Deciphering the Implementation of Green Human Resource Management in an Emerging Economy

Purpose – *Drawing on the Resource Based View (RBV) theory, the purpose of this paper is mainly to show how Electronic Human Resource Management (HRM), green employee empowerment, and Human Resource (HR) Business Partner Role may influence Green HRM practices.*

Design/methodology/approach – *A conceptual framework was proposed to test the direct effect of the three independent variables – and key human resource factors – on Green HRM. A self-administered questionnaire was adopted in a systematic collection of data from manufacturing and service organizations in Malaysia. The partial least squares (PLS) method was used to test the conceptual framework of the study.*

Findings – *The empirical results demonstrate that green employee empowerment has a significant positive relationship with all dimensions of Green HRM practices; the added value of HR Business Partner Role is an important aspect in ensuring the successful implementation of Green HRM practices; and surprisingly, Electronic HRM was not significantly related with all dimensions of Green HRM practices.*

Originality/value - *As revealed by searches of ISI Web of Knowledge and Scopus, there is no similar work which tested a similar framework based on evidence from an emerging economy. Based on RBV, it is possible to suggest that green employee empowerment and the role of HR as a business partner constitute unique resources when adopting Green HRM practices.*

Keywords *Electronic HRM, Green employee empowerment, HR Business Partner Role, Green HRM practices, Resource Based View.*

Paper type *Research paper*

1. Introduction

Drawing on the resource-based view (RBV) theory, in this work an original theoretical framework is articulated, relating megatrends in the field of human resources – considered here as a unique source of companies' competitiveness – such as Electronic HRM, green employee

empowerment, and HR Business Partner Role when adopting Green HRM practices. The framework is then tested based on empirical evidence from Malaysian companies.

Countries around the world, be they developed or developing, have faced a multitude of impacts from the huge demand for a more sustainability oriented and environmental friendly agenda, hence the call for an urgent change to adopt green practices. HRM is considered as having great potential for the incorporation of sustainability (Jabbour & Santos, 2008). A myriad of concerns for the environment have been embedded in broader Human Resource Development (HRD) models and frameworks (Scully-Russ, 2015; Jackson, Schuler, & Jiang, 2014) and recently the term Green Human Resource Management (HRM) has emerged to specifically relate the HRM with environmental concerns (Jabbour, Santos, & Nagano, 2010; Jabbour & Jabbour, 2016; Renwick, Redman & Maguire, 2013). Pursuing organizational sustainability requires attention to human and behavioral aspects (Graves, Sarkis & Zhu, 2013; Jackson et al., 2014; Kim, Kim, Han, Jackson, & Ployhart, 2016; Walker, Seuring, Sarkis, & Klassen, 2014).

RBV theory provides the conceptual assumptions for the Green HRM field of research. RBV suggests that human resources can be considered key to sustain companies' competitive advantage (Barney, 1991). RBV has been applied to better understand how critical human aspects are when adopting new organizational practices (Wright, McMahan, & McWilliams, 1994). RBV has been a theoretical pillar to understand the expansion of Green HRM within firms (Jabbour, Mauricio, & Jabbour, 2017).

HRM and its position in the managerial profession require an improved status of HR 'professionals' which involves the reinvention of their role as 'business partners' or 'internal consultants' in promoting a firm's competitiveness (Wright, 2008). HRM is believed to be a

catalyst in enhancing organizational environmental sustainability and this will affect employees' daily life activities (Rimanoczy & Pearson, 2010). According to Jackson et al. (2014), environmental management is definitively part of the future of HRM. Notwithstanding the recent development in the field, this paper is based on the assumption that both Green HRM practices research and its influencing factors have not yet been fully explored.

Jabbour, Santos and Nagano (2010) has related HRM with environmental management and produced a set of measurements further known as "Green HRM practices" where all the items in the assessment have embedded environmental aspects in the HR processes, such as job description and analysis, recruitment and selection, training and performance appraisal, rewards and compensation and exit. Since the introduction of Green HRM practices, a growing stream of studies has been devoted to exploring the influencing factors and the outcome of Green HRM practices (see Haddock-Millar, Sanyal & Müller-Camen, 2015; Harvey, Williams & Probert, 2013; O'Donohue & Torugsa, 2015; Tariq, Jan & Ahmad, 2014). For example, the state-of-the-art literature has suggested that environmental training is essential for adopting more-advanced environmental practices (Sarkis, Gonzalez-Torre & Adenso-Diaz, 2010), including green supply chain management (Teixeira, Jabbour, Jabbour, Latan, & de Oliveira, 2016), and alignment with low-carbon operations and production (Jabbour & Jabbour, 2014). This is due to the fact that a journey to greener HRM is challenging (Jackson et al., 2014) and requires several other related practices and procedures.

2. The Need for Study

In this context, the current study offers an original perspective on the development of a greening HRM framework that examines how human resource factors (Electronic HRM, green employee empowerment, and HR Business Partner Role) have a positive relationship with Green HRM practices. Its relevance can be justified as follows:

(1) Searches conducted using the ISI Web of Science and Scopus databases prior to June 2017 revealed that, to date, there are no published articles investigating Electronic HRM, green employee empowerment, and HR Business Partner Role and Green HRM practices in a proper manner.

(2) Jackson, Renwick, Jabbour, and Muller-Camen (2011) highlighted that "in order for Green HRM to develop and mature, scholarship that addresses a broad array of issues is needed" (p. 104).

(3) The Green HRM literature is largely a Western one and, given the importance of Asian economic development for environmental management, this is an important gap for future studies to reduce (Renwick et al., 2013).

(4) Research on Green HRM is largely conducted by perspective from Australia (O'Donohue & Torugsa, 2016), Brazil (Jabbour, 2011; Jabbour, Neto, Gobbo Jr. Ribeiro, & Jabbour, in press), China (Dumont, Shen, & Deng, 2016), England (Pinzone, Guerci, Lettieri, & Redman, 2016), German (Wagner, 2013), Italy (Guerci & Carollo, 2016; Longoni, Luzzini, & Guerci, 2016; Guerci, Longoni, & Luzzini, 2016), United States (Haddock-Millar et al., 2016), and Malaysia (Gholami, Rezaie, Muhamad Zameri, Safian, & Norhayati, 2016). However, Gholami et al. (2016) investigated the Green HRM system

in the sports center from the green community of the Johor Darul Ta'zim Football Association.

(5) Guerci and Carollo (2016), Haddock-Millar et al. (2016), and Jabbour et al. (in press) adopted a case study approach, while Wagner (2013) incorporated a longitudinal approach.

(6) Limited studies have been conducted quantitatively on Green HRM. Previous studies have examined Green HRM in relation to stakeholder pressure and environmental performance (Guerci et al., 2016), proactive environmental management and financial performance (O'Donohue & Torugsa, 2016), workplace green behaviour, psychological climate, and employee green values (Dumont et al., 2016), organizational culture, learning, and teamwork (Jabbour, 2011), commitment and organizational citizenship behaviour (Pinzone et al., 2016), and green supply chain management (Longoni et al., 2016).

(7) In terms of industry or sector, Dumont et al. (2016) focused on multinational companies, Guerci et al. (2016) on small and medium enterprises, Guerci et al. (2016), Wagner (2013), and O'Donohue and Torugsa (2016) on manufacturing firms, Guerci et al. (2016) on service companies, Jabbour (2011) focused on companies with 14001 certification, Pinzone et al. (2016) on a National Health Service, and Gholami et al., (2016) on sports centers.

Based on the research gap, it is clear that there is lack of empirical study that relates Electronic HRM, green employee empowerment, and HR Business Partner Role in influencing the Green HRM practices. This work explores a second major gap in the state-of-art literature: lack of empirical evidence from emerging economies such as Malaysia, which is one of the

brightest economies in the world, a country included into the Trans Pacific Partnership marketing area.

The relevance of this work can be systematized as follows:

- Based on the RBV theory, this work tests an original theoretical framework relating megatrends in the field of HRM, as such Electronic HRM, green employee empowerment, and HR Business Partner Role when adopting Green HRM Practices;
- It adds empirical evidence from Malaysian companies, one of the most relevant emerging economies in the world, and member of the Trans Pacific Partnership marketing area;

This work is organized as follows. After the Introduction (Section 1), the need for study is introduced in Section 2. This is followed by Section 3 that discusses the conceptual and hypotheses development framework. Section 4 specifies the methodological procedures adopted, while Section 5 systematizes the principal results of this work. Finally, we conclude by highlighting discussions (Section 6), implications (Section 7), limitations and suggestions for further research (Section 8) and conclusions (Section 9).

3. Conceptual Framework and Hypotheses Development

In this paper, Electronic HRM, green employee empowerment and HR Business Partner Role are depicted as positively influencing Green HRM practices. This assumption is based on the RBV theory, which suggests that human aspects (such as green employee empowerment) can have a positive influence on firms' ability to adopt new organizational practices (Barney, 1991) and to improve companies' performance (Wright, et al., 1994). As the adoption of Green HRM

can be considered a contemporary organizational trend (Jackson et al., 2014), human resource factors can be key to explain the level of success of green practices in firms (Jabbour et al., 2017). This work investigates the role of Electronic HRM, green employee empowerment, and HR Business Partner Role in influencing the adoption of Green HRM practices. Figure 1 illustrates the logic behind the research framework.

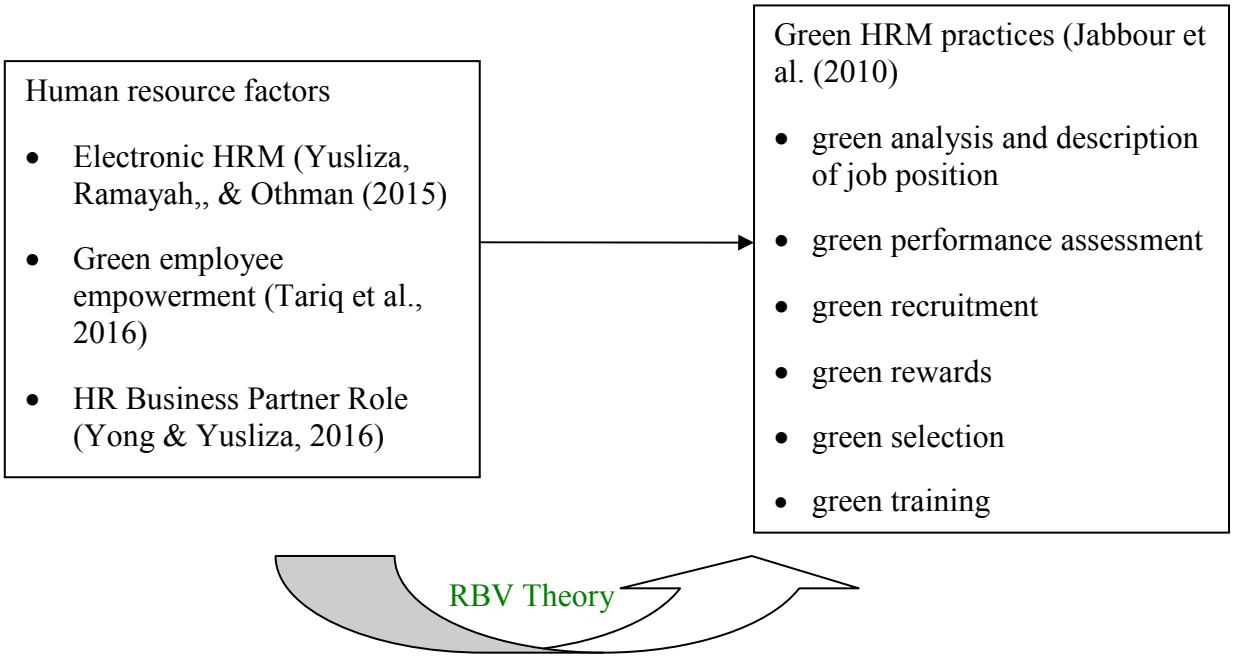

Figure 1. Conceptual framework.

3.1 Electronic HRM and Green HRM practices

Notably, the application of technology in HR practices such as recruitment and selection, training and development and performance appraisal is known as Electronic HRM. The adoption of Electronic HRM in daily HR activities has brought about a significant impact on organizational effectiveness and efficiency (Ruel & van der Kaap, 2012). More importantly,

Electronic HRM can reduce process and administrative costs, speed up transaction processing and improve the tracking and control of human resource actions (Lengnick-Hall & Moritz, 2003).

Electronic HRM's implementation in organizations has the ability to promote sustainability as it reduces negative environmental, social and economic consequences (Yusliza et al., 2015). Yusliza et al. further argued that the automation of HR systems simultaneously helps in reducing environmental waste (e.g., paper, staples, files) and social waste (e.g., processing time for searching documents and decision making), and economic waste (e.g., cost srelated with preparing documents, and salaries due to extra working time) in conducting HR tasks. The sustainability outcome brought about the idea that E-HRM should be appreciated as one of the initiatives of Greening HRM in and organization (Yusliza et al., 2015).

Importantly, by adopting Electronic HRM, the consumption of paper has been reduced. The decreasing reliance on paper for copying, printing and storing contributes to the reduction in cost. It is believed that by reducing the use of paper, HRM practices can directly preserve natural resources, prevent pollution and reduce wastage of water and energy (Ahmad, 2015). Considering the implementation of Electronic HRM in facilitating the HRM practices, it is further argued that Electronic HRM also has an impact on Green HRM practices. Thus, this paper advances the following hypotheses:

H1a: Electronic HRM is positively related to green analysis and description of job position.

H1b: Electronic HRM is positively related to green performance assessment.

H1c: Electronic HRM is positively related to green recruitment.

H1d: Electronic HRM is positively related to green rewards.

H1e: Electronic HRM is positively related to green selection.

H1f: Electronic HRM is positively related to green training.

3.2 Green Employee Empowerment and Green HRM Practices

Digalwar, Tagalpallewar, and Sunnapwar (2013) recognize employee empowerment as one of the performance measures of green manufacturing. Empowerment is a means to a destination because motivated employees are more enthusiastic to complete tasks and attain goals (Tariq et al., 2016). Digalwar et al. describe employee empowerment as empowered employees being motivated and committed to participate and engage in good environmental practices. When they are empowered in pursuing green tasks in an organization, this will be termed "Green Employee Empowerment' which will come under the vast umbrella of green HR (Tariq et al., 2016). Tariq et al. further asserted that the idea of greening HR with green employee empowerment is gaining importance, because employees play a vital role in an organization as "neurons play in brain functioning".

The role of employee empowerment in organizational environmental issues has received significant attention in recent years and is cited as an important component of environmental management processes (Daily & Huang, 2001; Daily, Bishop, & Massoud, 2012; Ramus, 2002). For instance, Daily et al. (2012) found that managers in their study with the highest levels of environmental empowerment were also managers perceiving the highest levels of environmental performance. Daily and Huang (2001) identified employee empowerment as a key element of the implementation process of an environmental management system. In another study, contractors'

empowerment was seen to be very important in meeting the requirement of ISO 14001 (Liyin, Hong & Griffith, 2006). Therefore, we propose that green employee empowerment is an important factor influencing the adoption of Green HRM practices:

H2a: Green employee empowerment is positively related to green analysis and description of job position.

H2b: Green employee empowerment is positively related to green performance assessment.

H2c: Green employee empowerment is positively related to green recruitment.

H2d: Green employee empowerment is positively related to green rewards.

H2e: Green employee empowerment is positively related to green selection.

H2f: Green employee empowerment is positively related to green training.

3.3 HR Business Partner Role and Green HRM Practices

Formalizing how HR professionals may create more value as "business partners" has been of increased importance in the last 15 to 20 years (Ulrich & Brockbank, 2016). The role of the HR manager as a contributor to business value is viewed as being an HR strategic or business partner role (Lawler & Mohrman, 2003; Ulrich, 1997). Welch (2012) have named the HR 'business partner' as an advisor or strategic partner since the HR manager needs to be involved in the strategy formulation process. Contemporary HRM researchers have seen the HR business role as a strategy of HRM to gain a place in the organization (Boudreau & Lawler, 2014; Pereira & Anderson, 2012). As a business partner, the HR manager is seen as an internal consultant

advising senior management and facilitating major organizational changes which require the consideration of key business strategies (Wright, 2008).

Moving toward green practices in any organization requires HR support (Yong & Yusliza, 2016). Yong and Yusliza further argued that organizations' strategic skills and HR professionals' competencies are the prerequisite for promoting green practices. The crucial role of HR professionals in green practices has been highlighted in earlier studies (e.g. Jabbour et al., 2010; Jabbour & Santos, 2008). Specifically, HR as a strategic partner and value-added function should recognize the importance of green practices, initiate environmental friendly activities, change the existing processes, and align its practices accordingly (Cohen, Taylor, & Muller-Carmen, 2010; Mishra, Sarkar, & Kiranmai, 2014). Thus this paper advances the following hypotheses:

H3a: HR Business Partner Role is positively related to green analysis and description of job position.

H3b: HR Business Partner Role is positively related to green performance assessment.

H3c: HR Business Partner Role is positively related to green recruitment.

H3d: HR Business Partner Role is positively related to green rewards.

H3e: HR Business Partner Role is positively related to green selection.

H3f: HR Business Partner Role is positively related to green training.

4. Methodology

4.1 Study sample and procedures

The study was conducted using a cross-sectional descriptive design. The research participants included HR directors, senior HR managers or HR managers. For this purpose, quantitative research design with a survey approach was conducted by collecting primary data in Malaysia between September 2015 until January 2016, targeting both large manufacturing and service firms. The survey was conducted using a close-ended questionnaire. A snowball sampling method was used to select the sample for this study. A total of 400 questionnaires were self-administered to 400 firms and each representative of the organization given one questionnaire. The representatives were then helped to distribute the questionnaires to either their HR director, senior HR manager, or HR manager. Each participant received one questionnaire with a cover letter attached, explaining the purpose of the study and its confidentiality. A total of 87 questionnaires were returned and useable for further analysis, representing a response rate of 21.75 percent.

4.2 Measures

All research constructs included in this study had multi-item scales derived from the relevant literature. This will be highlighted in this section. A five-point Likert Scale was used for all items ranging from '1' "strongly disagree" to '5' "strongly agree". Electronic HRM is measured using Voermans and van Veldhoven (2007) and Yusliza and Ramayah (2012) parameters for evaluating Electronic HRM. For this construct, there was a total 7-item with reliability of 0.89. The questions used to measure green employee empowerment are based on Digalwar et al. (2013). There were a total of 3- items assessed in the measurement with a reliability of 0.902. HR Business Partner Role was adapted from Conner and Ulrich (1996) and

Yusliza, Hazman Shah, and Aniah (2010). For this, it was adopted a total 17-item in the measure and has a reliability of 0.809. In addition, Green HRM practices are multidimensional constructs and this measure was adopted from Jabbour (2011). Accordingly, the reliability of green analysis was 0.940, green performance assessment was 0.962, green rewards 0.936, green recruitment 0.942, green selection 0.976 and green training was 0.958.

5. Analysis

The present study applied a two-step procedure to analyze data using Partial Least Square (PLS) statistical software, SmartPLS 2.0 and this included the assessment of 1) measurement model, and 2) structural model. The measurement model is presented in Figure 2**.**

Table 1 below shows the measurement model's results based on algorithm analysis. In the algorithm analysis, three main outputs were used to determine the convergent validity and internal consistency of the four measurements or constructs: item loading, the average variance extracted (AVE) and composite reliability (CR) of the construct. Convergent validity of each construct was evaluated through its AVE whilst the internal consistency was evaluated through its CR.

A value of AVE that is lower than 0.5 was deleted because the particular construct could not explain more than half of the variance by its items or indicators (Henseler, Ringle & Sinkovics, 2009). The cut-off value of AVE in this paper follows the Henseler et al., (2009) that is 0.5, thus, some items in the construct were deleted in order for the value of AVE to surpass 0.5. Two items were deleted from the HR Business Partner Role: BP15 – "HR works to reshape behaviour for future people needs" and BP17 – "HR spends time on supporting new behaviours

for keeping a firm competitive". In addition, two items were deleted from the Electronic HRM: EH1 – "EHRM is an improvement over traditional HR processes" and EH3 – "HR should not be automated further".

To further test the internal consistency, Fornell and Larcker (1981) suggested that the CR value must be 0.70 or higher. Based on Table 1 below, all constructs have a CR value of more than 0.70, therefore the measurement model demonstrates adequate internal consistency.

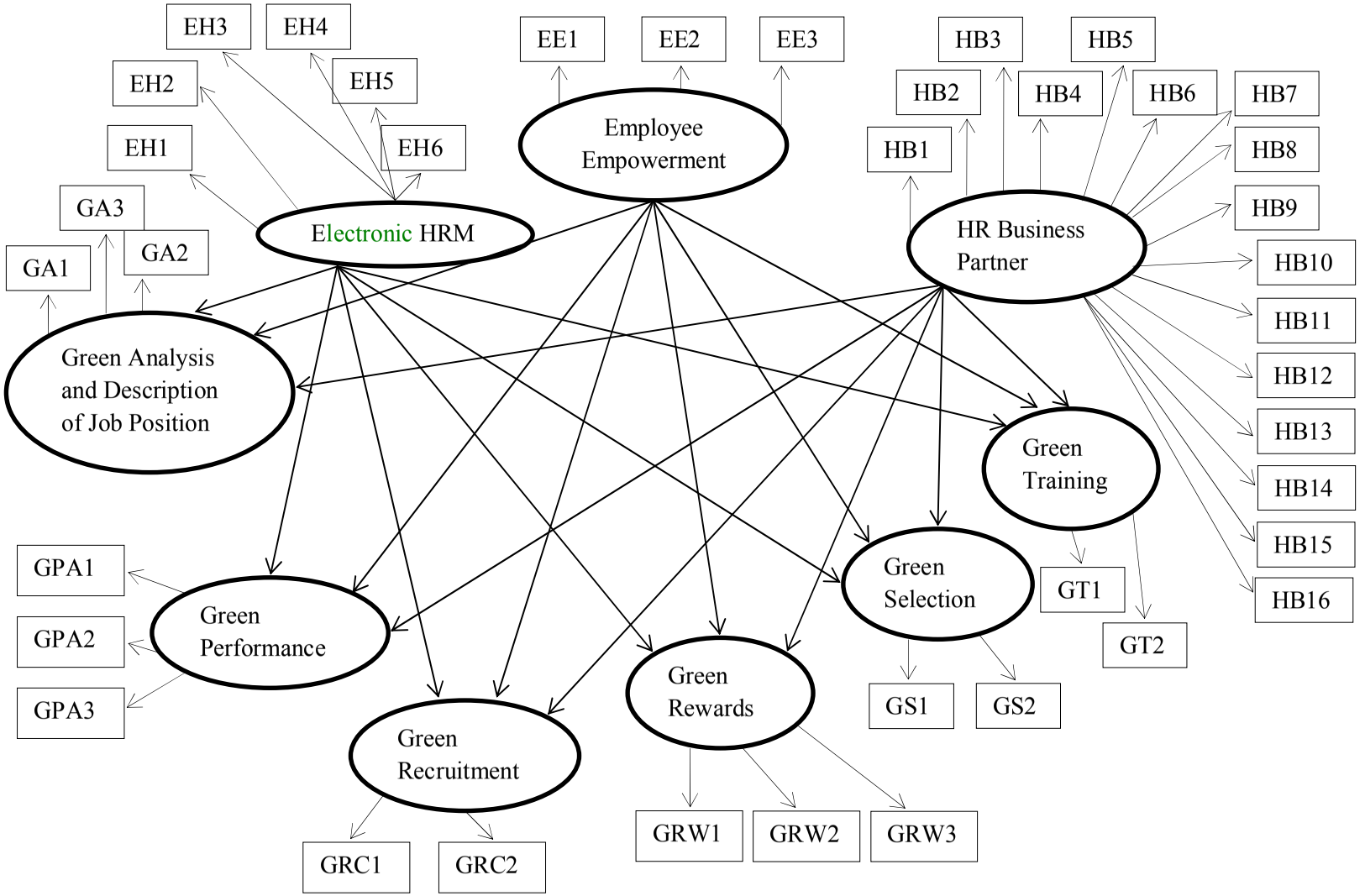

Figure 2. Measurement model.

Table 1
Measurement Model

Construct	*Item*	*Loading*	*AVE*	*CR*
Green Employee Empowerment	[EE1] Green teams are being set up to tackle environmental problems	0.870	0.754	0.902
	[EE2] Employees are actively involved in the process of determining environmental goals	0.917		
	[EE3]Employees are encouraged to give suggestions on environmental performance improvements	0.815		
Electronic HRM	[EH2] HR would make more use of electronic applications	0.647	0.521	0.809
	[EH4] In general, I am satisfied with the current level of automation in HR	0.563		
	[EH5] Electronic HRM is an improvement for the whole organization	0.881		
	[EH6] Electronic HRM is an improvement for the employees	0.756		
HR Business Partner Role	[HB1] HR develops programs to link HR strategies to accomplish business strategy	0.665	0.510	0.940
	[HB2] HR is seen as a business partner	0.656		
	[HB3] HR's credibility comes from helping to make strategy happen	0.697		
	[HB4] HR is an active participant in business planning	0.768		
	[HB5] HR helps the organization accomplish business goals	0.767		
	[HB6] HR spends time on strategic issues			
	[HB7] HR works to align HR strategies	0.727		
	[HB8] HR is measured by its ability to help create business strategies	0.657		
	[HB9] HR participates in the process of defining business strategies	0.755		
	[HB10] HR makes sure that HR strategies are aligned with business strategy	0.796		
	[HB11] HR's credibility comes from making change happen	0.699		
	[HB12] HR is seen as a change agent	0.746		
	[HB13] HR is an active participant in organization transformation activities	0.632		
	[HB14] HR is measured by its ability to help an organization anticipate future issues	0.736		
	[HB16] HR makes sure that HR programs increase the organization's ability to change	0.729		

		0.660		
Green Analysis and Description of Job Position	[GA1] Job positions enable involvement in environmental management activities	0.866	0.840	0.940
	[GA2] Job positions enable the acquisition of knowledge about environmental management	0.944		
	[GA3] Job positions demand knowledge about environmental management	0.938		
Green Performance Assessment	[GPA1] Every employee has specific environmental goals	0.937	0.895	0.962
	[GPA2] Contributions to environmental management are assessed	0.958		
	[GPA3] Individual performance assessment results are recorded	0.943		
			0.879	0.936
Green Rewards	[GRW1] Cash rewards are provided to recognize environmental performance	0.925		
	[GRW2] Environmental performance is recognized publicly	0.950		
			0.890	0.942
Green Recruitment	[GRC1] Environmental performance of the company attracts employees	0.945		
	[GRC2] Company prefers to hire employees that have environmental knowledge	0.942		
			0.953	0.976
Green Selection	[GS1] Employee selection takes environmental motivation into account	0.980		
	[GS2] All selection steps consider environmental questions	0.972	0.884	0.958
Green Training	[GT1] Environmental training is continuous	0.928		
	[GT2] Environmental training is a priority	0.958		
	[GT3] Environmental training is an important investment	0.935		

Discriminant validity was performed to show the dissimilarity between measurement tools of different constructs and this proves the square root of AVE is larger than the AVE of a latent variable with other variables in the model (Fornell & Lacker, 1981), as shown in Table 2.

Table 2
Discriminant Validity

	EH	EE	GA	GP	GRC	GRW	GS	GT	HB
EH	**0.722**								
EE	0.073	**0.869**							
GA	0.178	0.370	**0.917**						
GPA	0.258	0.375	0.641	**0.946**					
GRC	0.282	0.423	0.665	0.674	**0.943**				
GRW	0.209	0.475	0.557	0.814	0.645	**0.937**			
GS	0.196	0.489	0.606	0.773	0.861	0.700	**0.976**		
GT	0.196	0.480	0.706	0.776	0.659	0.748	0.717	**0.940**	
HB	0.413	0.274	0.373	0.455	0.446	0.436	0.393	0.359	**0.714**

Note: The diagonals represent the square root of the AVE, while the off diagonals represent the correlations. EH = Electronic HRM; EE = Employee Empowerment; GA = Green Analysis and Description of Job Position; GP; Green Performance Assessment; GRW = Green Rewards; GRC = Green Recruitment; GS = Green Selection; GT = Green Training; HB = HR Business Partner Role

Overall, the results from the assessment of the measurement model show satisfactory levels of internal reliability, convergent validity, and discriminant validity.

5.1 Assessment of the Structural Model

Finally, this section has explained the structural model assessment. A bootstrapping analysis was performed in order to test the hypotheses developed in the present study. SmartPLS v2 3.0 (Ringle, Wende, & Will, 2005) was used to analyze the path model. The results of the path analysis are reported in Table 3. With the exception of H1a, H1b, H1c, H1d, H1e, and H1f, all the hypotheses were supported.

Table 3
Hypotheses Testing

	Hypotheses	Path Coefficient	Standard Error	T-Value	Decisions
H1a:	Electronic HRM → Green Analysis and Description of Job Position	0.043	0.143	0.303	Rejected
H1b:	Electronic HRM → Green Performance Assessment	0.098	0.133	0.738	Rejected
H1c:	Electronic HRM → Green Recruitment	0.134	0.129	1.042	Rejected
H1d:	Electronic HRM → Green Rewards	0.054	0.146	0.369	Rejected
H1e:	Electronic HRM → Green Selection	0.061	0.121	0.500	Rejected
H1f:	Electronic HRM → Green Training	0.077	0.133	0.581	Rejected
H2a:	Green Employee Empowerment → Green Analysis and Description of Job Position	0.292	0.108	2.710**	Supported
H2b:	Green Employee Empowerment → Green Performance Assessment	0.275	0.093	2.959**	Supported
H2c:	Green Employee Empowerment → Green Recruitment	0.332	0.085	3.910**	Supported
H2d:	Green Employee Empowerment → Green Rewards	0.386	0.103	3.761**	Supported
H2e:	Green Employee Empowerment → Green Selection	0.415	0.102	4.079**	Supported
H2f:	Green Employee Empowerment → Green Training	0.416	0.087	4.763**	Supported
H3a:	HR Business Partner → Green Analysis and Description of Job Position	0.275	0.090	3.049**	Supported
H3b:	HR Business Partner → Green Performance Assessment	0.340	0.094	3.608**	Supported
H3c:	HR Business Partner → Green Recruitment	0.300	0.093	3.217**	Supported
H3d:	HR Business Partner → Green Rewards	0.308	0.087	3.525**	Supported
H3e:	HR Business Partner → Green Selection	0.254	0.104	2.453**	Supported
H3f:	HR Business Partner → Green Training	0.213	0.110	1.943*	Supported

First, we looked at the effects of Electronic HRM on Green HRM (green analysis and description of job position, green performance assessment, green recruitment, green rewards, green selection, and green training) as indicated in H1a – H1f. The results show that all relationships are positive but statistically insignificant. Thus, the results failed to support H1a – H1f.

The second set of hypotheses examined the relationship between green employee empowerment and green HRM (green analysis and description of job position; green performance assessment; green recruitment; green rewards; green selection; green training) and this was indicated in H2a – H2f. The results show that all relationships are positive and statistically significant. Therefore, the results supported H2a – H2f.

Finally, the third set of hypotheses, H3a – H3f, examined the impact of HR business partners with green HRM (green analysis and description of job position; green performance assessment; green recruitment; green rewards; green selection; green training). The results show HR business partners are positively and statistically significantly related with all dimensions in green HRM and therefore hypotheses H3a – H3f are supported.

6. Discussion

First of all, this work adds original evidence to the body of knowledge on the adoption of Green HRM in light of the RBV theory (Barney, 1991). The contribution is based on findings that confirm the relevance of two human resource factors – green employee empowerment and

HR Business Partner Role – as key for greening HRM of the firms. Our results show the distinct role(s) that green employee empowerment and HR Business Partner Roles have as influencing factors on different Green HRM practices (i.e. green analysis and description of job position, green performance assessment, green recruitment, green rewards, green selection, and green training). In the following paragraphs we discuss such results focusing firstly on our first hypotheses, suggesting that Electronic HRM is positively related to Green HRM practices (H1a, H1b, H1c, H1d, H1e, and H1f). Then we discuss our contributions to the second research hypothesis on the relationship between green employee empowerment and Green HRM practices (H2a, H2b, H2c, H2d, H2e, and H2f) and finally we discuss our next contribution to the relationship between HR Business Partner and Green HRM practices (H3a, H3b, H3c, H3d, H3e, and H3f).

Our first set of hypotheses is based on the idea that Electronic HRM is seen as a starting point for making HRM practices more green (Yusliza et al., 2015). However, our results show that Electronic HRM is not significantly and positively related to all dimensions of Green HRM practices. We interpret those results by advancing the idea that the technological advances in HRM are becoming a trend and a must for those organizations in speeding up processes and reducing costs for the whole organization. However, the extent of technological implementation in HRM application does not necessarily result in the adoption of Green HRM practices. As a result, we argue that the Electronic HRM considered in this study does not enable a firm to make a decision to practice all aspects of HRM in order to go green. Thus, future researchers in Green HRM can investigate the link between Electronic HRM and Green HRM further, in search of synergies and contradiction.

In our second set of hypotheses, we identified green employee empowerment as a potential human resource factor to influence the organization to adopt Green HRM practices. Our findings support a positive relationship between green employee empowerment and all dimensions of Green HRM practices. Based on the notion that ability employees have more authority and responsibility, employees may able to help HR professionals ease the implementation of Green HRM practices at firms level. Firms should foster more employee empowerment such as employee involvement in decision making (Jabbour et al., 2017), particularly the decision to adopt Green HRM practices. Employee involvement in the decisions and discussions of green related HRM practices are among key factors in sustaining a coherent point of view that will later be beneficial for both parties. This is reasonable and consistent with the previous literature on employee empowerment and green practices (e.g., Daily & Huang, 2001; Daily et al., 2012; Digalwar et al. 2013; Liyin et al. 2006; Ramus, 2001, 2002; Tariq et al., 2016), considering that empowered employees are motivated and committed in pursuing green related tasks of organization in order to achieve the highest levels of environmental performance.

Our third and final set of hypotheses suggests that HR Business Partner Role may facilitate the adoption of Green HRM practices. Accordingly, we show that HR Business Partners play a significant role in the adoption of Green HRM practices. We believe these results offer an interesting interpretation. One would expect that HR professionals have had to play a role as Business Partners in order to gain place in the organization (Boudreau & Lawler, 2014; Lawler & Mohrman, 2003; Pereira & Anderson, 2012; Ulrich, 1997; Ulrich & Brockbank, 2016; Welch, 2012; Wright, 2008), leading firms to embed their strategy in Green HRM practices and would enhance the value of a firm's business by greening its practices. The argument concerning

the role of HR in green practices has been supported by previous studies (Jabbour et al., 2010; Jabbour & Santos, 2008; Yong & Yusliza, 2016). HR professionals should possess strategic HR competencies in their quest for initiating change toward green HRM practices and building a green organizational identity (Yong & Yusliza, 2016). To summarize, the findings are aligned with previous research in the field (Jabbour et al., 2017) by suggesting human aspects as key to moving forward with companies' greening.

7. Implications for research and practice

Our research reveals important theoretical contributions to management research particularly in the area of Green HRM. In particular, we extend Jackson et al's. (2011) assertion that in order for Green HRM to develop and mature, scholarship that addresses a broad array of issues is needed (p. 104). In this regard, we provide evidence of how both green employee empowerment and HR Business Partner Role affect all dimensions of Green HRM practices, (i.e. green analysis and description of job position, green performance assessment, green recruitment, green rewards, green selection, and green training).

Specifically, we showed that Green HRM can be rightfully considered as a set of practices deploying a firm-specific resource (i.e. employees) similarly argued by Guerci et al. (2016), and which our study explained by green employee empowerment. Employee empowerment is done to ensure fulfillment of green tasks (Tariq et al., 2016) and engage in good environmental practices (Digalwar et al., 2013; Liyin et al., 2006). Considering the significant positive association of green employee empowerment with all dimensions of Green HRM, companies pursuing Green HRM should develop strategies in order to allow employee empowerment, as

suggested by Daily and Huang (2001), Daily et al. (2012) and Ramus (2002). Giving a greater voice in decision making and problem solving to workers through green employee empowerment will influence them to support the adoption of Green HRM practices in the organization. Yet, green employee empowerment plays a distinct role in influencing different Green HRM practices. For instance, employee voice through green employee empowerment is essential in influencing the analysis and description of job analysis, training, performance assessment, and rewards with regards to their commitment, feedback, and contributions in environmental issues with an emphasis on the environmental aspects of each job. For green recruitment and selection, job candidates want to be empowered by giving their voice, which shows their preference towards the environmental issue which could help them reach their highest potential contribution to the environmental management of an organization during the recruitment and selection process. Research has shown that workplace empowerment has a strong impact on factors related to recruitment, retention, and job satisfaction (Laschinger & Havens, 1996; Laschinger et al., 2001). In addition to these points, managers should discuss with employees the content and goals of the empowerment activities related to green tasks that are going practiced in the department they are responsible for, and they should support and help employees become accustomed to these green activities. This is necessary because a detailed and thorough analysis of employees' competences and deficiencies by their managers would provide significant ease and benefits in terms of having a positive effect on Green HRM practices from the green empowerment activities.

Given the significant association between HR Business Partner Role and Green HRM, organizations must realize HR importance, and therefore the strategic perspective of HR as a

business partner should be embedded in any corporate environmental initiative (Renwick, Jabbour, Muller-Camen, Redman, & Wilkinson, 2016). Presently, the involvement of HR professionals plays an important role in the strategic decision-making process (Sheehan, De Cieri, Cooper, & Shea, 2016) and decisions related to the strategic challenges that face multinational enterprises to reduce costs and enhance productivity (Gunnigle, Lavelle, & Monaghan, 2013). Guest and Bos-Nehles (2013) also argued the importance of a unified commitment from the top management group towards HR initiatives. They explained that when decisions are taken about the introduction and implementation of new HR practices, in which in this study are Green HRM practices, the support of the chief executive and other senior executives is critical. Thus, the role of HR as a Business Partner in any of the decision-making process at the organizational level could influence the managers in adopting Green HRM activities (i.e., green analysis and description of job position, green performance assessment, green recruitment, green rewards, green selection, and green training).

Our results provide insightful implications for management practice, policy-makers, society, and teaching HRM. From the standpoint of HRM practices, our results might be useful for those managers involved in strategic decision making processes on possible investments in Green HRM: we provide evidence-based empirical research findings that support our argument concerning human resource factors that influence Green HRM practices. Indeed, the benefit those significant factors might provide to the organization to strengthen the Green HRM practices. Second, valuing our specific results on the impacts of green employee empowerment and HR Business Partner Role on Green HRM practices, we provide specific recommendations to practicing managers to adopt all aspects of Green HRM practices and it is worth investing and

emphasizing green employee empowerment and the importance of HR as Business partner in the organization.

Concerning implications for policy-makers, this paper fuels the ongoing debate regarding the effectiveness of the Malaysian government and regulators in reducing its greenhouse gas (GHG) emissions by 40% by 2020 (The Star Online, 11 September 2015). We do show green employee empowerment and the role of HR as a Business Partner could influence the Green HRM practices in the organization. The implementation of Green HRM is the responsibility of an organization, but policy-makers and practitioners could design more effective policies to empower employees and highlight the importance of HR as Business Partner as a policy priority so that sustainable organizations can be achieved in line with achieving a low-carbon economy.

In regards to implications for society, firms are facing growing pressure to become more reasonable and greener, several stockholders press organizations to reduce negative impacts on society and natural environment. This research may impact societies where people are (mostly) collaborating to reduce the amount of carbon dioxide emissions in any form including daily life and production processes in industry. Therefore, managers should empower their employees in any of green activities and HR professionals should play an active role as Business Partners in encouraging employees at all levels in going green at the workplace

Finally, for HRM educators our results might be helpful in providing their students with a broad understanding of the reasons why companies adopt Green HRM practices with specific influencing factors. Sharing research findings could help students feel part of the research process and with the hope that they will implement it at work in the future.

8. Limitations and Implications for Further Research

While the objectives of this study were successfully accomplished, limitations of the study should be highlighted. First,in terms of generalization, this study was conducted in the large manufacturing and service industry. Future research should replicate this research finding, incorporating other sectors such as public organizations and small and medium enterprises. It will also be fruitful to replicate this study outside Malaysia to determine the impact of Electronic HRM, green employee empowerment and HR Business Partner Role on Green HRM Practices internationally.

The second limitation is the cross-sectional nature of the study. We cannot draw any conclusions as to time precedence or causality from the findings. Finally, although this study's attempts to link the Electronic HRM with Green HRM practices still needs to be further understood, it is suggested for the future study to incorporate more samples to have more power to generalize from the population in the study, which is manufacturing and service industry.

Future research could include other factors (i.e. HR competencies, corporate social responsibility, top management commitmenst, etc.), and the impact of Green HRM on environmental sustainability and environmental performance.

An additional area for further study could focus on the overall Green HRM system, rather than on a narrow set of specific practices as argued by Guerci and Carollo (2016) which they believed is much closer to that of practitioners in an organization. Similarly, Renwick et al. (2013, p. 10) emphasize the need to consider the workings of the entire HRM system instead of focusing on one or two HRM practices.

9. Conclusions

As an emerging and complex construct, the adoption of Green HRM is influenced by multiple factors. The present study examined the link between Electronic HRM, HR Business Partner Role, green employee empowerment and Green HRM. Some of these factors are "human aspects" that, in light of the RBV theory (Barney, 1991), can play a fundamental role in greening organizations (Jabbour et al., 2017). The results revealed that HR Business Partner Role and green employee empowerment are positively related to all dimensions of Green HRM. Contrary to what has been hypothesized, Electronic HRM did not show any positive relationship with all dimensions of Green HRM. Organizations therefore need to focus more on raising levels of awareness of the importance of green employee empowerment and HR Business Partner Roles among managers. This study has contributed to the body of knowledge on RBV theory by providing some new evidence about the human aspects that can unlock Green HRM practices in emerging economies, taking into account the context of Malaysia. As a consequence, this work adds to the state-of-the-art literature on Green HRM, for instance, Daily and Huang (2001), Jackson et al. (2011), and Renwick et al. (2016) and to the literature on sustainability in emerging economies (Gunasekaran, Jabbour & Jabbour, 2014).

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