EFFECT OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON FIRM ENVIRONMENTAL INNOVATIVENESS IN THE MALAYSIAN FURNITURE INDUSTRY

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by

SUFAID ALI

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DEDICATION

To my beloved late father, Mr. Siraj Khan, who always

advised me to study and excel. Bacha, you will always be missed.

To my dearest mother….I love you so much.

Thank you so much for everything.

Words cannot describe of how much I appreciate you in my life.

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who

always keep me motivated all these years.

Thank you from the bottom of my heart.

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I have never been good with words, which is why I find myself in such a delicate conundrum, to give everyone the thanks they deserve for helping me with such a Sisyphean undertaking, namely the completion of a Masters at USM. Nevertheless, writing this thesis has been a pleasant, instructive, and challenging experience. It taught me things I had expected to learn and many more which I had not anticipated. The predictable lessons from my Masters include learning how to make out relevant information in endless piles of literature and how to communicate my findings in concise academic writing. Some of the unexpected lessons I learned are a) how difficult it is to deal with the organizations and ask for information, b) how essential uplifting conversations about your work can be for nourishing this conviction in times when you share most of your day with your laptop and a cup of tea.

For many conversations of this kind, I am deeply grateful to my supervisor Associate Professor Dr. Anees Janee Ali. He challenged my hidden assumptions, forced me to re-think explanations and dissect the arguments I wrote, and pushed me to be original and not just clever. He gave his time and effort, criticizing the various iterations of my work constructively, helping me to wrestle with ideas, providing

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LIST OF ABBREVIATIONS

EMSs	environmental management systems
FEI	Firms' Environmental Innovation
GC	Green Compensation
GHRM	Green Human Resources Management
GPA	Green Performance assessment
GRS	Green Recruitment and Selection
GT	Green Training
HRM	Human Resource Management
MIFF	Malaysian International Furniture Fair
OIC	Organizational Innovative Culture
RBV	Resource-Based View
SEM	Structural Equation Modelling

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PENGARUH AMALAN PENGURUSAN SUMBER MANUSIA HIJAU TERHADAP PERSEKITARAN INOVATIF PERUSAHAAN INDUSTRI PERABOT DI MALAYSIA

ABSTRAK

Inovatif alam sekitar yang mantap sememangnya memainkan peranan yang amat besar terutamanya dalam pasaran dinamik dan kompetitif kontemporari. Pada masa ini, pelanggan dilihat memberi perhatian dan prihatin terhadap alam sekitar berbanding sebelumnya. Bukan itu sahaja, kerajaan juga telah merangka prinsip undang-undang yang ketat untuk mengatasi pencemaran alam sekitar yang disebabkan oleh sektor perindustrian. Memandangkan kelestarian alam sekitar dianggap sebagai tulang belakang kepada pertumbuhan sesebuah negara, kemudaratan alam sekitar yang disebabkan oleh industri pembuatan yang mempunyai sistem pengeluaran yang besar dan operasi berterusan semestinya tidak boleh diabaikan, jika masalah ini dipandang ringan, maka kelestarian alam sekitar tidak terjamin. Syarikat-syarikat pembuatan yang lebih besar ini semestinya dapat melakukan inovasi persekitaran dalam pengeluaran dan proses. Salah satu cara untuk menjadikan bumi hijau adalah melalui pelaksanaan inovasi persekitaran yang berfokus pada "amalan HRM hijau". Walaupun peningkatan kepentingan diberikan kepada inovasi alam sekitar dalam firma pembuatan perabot, amalan konsep HRM hijau belum dilaksanakan secara meluas di negara membangun seperti Malaysia. Objektif utama kajian ini ialah, untuk mengkaji hubungan antara amalan berpengaruh utama HRM hijau seperti pengambilan dan pemilihan hijau, latihan hijau, pampasan hijau, dan penilaian prestasi hijau, dan inovasi alam sekitar yang kukuh dalam kalangan firma pembuatan perabot sederhana dan besar di Malaysia. Berdasarkan pandangan berasaskan sumber dan teori

pembelajaran sosial, kajian ini mengkaji kesan amalan pengurusan sumber manusia hijau (HRM) terhadap inovasi persekitaran yang kukuh. Peranan penyederhanaan budaya inovatif organisasi terhadap hubungan antara HRM hijau dan inovasi alam sekitar yang kukuh turut dinilai. Tinjauan ke atas 212 buah syarikat pembuatan perabot di Malaysia telah dianalisis menggunakan pemodelan persamaan struktur. Keputusan daripada analisis data tersebut menunjukkan bahawa amalan HRM hijau dapat dikaitkan secara positif dengan inovasi alam sekitar yang kukuh. Kesan positif latihan hijau dan kompensasi hijau terhadap inovasi persekitaran perusahaan didapati meningkat dengan menyederhanakan peranan budaya inovatif organisasi. Kajian ini menunjukkan penyelidikan masa depan dengan menggunakan pendekatan kaedah campuran (gabungan antara kaedah kualitatif dengan kuantitatif) untuk mendapatkan penyelidikan komprehensif mengenai amalan HRM hijau dan cara perkara ini dapat menyumbang untuk mencapai inovasi persekitaran. Selain itu, memandangkan kajian ini terbatas, yakni tertumpu kepada firma yang beroperasi di Malaysia sahaja, kajian masa hadapan dapat diperluaskan ke negara-negara luar serta memperluas ruang lingkup dengan memasukkan industri-industri lain seperti industri kejuruteraan, pertanian, dan perkhidmatan untuk mengesahkan hasil kajian yang sempurna.

EFFECT OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON FIRM ENVIRONMENTAL INNOVATIVENESS IN THE MALAYSIAN FURNITURE INDUSTRY

ABSTRACT

Firm environmental innovativeness has attained increased importance particularly in the contemporary dynamical and competitive market. Nowadays, customers are paying much attention to the environment than ever before. Governments are also framing tight principles to overcome the environmental pollution caused by the industrial sector. Being considered as the backbone of a country's overall growth, the environmental harms caused by the manufacturing industry should not be disregarded due to the large production systems and continuous operations. These larger manufacturing firms should unavoidably indulge in environmental innovations in the productions and processes. One way to 'going green' is the implementation of environmental innovations with a focus on green HRM practices. Notwithstanding the increased importance being given to environmental innovativeness in furniture manufacturing firms, the practices of green HRM concepts have not been widely implemented in developing countries such as Malaysia. The key objective of the study is to examine the relationship between key influential practices of green HRM such as green recruitment and selection, green training, green compensation, and green performance assessment, and firm environmental innovativeness among medium and large furniture manufacturing firms in Malaysia. Drawing upon the resource-based view and the social learning theory, this study examined the effect of green human resource management (HRM) practices on the firm environmental innovativeness. The moderating role of organizational innovative

culture on the relationship between green HRM and firm environmental innovativeness was also assessed. A survey of 212 furniture manufacturing companies in Malaysia was analyzed using structural equation modeling. Results from the data analysis suggest that green HRM practices are positively associated with the firm environmental innovativeness. The positive effect of green training and green compensation on firm environmental innovativeness was found to be increased by moderating the role of organizational innovative culture. This study suggests future research by employing a mixed-method approach (a combination of qualitative and quantitative methods) to get a comprehensive investigation of green HRM practices and how these can contribute to achieving environmental innovativeness. Furthermore, as this study is limited to the firms operating in Malaysia only, Future studies can widen their research to different countries to validate results and future studies may broaden the scope by including other industries such as engineering, agricultural, and service industry.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter consists of the background of the study followed by the research problem, research objectives, and research questions. Then it proceeds with the scope of the study and the significance of the study. Definitions of key terms and a summary of the whole chapter are also given at the end. Lastly, the structure of the thesis is given for a better understanding of readers.

1.2 Background of the Study

Firm environmental innovativeness has attained increased importance particularly in the contemporary dynamical and competitive market. Companies have more competition than before today in the globalizing world. Organizations need to possess innovative capacities to continue to face this increased competition and the rapidly changing environment. A new manifestation of innovation for organizations, which allows businesses to gain competitive advantage through innovative activities for themselves and society as a whole, is particularly necessary to meet environmental challenges (Gurău & Dana, 2018). Indeed, employees can deliver these innovative capacities, whether related to processes or products. Hence, human resource management (HRM) is therefore crucial for the exertion of firm innovation (Kianto, Sáenz & Aramburu, 2017).

Many organizations, who have committed to environmental policy in order to drive their businesses towards the undefined aim of sustainability, have adopted the mantra of sustainable growth. Managers believe that environmental innovativeness is

important to make an enterprise sustainable (Gast, Gundolf & Cesinger, 2017). However, management cannot always be conscious of how new environmental concepts are promoted to help the organization meet sustainable environmental goals.

Green human resource management (HRM) practices are important environmental problem-solving resources for organizations (Bombiak & Marciniuk-Kluska, 2018). Innovation, by definition, is referred to as creative ideas for individuals or teams, thus companies that want an innovative solution for enhancing their environmental performance need to develop effective structures to support the behavior of their employees. This may be possible by practicing Green HRM in an organization.

The term Green HRM has now become the buzzing word in the business field and, over time, is becoming more and more vital. This term is also embraced in the emerging research on environment studies since the awareness of innovation and technological sustainability is growing worldwide (Muster & Schrader, 2011; Shen, Dumont & Deng, 2019). At present, Green HRM is not only an issue of environmental awareness but also of the economic and social wellbeing of both the organization and its staff. As a business approach, green HRM emerges strongly together with other developments such as and green spaces, green banking, and green finance, in the green movement (Wagner, 2013).

In their study, Jabbour and de Sousa Jabbour (2016) emphasized that Green HRM is related to the "systemic, planned alignment of typical human resource management practices with the organization's environmental goals" (p. 116). Simply put, as explained by Shen, Dumont and Deng (2019), Green HRM can be defined as Green employees who understand, appreciate, and pursue Green initiatives in the

HRM processes such as recruitment, selection, training, talent management, and compensation. A survey directed by the Asian Institute of Finance (2017) on the importance of Green HRM highlighted that 90% of respondents perceived Green HRM as of significant importance with Green performance management and Green talent management being viewed as most significant.

Throughout the years, an abundance of literature has been created to enhance the understanding of HRM practices and the degree to which they can impact the firm environmental innovativeness (Kossek, 1987; Ruël, Bondarouk & Looise, 2004; Sparrow, 2016). Some researchers have revealed that different HRM practice affects innovation performance directly (Beugelsdijk, 2008; Chand, 2010; Chang, Gong & Shum, 2011; Wikhamn, 2019). However, a number of different researchers identified these practices indirectly impact innovation (Chen & Huang, 2009; Jiang, Wang & Zhao, 2012; Cabello et al., 2011). These authors support the concept of HRM practices as they strengthen some organizational variables and influence innovation. Seeck and Diehl (2017) in their review of prior literature indicated that the relationship between HRM and performance is indirect. Notwithstanding the availability of substantial literature on the HRM practices and firm environmental innovativeness, there is still a lack of research in examining the effect of Green HRM on firm environmental innovativeness, particularly from the context of emerging economies (Wong et al., 2013; Sparrow, 2016; Singh et al., 2020). As stressed by Renwick, Redman, and Maguire (2013), the most of available Green HRM literature focused on the western which indicates a knowledge gap for further research to address the issues of firms' environmental innovativeness in Asian firms.

A recent study conducted by Nieves and Quintana (2018) suggested that future studies can be carried out by considering HRM practices such as training, recruitment, compensation, empowerment, and retention that could give greater explanatory thoughts concerning human capital or the capacity of firms for innovation. According to Human Resource Management Institute (HRMI) (2019), management scholars around the world are now studying different Green HRM practices that possibly assist the achievements of organizational objectives and are significantly linked with a firm innovativeness and competitiveness. Another recent study directed by Jirakraisiri et al. (2018) to examine the effect of human, organizational, and relational capital and firm innovation performance concluded that Green human capital has the strongest effects on firm innovation performance.

Effective and successful management of the environment requires definitive input from the management of human resources by incorporating the green HRM functions (Muster & Schrader, 2011). Jabbour and de Sousa Jabbor (2016) said that cleaner technology creation requires controlling human capital to play an active part. The knowledge and understanding of the environmental policy of an organization would include the human skills necessary to promote environmental innovativeness.

In creating an effective innovative culture within the company, a human resources department can play an important role. Human resource processes are of high importance in translating Green human resource policies into practices hence instrumental to achieving the organizational goal of innovativeness (Gjika & Koli, 2019). The current study, hence, aims to investigate and comprehend this growing research area by formulating a dynamic framework comprised of the most influential Green HRM practices such as Green recruitment and selection, Green training, Green compensation, and Green performance assessment and how these impact the firm

environmental innovativeness. This study conceptualizes the Resource-Based View (RBV) theory as well as the social learning theory to formulate a dynamic framework. The resource-based view implies that the resource of the company is crucial to sustainable growth. Human capital is a key resource that affects the innovativeness of an organization.

Some previous literature suggested the significant role of organizational culture in improving innovation within firms through effective human capital (Brettel et al., 2015). this study, through the lens of social learning theory, proposes that Green HRM practices contain recruitment, training, compensation, and performance assessment and their effect on environmental innovativeness through organizational innovative culture. Innovative culture can be a good moderator to enhance innovation through Green HRM practices in manufacturing companies (Uzkurt et al., 2013; Kaithal, 2017), particularly in a society such as Malaysia which is relatively high on power distance.

1.2.1 Green HRM and its Significance

Green HRM is an articulate set of firm systemic practices inclusive of environment-related performance by (i) The selection of ideal applicants in accordance with environmental objectives (Jabbour & de Sousa Jabbour, 2016), (ii) providing Green skills and organizational opportunities to employees through Green training and involvement in Greening activities (Haddock-Millar et al., 2016), and (iii) enrich the motivation for contributing through compensation and environmental incentives to the Greening of the organization (Jabbour & Santos 2008; Opatha & Arulrajah, 2014).

A range of HRM practices suggests that different attitudes and behaviors at the workplace can be influenced by different social and psychological processes through

HRM practices. In their systematic review, Jiang, Lepak, Hu and Baer (2012) presented that Green HRM could result in an increased performance of Green employees in the workplace through the use of psychological and social transaction processes e.g. skill development and prospects for Green initiatives. Green HRM also could lead to changes in the performance of employees that go beyond Green behavior. These transformational changes will improve the innovativeness of a firm and would help in gaining a competitive edge.

Jackson et al., (2011) indicated that strategic integration of Green HRM has an effect on an organization to achieve environmental sustainability. Although organizations are in the consideration of 'Green', their acting Green' level may be dubious (Bangwal & Tiwari, 2015). Jabbour (2011) highlighted its significance that manufacturing firms should systematically deliberate the configuration of HRM practices to put environmental management workers in control. He suggested that if environmental issues are not formally integrated into traditional human resource practices, this can have a negative impact on team building, organizational culture, and innovative learning.

Recent literature also supports the importance of Green HRM practices for firm innovation. For instance, Singh et al. (2020) directed a study on how green human resource management interacts with the ties between Green Transformational Leadership and Innovation, by considering resource-based views. Their study revealed that Green HRM practices circuitously influence innovativeness which stimulates the environment-related performance of the firm.

Asian Institute of Finance (AIF) (2017) highlighted in their report on the Financial Service Industry (FSI) in Malaysia that the majority of the organizations

consider Green HRM practices as valuable tools. The report revealed that respondents consider Green talent management and Green assessment to be the most appropriate HRM activities (see Figure 1.1). However, the findings further exposed that around 26% of HRM practitioners claim they are ready for green HRM, indicating they are almost ready for green employee engagement and for green training and frowth. These results advocate that green HRM in Malaysia is at an introductory stage.

Furthermore, the report recommended that in the first place, the organizations must recruit potential candidates to meet the green objectives of an organization. Once recruited, job descriptions are required to explain the environmental aspects of their task. At this level, sustainable development policies and Green targets need to be incorporated into the training function.

Green Talent Management
93% Gaining a green employer reputation
93% Promoting green credentials

Green Performance Management
95% Incorporating environmental performance indicators in performance management
96% Clear communication of environmental policy

Green Reward Systems
96% Rewarding environmental suggestions
95% Introducing recognition-based rewards in environmental management

Green Employee Engagement
93% Involving employees in environmental management practices
93% Encouraging green & CSR involvement and participation

Green Training & Development
92% Incorporating environmental training
95% Training in environmental management aspects

Green Employee Separation
73% Resignation based on environmental issues
79% Utilising exit interviews to gauge firm's green practices

Figure 1.1   AIF Survey findings of Green HRM (2017)

Source: Chan (2017)

Green HRM is responsible for the establishment, recognition, and practice of Green workers, Green initiative, and its green objectives within HRM recruiting,

recruitment, training, compensation, and growth and promotion processes for human capital companies (Opatha & Arulrajah, 2014). It refers to strategies, procedures, and processes that make workers green for people, organizations, society, and nature.

1.2.2 Firm Environmental Innovativeness and Role of Green HRM

Innovation is a process involving dynamic and creative ideas or actions in a firm being created, adopted, and carried out (Yusof et al., 2014; Wan, Ong, & Lee, 2005). From the following three perspectives, researchers study innovation: i) innovation in technology and management, ii) innovation in product and process, and iii) radical and innovative progressive. Improved products, services supplied and processes of production relate to technical innovation, while administrative innovation is a result of changes to organizational structure and administrative procedures through HRM (Jiang, Wang & Zhao, 2012). While product innovation denotes the new product and service delivery, whereas process innovation involves implementing a new manufacturing process or improving current processes (Laursen & Foss, 2003).

Malaysia encountered headwinds from global economic slowdown as the global landscape is increasingly challenging. Therefore, the Eleventh Malaysia Plan (11MP), 2016-2020 is considered a momentous milestone in the history of Malaysia. To maintain growth momentum, the Malaysian Government needs to forge ahead with greater bold measures for the long-term benefit of Malaysians. To achieve the goal of an advanced nation by the year 2020, SMEs are the most vigorous entities that contribute considerably to developing Malaysia's economy. In addition, SMEs will be strengthened to increase their share in terms of GDP (SMECorp, 2015).

Malaysian Government has to encourage entrepreneurs, particularly from the furniture sector to be innovative, creative, and proactive as a way of moving towards

an innovation-centered economy (Yusoff and Zainol, 2014; Zainol and Ayadurai, 2010). The Malaysian furniture industries have to concentrate on investment in R&D and innovativeness for new products to meet this rapidly rising consumer market in green and environmentally friendly products in response to the global demand for environmental sustainability.

Many empirical studies have demonstrated how effective HRM practices maintain a competitive advantage, innovation, and business performance. Renwick, Redman and Maguire (2013) argued that innovation in technology is impacted by Green HRM that can lead to superior business performance. The positive relation between Green training and non-material incentives and technological innovation is also found in previous literature (Rajiani, MusA & Hardjono 2016). Green HRM training is also the most directly linked to the product, process, and administrative innovation (El-Kassar & Singh, 2019). While Green performance assessment has been a positive influence on administrative innovation (Arulrajah, Opatha & Nawaratne, 2016). Given the importance of Green HRM practices, an organization can achieve superior innovation performance.

Green innovations and technologies are increasingly being implemented which shows that key drivers to support such activities in an organizational context are important to address. Recent studies include the view of Green products by stakeholders and demands in the global market for Green products and services as indicators to the successful implementation of organizational innovation strategy (Dangelico, 2017). But technological challenges are increasing, as firms are interested in introducing innovation and sustainable practices within and outside the organizations. HRM, especially Green HRM practices, address such challenges to achieve firms' environmental innovativeness.

1.2.3 Furniture Industry of Malaysia

The wooden furniture sector has emerged globally, particularly in Malaysia, due to its positions among the fastest-growing industries (Ratnasingam, Ioras & Ishak, 2011). Since the colonial days, a large socio-economic sector in the rural areas of the country has been Malaysia's wood-based industry (Ng & Thiruchelvam, 2012). Traditionally Malaysia has been a major global producer and export of tropical wood products, in particular, sawlogs and sawn timber, mainly used for building purposes. In order for the forest industry to become a major exporter of primary commodities, the government has launched a series of industrial master plans (IMPs). Further downstream measures, such as export bans, export levies, and export quotas were limited by exports of primary products, were advocated by IMP I (1986 - 1995) (Ng & Thiruchelvam, 2012). In the second IMP (1996–2005) products were promoted, in particular, for furniture, builders, carpentry and craft (BCJs), molded products, etc.

The third IMP (2006-2020), through design, innovation, and branding, focuses on increasing value-added goods for the furniture industry (Ratnasingam et al. 2018). The execution of the National Timber Industry Program (NATIP) in 2009 highlighted the Government's promise to anticipate the growth of the wood industry through seven strategic pillars as "covering aspects such as raw materials supply, workforce, markets, automation, design, and branding". (NATIP, 2009). Regarding this, the formulations of industrial policy and their implementation certainly helped transform the Malaysian wood-based industry into a value-added export-driven powerhouse for wood products.

The furniture sector has been the industry's fastest-growing sub-sector. The export of furniture industry growth ranging from RM40 million in 1982 to RM9.83 billion in 2018 which evidently underlines that this sub-sector is significant in the

wood industry as a whole. (Ratnasingam, 2015). The Malaysian furniture sector is a key socio-economic sector in the country today and contributes more than USD 2 billion a year to the national foreign exchange. Besides, it is contributing to employment by offering jobs to almost 93,000 workers as reported by Ratnasingam et al. (2012). Taking into account the local furniture market, net furniture volumes manufactured in the country exceed USD 3.2 billion per year. Therefore, the furniture sector is therefore recognized as the star performer in the overall Malaysian wood industry.

Malaysia is a large export-oriented manufacturer, 85% of its annual volume of furniture production are exported to more than 160 countries. The principal export destinations of Malaysia are Australia, Europe, India, the United Arab Emirates, the USA, Japan, Singapore, and South Africa (MTIB 2019). (Figure 1.2.), containing almost 80 percent of the total exports of furniture. The furniture industry is in the process of achieving its export target of RM 12 billion by 2020 (Ratnasingam et al., 2018; Ng & Kanagasundaram, 2017).

	2008	2009	2010	2011	2012	2014	2015	2016	2017
Furniture Parts	441,974,0	436,997,0	442,318,9	474,446,2	494,441,2	505,515,0	513,444,2	546,788,1	589,762,0
Others Furniture	77,943,14	74,283,49	88,081,92	86,630,77	87,110,04	90,442,14	91,040,56	91,768,12	91,918,11
Metal Furniture	904,485,5	672,683,4	665,017,6	666,145,2	666,545,1	689,141,0	694,223,0	701,110,4	704,114,3
Rattan Furniture	34,616,34	29,636,36	31,158,47	25,051,93	25,010,33	24,889,10	24,766,10	24,101,22	23,877,14
Wooden Furniture	6,921,086	6,248,217	6,521,646	6,201,495	6,743,515	7,656,711	8,217,813	8,678,994	8,944,567

Figure 1.2   Type of furniture export from Malaysia, 2008-2017 (RM Million)

Source: Department of Statistics, Malaysia, 2017

Although the wood industry has achieved an increased performance over the course of the years, a slowing industrial growth rate is evident due to the lack of innovativeness (Ratnasingam, 2015). Therefore, it is imperative to investigate the causes of slowing industrial growth and how the performance enhance through the innovation of the wood-based industry. The production of furniture is a sector having low wages, as well as reduced profitability because of marginal innovativeness and value-added (Ng & Thiruchelvam, 2012). Therefore, the furniture sector is heavily reliant on workers from overseas. Most of the overseas workers in the Malaysian furniture sectors are from Myanmar, Bangladesh, and Nepal, representing nearly 63% of total employees. As these workers have short-term contracts for their jobs, the high external content of furniture workers reduces the development of skills and productivity growth (Ratnasam, 2015). Green HRM practices are therefore highly important in the furniture industry of Malaysia to sustain the innovation process through developing effective human capital.

1.2.4 Malaysian Furniture Manufacturing Firms

Furniture manufacturing, in Malaysia, is the sub-sector of the wood-based industry which is contributing 1.1% to the total GDP of the country (Ratnasingam, 2017). As reported by SME Corp. (2019), the largest number of SMEs are lies in the furniture industry. As mentioned by the Malaysian Timber Industry Board (MTIB) (2009), the SMEs which are family-based and fragmented entities form the bulk of the timber industry. Thus, the furniture industry is predominated by SMEs which are contributing 85% of the total furniture manufacturing firms.

In the context of the manufacturing sector, a firm having a sales turnover not more than RM 50 million, or having full-time workers, not above the number of 200 is considered among the SMEs. Specifically, a firm with an annual turnover from RM 300,000 up to RM 15 million, from RM 15 million but not more than RM 50 million, and with annual turnover above RM 50 million, are classified as small, medium, and large respectively. The distribution of Malaysian furniture manufacturing SMEs are presented in Table 1.1.

Table 1.1   Furniture Manufacturing SMEs in Malaysia

Description	Total number of companies	%
Small	907	48
Medium	718	38
Large	265	14

Source: Ratnasingam (2019)

According to the Malaysian timber certification council (2017), there are several national policies were framed to address environmental sustainability in the country. Among those, the National Policy on Environment, National Policy on Biological Diversity, the National Roadmap on Sustainable Development Goals (SDG), and the National Policy on Climate Change are the most well-intentioned initiatives to assist the environmental issues.

1.3   Research Problem

In the world today, most organizations are suffering the consequences of poor performance, low staff morale, and huge market competition due to poor or lack of effective innovative strategies (Chandrashekar & Mungila Hillemane, 2018). A critical look at the furniture manufacturing sector in Malaysia is contemplating policies for

firm environmental innovativeness. The two-digit golden years of furniture industry growth in Malaysia coincided with the 1st and 2nd Industrial Masters Plan in the 20-year period of 1986-2005. However, the growth rate has fallen from 2006 to 2018, averaging 2 percent every year, showing a loss of competitiveness for the large production bases in Vietnam and China (Ratnasingam, 2015, 2018). Previously, Ratnasingam (2015) and Ng and Thiruchelvam (2012) studies acknowledged the core challenges to long-term furniture industry growth and competitiveness due to lack of innovation. Whether the factors that hinder the long-term growth of the Malaysian furniture sector or other supportive factors, like the degree of automation or technology application, require further research.

A recent study led by Ratnasingam (2019) emphasizes the fact that Industry 3.0, which precedes the fourth industrial revolution, has relatively low dissemination in the furniture sector in Malaysia and can severely hamper the move forward to Industry 4.0. Their findings further exposed that there is relatively little willingness to adopt Industry 4.0 in the manufacture of furniture because almost 96% of respondents were not aware of product innovation, lack of networking infrastructure for IT, and data-management inside firms' production facilities. In the same vein, Ratnasingam (2015) concluded that higher initial investments necessary are likely to sadden most furniture manufacturers regarding the advantages of automation or innovation at the workplace.

It is a widely held belief that human action causes and exacerbates environmental concerns and pollution problems (Anwar et al., 2020). As a result, businesses are concentrating on their day-to-day operations and assuring that their core operations are as environmentally friendly as possible. Organizations are using environmental management systems and green activities to limit pollution, with the

goal of reducing harmful emissions and environmental damage through employees' behavior and attitude (Mtutu & Thondhlana, 2016). Green human resource management and environmental innovation, as a result, are aimed at achieving long-term sustainability. Several environmental issues have been documented in the industrial sector, including global warming, ecological imbalance, pollution, and the inappropriate use and misuse of natural resources, as well as carbon dioxide emissions. Therefore, green HRM practices are expected to lead the employees' behavior towards adapting and implementing the technologies and innovation in minimizing the environmental concerns (Ahmed, 2015.

In emerging countries, the furniture business is quickly expanding. It is also one of the industries that are putting a significant strain on the environment. As a result of the large number of environmental issues that the furniture manufacturing sector has faced, there is a growing pressure to respond appropriately to environmental issues by implementing sustainable business practices such as the adoption of green HRM practices, which creates a win-win situation for the organization as well as for the stakeholders. Employees with a keen interest in adopting new technologies and innovation at the workplace and processes could be helpful in achieving the environmental goals effectively and efficiently. Therefore, it indicates the need to investigate how green HRM practices might improve the furniture manufacturing sector's environmental innovativeness.

In the Malaysian International Furniture Fair (MIFF) 2019 trade seminar, former Industries Minister Teresa Kok said: "in terms of market opportunity, the furniture industry is always dynamic in spite of fierce competition and challenging economics". She further commended the furniture sector to welcome innovativeness to remain competitive in the international market as she said; "My ministry urges

Malaysia's furniture industry to transform from being an original equipment design (OEM) to original brand design (OBM) as innovativeness is an indispensable trait of today's business." Given this, the leading issue for the furniture industry is to enhance their capabilities and competitiveness from the perspective of the environmental innovativeness of furniture firms. Malaysian furniture manufacturing firms can be trendsetters in the global market by adopting new Green policies and practices in HRM and embracing a culture of innovation within the organization.

There are several challenges facing the Malaysian furniture sector inclusive of greater competition, lack of skilled human capital, market accessibility, poor infrastructure, lack of novelty and innovation (Hashim, 2013). According to a study directed by Robiyah (2013), the action plan for furniture manufacturing firms in Malaysia is in need to focus on innovativeness in their processes. Based on the comprehensive review of prior available literature, it can be observed that research on environmental strategies of manufacturing firms in developing countries such as Malaysia is still going on. Moreover, a lack of empirical studies on green HRM practices is evident in the furniture manufacturing sectors of Malaysia.

Over the last decade, developed as well as developing countries have made increased efforts to actively promote a sustainable environment by promoting innovation. This call for action is based on the fact that unresolved environmental problems remain a challenge to economic growth and are also disruptive to the lives of people. For example, air pollution and global greenhouse gas emissions in large cities are rising. (Dodman, 2009). These issues are generally recognized as the results of human activity, either related to climate change or not. One reason is that while industrial and business operations affect Mother Earth, environmental law-breaking

and abandoned behavior fuel the fire. Hence, the non-green humans' behavior and actions contribute to the degeneration of the environment.

The negative environmental impacts may be minimized by environmental policies incorporated in organizational roles and procedures, industrial innovation, and enhanced environmental management systems (EMSs). At an organizational level, it is also possible to deal with such concerns by shifting human capital criteria and integrating them into activities of human resources management (HRM) which are in line with the environmental policy and the market context (Zibarras & Coan, 2015). There are few studies that explore the performance of the furniture industry through different measures (De Guimarães et al., 2016; Munizu & Hamid, 2018). Nonetheless, there is limited research that explores the Green HRM practices and their impact on firm environmental innovativeness particularly in the furniture manufacturing sector in Malaysia. Moreover, a scarcity of research on the examination of the moderating role of organizational innovative culture on the relationship between Green HRM and firm environmental innovativeness. Therefore, it is evident that there is a knowledge gap to be filled. Hence, the purpose of this study is an effort in fulfilling this gap by determining the impact of Green HRM practices such as Green recruitment and selection, Green training, Green compensation, and Green performance assessment and to what degree these practices influence the firm environmental innovativeness of furniture firms of Malaysia.

Green HRM constitutes a vital function for businesses and their success in the 21st-century competitive market. Green HRM practices by reaching the valuation of employees, which at best, may lead to innovation within an organization. Technological advancements after the industrial revolution demanded labor skills and made human capital an essential aspect of production. Human resources have become

a feature of the whole company's workers that can improve an organization's innovation process. El-Kassar and Singh (2019) pointed to the importance of Green Human Resources for innovation management systems and found that human resources could stimulus organizational performance. Sourvinou and Filimonau (2018) stressed the significance of environmental knowledge of staff, their contribution to environment-related activities, training and development, and the motivation to successfully implement innovative environmental strategies. Given this, this study will investigate the effect of Green HRM practices on the firm environmental innovativeness in the furniture manufacturing sector of Malaysia. As argued, the organizational dilemma is to understand what are the ideal Green HRM practices which can be utilized to increase innovation in these firms? The purpose of the research is, therefore, to discover if various Green HRM practices can help the firms to enhance the firm environmental innovativeness.

This study speculates that senior leadership in the manufacturing companies should practice Green HRM practices (Renwick et al., 2013; Jirakraisiri et al., 2018) to develop internal capabilities required for environmental innovation (Chen & Chang, 2013). This study draws upon an RBV Theory (Barney, 1991) and the social learning theory (Bandura, 1977) to explain how Green HRM practices and organizational innovative culture help to attract, develop, retain, and sustain Green employees which lead Malaysian furniture manufacturing companies to achieve environmental innovativeness.

1.4   Research Objectives

These are the research objectives of this thesis:

1-   To examine the positive effect of Green recruitment and selection on firm environmental innovativeness.

2-   To examine the positive effect of Green training on firm environmental innovativeness.

3-   To examine the positive effect of Green compensation on firm environmental innovativeness.

4-   To examine the positive effect of Green performance assessment on firm environmental innovativeness.

5-   To investigate the moderating effect of organizational innovative culture on the relationship between 'Green recruitment and selection', 'Green training', 'Green compensation', 'Green performance assessment', and 'firm environmental innovativeness'.

1.5   Research Questions

The research questions for this thesis are:

1-   Does Green recruitment and selection have a positive effect on firm environmental innovativeness?

2-   Does Green training have a positive effect on firm environmental innovativeness?

3-   Does Green compensation have a positive effect on firm environmental innovativeness?

4-   Does Green performance assessment have a positive effect on firm environmental innovativeness?

5-   Does organizational innovative culture moderate the relationship between 'Green recruitment and selection', 'Green training', 'Green compensation', 'Green performance assessment', and 'firm environmental innovativeness'?

1.6   Scope of the Study

The present study's scope is limited to the furniture manufacturing industry in Malaysia. In particular, the present study targeted medium and large furniture manufacturing companies. Out of 1890 furniture manufacturing SMEs in Malaysia, the medium and large companies are 983 (52%) of the total. The list of companies was obtained through MTIB, Malaysia, and data collection was done through a self-administered questionnaire by personal visits and by sending emails with online links to the questionnaire. This research examines the relationship between key influential Green HRM practices such as Green recruitment and selection, Green training, Green compensation, and Green performance assessment. In addition, this study looks into the moderating effect of organizational innovative culture on the relationship between Green recruitment and selection, Green training, Green compensation, Green performance assessment, and firm environmental innovativeness.

Data was collected by sending the self-administered survey questionnaire to the director, general manager, and/or senior human resource administrators (HR executive, HR senior officer) of the selected medium and large Malaysian furniture manufacturing companies. The unit of analysis was the medium and large furniture manufacturing company which means only one questionnaire was sent to one

company. The study is an effort to recognize how Green HRM practices are crucial in improving the firm environmental innovativeness and how organizational innovative culture impacts these effects.

1.7 Significance of the Study

The present study is of high significance in both theoretical and practical streams. Notably, this study intends to extend the body of knowledge concerning Green HRM practices. Selected Green HRM practices would expose their impact in enhancing the firm environmental innovativeness. As the challenging global competitive market emphasis the focal need of a highly competitive innovative strategy with a Green integration at all levels, the companies have more responsibilities regarding the development of Green human capital.

This study will contribute to advancing Green HRM practices and their link to firm environmental innovativeness for Malaysian furniture manufacturing companies in response to society as well stakeholders' call for environmental safety. This study is helpful in advancing the theoretical lenses of both the resource-based theory and social learning theory in the context of manufacturing companies on how Green HRM practices lead to firm environmental innovativeness. Moreover, this study proposed that if an organization encourages innovative culture, the Green HRM practices would be more effective in promoting innovativeness. This study believes that resource-based theory provides a guiding paradigm in understanding, predicting, and controlling human resources in a firm while social learning theory posits that developing an effective innovation culture constantly encouraged the employees to adopt new technologies that result in high environmental innovativeness for an organization. The study develops new grounds for further research by empirically investigating the

moderating role of organizational innovative culture on the relationship between Green HRM practices and firm environmental innovativeness.

From a practical perspective, the study offers empirical findings to future researchers with an enhanced understanding of the Green HRM practices and firm environmental innovativeness in the furniture manufacturing sector in Malaysia. The research offers and expands the integrated awareness of the causal HRM process for the development of innovativeness in furniture manufacturing firms. The research is of significant importance because its results would offer other students, researchers, and practitioners a source of secondary data. This study offers the key influencing practices of Green HRM such as Green recruitment and selection, Green training, Green compensation, and Green performance assessment and the empirical validation of their impact on firm environmental innovativeness.

The research results would also support the management of human capital in furniture manufacturing companies located in Malaysia to deliberately embark and embrace Green processes of HRM and their implementation as a tool to upsurge the innovation in their firms. The research findings will assist the company in selecting the most impacting Green HRM practices which would yield favorable results in terms of environmental innovation. Furthermore, employees can use this information to determine how Green HRM practices are linked with the innovativeness of their firm.

1.8   Definitions of Key Terms

1.8.1   Green Human Resource Management

"Green Human Resources Management (GHRM) can be defined as the set of policies, practices, and systems that stimulate a green behavior of a company's

employees in order to create an environmentally sensitive, resource-efficient, and socially responsible workplace and overall organization" (Shikhare, 2019).

1.8.2 Green Recruitment and Selection

"Green recruitment and selection is the integration of environmental management with recruitment & selection, where HRM policies are used to promote environmental sustainability and the wise and judicious use (conservation) of resources within business organizations" (Ramteke, 2020).

1.8.3 Green Training

"Green training refers to the development of educating employees about the value of environmental management, train them in working methods that conserve energy, reduce waste, diffuse environmental awareness within the organization, and provide the opportunity to engage employees in environmental problem-solving" (Renwick, Redman & Maguire, 2013).

1.8.4 Green Compensation

"Green compensation refers to the recognition of the contribution of employees in the creation of a more sustainable company. It is the result of the success of employees in their ecological performance appraisal and the proof that a company's strategic sustainability goals are being mirrored and accomplished from the top to the bottom" (Kalpana, Shivalingappa & Manoj, 2020).

1.8.5   Green Performance Assessment

"Green performance assessment is the process by which employees are prompted to enhance their professional skills that help to achieve the organizational goals and objectives in a better way" (Ahmad, 2015).

1.8.6   Firm environmental innovativeness

"Firm environmental innovativeness are organizational implementations and changes focusing on the environment, with implications for companies' products, manufacturing processes and marketing, with different degrees of novelty" (Ahmed, Angelo, Jabbour & Galina, 2012).

1.8.7   Organizational Innovative Culture

"An innovation climate is an atmosphere within an organization that fosters and propagates creative mechanisms to achieve organizational outcomes and has in place various traits among organization members that are conducive to creative and innovative ideas" (Ronquillo, 2011).

1.9   Summary of the Chapter

This chapter provided an introduction and an overview of the significance of the Green HRM practices for the enhancement of firm environmental innovativeness. The research problem is explained to provide the justification that why this area of research is considered to explore and investigate. The key research questions were highlighted along with the research objectives. Besides, the theoretical and practical significance are also deliberated. Moreover, the definition of key terms is also provided.