepts, whereby not only can HRM be considered as an antecedent of CSR, but CSR can also be considered as a concept that contributes to HR practices. The rationale behind this concept depends on the ability of CSR to act as an attraction for talents with specific concerns for the environment, the motivation that CSR provides for employees to commit to environmental initiatives and as a way to define the sustainable goals of the organisation (Voegtlin and Greenwood, 2016).

This paper is concerned with the CSR–GHRM relationship. We believe that companies that are concerned with the sustainability aspects of business will opt to “greenify” their HR practices (Sheopuri and Sheopuri, 2015). In addition, green human resource development is known to be conceptualised as a subset of sustainable human resource development (Sheehan *et al.*, 2014), which is said to include a focus on CSR. From these suggestions, we believe that CSR has the ability to influence GHRM practices within an organisation. More specifically, we hypothesise that:

- H2a.* CSR positively influences green analysis and description of job positions.
- H2b.* CSR positively influences green performance assessment.
- H2c.* CSR positively influences green recruitment.
- H2d.* CSR positively influences green rewards.
- H2e.* CSR positively influences green selection.
- H2f.* CSR positively influences green training.

2.6 The relationship between top management commitment and CSR

As with the case of GHRM and its high reliance on top management commitment in order to succeed, we posit that CSR may also be positively influenced by top management commitment. The first reason for this is that, apart from the social and economic concerns, CSR also places importance to a certain extent on the environmental aspects of businesses, and the “greening” of business operations (Sheopuri and Sheopuri, 2015). Second, it is also believed that in order for CSR to be properly implemented within organisations, the commitment of the organisation’s top management is still required. This is due to the fact that, as with GHRM, CSR can also be considered to be a strategy that is adopted by organisations and, as with GHRM, also requires proper development and design of related

policies which are set and controlled by top management in order to realise organisational goals (Tziner *et al.*, 2011). In light of this understanding, we hypothesise that:

H3. Top management positively influences CSR.

Top
management
commitment

2.7 Theoretical framework

The theoretical framework for this study is depicted in Figure 1.

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3. Research methodology

3.1 Sample and procedure

A self-administration questionnaire was sent to a sample of 400 Malaysian manufacturing and service organisations, drawn from the Federation of Malaysian Manufacturers Directory of Malaysian Industries 2016. A representative of each organisation was given one questionnaire. The representatives were then encouraged to distribute this questionnaire to either his or her HR director, senior HR manager or HR manager. Each participant received the questionnaire with a cover letter attached, explaining the purpose of the study and instructions on how to answer the questionnaire. Data were collected between September 2016 and January 2017, and a snowball sampling method was used to select the sample for this study. A total of 87 completed questionnaires were collected which were usable for further analysis, representing a response rate of 21.75 per cent.

This response rate is considered acceptable, and previous research has commonly reported low response rates in social science studies (Sekaran and Bougie, 2013). Low response rates are common for this type of correlational study in Malaysia. The response rate for the current study, however, is comparable to other studies in manufacturing companies in Malaysia; hence it is considered acceptable. This level of usable response rate is comparable with similar survey-based studies in manufacturing firms in Malaysia (Behyan *et al.*, 2015; Fernando and Hor, 2017; Fernando and Wah, 2017; Fernando *et al.*, 2019; Lazim and Ramayah, 2010; Sundram *et al.*, 2011). For instance, the study conducted by Behyan *et al.* (2015) reported 19.48 per cent; Lazim and Ramayah (2010) reported 10.07 per cent; Fernando and Hor (2017) reported 18 per cent; Fernando and Wah (2017) and Fernando *et al.* (2019) reported 21.1 per cent amongst green tech companies; and there were 110 complete and usable responses in Sundram *et al.*'s (2011) study, representing a response rate of 13.9 per cent.

The final sample of this study consisted of 55.2 per cent female and 44.8 per cent male respondents, with 13.8 per cent between the ages of 21 and 26, 35.6 per cent aged 27–32, 18.4 per cent aged 33–38, 9.2 per cent aged 39–44, 12.6 per cent aged 45–50 and 10.3 per cent above the age of 50. Amongst these, 12.6 per cent of respondents have been working in the relevant company for less than a year, 55.2 per cent have been working there from 1–5 years, 21.8 per cent for 6–10 years, 8.0 per cent for 11–15 years, with only 1.1 per cent of respondents working in the company for 16–20 years or over 20 years. In terms of the type of industry,

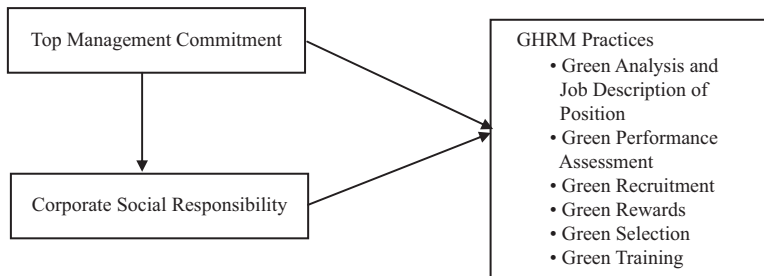


Figure 1.
Theoretical framework

amongst the sample companies of this study, 72.4 per cent were in the manufacturing industry, which accounts for 63 companies, while the remaining 27.6 per cent (24 companies) were in the service industry. All companies surveyed are ISO 14001 certified. ISO 14001 defines environmental performance as assessable results of the environmental management systems linking to the management of the environmental facets performed by the enterprise, based on its environmental strategies and aims (Sangwan and Choudhary, 2018).

3.2 Questionnaire items

We used a five-point, Likert-type scale ranging from strongly disagree (1) to strongly agree (5) to measure all constructs. The GHRM variables assessed were adapted from Jabbour *et al.* (2010), and consisted of six dimensions: green analysis and description of job position, green performance assessment, green recruitment, green rewards, green selection and green training. Measures of top management commitment were adapted from Digalwar *et al.* (2013). The measurement of CSR was adapted from Chang and Chen (2012).

Using a self-administered survey and a stratified random sampling technique, the data obtained were then analysed using the SmartPLS 2.0 software in order to investigate and determine the nature of the relationship between the three variables included in this study.

4. Findings

To achieve the objective of this paper, a quantitative method was employed, using the statistical package of structural equation modelling (SEM) with the partial least square (PLS) method. The software used is included as part of a component-based SEM method (Hair *et al.*, 2014). This software is useful since it makes fewer demands in terms of sample size. According to Hair *et al.* (2014), PLS-SEM offers remarkable multivariate data analysis because of the statistical software's ability to examine the structural model with acceptable power using a very small sample. Kock and Hadaya (2018) posit that strong path coefficients at the population level tend to require very small sample sizes. Ramli *et al.* (2018) have concurred with Hair *et al.* (2014) that 5 to 10 cases are needed for a complex model. Despite the fact that PLS-SEM is not very sensitive to assumptions of normality, it is worth considering the statistical power of predictors in the model in terms of sample size (Fernando and Chukai, 2018). Thus, SmartPLS 3.2 software is used here for data analysis.

4.1 Measurement model

The validation of the measurement quality was examined to determine the reliability of the constructs. For this purpose, we analysed the composite reliability scores and found that all constructs had a recommended score higher than 0.8 (see Table II), indicating that all the measurements are highly reliable.

Measurement instrument	Composite reliability
CSR	0.934
GAJ	0.940
GP	0.962
GR	0.941
GRW	0.935
GS	0.976
GT	0.958
TMC	0.952

Table II.
Composite reliability
of constructs

Notes: CSR, corporate social responsibility; GAJ, green job analysis and job description of job position; GP, green performance; GR, green recruitment; GRW, green rewards; GS, green selection; GT, green training; TMC, top management commitment

Next, this study conducted statistical analysis on factor loadings, Cronbach's α and average variance extracted (AVE) to assess convergent and discriminant validity. Convergent validity refers to the extent to which a number of items measuring the same construct are highly related (Sekaran and Bougie, 2010). Based on the values depicted in Table III, the loading values and Cronbach's α for all items are higher than the threshold value of loading (0.7) and recommended Cronbach's α value (0.5), respectively. However, in terms of the AVE value, all items except for TMC and CSR are found to be established with high convergent reliability (AVE above 0.7). According to Hair *et al.* (2011), an AVE value of above 0.5 can also be accepted, which allows for the inclusion of the items in this particular study. Furthermore, the AVE values for all constructs are higher than 0.6, which indicates that the latent constructs can account for more than 60 per cent of the items' variance, proving that all items have convergent validity.

The data is then analysed to assess its discriminant validity, which is indicated by comparing the AVE value of each construct with the square of its relation with any other construct. The purpose for assessing the discriminant validity is to ensure that there do not exist any two items within the same construct that are measuring the same thing, which would cause a redundancy in the data (Sekaran and Bougie, 2010). In order to establish discriminant validity, the value of AVE should be higher than the other constructs (Zait and Berteau, 2011), which, according to the values depicted in Table IV, is fulfilled here.

Construct	Variable	Loading	AVE	Cronbach's α
TMC	TMC1	0.790	0.687	0.943
	TMC2	0.856		
	TMC3	0.804		
	TMC4	0.851		
	TMC5	0.861		
	TMC6	0.867		
	TMC7	0.759		
	TMC8	0.816		
	TMC9	0.849		
CSR	CSR1	0.729	0.613	0.921
	CSR2	0.788		
	CSR3	0.727		
	CSR4	0.734		
	CSR5	0.806		
	CSR6	0.775		
	CSR7	0.863		
	CSR8	0.813		
	CSR9	0.798		
GAJ	GHP1	0.874	0.840	0.904
	GHP2	0.943		
	GHP3	0.931		
GR	GHP4	0.953	0.889	0.877
	GHP5	0.933		
GS	GHP6	0.976	0.953	0.951
	GHP7	0.977		
GT	GHP8	0.933	0.885	0.935
	GHP9	0.954		
	GHP10	0.934		
GP	GHP11	0.931	0.895	0.941
	GHP12	0.960		
	GHP13	0.947		
GRW	GHP14	0.922	0.878	0.863
	GHP15	0.952		

Table III.
Convergent validity
of constructs

4.2 Hypothesis testing

The structural model and hypotheses in Figure 2 were analysed to assess the acceptance or non-acceptance of the proposed hypotheses. The path, standard deviation, *t*-statistics and *p*-values are shown in Table V. In order for a hypothesis to be accepted, this study employs a one tailed *t*-statistic value. The hypothesis will be accepted if the *t*-value is higher than 1.65, and the *p*-value should be more than 0.5. The significance of each of the structural paths was calculated using the bootstrapping technique. This is indicated in Figure 3, where top management commitment is shown to have a significant positive effect on CSR (*t*-value: 2.689, *p*-value: 0.004). *H3* is therefore supported. In terms of the relationship between top management commitment and the constructs of GHRM, all the items are found to have a highly positive effect: green analysis and description of job position (*t*-value: 4.747, *p*-value: 0.000), green recruitment (*t*-value: 3.650, *p*-value: 0.000), green selection (*t*-value: 4.413, *p*-value: 0.000), green training (*t*-value: 5.245, *p*-value: 0.000), green performance (*t*-value: 5.692, *p*-value: 0.000) and green rewards (*t*-value, 5.443, *p*-value: 0.000). *H1a*, *H1b*, *H1c*, *H1d*, *H1e* and *H1f* are therefore supported.

	TMC	CSR	GAJ	GP	GR	GRW	GS	GT
TMC	0.829							
CSR	0.287	0.783						
GAJ	0.512	0.363	0.917					
GP	0.469	0.222	0.635	0.946				
GR	0.391	0.277	0.664	0.673	0.943			
GRW	0.534	0.246	0.553	0.815	0.642	0.937		
GS	0.432	0.174	0.601	0.774	0.858	0.699	0.976	
GT	0.480	0.275	0.704	0.780	0.656	0.748	0.713	0.941

Table IV.
Fornell-Larcker
criterion

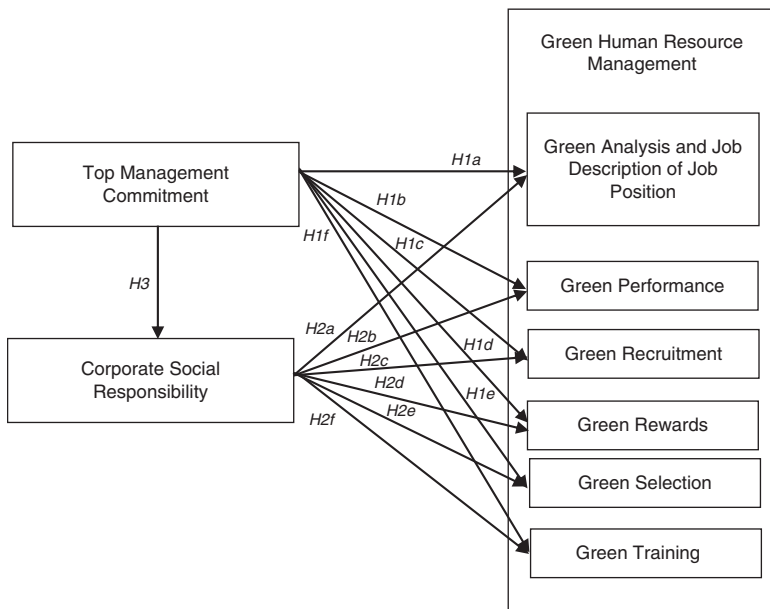


Figure 2.
Proposed structural
model and hypotheses

Hypothesis	Path coefficient	SD	t-statistic	p-values	Result	
H1a	TM → GAJ	0.444	0.094	4.747	0.000	Supported
H1b	TM → GP	0.442	0.078	5.692	0.000	Supported
H1c	TM → GR	0.339	0.093	3.650	0.000	Supported
H1d	TM → GRW	0.505	0.093	5.443	0.000	Supported
H1e	TM → GS	0.416	0.094	4.413	0.000	Supported
H1f	TM → GT	0.437	0.083	5.245	0.000	Supported
H2a	CSR → GAJ	0.236	0.117	2.016	0.022	Supported
H2b	CSR → GP	0.095	0.110	0.869	0.193	Not supported
H2c	CSR → GR	0.180	0.116	1.547	0.061	Not supported
H2d	CSR → GRW	0.101	0.102	0.993	0.161	Not supported
H2e	CSR → GS	0.054	0.121	0.447	0.327	Not supported
H2f	CSR → GT	0.150	0.110	1.367	0.086	Not supported
H3	TM → CSR	0.287	0.107	2.689	0.004	Supported

Table V. Results of hypothesis testing

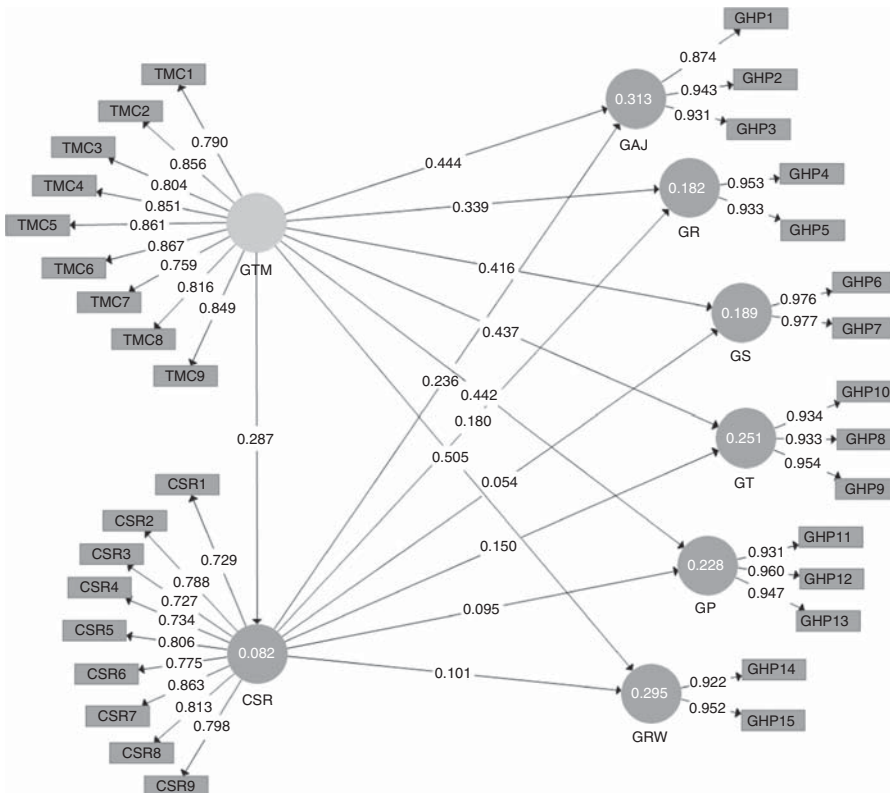


Figure 3. PLS results of the proposed model

In terms of the relationship between CSR and GHRM, only one dimension – green analysis and description of job position – is supported (*t*-value: 2.016, *p*-value: 0.022). *H2a* is thus supported. The other dimensions of GHRM: green recruitment (*t*-value: 1.547, *p*-value: 0.061), green selection (*t*-value: 0.447, *p*-value: 0.327), green training

(*t*-value: 1.367, *p*-value: 0.086), green performance (*t*-value: 0.869, *p*-value: 0.193) and green rewards (*t*-value: 0.993, *p*-value: 0.161) were all found to be insignificant, thus rejecting hypotheses *H2b*, *H2c*, *H2d*, *H2e* and *H2f*.

5. Discussion and conclusion

The originality of this research is in putting together the relationship between top management commitment, CSR and GHRM. Based on the best knowledge of the authors, this is the first work testing this theoretical framework in light of empirical evidence from Malaysia, contributing to a better understanding of sustainability in manufacturing and service companies, which remains a gap in the state-of-the-art literature (Gunasekaran and Spalanzani, 2012).

This section focuses on the main findings of the study, giving prominence to the following: the research objectives; implications; limitations of the research and future research directions.

5.1 Research objectives

This paper proposed a framework for evaluating the greening of HRM practices in manufacturing and service organisations. The authors conducted this research from the perspective of 87 organisations in Malaysia. The aim of this study was to examine top management commitment and CSR, and whether these have a positively significant influence on GHRM. The study has also proposed that top management commitment has a positive, significant influence on CSR.

5.2 Main findings

The observed findings indicate a significant positive relationship between top management commitment and CSR. Besides, top management commitment is found to have a significant positive effect on all dimensions of GHRM practices (green analysis and description of job position, green recruitment, green selection, green training, green performance and green rewards). However, counterintuitively, the relationship between CSR and GHRM was found not to be as significant as expected (except for CSR and green analysis and description of job position).

5.3 Theoretical implications

We set out to explore the relationship between top management commitment, CSR and GHRM. First, our research provided empirical evidence for positive relationships between top management commitment and all dimensions of GHRM. This result suggests that the higher top management commitment is, the higher the chances of GHRM being practiced as the HR strategy of an organisation. As previously shown, this can be explained because any goal in an organisation is dependent on the commitment of top management (Williams *et al.*, 2014); top management can convince and disseminate practices with an environmental approach at all organisational levels, including GHRM practices (Paillé *et al.*, 2014). This supports extant research showing positive links between top management commitment and corporate environmental practices (Lee and Ball, 2003) and environmental sustainability (Colwell and Joshi, 2013).

However, these studies do not focus on GHRM. This result indicates the crucial importance of top management commitment in supporting companies' initiatives towards implementing GHRM practices within the organisation. As explained by Williams *et al.* (2014), the success of any goal in an organisation is dependent on the commitment of top management, and the case analysed in this paper is no different. Top management support is the key driver of GHRM implementation and decision making to decide on the strategic

direction and assessment of the company. In general, a green, or sustainable, HRM approach is part of a broad HRM strategy (Kramar, 2014), and a strategy with a top-down characteristic and top management commitment is a key element in disseminating the strategy across all organisational levels.

Some internal environmental orientations come from the personal commitment of top management (Paillé *et al.*, 2014). Thus, a manager is an important source of inspiration and motivation to other employees becoming more environmentally conscious, and top management has an important role to play in convincing and disseminating HRM practices with an environmental approach at all organisational levels (Paillé *et al.*, 2014). To improve business outcomes, top management needs to specifically design strategic plans for talent management, especially on job descriptions. GHRM will be successfully implemented if the top management supports green innovative performance assessment, recruitment, rewards, selection and training. Amongst other domains of GHRM, green reward has the highest the path coefficient value, which indicates that this is a critical aspect of implementation. Besides, Daily and Huang (2001) argue that top management within an environmentally conscious organisation should strive for a strong culture that allows its employees the freedom to make environmental improvements.

Second, our study extends the literature on the role of CSR in GHRM practices. Our result shows that CSR is positively related to only one dimension of GHRM practices (i.e. green analysis and description of job position). Our results support the hypothesis that the higher the level of CSR practices within an organisation, the higher their green analysis and description of job position is. Some studies have shown a certain relationship between CSR and HRM (Jamali *et al.*, 2015; Shen and Benson, 2016; Voegtlin and Greenwood's, 2016). Jamali *et al.* (2015) established a CSR–HRM co-creation model, which is believed to create a beneficial outcome from such synergy. Ideally, CSR implementation can improve employee morale and proved the basis to practice GHRM in firms. Those employees who have a better view and idea of how well firms can implement better CSR programme should be appreciated more. Novel ideas and creativity in CSR implementation should be in line with green analysis and description of job position. Voegtlin and Greenwood (2016) have argued that CSR and HRM can be seen as relevant in understanding the assumptions concerning the role of the corporation and the relationship between employer and workers, and have called for a comprehensive examination of the relationship between these two constructs. This is an important finding, given that Voegtlin and Greenwood's (2016) study has proposed how this relationship should be linked.

Third, our results also found that the role of top management commitment is positively related to CSR. The present study also contributes to the literature on the relationship between top management commitment and CSR. The findings show that the higher the commitment given by top management, the greater the contribution by the corporation to CSR activities. This finding supports the argument that, in order for CSR to work in a company, it must have an internal champion; top-level management commitment is crucial to its success (Jenkins, 2009). Furthermore, in a large company, top-tier managers may support CSR, but it is usually driven by champions at the middle tier working in departments such as human resources or external relations (Jenkins, 2009).

Fourth, through these findings, our research can make various contributions to the GHRM literature in general and the sustainable HRM literature in particular. Prior studies in GHRM have focused on environmental aspects (O'Donohue and Torugsa, 2016; Rangarajan and Rahm, 2011; Zibarras and Coan, 2015), green supply chain management (SCM) (Longoni *et al.*, 2016; Nejati *et al.*, 2017; Teixeira *et al.*, 2016), CSR (Jabbour, 2011; Wagner, 2013), stakeholder pressure (Guerci, Longoni and Luzzini, 2016), resistance to change (Nejati *et al.*, 2017), strategic HR competencies (Yong and Mohd-Yusoff, 2016), HR factors (Yusliza *et al.*, 2017), performance (Guerci, Longoni and Luzzini, 2016; Longoni *et al.*, 2016;

Masri and Jaaron, 2017; O'Donohue and Torugsa, 2016; Siyambalapitiya *et al.*, 2018; Yusoff *et al.*, 2018) and competitive advantage (Carmona-Moreno *et al.*, 2012). Our research focuses on top management commitment, CSR and GHRM, thereby filling the gap represented by the dearth of research on GHRM in the sustainable HRM literature. Based on these results, organisations therefore need to focus more attention on top management commitment, as it does help companies to be more involved in CSR activities and GHRM practices.

Finally, our study investigates the relationship between top management commitment, CSR and GHRM practices, focusing on emerging countries and, in particular, on the Malaysian context. Our study is therefore in line with the recommendation of Renwick *et al.* (2013) to further study green and environmental HRM in developing Asian countries.

Therefore, to our knowledge, this is the first attempt to empirically test the link between top management commitment, CSR and GHRM practices. Furthermore, our study is perhaps the first attempt to develop this kind of research framework, extending the organisational behaviour and HRM literature in relation to environmental studies.

5.4 Practical implications

Our research provides practical contributions to HR managers and top management in a number of ways. First, organisations should take the initiative in creating an enabling environment for CSR, and this must start from the top management, who should be committed to helping organisations in satisfying their CSR objectives. The commitment of top management towards CSR is very important, and should be expressed in tangible terms to reinforce the right kind of behaviour in the organisation. CSR activities should be promoted and supported by top management in order to develop a sense of ownership amongst the employees and to create a basis for the continuation of the CSR activities themselves (Morsing *et al.*, 2008). For example, organisations should inculcate CSR values amongst its new recruits right at the beginning, during the induction process. Furthermore, departmental updates through emails, regular newsletters and presentations are mechanisms which can be used to keep employees aware of the organisation's socially responsible initiatives.

Second, managers have to take into consideration the importance of commitment from top management in supporting GHRM practices within the organisation. Top management should pay more attention to linking their commitment with GHRM practices to achieve environmental initiatives introduced by the organisation. Managers should be mindful that adopting GHRM practices will be successful if commitment from the top management is guaranteed as one of the strategies to achieve low carbon organisational success. Thus, managers should determine clear definitions for GHRM. They should allocate more funds for training key employees involved in GHRM practices to ensure effective implementation.

Third, managers need to focus on green analysis and description of job position, aimed at aligning GHRM strategies with CSR strategy and ways to successfully execute these strategies. Top management must set volunteering activities as part of employees' job analysis and job description, and create systems of recognition for volunteering work done as part of GHRM practices. Volunteers will continue if these activities are part of their involvement and knowledge about environmental management in their analysis and description of job position.

5.5 Limitations of this research

Although our findings are robust and important, they do have some limitations that need to be explicitly acknowledged. The limitations of this study may be associated with the proposed framework and its application. First, although the variables selected for the framework can be considered adequate for studies on GHRM practices in organisations, it is believed that other variables can also contribute to this framework. Furthermore, the framework must be further refined and adjusted by being adapted to include other organisations and other countries to

conduct a cross-country study, which may enhance the generalisability of the findings, and may affect the results. Moreover, the data collection phase in this study occurred at one point of time. Finally, we have used subjective measurements (self-assessment) in our questionnaire, although these were adopted from previous studies.

5.6 Future research directions

Notwithstanding the limitations of our research, this study may be extended to include other GHRM practices and to empirically investigate how each GHRM practice can complement others in different conditions. It should be recognised that GHRM practices should be evaluated in terms of having different dimensions, either at the individual or organisational level of study. Additionally, our study may be enhanced by using samples from other industries and firm sizes, using longitudinal data to establish causal relationships amongst independent and dependent variables, or using multiple cases to further investigate the role of top management commitment, CSR and GHRM practices. The possible association amongst the triple bottom line of sustainability can further be explored, as well as the inclusion of constructs such as environmental knowledge and awareness, environmental concern, HR roles and competencies, stakeholder pressure and green intellectual capital. Finally, given temporary conditions as well as considering environmental aspects in the management of the organisation, future frameworks could be explored by focusing on environmental performance as their ultimate goal.

We hope that this study will offer an alternative lens to those who study the impact of top management commitment and CSR on GHRM practices.

References

- Aguilera, R.V., Rupp, D.E., Williams, C.A. and Ganapathi, J. (2007), "Putting the S back in corporate social responsibility: a multilevel theory of social change in organisations", *Academy of Management Review*, Vol. 32 No. 3, pp. 836-863, available at: <https://doi.org/10.1080/23311975.2015.1030817>
- Ahmad, S. (2015), "Green human resource management: policies and practices", *Cogent Business & Management*, Vol. 2 No. 1, pp. 1-13.
- Al Kerdayy, 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*, pp. 1-17, available at: <https://doi.org/10.1111/emre.12310>
- Aragão, C.G. and Jabbour, C.J.C. (2017), "Green training for sustainable procurement? Insights from the Brazilian public sector", *Industrial and Commercial Training*, Vol. 49 No. 1, pp. 48-54.
- Baetz, M.C. and Bart, C.K. (1996), "Developing mission statements which work", *Long Range Planning*, Vol. 29 No. 4, pp. 526-533.
- Bagozzi, R.P. (1992), "The self-regulation of attitudes, intentions, and behavior", *Social Psychology Quarterly*, Vol. 55 No. 2, pp. 178-204.
- Bansal, P. and Roth, K. (2000), "Why companies go green: a model of ecological responsiveness", *Academy of Management Journal*, Vol. 43 No. 4, pp. 717-736.
- Behyan, M., Mohamad, O. and Omar, A. (2015), "Influence of internationalisation orientation on export performance: in the perspective of Malaysian manufacturing firms", *Journal of Business & Industrial Marketing*, Vol. 30 No. 1, pp. 83-95.
- Branco, M.C. and Rodrigues, L.L. (2006), "Corporate social responsibility and resource-based perspectives", *Journal of Business Ethics*, Vol. 69 No. 2, pp. 111-132.
- Carmona-Moreno, E., Cespedes-Lorente, J. and Martinez-del-Rio, J. (2012), "Environmental human resource management and competitive advantage", *Management Research: Journal of the Iberoamerican Academy of Management*, Vol. 10 No. 2, pp. 125-142, available at: <https://doi.org/10.2753/JMR1536-5433050103>

- Chang, C.-H. and Chen, Y.-S. (2012), "The determinants of green intellectual capital", *Management Decision*, Vol. 50 No. 1, pp. 74-94.
- Channel NewsAsia (2015), "Haze Fallout: NTUC FairPrice, Sheng Siong withdraw all APP paper products", available at: www.channelnewsasia.com/news/singapore/haze-fallout-ntuc/2175070.html (accessed 16 August 2018).
- Colwell, S.R. and Joshi, A.W. (2013), "Corporate ecological responsiveness: antecedent effects of institutional pressure and top management commitment and their impact on organisational performance", *Business Strategy and the Environment*, Vol. 22 No. 2, pp. 73-91.
- Daily, B.F. and Huang, S.C. (2001), "Achieving sustainability through attention to human resource factors in environmental management", *International Journal of Operations & Production Management*, Vol. 21 No. 12, pp. 1539-1552.
- Digalwar, A., Tagalpallewar, A.R. and Sunnapwar, V. (2013), "Green manufacturing performance measures: an empirical investigation from Indian manufacturing industries", *Measuring Business Excellence*, Vol. 17 No. 4, pp. 59-75.
- Du, S., Bhattacharya, C.B. and Sen, S. (2015), "Corporate social responsibility, multi-faceted job products, and employee outcomes", *Journal of Business Ethics*, Vol. 131 No. 2, pp. 319-335.
- Dubey, R., Gunasekaran, A. and Chakrabarty, A. (2015), "World-class sustainable manufacturing: framework and a performance measurement system", *International Journal of Production Research*, Vol. 53 No. 17, pp. 5207-5223.
- Dumont, J., Shen, J. and Deng, X. (2016), "Effects of green HRM practices on employee workplace green behaviour: the role of psychological green climate and employee green values", *Human Resource Management*, Vol. 56 No. 4, pp. 613-627, available at: <https://doi.org/10.1002/hrm>
- Ferdousi, F., Baird, K., Munir, R. and Su, S. (2018), "Associations between organisational factors, TQM and competitive advantage: evidence from an emerging economy", *Benchmarking: An International Journal*, Vol. 25 No. 3, pp. 854-873, available at: <https://doi.org/10.1108/BIJ-05-2017-0110>
- Fernando, Y. and Chukai, C. (2018), "Value co-creation, goods and service tax (GST) impacts on sustainable logistic performance", *Research in Transportation Business and Management*, Vol. 28, pp. 92-102, available at: <https://doi.org/10.1016/j.rtbm.2018.10.001>
- Fernando, Y. and Hor, W.L. (2017), "Impacts of energy management practices on energy efficiency and carbon emissions reduction: a survey of Malaysian manufacturing firms", *Resources, Conservation & Recycling*, Vol. 126, pp. 62-73, available at: <https://doi.org/10.1016/j.resconrec.2017.07.023>
- Fernando, Y. and Wah, W.X. (2017), "The impact of eco-innovation drivers on environmental performance: empirical results from the green technology sector in Malaysia", *Sustainable Production and Consumption*, Vol. 12, pp. 27-43, available at: <https://doi.org/10.1016/j.spc.2017.05.002>
- Fernando, Y., Jabbour, C.J.C. and Wah, W.X. (2019), "Pursuing green growth in technology firms through the connections between environmental innovation and sustainable business performance: does service capability matter?", *Resources, Conservation and Recycling*, Vol. 141, pp. 8-20.
- Fernando, Y., Wah, W.X. and Shaharudin, M.S. (2016), "Does a firm's innovation category matter in practising eco-innovation? Evidence from the lens of Malaysia companies practicing green technology", *Journal of Manufacturing Technology Management*, Vol. 27 No. 2, pp. 208-233.
- Gavronski, I., Klassen, R.D., Vachon, S. and do Nascimento, L.F.M. (2011), "A resource-based view of green supply management", *Transportation Research Part E: Logistics and Transportation Review*, Vol. 47 No. 6, pp. 872-885.
- Gholami, H., Rezaei, G., Mat Saman, M.Z., 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, available at: <https://doi.org/10.1016/j.enpol.2013.11.028>
- Green, K.W. Jr, Zelbst, P.J., Meacham, J. and Bhadauria, V.S. (2012), "Green supply chain management practices: impact on performance", *Supply Chain Management: An International Journal*, Vol. 17 No. 3, pp. 290-305.

-
- Greening, D.W. and Turban, D.B. (2000), "Corporate social performance as a competitive advantage in attracting a quality workforce", *Business & Society*, Vol. 39 No. 3, pp. 254-280.
- Guerci, M. and Carollo, L. (2016), "A paradox view on green human resource management: insights from the Italian context", *The 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", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 262-289, available at: <https://doi.org/10.1080/09585192.2015.1065431>
- Guerci, M., Montanari, F., Scapolan, A. and Epifanio, A. (2016), "Green and non-green recruitment practices for attracting job applicants: exploring independent and interactive effects", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 129-150, available at: <https://doi.org/10.1080/09585192.2015.1062040>
- Gunasekaran, A. and Spalanzani, A. (2012), "Sustainability of manufacturing and services: investigations for research and applications", *International Journal of Production Economics*, Vol. 140 No. 1, pp. 35-47.
- Gupta, S., Dangayach, G.S., Singh, A.K., Meena, M.L. and Rao, P.N. (2018), "Implementation of sustainable manufacturing practices in Indian manufacturing companies", *Benchmarking: An International Journal*, Vol. 25 No. 7, pp. 2441-2459, available at: <https://doi.org/10.1108/IJ-12-2016-0186>
- 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", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 192-211.
- Haden, S.S.P., Oyler, J.D. and Humphreys, J.H. (2009), "Historical, practical, and theoretical perspectives on green management: an exploratory analysis", *Management Decision*, Vol. 47 No. 7, pp. 1041-1055, available at: <https://doi.org/10.1108/00251740910978287>
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: indeed a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-152.
- Hair, J.F. Jr, Sarstedt, M., Hopkins, L. and Kuppelwieser, V.G. (2014), "Partial least squares structural equation modelling (PLS-SEM): an emerging tool in business research", *European Business Review*, Vol. 26 No. 2, pp. 106-121.
- Hansen, U.E. and Nygaard, I. (2014), "Sustainable energy transitions in emerging economies: the formation of a palm oil biomass waste-to-energy niche in Malaysia 1990–2011", *Energy Policy*, Vol. 66, pp. 666-676, available at: <https://doi.org/10.1016/j.enpol.2013.11.028>
- Hong, P., Kang, M. and Zhang, Y. (2018), "Dynamic benchmarking issues in emerging markets: building relevant theories and examining evolving practices", *Benchmarking: An International Journal*, Vol. 25 No. 5, pp. 1274-1278, available at: <https://doi.org/10.1108/BIJ-04-2018-0110>
- Horwitz, F. and Budhwar, P. (Eds) (2015), *Handbook of Human Resource Management in Emerging Markets*, Edward Elgar Publishing, Cheltenham.
- Huselid, M.A., Jackson, S.E. and Schuler, R.S. (1997), "Technical and strategic human resource management effectiveness as determinants of firm performance", *Academy of Management Journal*, Vol. 40 No. 1, pp. 171-188.
- Jabbour, C.J.C. (2011), "How green are HRM practices, organisational culture, learning and teamwork? A Brazilian study", *Industrial and Commercial Training*, Vol. 43 No. 2, pp. 98-105.
- Jabbour, C.J.C. and Jabbour, A.B.L.D.S. (2016), "Green human resource management and green supply chain management: linking two emerging agendas", *Journal of Cleaner Production*, Vol. 112, pp. 1824-1833, available at: <https://doi.org/10.1016/j.jclepro.2015.01.052>
- 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, pp. 51-58.

- 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", *The International Journal of Human Resource Management*, Vol. 21 No. 7, pp. 1049-1089.
- Jackson, S.E., Schuler, R.S. and Jiang, K. (2014), "An aspirational framework for strategic human resource management", *The Academy of Management Annals*, Vol. 8 No. 1, pp. 1-56.
- Jackson, S.E., Renwick, D.W., Jabbour, J.C.J. and Muller-Camen, M. (2011), "State-of-the-art and future directions for green human resource management: introduction to the special issue", *German Journal of Research in Human Resource Management*, Vol. 25 No. 2, pp. 99-116.
- Jamali, D.R., El Dirani, A.M. and Harwood, I.A. (2015), "Exploring human resource management roles in corporate social responsibility: the CSR-HRM co-creation model", *Business Ethics: A European Review*, Vol. 24 No. 2, pp. 125-143.
- Jenkins, H. (2009), "A 'business opportunity' model of corporate social responsibility for small- and medium-sized enterprises", *Business Ethics: A European Review*, Vol. 18 No. 1, pp. 21-36.
- Ji, L., Huang, J., Liu, Z., Zhu, H. and Cai, Z. (2012), "The effects of employee training on the relationship between environmental attitude and firms' performance in sustainable development", *The International Journal of Human Resource Management*, Vol. 23 No. 14, pp. 2995-3008.
- Kim, Y.J., Kim, W.G., Choi, H. 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, available at: <https://doi.org/10.1016/j.ijhm.2018.04.007>
- Kock, N. and Hadaya, P. (2018), "Minimum sample size estimation in PLS-SEM: the inverse square root and gamma-exponential methods", *Information Systems Journal*, Vol. 28 No. 1, pp. 227-261.
- Kramar, R. (2014), "Beyond strategic human resource management: is sustainable human resource management the next approach?", *International Journal of Human Resource Management*, Vol. 25 No. 8, pp. 1069-1089, doi: 10.1080/09585192.2013.816863.
- Lazim, H.M. and Ramayah, T. (2010), "Maintenance strategy in Malaysian manufacturing companies: a total productive maintenance (TPM) approach", *Business Strategy Series*, Vol. 11 No. 6, pp. 387-396.
- Lean, H.H. and Smyth, R. (2010), "On the dynamics of aggregate output, electricity consumption and exports in Malaysia: evidence from multivariate Granger causality tests", *Applied Energy*, Vol. 87 No. 6, pp. 1963-1971.
- Lee, C.K., Song, H.J., Lee, H.M., Lee, S. and Bernhard, B.J. (2013), "The impact of CSR on casino employees' organisational trust, job satisfaction and customer orientation: an empirical examination of responsible gaming strategies", *International Journal of Hospitality Management*, Vol. 33, pp. 406-415.
- Lee, K.H. and Ball, R. (2003), "Achieving sustainable corporate competitiveness: strategic link between top management's (green) commitment and corporate environmental strategy", *Greener Management International*, Vol. 44, pp. 89-104.
- Lee, M.D.P. (2008), "A review of the theories of corporate social responsibility: its evolutionary path and the road ahead", *International Journal of Management Reviews*, Vol. 10 No. 1, pp. 53-73.
- Lengnick-Hall, M.L. and Lengnick-Hall, C.A. (2003), *Human Resource Management in the Knowledge Economy: New Challenges, New Roles, New Capabilities*, Berrett-Koehler, San Francisco, CA.
- Longoni, A., Luzzini, D. and Guerci, M. (2016), "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, available at: <https://doi.org/10.1007/s10551-016-3228-1>
- Luu, T.T. (2018), "Employees' green recovery performance: the roles of green HR practices and serving culture", *Journal of Sustainable Tourism*, Vol. 26 No. 8, pp. 1308-1324, available at: <https://doi.org/10.1080/09669582.2018.1443113>
- McCallum, S., Schmid, M.A. and Price, L. (2013), "CSR: a case for employee skills-based volunteering", *Social Responsibility Journal*, Vol. 9 No. 3, pp. 479-495.

- McCloskey, J. and Maddock, S. (1994), "Environmental management: its role in corporate strategy", *Management Decision*, Vol. 32 No. 1, pp. 27-32.
- Marcus, A.A. and Fremeth, A.R. (2009), "Green management matters regardless", *Academy of Management Perspectives*, Vol. 23 No. 3, pp. 17-27.
- 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, available at: <https://doi.org/10.1016/j.jclepro.2016.12.087>
- Mellahi, K. and Wood, G. (2003), *The Ethical Business: Possibilities, Challenges and Controversies*, Palgrave- McMillan, London.
- Mersha, T. (1997), "TQM implementation in LDCs: driving and restraining forces", *International Journal of Operations and Production Management*, Vol. 17 No. 2, pp. 164-183.
- Mishra, P. (2017), "Green human resource management: a framework for sustainable organisational development in an emerging economy", *International Journal of Organisational Analysis*, Vol. 25 No. 5, pp. 762-788.
- Mishra, R.K., Sarkar, S. and Kiranmai, J. (2014), "Green HRM: innovative approach in Indian public enterprises", *World Review of Science, Technology and Sustainable Development*, Vol. 11 No. 1, pp. 26-42, available at: <https://doi.org/10.1504/WRSTSD.2014.062374>
- Moe, T., Maasry, C. and Tang, R. (2010), "EM equity in two decades : a changing landscape", Goldman Sachs, Global Economics Paper No. 204, Goldman Sachs Global Economics, Commodities and Strategy Research, available at: www.contributors.ro/wp-content/uploads/2010/11/0809_Global_Econ_Paper_No__204_Final2.pdf (accessed 12 August 2018).
- Moini, H.J., Sorensen, O. and Szuchy-Kristiansen, E. (2014), "Adoption of green strategy by Danish firms", *Sustainability Accounting, Management and Policy Journal*, Vol. 5 No. 2, pp. 197-223.
- Morsing, M., Schultz, M. and Nielsen, K.U. (2008), "The 'Cathch 22' of communicating CSR: findings from a Danish study", *Journal of Marketing Communications*, Vol. 14 No. 2, pp. 97-111.
- Mukherjee, B. and Chandra, B. (2018), "Conceptualising green human resource management in predicting employees' green intention and behaviour : a conceptual framework", *Prabandhan: Indian Journal of Management*, Vol. 11 No. 7, pp. 36-48.
- Mullane, J.V. (2002), "The mission statement is a strategic tool: when used properly", *Management Decision*, Vol. 40 No. 5, pp. 448-455.
- 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, available at: <https://doi.org/10.1016/j.jclepro.2017.08.213>
- 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", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 239-261, available at: <https://doi.org/10.1080/09585192.2015.1063078>
- Osman, I., Ho, T.C. and Carmen Galang, M. (2011), "The relationship between human resource practices and firm performance: an empirical assessment of firms in Malaysia", *Business Strategy Series*, Vol. 12 No. 1, pp. 41-48.
- Pail e, P., Chen, Y., Boiral, O. and Jin, J. (2014), "The impact of human resource management on environmental performance: an employee-level study", *Journal of Business Ethics*, Vol. 121 No. 3, pp. 451-466, doi: 10.1007/s10551-013-1732-0.
- Paluri, R.A. and Mehra, S. (2018), "Influence of bank's corporate social responsibility (CSR) initiatives on consumer attitude and satisfaction in India", *Benchmarking: An International Journal*, Vol. 25 No. 5, pp. 1429-1446, available at: <https://doi.org/10.1108/BIJ-01-2017-0010>
- Parry, M., Arnell, N., Hulme, M., Nicholls, R. and Livermore, M. (1998), "Adapting to the inevitable", *Nature*, Vol. 395 No. 6704, p. 741.

- Phillips, L. (2007), *Go Green to Edge of Rivals*, CIPD, available at: www.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2013/01/29/gogreentogaintheedgeoverrivals-2007-08.aspx (accessed 12 August 2018).
- Philpott, J. and Davies, G. (2007), *Labour Market Outlook. (Quarterly Survey Report, Summer)*, CIPD/KPMG, London.
- 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.
- Porter, M.E. and Kramer, M.R. (2006), "The link between competitive advantage and corporate social responsibility", *Harvard Business Review*, Vol. 84 No. 12, pp. 78-92.
- 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, available at: <https://doi.org/10.1108/IJPPM-04-2016-0076>
- Ramli, N.A., Latan, H. and Nartea, G.V. (2018), "Why should PLS-SEM be used rather than regression? Evidence from the capital structure perspective", in Avkiran, N.K. and Ringle, C.M. (Eds), *Partial Least Squares Structural Equation Modeling: Recent Advances in Banking and Finance*, Springer International, Cham, pp. 171-209.
- Rangarajan, N. and Rahm, D. (2011), "Greening human resources: a survey of city-level initiatives", *Review of Public Personnel Administration*, Vol. 31 No. 3, pp. 227-247, available at: <https://doi.org/10.1177/0734371X11408706>
- Renwick, D., Redman, T. and Maguire, S. (2008), "Green HRM: a review, process model, and research agenda", discussion paper, University of Sheffield Management School.
- 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, available at: <http://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Renwick, D.W.S., Jabbour, C.J.C., Muller-Camen, M., Redman, T. and Wilkinson, A. (2015), "Contemporary developments in Green (environmental) HRM scholarship", *The International Journal of Human Resource Management*, Vol. 27 No. 2, pp. 114-128, available at: <http://dx.doi.org/10.1080/09585192.2015.1105844>
- Rettab, B., Brik, A.B. and Mellahi, K. (2009), "A study of management perceptions of the impact of corporate social responsibility on organisational performance in emerging economies: the case of Dubai", *Journal of Business Ethics*, Vol. 89 No. 3, pp. 371-390.
- Rock, M. and Angel, D. (2005), *Industrial Transformation in the Developing World*, Oxford University Press, Oxford.
- Sadorsky, P. (2014), "The effect of urbanisation on CO2 emissions in emerging economies", *Energy Economics*, Vol. 41, pp. 147-153.
- Sangwan, K.S. and Choudhary, K. (2018), "Benchmarking manufacturing industries based on green practices", *Benchmarking: An International Journal*, Vol. 25 No. 6, pp. 1746-1761, available at: <https://doi.org/10.1108/BIJ-12-2016-0192>
- Santhosh, M. and Baral, R. (2015), "A conceptual framework for exploring the impacts of corporate social responsibility on employee attitudes and behaviour", *Journal of Human Values*, Vol. 21 No. 2, pp. 127-136.
- Sekaran, U. and Bougie, R. (2010), *Research Method for Business: A Skill Building Approach*, John Wiley & Sons, Chichester.
- Sekaran, U. and Bougie, R. (2013), *Research Methods for Business: A Skill Building Approach*, 6th ed., John Wiley & Sons, West Sussex.
- Sheehan, M.N., Garavan, T. and Carbery, R. (2014), "Sustainability, corporate social responsibility and HRD", *European Journal of Training and Development*, Vol. 38 No. 5, pp. 370-386.

- Shen, J. and Benson, J. (2016), "When CSR is a social norm: how socially responsible human resource management affects employee work behavior", *Journal of Management*, Vol. 42 No. 6, pp. 1723-1746, doi: 10.1177/0149206314522300.
- Shen, J., Dumont, J. and Deng, X. (2016), "Employees' perceptions of green HRM and non-green employee work outcomes: the social identity and stakeholder perspectives", *Group & Organisation Management*, Vol. 43 No. 4, pp. 594-622, available at: <https://doi.org/10.1177/1059601116664610>
- Sheopuri, A. and Sheopuri, A. (2015), "Green HR practices in the changing workplace", *Business Dimensions*, Vol. 2 No. 1, pp. 13-26.
- Singh, P.J., Mittal, V.K. and Sangwan, K.S. (2013), "Development and validation of performance measures for environmentally conscious manufacturing", *International Journal of Services and Operations Management*, Vol. 14 No. 2, pp. 197-220, doi: 10.1504/IJSOM.2013.051829.
- Singh, S.K. (2018), "Sustainable people, process and organisation management in emerging markets", *Benchmarking: An International Journal*, Vol. 25 No. 3, pp. 774-776, available at: <https://doi.org/10.1108/BIJ-02-2018-0038>
- 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 No. 2, pp. 542-555, available at: <https://doi.org/10.1016/j.jclepro.2018.07.305>
- Sundram, V.P.K., Ibrahim, A.R. and Govindaraju, V.G.R.C. (2011), "Supply chain management practices in the electronics industry in Malaysia: consequences for supply chain performance", *Benchmarking: An International Journal*, Vol. 18 No. 6, pp. 834-855, available at: <https://doi.org/10.1108/14635771111180725>
- Tang, C.F. (2008), "A re-examination of the relationship between electricity consumption and economic growth in Malaysia", *Energy Policy*, Vol. 36 No. 8, pp. 3077-3085.
- Tang, C.F. and Tan, E.C. (2013), "Exploring the nexus of electricity consumption, economic growth, energy prices and technology innovation in Malaysia", *Applied Energy*, Vol. 104, pp. 297-305, available at: <https://doi.org/10.1016/j.apenergy.2012.10.061>
- Tang, G., Chen, Y., Jiang, Y., Paille, P. and Jia, J. (2017), "Green human resource management practices : scale development and validity", *Asia Pacific Journal of Human Resources*, Vol. 56 No. 1, pp. 31-55, available at: <https://doi.org/10.1111/1744-7941.12147>
- Teixeira, A.A., Jabbour, C.J.C., De Sousa Jabbour, A.B.L., Latan, H. and De Oliveira, J.H.C. (2016), "Green training and green supply chain management: evidence from Brazilian firms", *Journal of Cleaner Production*, Vol. 116, pp. 170-176, available at: <https://doi.org/10.1016/j.jclepro.2015.12.061>
- Tilcsik, A. and Marquis, C. (2013), "Punctuated generosity: how mega-events and natural disasters affect corporate philanthropy in US communities", *Administrative Science Quarterly*, Vol. 58 No. 1, pp. 111-148, available at: <https://doi.org/10.1177/0001839213475800>
- Tziner, A., Oren, L., Bar, Y. and Kadosh, G. (2011), "Corporate social responsibility, organisational justice and job satisfaction: how do they interrelate, if at all?", *Journal of Work and Organisational Psychology*, Vol. 27 No. 1, pp. 67-72.
- 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. (2011), "Environmental management activities and sustainable HRM in German manufacturing firms – incidence, determinants, and outcomes", *German Journal of Research in Human Resource Management*, Vol. 25 No. 2, pp. 157-177.
- 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, available at: <https://doi.org/10.1007/s10551-012-1356-9>
- Wang, H., Tong, L., Takeuchi, R. and George, G. (2016), "Corporate social responsibility: an overview and new research directions: thematic issue on corporate social responsibility", *Academy of Management Journal*, Vol. 59 No. 2, pp. 534-544.

- Wei, L. and Lau, C. (2005), "Market orientation, HRM importance and competency: determinants of strategic HRM in Chinese firms", *International Journal of Human Resource Management*, Vol. 16 No. 10, pp. 1901-1918.
- Williams, R. Jr, Morrell, D.L. and Mullane, J.V. (2014), "Reinvigorating the mission statement through top management commitment", *Management Decision*, Vol. 52 No. 3, pp. 446-459.
- Yang Spencer, S., Adams, C. and Yapa, P.W. (2013), "The mediating effects of the adoption of an environmental information system on top management's commitment and environmental performance", *Sustainability Accounting, Management and Policy Journal*, Vol. 4 No. 1, pp. 75-102.
- Yong, J.Y. and Mohd-Yusoff, Y. (2016), "Studying the influence of strategic human resource competencies on the adoption of green human resource management practices", *Industrial and Commercial Training*, Vol. 48 No. 8, pp. 416-422, available at: <https://doi.org/10.1108/ICT-03-2016-0017>
- Yusliza, M.-Y., Othman, N.Z. and Jabbar, C.J.C. (2017), "Deciphering the implementation of green human resource management in an emerging economy", *Journal of Management Development*, Vol. 36 No. 10, pp. 1230-1246.
- Yusoff, Y.M., Nejadi, 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, available at: <https://doi.org/10.1177/0972150918779294>
- Zait, A. and Berteau, P.S.P.E. (2011), "Methods for testing discriminant validity", *Management & Marketing Journal*, Vol. 9 No. 2, pp. 217-224.
- Zhang, J. and Luo, X.R. (2013), "Dared to care: organisational vulnerability, institutional logics, and MNCs' social responsiveness in emerging markets", *Organisation Science*, Vol. 24 No. 6, pp. 1742-1764, available at: <https://doi.org/10.1287/orsc.1120.0813>
- Zibarras, L.D. and Coan, P. (2015), "HRM practices used to promote pro- environmental behavior: a UK survey", *The International Journal of Human Resource Management*, Vol. 26 No. 16, pp. 2121-2142, available at: <https://doi.org/10.1080/09585192.2014.972429>
- Zoogah, D.B. (2011), "The dynamics of green HRM behaviors: a cognitive social information processing approach", *German Journal of Research in Human Resource Management*, Vol. 25 No. 2, pp. 117-139.
- Zutshi, A. and Sohal, A. (2004), "Adoption and maintenance of environmental management systems: critical success factors", *Management of Environmental Quality: An International Journal*, Vol. 15 No. 4, pp. 399-419.

Further reading

- Dubey, R., Gunasekaran, A., Helo, P., Papadopoulos, T., Childe, S.J. and Sahay, B.S. (2016), "Explaining the impact of reconfigurable manufacturing systems on environmental performance: the role of top management and organisational culture", *Journal of Cleaner Production*, Vol. 141, pp. 56-66, available at: <https://doi.org/10.1016/j.jclepro.2016.09.035>

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