EXPLORING THE RELATIONSHIP OF GREEN HRM, EMS AND CORPORATE ENVIRONMENTAL CITIZENSHIP BEHAVIOUR

Suhaimi Sudin¹*, Zuliawati Mohamed Saad²

¹Mr., Universiti Tenaga Nasional, Malaysia, ssuhaimi@uniten.edu.my ²Ms., Universiti Tenaga Nasional, Malaysia, zuliawati@uniten.edu.my *Corresponding author

Abstract

Scholars and practitioners believe that green management is the future of business or at least a competitive advantage in this fierce competition of business. Firms need to be competent in managing business while maintaining sustainable environment for the future generation and convincingly demonstrate corporate environmental citizenship behaviour (CECB) to show that they are able and capable in managing the green environment. On the other hand, Human Resource Management (HRM) scholars argue that crafting and executing green management strategies required high level of knowledge, skills and competencies among the employees of the firm. Subsequently, CECB can only be part of the firm's culture if the employees have the right knowledge, skills and competencies of green management embedded systematically in the corporate culture. Therefore, they argued that CECB as a result of painstakingly crafted and executed green management strategies required methodical HRM strategy, systems and practices. This new thinking of Green HRM, as termed by scholars in this area, which refer to the integrated HRM strategy, systems and practices that lead to the practice of effective green management and subsequently the demonstration of CECB by the firm, is a new field of study that need attention for further research. Many scholars argued that Green HRM will influence the practice of green management such as Environmental Management System (EMS) and practice of CECB. Integrated practice of HRM which consists of recruitment and selection of potential employees, training and development of employees in the light of green management practices, managing employees' performance that congruent with green management performance and rewarding them accordingly, as well as get them involved in planning and implementation of the green management initiatives are proposed in the literature to be significantly influence the effective implementation of EMS and the demonstration of CECB. These propositions have been widely debated in the literature but seldom tested using empirical data from the industry. The purpose of this study is to explore the relationship between Green HRM, EMS and CECB. The study proposed that Green HRM is significantly related to EMS and CECB. We also explore whether EMS mediated the relationship between Green HRM and CECB. Based on the literature review, the study developed a researchable framework of these relationships and tests the relationship using data collected from the Electric and Electronics (E&E) industry in Malaysia. We conducted this study in three stages; firstly we explored the literature to develop the constructs of Green HRM, EMS and CECB. Secondly, using focus group interview we further explored the constructs and subsequently developed questions for empirical data collections. Finally, we collected empirical data from the E&E industry using questionnaire developed to test the proposed framework. From the data analysis, this study found that Green HRM is significantly related to EMS as well as CECB. It is also found that there is not enough evident to show mediating effect of EMS in this relationship. Findings from this study contribute to our understanding of how Green HRM influence the practice of green management and how its influence the demonstration of CECB by the firms. Based on findings, researchers in this area could further explore how individual HRM

practices influence to the green management initiatives and CECB. Practitioners in this area could also use the findings from the study to effectively use HRM practices that significantly influence the practice of green management initiatives and CECB. Researchers could also replicate the same study using data collected from different industry or countries to get better insight of the viewpoint.

Keywords: Green HRM, Corporate environmental citizenship behaviour, Environmental management system

1. INTRODUCTION

Many scholars and practitioners believed that green management movement has become important external forces throughout the globe as well as in Asian business environment (Ren, et. al, 2017). Some researchers argued that it is one of the important factor for competitive advantage (Baird et al., 2012), while others claimed that green management is the one of major contributor for financial performance (Miroshnychenko, 2017; Leonidou et. al, 2017) as well as other operational effectiveness such as increase in manufacturing competitiveness, helping cost reduction, contributing to quality improvements and the generation of innovative new products and processes (Yang, Lin, Chan and Sheu, 2010). Green management or being environmentally sustainable are corporate strategic activities in a way that reduces waste, conserves energy and promotes environmental health that preventing damage to the natural environment (Claver et. al, 2007; Taib, et.al, 2015). Increased awareness in the sustainable development and environmental consciousness involved wider participation by various stakeholders which include international organizations, government and law makers, professional bodies, NGOs and consumers (Marquis et al., 2013). Many firms imbedded environmental friendly initiatives in their strategic and business management practices as part of their initiatives either voluntarily or as a compliance to external pressure imposed to them.

Green management practices by the firm could be viewed in the implementation of various initiatives such Environmental Management System (EMS) (Khalili and Duecker, 2013). Again, scholars argued that in order to effectively implement EMS, human resources of the firms must be equipped with specific knowledge, skills and competencies and integrated human resource systems should be strategically employed and widely practice throughout the organization.

On the hand, pro-environmental or green management behaviour vary from obligatory or compliance to voluntary dimensions. Some companies practice green management because of external factors beyond their control imposed to them; they are forced to do so. But majority of the firms, especially large and successful one, strongly believed that green management must be practiced voluntarily and cognitively as to become successful in the future business and gain sustainable competitive advantage.

Scholars suggested, these behaviours could be classified as regulative, normative and cognitive as a continuum dimension based on how they adopt certain initiatives which include technological precautions, structural precautions, strategic precaution, external relationship, and attitude of top management (Ozen and Kusku, 2008). But how these companies achieved the highest level of cognitive behaviour, as compare to other. We need to understand how firms and employees of the firm reacting to external and internal forces. Many scholars subscribed to these notions but we need to answer some important questions; do the practices of EMS reinforce these behaviour; and do HRM practices affect EMS implementation as well.

Subsequently, to effectively implement green management initiatives, organizations would need specific and high level knowledge, skills and competencies among the employees (Renwick et. al., 2008) and these competencies must be strategically fit in the organization as to create a unique organizational culture that contribute to organizational performance. Literature has widely discussed the important contribution of strategic and specific human resource practices towards the implementation of green management. Scholars also eagerly argued that strategic human resource management practices would significantly affect directly and indirectly the corporate environmental citizenship behaviour, but we do not clearly understand how these relationship work and we do not have enough empirical evident to prove these claims (Renwick et. al., 2008; Scarbrough, 2003; Ren, et. al, 2017). We need to explore and answer questions on what are the factors that influence the behaviour of a firm in practicing green management; in short what are the factors that affect CECB?; do HR practices affect the firm behaviour?; and do HRM practices really affect CECB as claimed by scholars?

In a nutshell, this paper seeks to understand important questions in relation to what extent and how strategic implementation of human resource management affect the implementation of green management initiatives

and influence pro-environmental behaviours. This study will explored the linkage of managing green human resource practices that contribute to effective implementation of EMS and in turn contribute to CECB. This paper reviewed the current literature to maps the contemporary thinking of Green HRM and its linkages to EMS and CECB; proposed a researchable framework and test their relationship using empirical data collected from the Malaysian Electric and Electronics (E&E) industry.

2. LITERATURE RIVIEW

2.1. Corporate Environmental Citizenship Behaviour (CECB)

In conceptualizing pro-environmental behaviours, scholars have considered to the organizational citizenship behaviour (OCB) perspective. Organ (1988) defined OCB as, "individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate, promotes the effective functioning of the organization". Some researchers (Robertson and Barling; 2017; Boiral, 2009; Daily et al., 2009) comprehensively developed the OCB framework to theorise organizational environmental citizenship behaviour (OECB) and defined it as "individual and discretionary social behaviours that are not explicitly recognized by the formal reward system and that contribute to a more effective environmental management by organizations" (Boiral, 2009, p. 223). Based on this conceptualization, Boiral and Paillé (2012) proposed an OECB framework and partially validated the instrumentation that is comprised of three factors: eco-initiatives, eco-helping, and eco-civic engagement.

Based on these premises, this paper proposed to extend the pro-environmental behaviours of a firm using corporate environmental citizenship behaviour (CECB). In some studies (Delmas and Toffel, 2004; Buysse and Verbeke, 2003), based on the institutional theory; government, regulators, customers, competitors, community and environmental interest groups, and industry associations are the major environmental forces that impose coercive and normative pressure on firms and influence the corporate environmental behaviour. Others found that other external environmental factors such as community and market have become more active determinant factor in environmental sustainability especially in the developed countries. This behaviour, sometime termed in the literature as corporate environmental behaviour is resulting from a broad concept of corporate social responsibility (Garriga and Mele, 2004). However, in the early 1990s, corporate citizenship has been used to describe the ability of the organization to manage its relationships with society in the process of minimizing its negative impacts while maximising its positive benefits. By definition corporate environmental citizenship is "all of the precautions and policies corporations need to implement in order to reduce the hazards they give to the environment" (Ozen and Kusku, 2008). They argued that, the CECB can vary according to institutional environments to which organizations conform and this variation can be classified into three categories of adoption patterns; regulative, normative and cognitive adoption. This study used Ozen and Kusku's categorisation to measure the level of CECB adoption. Regulative adoption involves the implementation of environmental practices as authorised by environmental regulations. Normative adoption refers to the adoption of practices that are expected as acceptable behaviour by other important stakeholders in the industry. While, cognitive adoption involves the implementation of practices that are taken for granted as the effective way of doing things.

2.2 Green Management Initiatives

The Environmental Management System (EMS) is one of the main features in an organization overall management structure that addresses the immediate and long term impact of its products, services, and processes on the environment (Haden et al., 2009). EMS has been receiving attention among the diverse environmental management practices that large companies have resorted to in the recent year's for instance cleaner production, eco-efficiency, life cycle assessment and the certified Environmental standard (Albuquerque et al., 2007; Salomone, 2008). The primary guideline, ISO 14001 contains EMS specification certification standards which includes five key elements: policy, planning, implementation and operation, checking and corrective action and management review (Krut and Gleckman, 2013). This study used these certification standards as dimensions to measure EMS implementation by the firm.

The **guidelines or policy** are defined by the top management for the organization. According to ISO 14001 (2017), the environmental **policy statement** needs to include at a minimum requirements which are the commitment to continual improvement and prevention of pollution, commitment to comply with the legislation and regulations, framework for setting and reviewing environmental goals and commitment to documentation and implementation; and the policy must be communicated to all employees and be available to the public (Smith, 2017; ISO, 2017). **Planning element** includes several issues as legal and other requirements, objectives and targets, environmental aspects determination and the structure of the environmental management. The environmental aspects refers to the establishing and maintaining procedures in order to

identify controllable activities, products or services that could potentially have significant impacts on the environment (Smith, 2017; ISO, 2017). Implementation and operation which the organization needs to design a structure that provides available and qualified resources to facilitate effective environmental management. For instance, training that provided to employees of all levels so the employees may have the knowledge and skills to accomplish the objective and targets of an EMS. There also should be a process to promote the internal and external communication should flow both from the top and bottom so that all employees have the most up to date information regarding matters of the environmental impact (Smith, 2017; ISO, 2017). Checking and corrective action which covers of the monitoring and measurement, nonconformance and corrective and preventive action, records, and environmental management system audit. The section of monitoring and measurement concerns procedures that determine how well the organization is achieving stated environmental goals by examining various performance indicators. The organization also needs to establish and maintain programs to carry out periodic audits to determine whether the EMS conforms to requirements of the standards, and if proper implementation and maintenance are occurring on a routine basis (Daily and Huang, 2001; Smith, 2017; ISO, 2017). The management review needs the senior management in an organization periodically review the progress of their environmental management system. This systematic process of reviews contributes to the element of continuous improvement that is essential to the success of maintaining an effective EMS. The results from the environmental audits shall be reviewed and therefore, the managers could make a change in the policy, objectives and targets, and other elements of the EMS in order to continually improving the EMS to improve environmental performance (Smith, 2017; ISO, 2017).

2.3. The Role of HRM Practices

In order for green management initiatives to be successfully executed in a firm, all employees should be equipped with technical and management knowledge, skills and competencies that related to green management (Renwick, et al., 2013) that will provide great influence towards firm's abilities and capabilities to achieve sustainable competitive advantage (Lin et al., 2001). These high level of knowledge, skills and competencies in green management could only be assimilated and implemented using strategic and integrated human resource management that support green practices. Scholars in this area termed these as green human resource management (GHRM).

Green HRM can be viewed as a whole and integrated human resource activities that involved in development, implementation and continuing maintenance of green management system, that ensuring employees of an organization able to perform the green management initiative effectively (Sudin, 2011). Some researchers refer Green HRM as the policies, practices and systems that develop environmentally sustained employees, for the value of the individual, society, natural environment, and the business (Dumont et al., 2016; Renwick, et al., 2013) and human resource (HR) practices needs to support the organizations to implement sustainability (Daily and Huang, 2001). Paauwe and Boselie (2003) stated that HR practices are normally deployed with the strategic systems that are appropriate with the culture and business policy.

Based on the literature review, this study explored a bundle of HR practices and how they correlate to the effective implementation of EMS and affect firm's CECB. These HRM practices were selected based on the deliberations in the literature that these practices are the most appropriate and will impact the implementation EMS and CECB adoption. The HRM practices selected are Recruitment, Selection, Training and Development, Performance Management, Compensation and Employee Involvement (Renwick et al., 2008; Huffman et al., 2009; Sudin, 2011).

Recruitment is a process to attract a potential and quality candidates to apply for vacancies. It may influence the types, quantity, and quality of candidates for certain vacancies (Bohlander et al, 2007). When recruitment and environmental dimension incorporates, the company environmental performance will be the element to attract talented candidates. Recruitment is where an environmental goals is being set to attract the future candidates. **Selection** is a process of selecting a future employee from a pool of potential candidates whereas when the selection are made candidates that may able to align with the environmental goals of the organization from the short listing. Organization should use advanced methodologies for selecting candidates that incorporate environmental reporting roles, as well as health and safety task, which may visible staff to dangerous element. Furthermore, by allocating some investment on specific technology, individual traits can be matched with the desirable environmental competencies required for the respective position. **Training and Development** is an exercise which emphases on expansion of employees' skills, knowledge, attitudes, including competencies (Zoogah, 2012). Green training and development increase employee's understanding concerning to value of green management, train them in operationalised approaches that save the energy, reduce waste, disperse environmental consciousness in the organization,

and provide opportunity to involve employees in environmental problem-solving (Zoogah, 2012). Performance Management is the procedures whereby employees are motivated to improve their professional competencies that inspired through appropriate ways of organizational goals and objective attainment. Green performance management focusing on the use of environmental responsibilities as a key performance indicators and criteria for managing the employees' performance, should be fixed for managers achieving green result as well as being embed in performance appraisal system. Compensation is a process of rewarding employees who accomplish their targeted goals. Achievement of certain environmental behaviour must be incorporated within the compensation plan which rewards employees with bundle of benefit upon their green initiative activities. Rewarding employees for such initiative thru monetary based reward systems have established significant impact on performance outcomes in environmental management (Milliman and Clair, 1996). Many firms in the developed countries are reported practicing a rewards system that incorporate environmental goals achievement as criteria for performance based compensation (Ramus, 2002). Employee Involvement - Encouraging all employees to participate in GM initiatives has been reported as improving the key outcomes of GM initiatives, including: efficient resource usage (Florida, 1996); reducing waste (May and Flannery, 1995); and reducing pollution from workplaces (Johnson, 1999). Extensive employee involvement in environmental management, relatively to restricting participation to managers and specialists, is frequently found as significant to successful results (Remmen and Lorentzen 2000).

Based on the above argument, this study proposed the following research framework (Fig. 1).



Fig 1. Theoretical Framework of the Relationship between Green Human Resource Management (GHRM), Green Intellectual Capital (GIC) and Corporate Environmental Citizenship Behaviour (CECB).

Further, based on the above discussions and research framework, this paper proposed the following hypotheses;

- H1: Green HRM which consists of Recruitment, Selection, Training, Rewards, Performance Management and Employee Involvement is significantly related to CECB which consists of cognitive behaviour.
- H2: Green HRM which consists of Recruitment, Selection, Training, Rewards, Performance Management and Employee Involvement is significantly related to Environmental Management System.
- H3: Environmental Management System is significantly related to CECB which consists of cognitive behaviour.

3. METHODOLOGY

This study was conducted in three stages; firstly we explored the literature of strategic human resource management, green management and pro-environment corporate behaviour to develop the constructs of green HRM, EMS and CECB.

Secondly, using focus group interview we further explored the constructs and subsequently developed questions for empirical data collections. This study managed to collect quantitative data from five multinational companies in Malaysian E&E manufacturing industry. Among the case study organizations, two

of the organizations are Japanese-based companies, two USA-based companies and one Malaysian company. All organizations are large multinational companies with number of employees exceed 1,000 for each organization. Each organization are represented by five respondents from either from the Human Resource department, Occupational Health and Safety department, environmental management related department and engineering department.

Finally, based on the literature review and focus group interview result, this study developed a selfadministered questionnaire that will collect empirical data related to all construct developed for this study. Data from the Malaysian Electric & Electronics industry were collected using questionnaire developed to test the proposed framework.

3.1. The Instruments

To test the above framework, a self-administered questionnaire was designed according to the objectives and framework of the study. It comprised particulars of respondent and company background, followed by questions concerning Green Human Resource Management practices (adapted from various literatures such as Renwick et al., 2013, 2016 as well as from focus group interview), questions regarding Environmental Management System (ISO, 2017) and questions regarding Corporate Environmental Citizenship Behaviour developed based on Ozen and Kusku (2008). It used Likert-type scale rating (1 for 'strongly disagree' and 5 for 'strongly agree').

3.2. Sampling and Data Collection

Since this is an explorative study, a purposive non-probability sampling method is employed. The target population for the study was the Malaysian Electric and Electronics (E&E) manufacturing companies located in Penang industrial areas, at the northern part of Peninsular Malaysia. The questionnaire was distributed to a sample of 36 companies selected from the Federation of Malaysian Manufacturers (FMM) member directory list (FMM, 2015). This study analysed data analysis in two stages. Firstly, we checked for data entry which included validity and reliability of variables, identification outliers and normality of the data. Secondly, we examined for correlations and regression to test of all the hypotheses.

4. FINDINGS

This study analysed the Cronbach's alpha for reliability of all variables in question and the result is presented in Table 1. Hair et al. (2009) suggested that usual lower limit for Cronbach's alpha is 0.70 and it may decrease to 0.60 in the exploratory study, while Malhotra (2010) suggested that Cronbach's alpha value of 0.6 or less generally indicates unsatisfactory internal consistency reliability. This study found that the Cronbach's alpha of all the variables are 0.80 or above which were considered reliable and good for further analysis.

To test the relationship of all variables, correlations analysis was conducted and the results are presented in Table 2. The purpose of correlation analysis is to summarise the strength of association between variables (Malhotra, 2010).

In summary, from the correlations analysis results presented in Table 2, it was found that all variables were significantly related to all dependent variables in the study, except for Recruitment, Selection and Rewards which are not correlated to EMS; and Recruitment and Selection are not correlated to CECB. The findings also showed that, in the aggregate variables, it was found that GHRM is significantly related to EMS at 0.05 level; with the strength of relationship (R) of 42%. It was also found that the correlation of GHRM and CECB is highly significant at 0.01 with the strength of relationship (R) of 0.544. EMS is also found to be highly correlated to CECB at 0.01 significant level with R value of 0.929.

To further analyse the relationship, this study conducted a simple regression analysis using stepwise method. The results is shown in Table 3. The findings showed that in a Model 1, EMS is highly significantly related to CECB. While in Model 2, EMS and GHRM are highly significantly related to CECB. These findings are summarized in the following models;

Model 1: CECB = 6.365 + 8.072 EMS + e Model 2: CECB = -0.529 + 7.213 EMS + 2.956 GHRM + e

Variables	Composite Variables	Items	Reliability	Variables	Composite Variables	Items	Reliability
Recruitment	GHRM	5	α = 0.907	Technological Precautions	CECB	6	$\alpha = 0.855$
Selection	GHRM	5	α= 0.940	Structural Precautions	CECB	4	α = 0.920
Training and Development	GHRM	7	α = 0.943	Strategic Precautions	CECB	3	α = 0.907
Rewards System	GHRM	5	α = 0.904	External Relationships	CECB	4	α = 0.850
Performance Management	GHRM	6	α = 0.865	Attitudes of Top Management	CECB	3	α = 0.914
Employee Involvement	GHRM	8	α = 0.937	GHRM	-	36	α = 0.966
Policy	EMS	6	$\alpha = 0.970$	GIC	-	28	$\alpha = 0.965$
Planning	EMS	6	$\alpha = 0.975$	CEB	-	20	$\alpha = 0.964$
Implementation	EMS	12	α = 0.980				
Checking	EMS	4	α = 0.968				
Management Review	EMS	5	α = 0.970				

Table 1. Number of Items and Cronbach's Alpha for All Variables.

Table 2. Correlations Analysis for All Variables.

Correlations																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Recruitment																
2	Selection	.769**															
3	Training and Development	.473**	.223														
4	Rewards System	.630**	.450**	.600**													
5	Performance Management	.665**	.574**	.589**	.718**												
6	Employee Involvement	.571**	.417 [*]	.669**	.598**	.705**											
7	Policy	.064	102	.734**	.205	.307	.287										

Proceedings of INTCESS2018- 5th International Conference on Education and Social Sciences 5-7 February 2018- Istanbul, Turkey

•	Diagonia a	404	050	704**	005	20.4*	200	000**									
8	Planning	.101	056	.791	.265	.384	.326	.920									
9	Implementation	.155	064	.817**	.311	.367*	.345*	.932**	.929**								
10	Checking	.144	090	.830**	.337*	.359 [*]	.347*	.889**	.898**	.962**							
11	Management Review	.187	054	.794**	.335*	.328	.410 [*]	.878**	.865**	.934**	.902**						
12	Technological Precautions	.221	.170	.676**	.314	.452**	.461**	.817**	.772**	.750**	.742**	.704**					
13	Structural Precautions	.171	009	.778**	.364*	.403*	.381*	.907**	.848**	.905**	.882**	.830**	.727**				
14	Strategic Precautions	.327	.018	.809**	.469**	.434	.458**	.880**	.854**	.884**	.868**	.836**	.779**	.874**			
15	GHRM	.835**	.683**	.763**	.823**	.873**	.844**	.336*	.401*	.426**	.426**	.443**	.494**	.456**	.544**		
16	EMS	.136	074	.821**	.299	.364*	.352 [*]	.959**	.957**	.991**	.963**	.946**	.784**	.909**	.897**	.420*	
17	СЕВ	.281	.053	.819**	.432**	.460**	.470**	.928**	.887**	.912**	.895**	.854**	.876**	.924**	.975**	.544**	.929**

Table 3. Regression Analysis with GHRM and EMS Predicting CECB

Model	R	R ²	Adjusted R ²	Std. Error	F	Sig.
1	.905	.819	.813	3.41302	153.548	.000
2	.928	.862	.854	3.02300	103.032	.000
		В	Std. Error	Beta	t	Sig.
1	(Constant)	6.365	2.804			
	EMS	8.072	.651	.905	12.391	.000
2	(Constant)	529	3.281		161	.873
	EMS	7.213	.636	.808	11.342	.000
	GHRM	2.956	.919	.229	3.215	.003

5. DISCUSSION

This study established details elements of GHRM and CECB in Malaysian E&E which most of them are very consistent with previous literature (Renwick, 2013; 2016; Özen, Ş., & Küskü, F. 2009; Florida, 1996; Yusoff et.al., 2015). This study conclude that four important predominant themes are the major factors that shape the corporate behaviours which are technological precautions, structural precautions, external relationship activities with regard to green management, and top management supports to environmental activities. This study initiate the details of these dimensions as previously mentioned by Özen and Küskü, (2009), tested them with empirical data from Malaysian business environment.

Furthermore, this study also found that several practices of GHRM postulated in the literature, such as Training and Development, Rewards, Performance Management and Employee Involvement are significantly related to CECB; while Recruitment and Selection are found to be not significantly related to CECB. Subsequently, this study also found that only Training and Development, Performance Management and Employee Involvement are related to EMS. This findings are inconsistent with the propositions in some literature that all HRM practices should be significantly related to green management initiatives and also

influence the pro-environmental behaviour (Renwick, 2013). Findings from this study show that only Training and Development, Performance Management and Employee Involvement are GRHM practices that significantly related to both EMS and CECB. This paper argue that these three practices do directly affect employees' knowledge, skills and competencies that required in the implementation of EMS and subsequently directly influence the pro-environmental behaviour of the employees and finally affect the aggregate behaviour of all employees that formed CECB. Training and Development in the organization is an important HR practices that identified the required training needs of the organization with regards to environmental knowledge, skills and competencies and concerted as well as integrated efforts are strategically implemented to address these needs. Employees are directly affected and gained from this practices. Performance Management and Employee Involvement are also parts of the HR practices that directly affect the employees with regards to the implementation of EMS and in turn shape their proenvironmental behaviour.

These findings are important to both scholars and practitioners. Data from the Malaysian E&E industry showed that not all HR practices are directly affect the implementation of EMS and directly influence the proenvironmental behaviour. Academically, we need to further explore these premises using data from different geographical area as well as different industry to help us make concrete and concise deduction. For practitioners, they can safely select specific HR practices that proved to be directly affect the implementation of green management initiatives and positively influence pro-environment behaviours. This will not only safe time and money but also contribute to the effective implementation of green HRM that directly contribute to firm's sustainable competitive advantage.

6. CONCLUSION

Findings from this study shed some light on the specific HRM practices that significantly contributed to green management initiatives and in turn shape the required pro-environmental behaviour. It was found that not all HR practices contribute to green management initiatives and in turn affect corporate environmental citizenship behaviour. Furthermore, this study posit that management practices especially with regard to human resource should be explored to enhance our understanding on how these human resource management practices contribute to the CEC behaviours.

In this study, we proposed several HRM practices that could affect the effective implementation of green management initiatives and in turn influence the corporate environmental citizenship behaviour. As argued by many researchers in the area of GHRM, strategic and systematic HRM practices is significantly relate to EMS and in turn contribute to high level of CECB. Data collected from this study also shows that, there is no significant relationship of between recruitment and selection to green EMS and CECB. Specifically, only Training and Development, Rewards, Performance Management, and Employee involvement are found to be significantly correlated to EMS; while only Training and Development, Performance Management, and Employee involvement are found to be significantly correlated to CECB.

Findings from this study is important for our understanding on how green HRM contributes to the green management initiatives and affect the behaviour of organizations in adopting and implementing green management activities. This study also revealed that not all human resources practices do really create a significant effect in implementing green management and adopting pro-environmental behaviour. Data from the Malaysian E&E showed that recruitment, selection and rewards did not contribute a significant role in the green management initiative neither it influence the adoption of corporate environmental citizenship behaviour.

7. ACKNOWLEDGEMENT

Authors would like to thank sponsors of this study, a Fundamental Research Grant Scheme (FRGS/2/2014/SS05/UNITEN/02/2) from the Ministry of Higher Education, Malaysia and Universiti Tenaga Nasional.

REFERENCE LIST

Albuquerque, P., Bronnenberg, B. J., & Corbett, C. J. (2007). A spatiotemporal analysis of the global diffusion of ISO 9000 and ISO 14000 certification. *Management science*, *53*(3), 451-468.

Baird, P. L., Geylani, P. C., & Roberts, J. A. (2012). Corporate social and financial performance re-examined:

Industry effects in a linear mixed model analysis. Journal of business ethics, 109(3), 367-388.

- Bohlander, G., Snell, S., & Sherman, A. W. (2007). Human resource management. USA: South–Esetern College Publishing Thompson Learning, 27-54.
- Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221-236.
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of business ethics*, *109*(4), 431-445.
- Buysse, K., & Verbeke, A. (2003). Proactive environmental strategies: A stakeholder management perspective. Strategic management journal, 24(5), 453-470.
- Claver, E., Lopez, M. D., Molina, J. F., & Tarí, J. J. (2007). Environmental management and firm performance: A case study. Journal of environmental Management, 84(4), 606-619.
- Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. International Journal of operations & production management, 21(12), 1539-1552.
- Delmas, M., & Toffel, M. W. (2004). Stakeholders and environmental management practices: an institutional framework. Business strategy and the Environment, 13(4), 209-222.
- Dumont, J., Shen, J., & Deng, X. (2016). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. Human Resource Management.
- Federation of Malaysia Manufacture (FMM) Directory Listing (2015) of Malaysia manufacturers. Retrieved from www.fmm.org.my.
- Florida, R. (1996). Lean and green: the move to environmentally conscious manufacturing. California Management Review, 39(1), 80-105.
- Garriga, E. and D. Mele': 2004, Corporate social responsibility theories: mapping the territory, Journal of Business Ethics 53, 51–71.
- Haden, S.S.P., Oyler, J.D. and Humphreys, J.H. (2009), "Historical, practical, and theoretical perspectives on GM: an exploratory analysis", Management Decision, Vol. 47 No. 7, pp. 1041-55.
- Hair, J. F., Black, W. C., Babin, B. J., and R. E. (2009). Multivariate Data Analysis, 7th Edition, Prentice Hall, Upper Saddle River, New Jersey
- Huffman, A.H., Watrous-Rodriguez, K., Henning, J., & Berry, J. (2009). "Working" through environmental issues: the role of the I-O psychologist. The Industrial-Organizational Psychologist, 47(2), 27.
- International Standard Organization (ISO) (2017). ISO 14000 family Environmental management https://www.iso.org/iso-14001-environmental-management.html accessed on 27.12.2017
- Johnson, D. R. (1999). The benefits of proactive environmental quality: Tips from a successful small business. Environmental Quality Management, 8(4), 47-52.
- Khalili, N. R., & Duecker, S. (2013). Application of multi-criteria decision analysis in design of sustainable environmental management system framework. Journal of Cleaner Production, 47, 188-198.
- Krut, R., & Gleckman, H. (2013). ISO 14001: A missed opportunity for sustainable global industrial development. Routledge.
- Leonidou, L. C., Christodoulides, P., Kyrgidou, L. P., & Palihawadana, D. (2017). Internal drivers and performance consequences of small firm green business strategy: the moderating role of external forces. Journal of Business Ethics, 140(3), 585-606.
- Lin, B, Jones, C.A. and Hsieh, C. (2001). Environmental practices and assessment: a process perspective. Industrial Management & Data Systems 2001;101 (2):71–9
- Malhotra, N. K. (2010). Marketing Research: An Applied Orientation, 6th Edition, Prentice-Hall, Upper Saddle River, New Jersey
- May, D. R., & Flannery, B. L. (1995). Cutting waste with employee involvement teams. Business Horizons, 38(5), 28-38.

- Milliman, J., & Clair, J. (1996). Best environmental HRM practices in the US. Greening people: Human resource and environmental management, 49-74.
- Miroshnychenko, I., Barontini, R., & Testa, F. (2017). Green practices and financial performance: A global outlook. Journal of Cleaner Production, 147, 340-351.
- Organ, D. W. (1988). Organizational citizenship behavior: The good soldier syndrome. Lexington Books/DC Heath and Com.
- Özen, Ş., & Küskü, F. (2008). Corporate environmental citizenship variation in developing countries: An institutional framework. Journal of Business Ethics, 89(2), 297-313.
- Paauwe, J., & Boselie, P. (2003). Challenging 'strategic HRM'and the relevance of the institutional setting. Human Resource Management Journal, 13(3), 56-70.
- Ramus, C.A. (2002). Encouraging innovative environmental actions: what companies and managers must do. Journal of World Business, 37, 151-164.
- Remmen, A., & Lorentzen, B. (2000). Employee participation and cleaner technology: learning processes in environmental teams. Journal of Cleaner Production, 8(5), 365-373.
- Ren, S., Tang, G., & Jackson, S. E. (2017). Green human resource management research in emergence: A review and future directions. Asia Pacific Journal of Management, 1-35.
- Renwick, D. W., Jabbour, C. J., Muller-Camen, M., Redman, T., & Wilkinson, A. (2016). Contemporary developments in Green (environmental) HRM scholarship. The International Journal of Human Resource Management, 27(2), 114-128.
- Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. International Journal of Management Reviews, 15(1), 1-14.
- Renwick, D., Redman, T., & Maguire, S. (2008). Green HRM: A review, process model, and research agenda. University of Sheffield Management School Discussion Paper, 2008(1), 1-46.
- Robertson, J. L., & Barling, J. (2017). Toward a new measure of organizational environmental citizenship behavior. Journal of Business Research, 75, 57-66.
- Salomone, R. (2008). Integrated management systems: experiences in Italian organizations. *Journal of cleaner production*, *16*(16), 1786-1806.
- Scarbrough, H. (2003), "Knowledge management, HRM and innovation process", International Journal of Manpower, Vol. 24 No. 5, pp. 501-16
- Smith, Z. A. (2017). The environmental policy paradox. Routledge.
- Sudin, S. (2011). Strategic G HRM: A proposed model that supports CEC. In International Conference on Sociality and Economics Development, IPEDR (Vol. 10, pp. 79-83).
- Taib, M., Yazid, M., Mohamed Udin, Z., & Abdul Ghani, A. (2015). The development of green management and green technology in green manufacturing in Malaysia. Journal of Technology and Operations Management, 10(1), 40-47.
- Yang, C.-L., Lin, S.-P., Chan, Y.-H., Sheu, C., (2010). Mediated effect of environmental management on manufacturing competitiveness: an empirical study. International Journal of Production Economics 123 (1), 210–220
- Yusoff, Y. M., Othman, N. Z., Fernando, Y., Amran, A., Surienty, L., & Ramayah, T. (2015). Conceptualization of GHRM: An Exploratory Study from Malaysian-based Multinational Companies. International Journal of Business Management & Economic Research, 6(3).
- Zoogah, D. B. (2012, August). Ecological Transcendence, Rewards, and Commitment toward Environmental Management. In Academy of Management Annual Meeting, Boston, MA.