Green Human Resource Management and Employee Workplace Outcomes

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Dedication

This achievement is dedicated to all of
my loved ones especially:

my husband Les,

my children Ashleigh and Mitchell and

my precious little grand-daughter Ruby Lee.

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List of Abbreviations

AIB	American Institute of Baking
AIC	Akaike information criterion
AMO	Ability-motivation-opportunity
APC	Australian Packaging Covenant
BRC	British Retail Consortium
CAPA	Corrective and Preventative Actions
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CI	Confidence intervals
CIPD	Chartered Institute of Personal Development
CMV	Common method variance
CSR	Corporate social responsibility
DIY	Do-it-yourself
EI	Employee involvement
EM	Environmental management
ESO	Environmental and Safety Officer
EMS	Environmental management system
FSC	Forestry Stewardship Council
GM	General Manager
GFI	Goodness of fit index
Green HRM	Green human resource management
HR	Human resources
HREC	Human Research Ethics Committee
HRM	Human resources management
IGSB	International Graduate School of Business

IFI	Incremental fit index
ISO	International Organisation for Standardisation
Kg	Kilograms
Kl	Kilolitres
KWh	Kilowatt hours
KPI	Key performance indicator
LTI	Lost time injury
MBA	Masters of Business Administration
MNE	Multi-national enterprise
NFI	Normed fit index
NGO	Non-governmental organisation
OB	Organisational behaviour
OCB	Organisational citizenship behaviour
OCBE	Organisational citizenship behaviour – environment
OH&S	Occupational Health and Safety
OI	Organisational identification
PEFC	Program for Endorsement of Forestry Certification
PhD	Doctor of Philosophy
PMA	Performance/management/appraisal
PM	Performance management
POS	Perceived organisational support
QS	Quality system
QSR	Quick service restaurants
RM	Raw material
RMSEA	Root mean square error of approximation
RQ	Research question

SEDEX	Supplier Ethical Data Exchange
SEM	Structural equation modelling
SET	Social exchange theory
SIT	Social identity theory
SME	Small-medium enterprise
SMETA	Sedex Member Ethical Trade Audit
SRHRM	Socially responsible human resource management
SQ	Sub-question
SVF	Supplies-values fit theory
SWA	Supplier Workplace Accountability
TUC	Trade Union Congress
UniSA	University of South Australia
USA	United States of America
VBN	Value-belief-norm theory
WCED	World Commission on Environment and Development

Abstract

As an emerging concept, green human resource management (green HRM from now on) is defined as '*HRM activities, which enhance positive environmental outcomes*' (Kramar, 2014, p. 1075), and has been conceptualised to elucidate how it might influence employees to exhibit green workplace behaviours. However, few studies have empirically pursued the concept to determine what effects green HRM wields on workplace consequences. Therefore, this thesis addresses this literature gap, by empirically investigating how and why green HRM impacts or influences employee workplace outcomes.

This research comprised of two independent, but fully integrated studies. Phase 1 used a qualitative method, and explored 'green' related policies, processes and practices of the company (the Company from now on) used in the study. Conducting in-depth, semi-structured interviews with senior representatives of the Company yielded the rich data for analysing how and why green HRM practices are adopted by firms. The qualitative study identified explicit information and acquired management's views in order to develop the measures for green HRM. These newly developed measures were used in the subsequent survey study. Phase 2 applied a quantitative method and statistically explored the effects of green HRM on employee workplace outcomes and the underlying mechanisms.

The results revealed that green HRM both directly and indirectly influences in-role employee green workplace behaviour. However, green HRM is limited to a singular effect on extra-role employee green workplace behaviour by an indirect effect through the mediation of psychological green climate. Individual green values were found to moderate the effect of psychological green climate on extra-role employee green workplace

behaviour, but it did not moderate the effect of either green HRM or psychological green climate on in-role employee green workplace behaviour. This signifies that green HRM impacts both in-role and extra-role employee green workplace behaviours, although this transpires through different individual social and psychological processes.

This study did not limit its scope to merely applying the concept to one element of employee workplace behaviour. The study also sought to determine if green HRM could affect *non-green*, or fortuitous, employee workplace behaviours. The results of analysing the multi-sourced data revealed that green HRM generated significant effects on fortuitous employee workplace outcomes. More specifically, green HRM was positively related to in-role and extra-role employee non-green workplace behaviour, and negatively related to an employee's intention to quit via the mediation of organisational identification. While green HRM is a positive force for eliciting employee organisational identification, perceived organisational support (POS) moderated this relationship and the indirect effect of green HRM on the three criterion variables via the mediation of organisational identification. The findings of this research have significant theoretical and practical implications, beyond the parameters of the obvious application of green HRM to influence employee green workplace behaviours.

This study notably contributes to the green HRM literature in several ways. Firstly, the development, subsequent testing and validation of green HRM measures were developed through a literature review and empirical validation. This measure development now provides a useful platform for future green HRM studies, which enables researchers to develop more generalised cross-cultural measures. Secondly, to date, only a handful of studies have empirically explored green HRM and its effects on employee workplace behaviours. Of those studies, the research was limited to either exploring general human

resource management (HRM) on employee green behaviours (Paillé, Chen, Boiral & Jin, 2014), or used samples that were too small to add any real value to the green HRM debate (Harvey, Willliams & Probert, 2013). As such, there is currently a distinct lack of adequate theory-based green HRM empirical research. This study fills this void and expands the HRM literature in regards to understanding the consequences of green HRM on employee workplace outcomes. Specifically, a greater understanding of the social and psychological processes that influence employee workplace behaviours and attitudes has been answered within this study.

Lastly, the findings identify that green HRM has a positive correlation to unexpected or fortuitous workplace consequences, such as employee non-green workplace behaviour. This area of green HRM had not been previously explored. As such, the results imply that green HRM can exert anomalous effects on a range of employee workplace consequences, with these findings comprehensively expanding our understanding of the green HRM concept.

The timing of this PhD study is adventitious, as it comes at a period in time when governments and non-governmental organisations (NGOs) around the world are reviewing their policies, approaches, ethics and attitudes to address public concerns about the adverse effects of corporatisation and globalisation. Hence, this study indicates there are significant implications and practical applications as to how to encourage and advance desirable employee workplace behaviours and attitudes, through the administration of green HRM policies, processes and practices.

Declaration

I declare that:

This thesis presents work carried out by myself and does not:

incorporate without acknowledgement any material previously submitted for a degree or diploma in any university;

to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and

all substantive contributions by others to the work presented, including jointly authored publications, are clearly acknowledged.

Signature…….

Jenny Dumont

Date…….

Acknowledgements

Embarking on a PhD is a substantial psychological and emotional challenge. Doing a thesis offshore, in a non-English speaking country, adds further complexities. Days of solitude sitting in front of a computer wondering where you should look for your next inspirational thought made the journey an exceptionally lonely and challenging one.

This personal achievement was made possible with guidance, support and advice from my Principal Supervisor, Dr. Jie Shen and Associate Supervisor Dr. Xin Deng. I am grateful for their direction, patience and diligence over the past 4+ years. Thank you to the staff of the International Graduate School of Management (IGSB) and School of Management, University of South Australia (UniSA) for their support and assistance.

My husband Les is the reason I kept my sanity. He has been my rock, my most ardent fan and my financial supporter during the past few years and without him this personal achievement would not have been realised. My children Ashleigh and Mitch and other family and friends, provided moral support and urged me to pursue my PhD goal.

I would like to give a special thanks to Michelle Yi, Sue Chen, Terry Zhang, Doris Shi, Sandy Yuan and the wonderful Chinese employees of 'the Company'. Gan xie ge wei de bang zhu, zhi chi he can yu - 感谢各位的帮助, 支持和参与.

In the words of Earl Nightingale: *'Do not let the fear of the time it will take to accomplish something stand in the way of your doing it. The time will pass anyway; we might just as well put that passing to the best possible use'.*

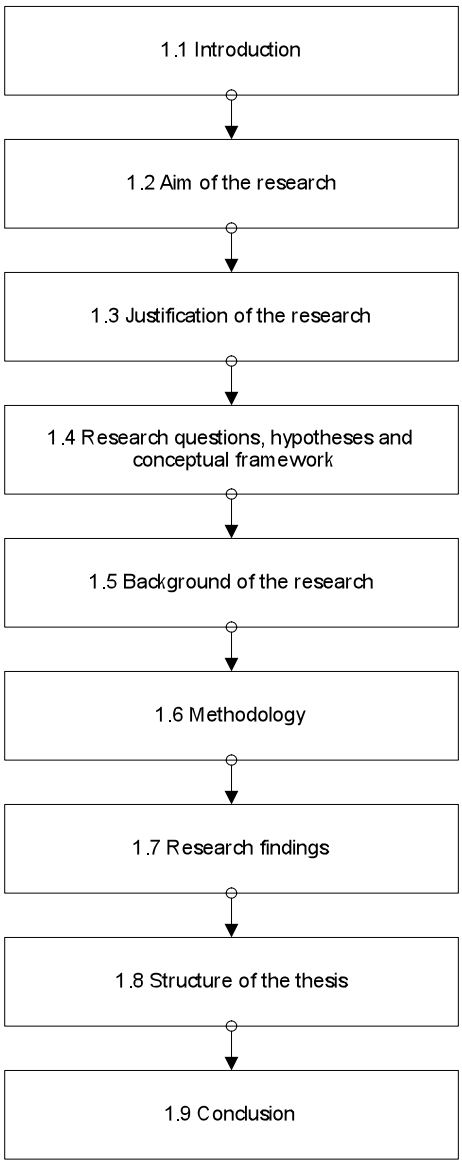
Jenny Dumont

CHAPTER ONE

INTRODUCTION

GREEN HRM – EMPLOYEE WORKPLACE OUTCOMES

Figure 1.1 Flowchart of Chapter One



Chapter One – Introduction

Green HRM – Employee Workplace Outcomes

1.1 Introduction

This chapter introduces the subject of this research project. Firstly, it presents the aims of the study, along with illustrating the background and justification for conducting the research. This is followed by a brief discussion of the research questions, hypotheses and the conceptual framework. The chapter will provide an exposé of the Company used during the course of the research followed by a concise analysis of the methodology. The chapter will then outline the major research findings and structure of the thesis and conclude with a brief review of the contents of the chapter.

1.2 Aim of the research

Various stakeholder groups have closely scrutinised the environmental consequences of business activities over the past few decades (Waddock, Bodwell & Graves, 2002). As a result, business organisations are under increasing pressure to put environmental and green policies in place, in order to gain institutional legitimacy and cultivate positive external reputations (Jabbour & Santos, 2008). Development of corporate reputations and effective engagement in social activities, which are important aspects of corporate social responsibility (CSR), has become an important source of organisational competitive advantage strategies (Porter & Kramer, 2011). Human resource management plays an important role in the successful facilitation of these organisational strategies (Lis, 2012), as well as positively influencing employee workplace behaviours and attitudes (Huselid, Jackson & Schuler, 1997). Current green HRM literature, albeit primarily conceptual, suggests that organisations should adopt effective green HRM policies,

processes and practices to promote and elicit employee green behaviours in order to achieve organisational green goals (Ones & Dilchert, 2012a, 2012b; Renwick, Redman & Maguire, 2013), much like HRM has been found to positively influence organisational CSR outcomes (Lis, 2012).

Green HRM might include such processes and human resource (HR) practices such as taking into account a candidate's green values during the recruitment and selection process, green awareness and environmental skills and capabilities training, employee green behaviour considered during promotions and performance appraisals and compensating employees for the achievement of green related targets (Cohen, Taylor & Muller-Camen, 2010; Jackson & Seo, 2010; Renwick et al., 2013). The HRM behavioural literature suggests that HRM, or potentially green HRM, might not directly influence employee workplace behaviours, but rather this is likely to occur through the virtue of individual social and psychological processes (Jiang, Lepak, Hu & Baer, 2012). Therefore, this study sets out to explore the veracity of current HRM, green HRM and green management literature with the primary aims of this research to:

- examine existing literature pertaining to foundational concepts from which green HRM evolved. Those concepts include HRM, environmental management (EM) and CSR, which will illuminate our understanding behind the emergence of green HRM
- discuss and explore how green HRM is currently defined
- identify and discuss green HRM practices in detail to determine their appropriateness and/or effectiveness for applying to contemporary workplaces and
- the study also seeks to extend our understanding of the *what*, *how*, *why* and *when* green HRM influences individual employee outcomes by investigating:

(1) a number of underlying mechanisms that are expected to link employee participation in organisational environmental initiatives to employee level outcomes and

(2) the extent of the influence of these social and psychological processes on in-role and extra-role employee green *and* non-green workplace behaviours and an employee's intention to quit.

1.3 Justification of the research

The United Nation's World Commission on Environment and Development (WCED) called for a report in the 1990's to investigate the condition of the world's resources. The report by Brundtland highlighted the importance of HRM to build a sustainable competitive advantage. It is acknowledged within the report that it is difficult to transform traditional policies, processes and practices without developing and converting the attitudes of an organisation's workforce (Brundtland, 1987). The Brundtland report defines sustainable development as -

> '*...development that meets the needs of the present without compromising the ability of future generations to meet their own needs*' (Brundtland, 1987, p. 16).

This definition has become one of the most cited sustainability definitions within current environmental literature. The emotive sentiment generated from the findings of the report has motivated a number of contemporaneous interpretations of sustainability, as well as significantly influencing the emergence of contemporary management constructs within the green management domain (Dubois & Dubois, 2012; Johnson, 2006; Lis, 2012; Ones & Dilchert, 2012b).

Green HRM began its journey through the milieu of green management applications, in order to address the growing concern from corporate stakeholders (Roberts, 1992), in response to the negative impacts of organisational operations on the environment (Waddock, 2004). By embracing green management policies and strategies, and green HRM practices and processes, firms are expected to receive direct and peripheral gains such as improved sales, productivity gains and competitive advantages (Wee & Quazi, 2005). In addition, advantageous employee behaviours (Shultz & Holbrook, 1999; Vandermerwe & Oliff, 1990) and increases in corporate efficiencies including improvements in water and energy usage and waste reduction (Klassen & McLaughlin, 1996), are likely to occur.

As it is employees who are the agents that implement organisational green policies, it is necessary for organisations to promote and ultimately seek to manage and change employee behaviour so that they are aligned with organisational green goals (Anderton & Jack, 2011; Daily, Bishop & Govindarajulu, 2009; Ones & Dilchert, 2012a). Increasingly, organisations are considering the adoption of green HRM practices, i.e. '*HRM aspects of green management*', to promote employee green behaviour in the workplace (Renwick et al., 2013, p.1). However, despite increasing levels of academic literature conceptualising the anticipated correlations between green HRM and employee green workplace behaviour (e.g. Jackson & Seo, 2010; Kumari, 2012; Renwick et al., 2013), this linkage has not yet been sufficiently empirically explored.

A number of studies, such as Jabbour and his colleagues (e.g. Jabbour & Santos, 2008; Jabbour, Santos & Nagano, 2008), along with papers published in a special issue of Human Resource Management Journal, 51(6), 2012, have examined the contributions of HRM practices to organisational environmental performance. A small number of empirical

studies, such as Harvey et al. (2013) and Paillé et al. (2014), have revealed that green HRM and HRM policies and practices are related to individual-level employee pro-environmental behaviour. However, the Harvey et al. (2013) research is an undersized case study, with the extent of the sample limited in its ability to adequately validate the effect of green HRM on employee green workplace behaviour. The Paillé et al. (2014) study focused on general HRM, rather than green HRM, so again it does not increase our understanding of the effects of green HRM on employee green workplace outcomes. Therefore, our understanding of the what, how, why and when green HRM influences employee green (or non-green) workplace behaviour, remains largely unknown.

As highlighted by Dubois and Dubois (2012), the need for firms to engage with environmental sustainability strategies is due to three key pressures: declining resources, increasing pressures and expectations from multiple stakeholders and radical transparency from media, activists and NGOs. Dubois and Dubois (2012, p. 801) add that when environmental sustainability policies, processes and practices are fully embedded in an organisation:

> '*it pervades the thinking and behaviour of employees who then choose to go beyond compliance with new rules and norms to participate in innovating job-related changes in work processes, set-up, and product and service design*'.

However, the challenge for organisations is to get all employees on the same 'green bandwagon'. Without a more targeted facilitation of HR policies, processes and practices, firms will most likely struggle to achieve their green goals and targets as highlighted within organisational sustainability agendas.

Existing green management, CSR and green HRM literature has established limited empirical support for a relationship between green HRM and employee green workplace behaviours (Cherian & Jacob, 2013; Harvey et al., 2013; Jabbour, 2011). However, literature pertaining to green HRM *and* employee non-green workplace behaviours is noticeably absent. The HRM behavioural (Jiang et al., 2012) literature suggests that HRM practices are likely to influence employee behaviours through different social and psychological processes using the Ability-Motivation-Opportunity (AMO) model. By providing employees with the skills (abilities), motivation and opportunity to contribute to organisational goals, which are initiated and developed through HR practices, this maximises the likelihood that employees will perform tasks as desired by the organisation. Using the logic as proposed by Jiang et al. (2012), green HRM will positively influence employee workplace behaviours both within and beyond the parameters of the green domain, through motivational social and psychological processes.

Given the potentiality these assumptions have for general and green management research, and the practical applications and implications this has for green HRM, it is surprising that few researchers have not sought to explore a range of organisational or employee consequences of green HRM. Notwithstanding the assumptions of Jiang et al. (2012), Bowen and Ostroff (2004) and other green HRM reviews such as Renwick et al. (2013), whether green HRM does, in reality, influence green and non-green behaviour through mediating or moderating pathways, has not yet been confirmed. This is due to a lack of supporting theory based empirical research to back up these speculative assumptions. Exploring these links and tackling the deficiencies in the current green HRM research as highlighted above, aims to be addressed during the course of this research.

1.4 Research questions, hypotheses and conceptual framework

In order to achieve the research objectives as highlighted above, this study implemented a mixed method approach to address three key research questions (RQ), which underpin this green HRM study:

RQ1: What, how and why are green HRM practices implemented at the firm level?

RQ2: How does green HRM influence in-role and extra-role employee green workplace behaviour?

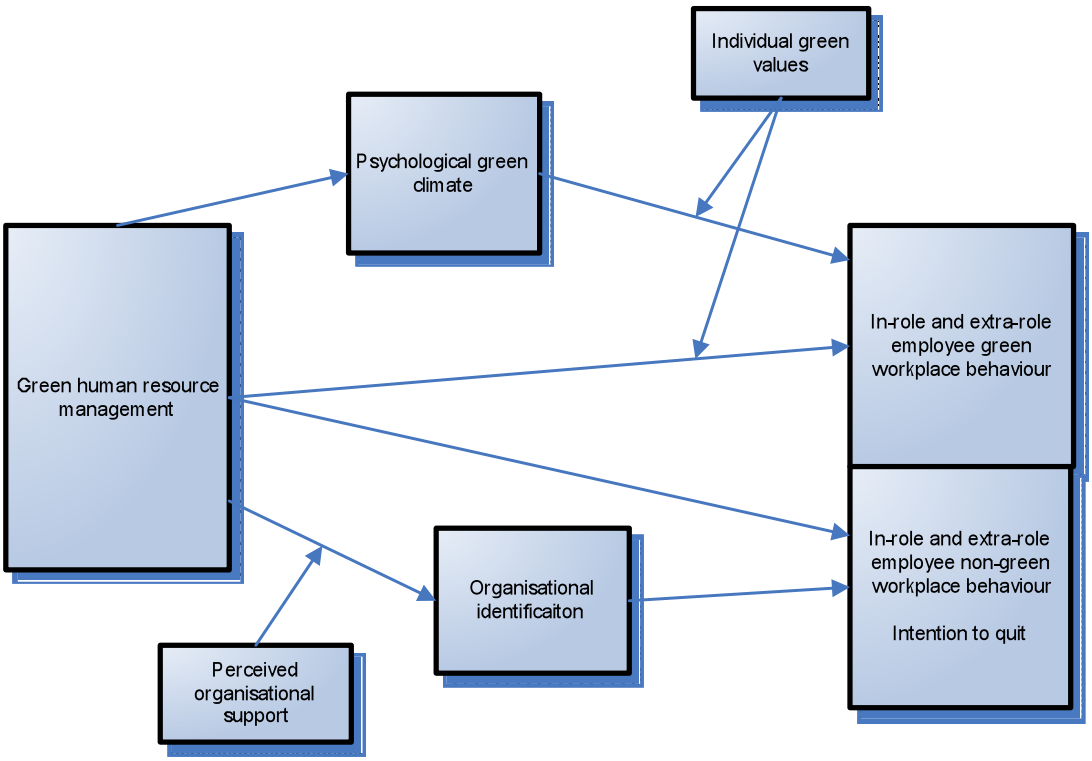
RQ3: How does green HRM influence in-role and extra-role employee non-green workplace behaviour and an employee's intention to quit?

To answer research question one, a singular sub-question was developed regarding what types, and in what form, are green HRM practices implemented by organisations today. The first sub-question (SQ) is:

SQ1: What green HRM practices would an organisation adopt to implement a 'green' strategy?

This research expects that green HRM will influence in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit. As identified by Jiang et al. (2012), HRM influences employee workplace outcomes through different mediating paths with different degrees of strength, so it would be logical to assume that green HRM will affect employee workplace behaviours in different ways (see Figure 1.2).

Figure 1.2 The conceptual model and expected relationships between variables



Due to multiple mediating and moderating pathways being tested in this study, a number of appropriate theories will be applied to substantiate the expected outcomes of the research. Specific theories applied to this study are:

- *institutional theory* - presupposes that organisations are guided in their decision making based on social norms, decrees and internal motivations largely driven by external pressures (i.e. stakeholders) (Meyer & Rowan, 1977)
- *attribution theory* - states that employees gauge the motivations and intentions of an organisation through their perceptions of the firm's policies and practices (Martinko, Harvey & Dasborough, 2011)
- *stakeholder theory* - posits that the better a firm can manage the expectations of a multitude of stakeholders, the greater the likelihood the firm will achieve its goals (Freeman, 1984)

- *value-belief-norm* (VBN) theory - proposes that individual values and beliefs are likely to be highly influential with regards to the likelihood of employees exhibiting green behaviours (Sahin, 2013)
- '*fit*' theories - elicit that there needs to be a certain level of congruence between the values of the employee and that of the organisation (Yu, 2009)
- *social identity theory* (SIT) - states that employees who identify strongly with their organisation are more likely to engage with organisational strategies (Crane & Ruebottom, 2011) and
- *social exchange theory* (SET) - suggests that HR practices are a mutual investment between employee and the organisation, with the perceived quality of these reciprocal exchanges likely to affect employee workplace outcomes including motivations and behaviours (Emerson, 1976).

Using the logic of these organisational behavioural (OB) theories, employees who: identify strongly with the organisation; have strong social and reciprocal exchanges that benefit both the employee and the firm; have similar values and beliefs and therefore a strong congruence with the firm, and also consider that their organisation is a reputable and ethical one through its transparent motivations and policies, are more likely to actively participate and engage with organisational green initiatives and environmental sustainability programs. Hence, in order to address the remaining two key research questions, the following nine hypotheses were developed:

Hypothesis 1a: Green HRM is positively related to in-role employee green workplace behaviour

Hypothesis 1b: Green HRM is positively related to extra-role employee green workplace behaviour

Hypothesis 2a: Green HRM indirectly influences in-role employee green workplace behaviour through the mediation of psychological green climate

Hypothesis 2b: Green HRM indirectly influences extra-role employee green workplace behaviour through the mediation of psychological green climate

Hypothesis 3a: Individual green values will moderate the effects of green HRM on (1) in-role employee green workplace behaviour and (2) extra-role employee green workplace behaviour, such that the effects will be stronger when individual green values are high and weaker when low

Hypothesis 3b: Individual green values will moderate the effects of psychological green climate on (1) in-role employee green workplace behaviour and (2) extra-role employee green workplace behaviour, such that the effects will be stronger when individual green values are high and weaker when low

Hypothesis 4: Green HRM is positively related to (1) in-role employee non-green workplace behaviour and (2) extra-role employee non-green workplace behaviour and negatively related to (3) intention to quit through the mediation of organisational identification

Hypothesis 5: The relationship between green HRM and organisational identification, is moderated by POS, such that the relationship is stronger when the level of POS is high and weaker when the level is low

Hypothesis 6: The indirect effect of green HRM on (1) in-role employee non-green workplace behaviour and (2) extra-role employee non-green workplace behaviour and on (3) intention to quit through organisational identification will be moderated by POS, such that the effects on in-role and extra-role employee non-green workplace behaviour will be stronger and on intention to quit will be weaker, when POS is high in contrast to when POS is low.

1.5 Background of the research

The inspiration to conduct this research is twofold. The growing concerns about environmental degradation and declining resources amongst governments and corporations have seen organisations scrambling to find alternative environmental strategies that can be effectively applied with minimal monetary outlay and organisational disruption (Olsen, 2008). Although conceptually green HRM offers organisations an innovative and unconventional approach to potentially achieve these outcomes, exactly how or why or if this is likely to occur is, as yet, unclear.

China and its role in the growth of global corporatisation and consumerism over the past two decades, has been astonishing (The Economist, 2014). Unfortunately, unprecedented growth rates in corporate and personal wealth, results in higher levels of consumerism, pollution and environmental degradation (Xiang, 2015a, 2015b). To tackle increasing levels of both pollution and Chinese citizens' discontent with decaying air quality and polluted land and water systems, the Chinese government has embarked upon a range of reforms to address these issues. These reforms have shifted from merely *responding* to pollution levels to policies that seek to *prevent* pollution (Xinhua, 2015). While these initiatives being applied by the Chinese Government are commendable, they are insufficient to fully address the growing levels of harmful air, water and ground pollutants that are affecting the daily lives of the Chinese people.

Corporations operating in China should be pro-active and socially responsible, by taking charge and limiting the negative effects of their activities on the local environment. One way to achieve this is to implement innovative and contemporary HRM approaches to improving CSR outcomes as well as broadening and advancing the attitudes, motivations and behaviours of their workers toward the environment (Weinreb, 2012). Such proposals

could herald the start of revolutionary changes within the HR management domain, not only in China, but globally. This study combines these areas of interest: green HRM and China – by exploring the green HRM policies, processes and practices of a foreign owned firm operating in two provinces in China.

Background of the Company

The Company is a wholly owned subsidiary of an Australian paper-packaging company. The Company has three production plants in China: one in Shanghai and two in Heshan, Guangdong province. Approximately 650 workers are employed across the three plants. In 2015, the Company marked the 20th anniversary of its Chinese operations.

The parent company is a leading manufacturer of paper, board and film based food-packaging products with its headquarters in Australia. The Company employs around 3000 employees across 15 countries. In addition to Australia and China, the Company has manufacturing facilities in Indonesia, South Africa, the Philippines and Vietnam, with a global sales network servicing all continents.

The Company has developed an internally applied environmental management system (EMS), which is based on the International Organisation for Standardisation (ISO) 14000/14001 format. This is a globally recognised EM system that provides management tools specifically designed for sustainability (ISO, 2015). A company specific EMS system has been undergoing development since 2009. Since then, the Company's EMS has been externally audited and assessed as being ready for certification, although formal global recognition has not been obtained with the General Manager (GM) noting that:

> '*it is difficult for the Company to have a homogeneous EMS across divergent jurisdictions, because of disparate compliance requirements. Australia has rigid domestic environmental compliance requirements, and although China has a*

somewhat simpler system, it is subjected to a complex number of national and local environmental laws and customer environmental and socially responsible audits. Currently, the Company complies with Chinese environmental laws through rigorous auditing processes' (GM).

The Company's key corporate customers include well-known brands such as Starbucks, McDonalds and Yum Foods (KFC), with each of these customers having their own demands for suppliers to meet tough environmental compliance. The Company's GM states that the Company's EMS system already complies with ISO 14001 standards, but:

'*even if the Company had ISO 140001 certification, these key customers would still conduct their own audits to ensure the Company is meeting strict individual standards as identified by these customers*' (GM).

This approach demonstrates that the Company is abreast of both its obligations to local laws and regulations to be environmentally and socially responsible. In addition, meeting the needs and demands of companies (customers), whose product sales can be significantly affected by safety concerns and the sensitivities of public anxieties surrounding food safety, such as the recent scandals in China regarding meat supplied to McDonalds and KFC (Solomon, 2014), is a priority. Such scandals directly affect the companies in question as well as indirectly affecting their suppliers further down the supply chain, such as the Company used in this study. Therefore the Company proactively seeks to meet all auditing and legal compliance as stated by the GM:

'*I proudly advise that the Company has either passed or met the criteria for environmental and socially responsible audits such as: Sedex Member Ethical Trade Audit (SMETA), which is responsible employer recognition; Social Accountability Audits as required by McDonalds and Starbucks; the Chinese Government Clean Production Program, a local program which gauges the clean production activities of major companies in the local districts; Supplier Ethical Data Exchange (SEDEX); McDonalds Supplier Workplace Accountability (SWA); and McDonalds Corrective and Preventative Actions process (CAPA)*' (GM).

The Company has been a signatory to the Australian Packaging Covenant (APC) since 2002. The APC is a voluntary initiative by the Australian government and the Australian domestic packaging industry to reduce the environmental effects of poor packaging practices including over-packaging and sourcing of unsustainable resources (i.e. timber from old growth forests), aiming to:

> '*change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter*' (APC, 2014).

By being a signatory to the APC and implementing the internal EMS, the Company overtly demonstrates it has a strong commitment to environmentally sound practices at all manufacturing sites. Where possible, the Company encourages the reusing and recycling of materials, the safe disposal of waste and waste minimisation throughout all operational processes, and labels itself as 'an ethical manufacturer'. In practice, the Company takes pride in its effort in developing a sustainable organisation and implementing a range of environmentally friendly processes, activities and products. It also actively contributes to localised social and community projects aimed at protecting the environment. The Company improves its environmental performance through constantly striving to reduce energy and water consumption, minimising waste and increasing the sourcing of environmentally friendly material, such as raw material from approved forestry suppliers, and using water based and soluble inks. Another example of the Company's auditing requirements is the Forestry Stewardship Council/Program for Endorsement of Forestry Certification (FSC/PEFC):

> '*This is an environmentally related audit, which is essentially a 'chain of custody' of raw materials and is able to trace the raw material back to the forest that the paper originated from. This audit is able to demonstrate to customers that the Company has sourced paper from an approved renewable forestry source'* (GM).

While this audit is a requirement of some key corporate customers, ensuring that the Company is transparent in its sourcing of raw materials for its products, the audit sends a strong signal to employees, customers, consumers and the public that the Company is a compliant entity. It also demonstrates it is as an ethical and socially responsible one.

One of the values identified by the Company as crucial to the firm's corporate environmental agenda is 'sustainability'. Specifically, the Company highlights four primary areas in their environmental policy agenda: reduce, reuse, recycle and educate. 'Reduce' refers to increasing efforts to source materials that result in the reduction and minimisation of raw materials required to produce packaging, with these materials required to meet the needs and demands of the Company's key customers. 'Reuse' refers to the reusing of materials within current company operations in order to maximise recovery and minimise waste. 'Recycle' focuses on the use of recycled materials, and 'educate' includes a number of educational and training programs to educate all levels of staff, suppliers and customers on the positivity of recycling materials and reducing waste and energy usage (source: Company's website).

The Company has set up specific environmental indicators across its global manufacturing operations, including China, to monitor both the implementation and outcomes of these initiatives. The four primary environmental indicators monitored by the Company are energy consumption, solid waste generated, water consumed per kilogram (kg) of product, in addition to the calculation of percentage of waste recycled. The indicators for the Chinese operations are shown in the following Table (see Table 1.1).

Table 1.1 Company data on waste, energy and water consumption per Kilogram (kg) of raw material (RM) input (China)

	2008	2009	2010	2011	2012	2013
Purchased RM in kg	14,256,000	14,446,000	15,783,000	21,061,000	24,421,000	31,278,000
Total Water Used Kilolitre (Kl)	14,973	12,801	23,783	29,525	22,209	30,763
Total Energy used Kilowatt hours (KWh)	2,969,766	2,539,207	2,916,441	3,292,010	4,723,035	5,076,266
Total Waste produced (kg)	2,438,753	1,828,123	1,888,828	2,561,630	2,394,427	2,429,046
Energy Consumption in KWh per kg of RM	0.21	0.18	0.18	0.16	0.19	0.16
Solid waste % generate per kg of RM	17.1%	12.7%	12.0%	12.2%	9.8%	7.8%
Water consumption in kilolitres per kg of RM	0.0011	0.0009	0.0015	0.0014	0.0009	0.0010

Source: (pers. comm. GM, 2014)

Since 2008, the Company has been focussed on being a leader within their industry and a leader in CSR implementation in China. As such, the Company has received significant acknowledgements from a range of stakeholders, for its socially responsible, environmental, quality and accountability agenda. Specific recognition is in the form of government, customer and third party awards and recognition such as:

- Customer – achievement of British Retail Consortium (BRC) audit (2013); honoured with Starbucks award for commitment to Social Responsibility (2008), and passed Wendy's (2011) and Yum audits (2013) resulting in additional product orders
- Government – achieved quality system (QS) licence for all China factories (2009-2013); recognised by the local town and Heshan City Chamber of Commerce for good employer and goodwill ambassador (2013); commitment to Social Security

from Heshan Human Resources and Labour Security Bureau (2012), and special contribution to local economy and good employer for charities, awarded by the local township (2012, 2011, 2010, 2009)

- Third parties – Charities award from Guangdong Lions Club (2014), ISO 9001 (2013, 2012, 2011, 2009, 2008) and
- Globally recognised food hygiene standards such as BRC for Global Standard for Food Safety (2013, 2012, 2011 [Shanghai factory only]) and American Institute of Baking (AIB) International (2011 [Heshan factory only], 2009, 2008) (GM).

The Company views the AIB and BRC audits as strong signals to customers of their quality processes as well as meeting social accountability standards, with a tough and rigorous auditing process to achieve these two recognitions. Both the AIB and BRC are internationally recognised food hygiene standards and are required and applied to all companies who manufacture packaging products within the food industry. The Company has worked hard to improve factory and employee conditions and product standards, particularly over the past 10 years, with the Company's determination to successfully achieve audit requirements a high priority. As such:

> '*the Company's Chinese plants have received the highest score for AIB in the Asian region and it was the first manufacturing plant in China that received certification to BRC, gaining the prized grade "A" rating*' (GM).

1.6 Overview of the methodology used in this thesis

1.6.1 Research design

This study was conducted in two separate phases, with each phase conducted sequentially. Phase 1 was a qualitative study, which comprised of a number of in-depth, semi-structured interviews with senior managers of the Company, along with a review of the green HRM literature and company documentation. Lastly, three focus groups were

conducted, primarily with frontline shop floor and production workers. The information collected from the phase 1 portion of the study served to identify the Company's stance on green policies and identify green HRM processes and practices currently evident in the organisation. It also contributed to the development of the measures for the singular independent variable used in phase 2. Phase 2 was a quantitative study, whereby data were collected through a questionnaire process of employees and their supervisors within the three manufacturing sites of the Company.

1.6.2 Data collection and procedures

In phase 1, four senior managers were interviewed and 59 employees took part in three separate focus groups. This approach helped to bridge the literature-practical application gap, and served to assist in the development of suitable measureable items for the independent variable, green HRM. In phase 2 of the research project, a questionnaire was administered to 390 employees during the period February 15-March 15, 2015. Existing measures from the appropriate and associated literature were used for all remaining variables: psychological green climate, individual green values, organisational identification, POS, and in-role and extra-role employee green and non-green workplace behaviour and an employee's intention to quit.

1.6.3 Data analytical strategies

A content analysis was performed to analyse the qualitative data during phase 1 of the project. In phase 2, structural equation modelling (SEM) was conducted to analyse the survey data and involved testing both the model and proposed hypotheses.

1.7 Research findings

1.7.1 Green HRM and its implementation in organisations

Organisational green goals are likely to be achieved through the application of specific green HRM policies implemented at four core stages of HRM, and administered at the organisational level through HR practitioners (Govindarajulu & Daily, 2004; Lis, 2012). These core HRM stages are: recruitment and selection, training and development, performance and appraisal, and rewards and compensation (Renwick et al., 2013). In particular, to achieve green goals and environmental initiatives firms should:

1) develop targeted recruitment processes that enlist capable and motivated employees who share common values and principles (i.e. green) to that of the organisation
2) initiate processes and activities that motivate, engage and encourage employees to participate in green initiatives
3) ensure that corporate values pertaining to the achievement of green goals are clearly disseminated to the employees and
4) develop reward and appraisal mechanisms that can be monitored for effectiveness (Daily & Huang, 2001; Garavan & McGuire, 2010; Renwick et al., 2013).

1.7.2 Green HRM and in-role and extra-role employee green workplace behaviour

The findings of the study were able to demonstrate that green HRM was directly and indirectly related to in-role employee green workplace behaviour, however, green HRM was only indirectly related to extra-role employee green workplace behaviour through the mediation of psychological green climate. These findings support existing behavioural HRM literature in that: HRM practices are significantly related to particular employee workplace behaviours; attributes of HRM practices determine what employee behaviour is likely to be influenced by HRM, and that HRM may influence employee

workplace outcomes through individual and organisational social and psychological processes such as organisational climates (Bowen & Ostroff, 2004; Jiang et al., 2012).

The effects of individual green values were explored via a mediating pathway, with the result indicating that individual green values do moderate the effect of psychological green climate on extra-role employee green workplace behaviour. However, no evidence was found that individual green values moderated the effects of green HRM and psychological green climate on in-role employee green workplace behaviour.

1.7.3 Green HRM and in-role and extra-role employee non-green workplace behaviour and intention to quit

Results of the study also revealed that green HRM generated notable effects on fortuitous employee workplace outcomes such as employee *non-green* workplace behaviours. Logically, this would be an unexpected outcome. Current literature assumes that green HRM would be limited to positively affecting employee green behaviours. However, this study found that green HRM was positively related to in-role and extra-role employee *non-green* workplace behaviour and negatively related to an employee's intention to quit via the mediation of organisational identification. Although green HRM was found to be a favourable source that affected an employee's organisational identification, POS moderated this relationship. Perceived organisational support also caused an indirect effect of green HRM on the three dependent variables through the mediation of organisational identification.

1.7.4 Theoretical contributions and practical implications

This study makes several key contributions to the green management literature with one particular contribution that will add significant value to the green HRM paradigm.

During the course of this study, measures for green HRM were developed. These measures were later empirically validated and now provide a useful platform on which to develop a set of cross-cultural comprehensive measures for green HRM.

As the concept is still in its embryonic state, its ability to be formally and practically applied is limited, as our knowledge of exactly how green HRM influences employee workplace behaviours is at best, piecemeal, at worst, unknown. The findings of this research adds a substantial amount of new information to the body of knowledge of green HRM, through its exploration of the social and psychological processes through with green HRM exerts its influence on a range of employee workplace outcomes.

From a practical application perspective, this study was able to ascertain that in order to achieve organisational green goals, firms should consider adopting and promulgating green HRM policies, processes and practices. Organisations should construct job design that meets the organisation's green policy agenda, and ensure that employees are adequately trained, educated and equipped with the necessary skills and abilities needed to undertake their assigned job duties. This includes developing an individual's skills and capabilities to successfully complete assigned green tasks. Human resource practitioners need to ensure an effective appraisal process is in place, and that appropriate rewards and compensation are provided to employees when they have achieved their individual green tasks or key performance indicators (KPI) as set out by the organisation. Finally, HR practitioners should ensure high levels of clarity and transparency when it comes to broadcasting of the firm's policies and green agendas. Greater transparency ensures that employees have a clear and unequivocal understanding of what the organisation stands for. This includes clearly articulating its values, ethics and principles and what are its policies in regard to environmental and socially responsible issues.

1.8 Structure of the thesis

This thesis comprises seven chapters, as well as an extensive reference list and appendices (see Figure 1.3). The first chapter, Chapter One, introduces the research study. It also outlines the aims, justifications and significance of the research and explores the background of the Company. The research questions, hypotheses, methodology and research findings are briefly discussed.

Chapters Two to Four respectively cover the literature review on green HRM including its evolution from within the current green management and associated EM and CSR literature, as well as defining the concept. Practices that are associated with green HRM will be discussed along with identifying the antecedents and consequences of green HRM, and what internal or external factors drive organisations to implement green HRM policies, processes and activities. Existing research on HRM, green HRM and green performance are reviewed, as well as exploring green HRM and employee workplace behaviour, articulating current literature gaps and identifying future research directions. The theoretical model and applicable theories are illustrated along with discussing all model variables. Nine hypotheses are developed.

Chapter Five discusses the methodology and the specific qualitative and quantitative methods that were utilised during the course of the research. Specific items discussed in this chapter are the research design, data collection and procedures, measures used in the study, as well as presenting the data analytical strategies.

Chapter Six presents the findings of the study, along with highlighting factors that influence companies to adopt green HRM. Specifically, the chapter reports on the role of

green HRM and the underlying mechanisms that directly and indirectly affect in-role and extra-role employee green and non-green workplace behaviours and intention to quit.

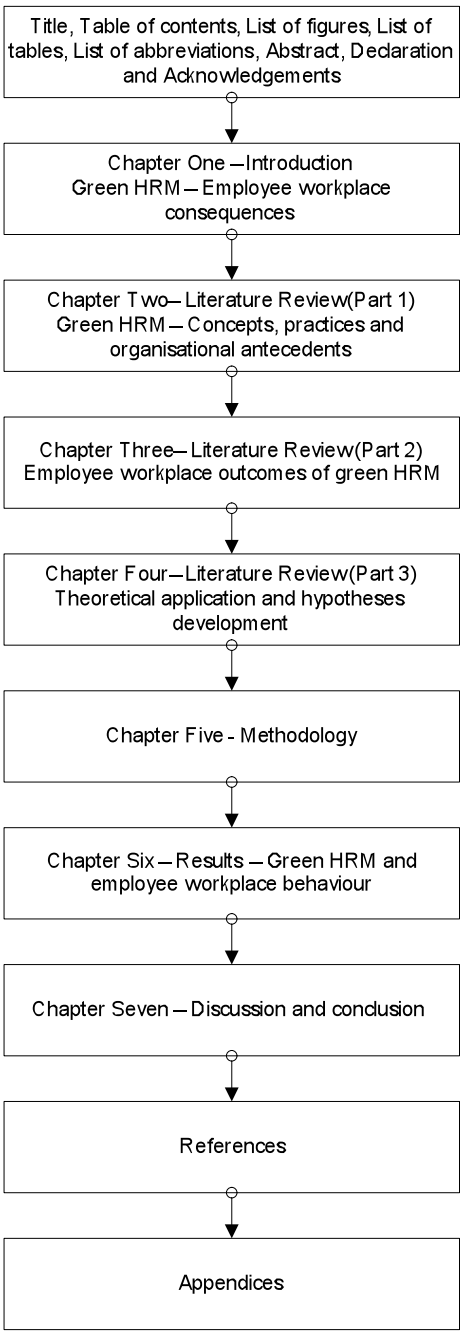
Chapter Seven, the last chapter, is the discussion and conclusion chapter. The final chapter brings together and summarises the research findings presented in Chapter Six. The chapter concludes with an examination of both the theoretical and practical implications of the research project, discusses the limitations of the study and identifies future research directions of the green HRM concept.

A reference list, which alphabetises an extensive review of green HRM and associated management constructs, is followed by a number of appendices that include:

- a summary of journal articles and conference papers that were derived from within this research study (Appendix 1)
- a list of questions used during the interview process conducted during phase 1 (Appendix 2)
- a copy of the Ethics Committee approval email (Appendix 3)
- a cover letter that was provided to survey respondents, including both employees and supervisors (Appendix 4 & 5) and
- the survey questionnaire that was completed by both employees and their corresponding supervisors (combined English and Chinese versions) (Appendix 6 & 7).

A flow chart representing the structure of the thesis can be viewed in Figure 1.3.

Figure 1.3 Flowchart of the structure of the thesis



1.9 Conclusion

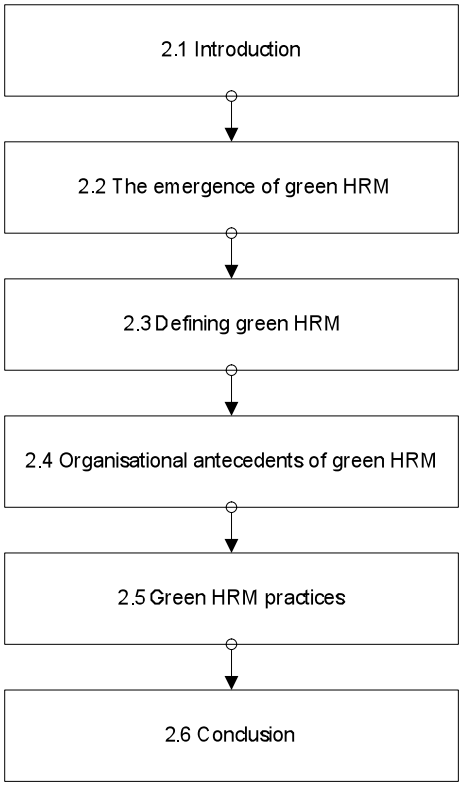
This chapter has outlined the topic of this thesis. Specifically, the chapter briefly discussed green HRM and its likely role in the achievement of organisational green goals, along with a number of social and psychological processes that are expected to impact employee workplace outcomes. The chapter clearly articulated, albeit briefly, the research questions and nine testable hypotheses as well as depicting the background of the Company used in the study. An outline of the study's methodology, including a brief discussion of the two research phases, was provided along with a summary of the construction of the thesis. Chapter Two reviews the literature on how green HRM has emerged from within the current green management and HRM literature. It will also examine how green HRM is currently defined and examine green HRM practices and organisational antecedents of the concept.

CHAPTER TWO

LITERATURE REVIEW (PART 1)

GREEN HRM – CONCEPTS, PRACTICES AND ORGANISATIONAL ANTECEDENTS

Figure 2.1 Flowchart of Chapter Two



Chapter Two - Literature Review (Part 1): Green HRM – Concepts, Practices and Organisational Antecedents

2.1 Introduction

This chapter evaluates the HRM and green management literature to explore the history of the socially inspired environmental movement and the subsequent emergence of associated green management concepts. Within the parameters of this review, the materialisation of green HRM and demystifying its formation from within analogous management and OB constructs will be explored. How green HRM is currently defined will be determined. In addition, this chapter will discuss the key HRM practices associated with green HRM, and will also probe existing literature to identify how and why organisations have been prompted to engage with and implement green HRM strategies. The chapter concludes with a brief summation of the key points on the emergence and creation of green HRM.

2.2 The emergence of green HRM

2.2.1 The 'green movement'

From the early 1960's through to the mid 1970's, the social movement and a public advocacy agenda (i.e. civil rights, women's rights and the environmental movement) were comprehensively established (Carroll & Shabana, 2010). This movement was spawned from social activists and scholars in response to the perception of corporate manipulation within the domains of environmental recklessness and political engagement (Waddock, 2004). From the advent of these socially motivated movements, arose an increased awareness by the public of the effects of environmental degradation caused by corporate operations. In addition, the establishment of a politically motivated lobby group that began to counteract the perceived power that companies were exerting over public interest

agendas (Jabbour & Santos, 2008; Vandermerwe & Oliff, 1990; Waddock, 2004). It is plausible to assume that it was these socially driven movements and ensuing environmental agendas that influenced multinational companies and domestic firms' willingness to respond with policies and practices designed to protect the environment, employees, consumers and the public. Since the emergence of these socially motivated factions, corporations have progressively responded by espousing environmentally targeted corporate policies that are integral to commercial planning. These revised agendas ultimately reflect business visions, strategies, policies and decisions (Waddock, 2004).

Despite observable progress in corporate attitudes toward environmental policy implementation due to the aforementioned activism, organisations are under constant pressure from a range of stakeholders both internal and external to the firm (Berry & Rondinelli, 1998; Jackson, Renwick, Jabbour & Muller-Camen, 2011; Teixeira, Jabbour & Jabbour, 2012). As a result, not only are firms seeking ways to reduce the direct impacts of their operational activities (example - excessive waste, energy usage) but also alternative ways of managing and building the capabilities of their human capital, encouraging and implementing corporate best practices and further improving operational efficiencies.

2.2.2 Corporate Social Responsibility

Berry and Rondinelli (1998) and Lee (2009) claim that by the late 1990's, firms had begun initiating pro-active and voluntary, socially responsible and environmentally sustainable related standards. The pursuance and development of these standards in both academic research and corporate policy agendas began emerging in response to the calls from social activist groups and the growing awareness and attitudes of the public toward corporate irresponsibility (Jabbour & Santos, 2008; Wilcox, 2006). As such, CSR was created. Corporate social responsibility is a multi-aspect construct that encompasses

economic and non-economic (e.g. diversity) concerns (Lis, 2012; Ones & Dilchert, 2012b) and is defined by McWilliams, Siegel and Wright (2006, p. 1) as:

> '*situations where a firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm and that which is required by law*'.

Mozes, Josman and Yaniv (2011) further define CSR as:

> '*acknowledging the importance of economic performance, as well as the broad range of stakeholders, while also highlighting the need for balancing these factors with societal responsibility*'.

Corporate social responsibility is now recognised as a vital conduit between corporate strategy and social responsibility outcomes. It overtly demonstrates to employees, governments, stakeholders and communities, what are the firm's values and policies and the organisation's strategic agenda (Garavan & McGuire, 2010; Manika, Wells, Gregory-Smith & Gentry, 2013; Rangarajan & Rahm, 2011).

While there have been a growing number of studies conducted on the effects of CSR policies on the financial performance of the firm (McGuire, Sundgren & Schneeweis, 1988; Pava & Krausz, 1996; Tsoutsoura, 2004), corporate competitiveness and sustainability (Marin, Rubio & Maya, 2012; Vilanova, Lozano & Arenas, 2009), according to Turker (2008) few studies had determined the effects of CSR on employee workplace outcomes. Consequently, Turker (2008) conducted a study on CSR and organisational commitment and identified that employees have a preference to work for organisations that are socially responsible. Corporate social responsibility was identified as a factor that shapes a company's public image. As such, the level of an employee's commitment to an organisation was found to be dependent upon the perception and strength of the firm's CSR policies that are aimed at supporting society, the environment and employees (Turker,

2008). Turker's (2008) argument, which was later supported by Friedman (2009) and more recently by De Roeck and Delobbe (2012), states that an employee's self-esteem and subsequent commitment is affected by the prestige and reputation of the firm, and community perceptions of what the organisation stands for. These employee perceptions are largely driven by the firm's observable commitment to CSR and associated environmental and socially directed initiatives.

A study by Ellis (2008) attempted to establish a link between an employee's social behaviour and how they identify with their organisation. It was suggested that employee values, social bonds and exchanges in the workplace, and individual attitudes toward CSR are likely to be key predictors of socially related behaviours. Therefore, Ellis (2008) concluded that management should encourage employees to actively participate and contribute to policy development and the execution of green programs.

A pro-active CSR platform positively contributes to building a strong corporate image because it demonstrates to employees and the community, the firm's commitment to socially responsible and environmentally sound business practices (Zutshi & Sohal, 2003) without the need for excessive regulatory impositions. As a result of this corporate pro-activism, stakeholders are expected to explicitly demonstrate their support via their individual purchasing power of company products and services. In addition, employees are likely to openly support socially responsible initiatives and the firm's green policies, through overtly exhibiting desirable workplace behaviours, motivations and attitudes (Torugsa, O'Donohue & Hecker, 2013; Vaccaro & Echeverri, 2010; Zhang et al., 2008).

2.2.3 Human Resource Management

Employees are being progressively recognised as valuable assets in organisations, through their contributions to firm performance (Biswas & Varma, 2012; Luthans & Youssef, 2004; Zutshi & Sohal, 2003). Organisations need to diversify their strategies and invest in the people management side of their company, in order to tap into a value adding resource to boost a firm's competitive advantage (Luthans & Youssef, 2004). Leading executives Carly Fiorina, (former) Senior Executive of Hewlett-Packard, and Bill Gates of Microsoft (cited in Luthans & Youssef, 2004, p. 143), claim that:

> '*the most magical and tangible and ultimately the most important ingredient in the transformed landscape is people*' and '*our most important asset walks out the door every night*'.

Since the mid 2000's, key academics and psychologists have been actively calling for pioneering research into how organisations can effectively promote and achieve pro-environmental attitudes and employee green behaviours (Jabbour, 2011; Jackson & Seo, 2010; Renwick, Redman & Maguire, 2008). Green HRM has been identified as a likely emancipator of such employee level outcomes. Despite these calls for studies into this newly established HRM related concept, there is still an absence of formalised HRM research that targets the role of HR and its latent influence over employee green related behaviours and attitudes aimed at achieving corporate sustainability targets (Ehnert & Harry, 2012; Jabbour, 2011; Robertson & Barling, 2013). Human resource management is defined as:

> *'a set of distinct but interrelated activities, functions and processes that are directed at attracting, developing, and maintaining (or disposing of) a firm's human resources'* (Lado & Wilson, 1994, p. 701).

It is widely accepted in the literature that a positive correlation exists between HRM practices and organisational performance (Ahmad & Schroeder, 2003; Chartered

Institute of Personnel and Development (CIPD), 2001; Huselid, 1995). Buchan (2004) suggests for firms to achieve organisational objectives and desirable employee outcomes, that there needs to be a distinctive 'fit' and congruence between a corporation's HRM approach and the characteristics of the organisation, as well as its values, ethics and priorities. The effectiveness of this association plays a key role in the implementation and accomplishment of CSR and EM directives (Carmona-Moreno, Cespedes-Lorente & Martinez-del-Rio, 2012; Govindarajulu & Daily, 2004; Jackson & Seo, 2010).

Jabbour and Santos (2008, p. 2134) claim that the value of HRM in the application of organisational sustainability policy is because:

1) the general functions of HR have the potential to advance sustainability within the scope of an organisation and its policies

2) contemporary HRM and organisations pursuing sustainable operations, require the implementation of long term strategies and programs that extrapolate economic performance objectives

3) sustainability is considered a 'current' paradigm of HRM and

4) present day HRM needs to have effective processes in order to meet the demands of multiple stakeholders.

Renwick et al. (2008) support Jabbour and Santos's (2008) claims that HRM and HR practitioners are best placed to lead and co-ordinate the introduction of green policies in organisations, because they are proficient in communicating with employees and expertly equipped in implementing cultural change processes. Cohen et al. (2010) state that there are few areas of organisational functionality that have the capabilities to deliver the necessary people management outcomes of sustainability and environmentally friendly agendas than that of HRM.

Lee (2009) claims that HRM and green management initiatives and objectives require employees to be environmentally aware and highly trained in both technical and management skills, as corporations will be developing innovative environmental processes that will have considerable management implications. The role of HRM is to ensure that targeted training programs are developed and designed to increase the awareness of employees to the importance of environmental initiatives, as well as conducting training programs that develop technical, operational and management competencies (Daily & Huang, 2001). According to Lee (2009), implementing these developmental programs is essential if firms are to successfully cultivate environmental innovations.

Green HRM has emerged from within the confines of HRM and green management. Green management, according to Lee (2009, p. 1102) refers to:

> '*the management of corporate interaction with, and impact upon, the environment*', and should go beyond mere regulatory compliance to include '*pollution prevention, product stewardship and corporate social responsibility*'.

Green HRM therefore, could be considered to be a component of green management, in that its policies, processes and activities are constructed from within a management strategy designed to achieve environmentally related outcomes. Lee (2009) suggests that the initiation of green HRM was to address ways that firms can both improve environmental outcomes related to EM and CSR, but at the same time consider the financial and strategic opportunities that green HRM offers (Lee, 2009). Human resource management's distinct approach to people management and the anticipated influence that people management strategies are likely to exert over general employee workplace behaviours (Daily & Huang, 2001; Ellis, 2008), are likely to be similarly experienced by organisations that implement green HRM practices. Siegel (2009) supports this assertion and suggests that espousing green management and green HRM provides firms with

opportunities to maximise profits and implement practices that arouse employee engagement and encourage behaviours that are placatory toward the environment.

Based on existing literature, a green management-based policy and related green processes and practices such as what would be advocated from within a green HRM platform, is expected to increase the engagement of employees to embrace green initiatives. It could also potentially modify employee behaviours and attitudes to recognise the significance and consequences of socially responsible and environmentally sustainable policies, processes and practices. Unfortunately, notwithstanding the potential advantages and benefits of implementing green HRM, its legitimate influence is still being debated (Harvey et al., 2013; Milliman, 2013; Steg, Bolderdijk, Keizer & Perlaviciute, 2014).

2.3 Defining green HRM

Despite a growing body of research, which has added to the nomological net of green HRM, the concept and its defining idiom remain somewhat vague. Different terms have been used to discuss the environmental consequences of HRM, with green HRM examined as part of a strategic HRM focus that targets employees green behaviours. However, to date the fundamental task of evaluating and clearly defining the contemporary management construct itself has been neglected, and it remains rather ambiguous as to how green HRM fits into the broad concepts of EM, CSR and strategic HRM, or how green HRM differs from sustainable HRM or socially responsible HRM (SRHRM). Moreover, current literature has thus far failed to clarify the motivation, impact and consequences of implementing green HRM.

Scholars have sought to clarify and define green HRM by reviewing and applying analogous constructs from contemporary literature such as EM, HRM, sustainable HRM

(Cohen et al., 2010; Ehnert, 2009), SRHRM (Shen, 2011; Shen & Benson, 2014), and CSR (Jackson et al., 2011; Kramar, 2014; Renwick et al., 2013). Exactly what constitutes green HRM is still in dispute, although there is a generalisability clearly identified within the literature, with environmental sustainability found to be a key component of the construct (Dubois & Dubois, 2012; Kramar, 2013).

While the environmental implications of HRM have been widely discussed in the literature (Daily & Huang, 2001), there is no clear-cut definition of the term green HRM. Some researchers have used the term without explicitly defining the concept (see for example Jackson et al., 2011) with other researchers using it interchangeably with sustainable and strategic HRM (Jackson & Seo, 2010; Lis, 2012). Among those scholars that have sought to explicitly define the term, the definitions range from general,

> '*HRM aspects of environmental management*' (Renwick et al., 2013, p. 1),

to more specific interpretations such as:

> '*use of HRM policies, philosophies and practices to promote the sustainable use of resources and prevent harm arising from environmental concerns within business organisations*' (Zoogah, 2011, p. 118).

Green HRM is unlike other contemporary management constructs. Human resource management focuses on general people management strategies (Shen, 2011), CSR focuses on the moral and ethical basis of corporate social policy (Dahlsrud, 2006) and EM's key goal is to reduce environmental impacts through integrating business and environmental practices (Cramer, 1998; Ormazabal & Sarriegi, 2012). However, the application of green HRM is aimed at developing processes and activities designed to influence employee skills, knowledge, motivations and behaviours to achieve organisational environmental objectives and green goals (Prathima. M & Misra, 2012; Renwick et al., 2013).

Table 2.1 summarises the definitions of green HRM found in existing literature. The definitions listed in the table cast the widest possible net to capture the essence of green HRM, but none of the definitions identify processes or activities that can be considered to be green HRM specific. For example, the definition from Zoogah (2011) restricts the application of green HRM to business organisations, which limits the scope of the concept and its potential application. In order to effectively define green HRM, there are several things that should be considered such as the what, the how, and the why. Specifically: what are the attributes that make up green HRM; how do organisations aim to achieve desirable outcomes through the application of green HRM, and why would organisations engage with green strategies, and adopt green HRM?

Table 2.1: Definitions of Green HRM

Paper	**Definition**
Ehnert and Harry (2012)	'*a concept that focuses on environmental sustainability accepting the dominance of economic performance maximisation*' (p. 228)
Kramar (2014)	'*HRM activities which enhance positive environmental outcomes*' (p. 1075)
Renwick et al. (2013)	*'HRM aspects of EM'* (p.1)
Wagner (2012)	*'those parts of sustainable HR management dealing with needs that relate to environmental sustainability'*(p. 444)
Zoogah (2011)	'*the use of HRM policies, philosophies and practices to promote the sustainable use of resources and prevent harm arising from environmental concerns within business organisations*' (p. 118)

The literature acknowledges that green HRM falls somewhere between sustainable and strategic HRM, with Ehnert and Harry (2012) claiming there are two arguments that support the importance of sustainability to HRM. Firstly, the relationship of an organisation to both its economic and social environment is inextricably linked to the macro level societal and ecological sustainability debate. As such, the role of HR is to develop the social discourse on the importance of sustainability, in order to contribute to corporate sustainability policy and strategic development (Ehnert & Harry, 2012).

Secondly, from a micro perspective, HRM is conjointly linked to individual and internal organisational elements such as scarce resources, employee behaviours, aging workforces and work-related health issues. Having a HRM system that fosters sustainability allows firms to address the aforementioned issues while retaining a high quality workforce (Ehnert & Harry, 2012).

In addition to the academic literature, Taj (2011, p.27) offers subjective opinions of how green HRM is definitively viewed from a business executive's perspective. Ashok Ramachandran, HR Director of Vodafone Essar Ltd. claims that:

> '*Green human resources could very well imply using every employee touch point/interface to promote sustainable practices and increase employee awareness. Green HRM reflects the way an organisation chooses to drive and increase employee commitments and awareness on the issues of sustainability*' (Taj, 2011, p, 27).

Anjana Nath, Regional Head of HR in Fortis Healthcare Ltd. suggests that:

> '*Green HRM can be defined as environmentally friendly HR initiatives resulting in greater efficiencies, lower costs and better employee engagement. Human resources plays a key role as it creates awareness amongst employees and builds engagement, which in turn, helps organisations to operate in an environmentally sustainable fashion*' (Taj, 2011, p. 27).

Jyorden T. Misra, Managing Director Spearhead InterSearch, believes that:

> '*Eco-consciousness or the colour 'green' is rapidly emerging in every dimension of our lives and workplaces are increasingly displaying an organised response to this challenge by bringing in 'professional consciousness' at an institutional level as well as individual employee level. Green HRM is one, which involves two essential elements: environmentally friendly HR practices and the preservation of knowledge capital. The HR of the organisation plays a major role in making environmental responsibility a part of an organisation's mission statement*' (Taj, 2011, p. 27).

Business perspectives provide a pragmatic view of the role of the green HRM concept in today's corporate world, with these perspectives not considered formal definitions of green HRM. Instead, these corporate worldviews on green HRM adds to the body of knowledge regarding the existence, acceptance and role of green HRM in today's workplace. The above perspectives encompass the key components of current academic definitions, including sustainability, preserving knowledge capital, employee commitment and organisational and individual level engagement.

Analogous concepts that are synergistically linked to green HRM are sustainable HRM and SRHRM (Kramar, 2014; Shen & Benson, 2014). Kramar (2014) states that the term 'sustainable HRM' has not been clearly defined, but encompasses several terms that link sustainability with HRM. The terms exploited within the sustainable HRM construct are: sustainable work systems; HR sustainability; sustainable management of HR; sustainable leadership and sustainable organisations (Kramar, 2014, p. 1075). The overriding correlations between these sustainability terms, according to Kramar (2014), is that they acknowledge both explicitly and implicitly the social and human outcomes of a sustainable approach to HRM. A key outcome of sustainable HRM is that it should contribute to developing an organisation's human and social capital. Using this dialogue, the clear delineation between green HRM and sustainable HRM, is that green HRM

specifically targets green organisational outcomes including encouraging employee green behaviours and attitudes rather than general employee developmental outcomes as highlighted in sustainable HRM.

While the SRHRM concept is not explicitly seeking to promote employee green workplace behaviour, SRHRM does have some concordance with the green HRM concept. Shen and Benson (2014, p. 2) define SRHRM quite simply as:

'*corporate social responsibility (CSR) directed at employees*'.

Socially responsible human resource management promotes above average salaries and working conditions, specific CSR training, and performance and appraisal, and remuneration should consider the social contributions made by employees (Shen & Benson, 2014). Comparing both green HRM and SRHRM, the key differences between the two constructs, is that green HRM has specific environmental and green targeted objectives, whereas SRHRM has socially responsible outcomes including workplace equality and pollution prevention without an exclusive employee green behavioural or green goal focus (Royle, 2005).

As Renwick et al. (2013) have established, green HRM has been augmented to enhance the green behaviours, attitudes and capabilities of employees, to motivate workers to think green, and to provide opportunities for employees to build knowledge and skills associated with environmental sustainability. Taking into consideration the previous discourse, as well as current definitions of green HRM and analogous concepts, this thesis defines green HRM as:

> *'HRM strategies, policies, processes and activities that aim at generating positive environmentally associated outcomes for an organisation'*.

The underlying goals of green HRM using existing definitions, is to identify and implement appropriate green associated practices designed to change the way companies' actions and decisions affect the environment. This can be done by way of increasing operational efficiencies, using energy and water resources responsibly and changing employee attitudes to understand, embrace and acknowledge the importance of responsible green related behaviours. However, based on the above discussions, and the current undefined nature of the green HRM construct, the extent literature is considered to be somewhat inconclusive. Ongoing debates on how best to define green HRM continue, with little clarity in regards to its actual application or veritable workplace consequences.

2.4 Organisational antecedents of green HRM

There is extensive contemporary literature that has explored what firms need to do to in response to environmental challenges. However, few studies have comprehensively explored the 'why' organisations adopt, or are likely to adopt, environmental and green HRM policies, processes and practices (Bansal & Roth, 2000; Lee, 2009).

Peripheral demands have resulted in positive changes to corporate policies with organisations now forced, largely due to stakeholder pressures, to adopt socially responsible and green management approaches (Bansal, 2003; Vandermerwe & Oliff, 1990; Wagner, 1994). In addition, green management has been found in the literature to be a positive source for an organisation to improve its competitive advantage through the implementation of a number of organisationally based HRM initiatives (Stefan & Paul, 2008; Lee, 2009). Organisations that aim for an environmentally associated competitive advantage seek to develop their employees to have a unique set of (green) technical, and management skills and abilities that is hard for competitors to replicate (Lee, 2009). Green management strategies provide firms with additional advantages over and above regular

strategic objectives, with green HRM practices facilitating the implementation of green initiatives designed to achieve organisational green goals.

The emanation of green HRM initiatives are driven by a number of organisational antecedents associated with green management, according to Bansal and Roth (2000). Organisational antecedents are likely to be a complex interplay of individual, cultural, foundational, interactional and circumstantial factors involving multiple layers of human capital associated processes and activities, external influences and pressures, and various corporate strategies (Muster & Schrader, 2011). Specific organisational antecedents associated with green HRM include:

- *Government regulation* - Corporate environmental vandalism arises from poorly managed operational processes and practices, and has forced governments to develop legislation that enforces compliance to environmental policies, through higher tax imposts on irresponsible companies (Khanna & Speir, 2013). Through this burden of higher regulations, environmental taxes and associated permits, organisations ultimately realise the true cost of their environmentally contravening operations. Upon this awareness, companies will seek to find ways to recoup these unrealised costs through reducing waste and pollution levels, and improving operational efficiencies using the skills, abilities and knowledge of the firm's workforce (Khanna & Kumar, 2011).
- *Internal stakeholders* – managers and supervisors can be influential to a firm that implements EM and green activities. In a recent study, Khanna and Speir (2013) found that managerial attitudes, which ranged from having a sense of moral responsibility to the environment, to a belief that EM practices will result in improved financial performance, were pivotal to EM implementation. Increasingly, employees are also becoming conscious of the importance of company operations,

and their effects on the environment, through media reports and government intervention (Sweetman, 2007). Demands from employees to improve company operations can be an effectual driver for corporate change. In addition, new recruits might also drive organisations to embrace green HRM with employers progressively acknowledging that job candidates are increasingly attracted to firms that are consciously green (Brockett, 2006; Lis, 2012; Renwick et al., 2013).

- *External stakeholders* – Customers, consumers and firm-to-firm relationships are also likely to influence the uptake of green HRM initiatives. Firm-to-firm relationships are influenced through explicit sets of environmental or green standards, which demonstrate what is expected from a contractor as a supplier of goods and services to an environmentally focussed and socially responsible corporation (Lewis & Cassells, 2010; Nejati & Amran, 2009). If these strict environmental standards are not applied, it could negatively affect the relationship and future contractual arrangements between the entities. Customers now expect companies to behave appropriately and implement environmental best practices in regards to the firm's operations and the production of goods and services (Lee, 2009). In addition, pressures from stakeholders and the purchasing power of consumers will also have significant influence over a firm's willingness and readiness to implement green management practices (Bansal & Roth, 2000; Lawrence & Morell, 1995; Wagner, 1994), with profitability and sales driving company bottom lines. If bottom lines are negatively affected because of public perceptions of the firm's poor environmental practices, organisations will most likely respond with policies that will address stakeholders' concerns.
- *Economic opportunities and competitive advantage* – although a competitive advantage is often a consequence of corporate strategies, the potentiality of gaining a competitive advantage can drive organisations to strategically implement green

management initiatives (Huffman, Watrous-Rodriguez & Henning & Berry, 2009; Lawrence & Morell, 1995; Lee, 2009). Company revenues can be improved through branding and marketing the firm as socially responsible and green, with its products and reputation increasing the wealth and external prestige of the firm (Bansal & Roth, 2000; Greening & Turban, 2000). Targeted outcomes can be achieved through the creation and exploitation of the firm's internal strengths (Barney, 1991; Chang, 2011; Porter, 1987, 2008), which can be done by building the environmental knowledge and technical and management abilities of their employees (Lee, 2009), lowering costs through reduced levels of waste, water and energy, and explicitly demonstrating to the community the commitment of the firm to sustainability. Wagner (2012) claims that HR facilitation of green HRM will contribute to creating socially complex, causally ambiguous capabilities, as well as creating difficult to imitate skills, abilities and resources that increases a firm's competitive advantage. Organisations need to actively drive green HRM implementation to gain competitive advantages and be ahead of their competitors. Merely expecting, or wishing, a competitive advantage to occur as a consequence of a specific business strategy is sheer folly.

- *Cost and differentiation advantage* – firms are said to be able to achieve cost and differentiation advantages by implementing green initiatives and according to Lee (2009), cost advantages are key drivers for adopting green management strategies. Differentiation advantages involve a firm producing goods that are targeted toward the needs or demands from specific customer segments and according to Shrivastava (1995), these goods are then difficult to imitate. By offering environmentally friendly products with inimitable characteristics, they will attract discerning customers and consumers with the firm able to charge higher prices for an exclusive range of goods. Christmann (2000) supports the potential of cost and

differentiation advantages through green management implementation. However, for firms to create value from these potential advantages they should formulate a green strategy that utilises existing resources and capabilities to minimise negative cost impacts.

- *Firm size and equity* – the size, level of internationalisation and access to equity may also influence whether or not an organisation will adopt green HRM or green management initiatives (Halkos & Evangelinos, 2002; Lee 2009; Roy, Boiral & Paillé, 2013). Halkos and Evangelinos (2001) state that the odds of a large firm implementing environmental initiatives are much higher than a medium size firm, which in turn is much higher than a small firm. Studies by Dasgupta, Hettige and Wheeler (2000) and Hillary (1999) support the claims that the size of a firm and the size of its facilities can impact upon a company's willingness and preparedness to implement green or environmental initiatives. This is said to be largely due to a lack of guidance, limited information and resource availability (Halkos & Evangelinos, 2002). Lee (2009) adds that smaller companies do not normally have a designated unit within the firm that specialises in managing environmental issues, which may affect the firm's ability to effectively implement green HRM. However, Lee (2009) counters that argument by suggesting that smaller firms can have distinct advantages over large companies because they are less likely to have 'top heavy' management structures, which means that communicating, instigating and implementing green management initiatives could be more efficient, controllable and much less complex. Although most firms are likely to experience difficulties in achieving high levels of green process or policy implementation without some negative affect on the bottom line, the cost impost to implement green HRM is a significant impediment to small, or less financially viable firms (Lee, 2009). As green HRM requires certain HR expertise and specifically designed

activities such as green training, rewards and knowledge development, small firms may consider that the need to achieve or maintain profitability outweighs the need to be compliant to non-legislated environmental regulations.

- *Resource availability* - Cost advantages can be difficult to achieve without the use of complementary assets. This is because the costs of implementing environmental practices using new resources or best practices that are outside current organisational strategies, can be counterproductive to becoming green, competitive and maintaining profitability (Christmann, 2000; Lee, 2009). Christmann (2000) suggests that organisations that cannot use or do not have access to suitable existing resources and capabilities, should wait and learn from other firms on how best to implement and apply EM or green initiatives to limit the negative impact on their monetary funds.

Although there are some theoretical studies conducted on what drives organisations to implement green management, CSR and EM initiatives, empirically there is a diminutive amount of genuine green HRM research that has thus far been validated. The scantness of the current green HRM research includes a lack of studies exploring whether organisations currently implement green HRM policies or practices, and if so, what are these associated practices? As such, the first goal of this study is to explore exactly what do we mean by 'green HRM practices'. Therefore, the following sub-question seeks to answer:

SQ1: What green HRM practices would an organisation adopt to implement a 'green' strategy?

2.5 Green HRM practices

To meet the demands and environmental objectives of company executives and other stakeholders, HR managers need to ensure that the firm's proposed green HRM strategies and programs address key environmental objectives by:

- positively responding to emerging societal and social trends
- delivering on its sustainable targets
- developing a process whereby an employee's green performance can be accurately assessed
- keeping abreast of constantly changing environmentally related government policies, programs and legislation
- promptly responding to regulatory requirements and stakeholder concerns
- influencing corporate and public policy agendas (where possible) and
- meeting organisational sustainability goals (Garavan & McGuire, 2010; Jackson & Seo, 2010; Renwick et al., 2013).

Despite the claims of the importance of employees to a firm's performance and organisational outcomes, most organisations have ignored the contributions and the potential of key HRM practices to achieve a firm's green goals (Carmona-Moreno et al., 2012; Luthans & Youssef, 2004). According to Muster and Schrader (2011), it is important for organisations to transform green aspirations and mere good intentions to genuine organisational policy and workplace behaviour reform, if organisations expect to improve the firm's environmental performance. Put succinctly, Wehrmeyer (1996, p. 7) states that,

> '*if a company is to adopt an environmentally-aware approach to its activities, the employees are the key to its success or failure*'.

Hallahan (2000) suggests that the AMO framework can explain how the objectives of HRM and potentially green HRM, are derived through the implementation of HR

activities and practices. The AMO framework suggests that individuals process information through three specific factors: ability, motivation and opportunity (Boselie, Dietz & Boon, 2005). Ability refers to the skills that an individual uses to process the message; motivation serves to heighten the interest of the individual to process a particular message, and opportunity focuses on the executional factors of the message being broadcast from the organisation (Halllahan, 2000). Put simply, HR practitioners must make the green HRM message:

1) simple enough to tap into individual cognitive abilities

2) attractive enough to encourage individual employee motivation and

3) unmistakably structured so that the message optimises the likelihood of the message being successfully processed (Hallahan, 2000).

A study by Lee (2009) was conducted to explore the process of green management adoption by firms, with some interesting findings in regards to how employees perceived the effects of organisational green initiatives on workplace related tasks. Lee's study of some Korean small-medium enterprises (SME) in the manufacturing sector, found that employees had negative attitudes toward green management initiatives. This was largely due to the perception that green initiatives would be a higher impost on their time and result in higher personal workloads. To address these perceptions, management responded by introducing a number of HRM processes and practices involving specific environmental training and knowledge building activities that highlighted the importance of green programs and their benefits to the firm, as well as demonstrating that employee workloads would not be adversely affected (Lee, 2009). At the completion of the environmentally related workplace training, results showed a significant improvement in employee attitudes and behaviour toward green management initiatives.

The Lee (2009) study goes some way to demonstrating what Hallahan (2000) highlighted in an earlier study. Using targeted green HRM training, firms could overtly demonstrate that there would be no increase to workloads or personal time and succinctly explain the benefits of green strategies. This approach can transform the mindsets of the employees resulting in positive engagement and improvements in employee behaviours and attitudes toward the firm's green agenda. However, further empirical evidence is needed to validate these findings across industries, nations and cultures. In addition, researchers need to explicitly explore the application and effects of green HRM processes, practices and activities on organisational outcomes.

Dubois and Dubois (2012, p. 801) also support the argument that HRM is key to implementing a successful green HRM agenda. Embedding environmental sustainability programs into an organisation requires HR managers to be:

> *'design architects for the varied HRM systems, policies and activities that are needed to prepare employees to engage and contribute meaningfully to the accomplishment of environmental sustainability goals'.*

Carmona-Moreno et al. (2012) support Dubois and Dubois (2012) and suggest that HRM facilitates the achievement of environmental objectives through targeted green HRM practices and activities including appropriate rewards systems, targeted recruitment and training and promotional opportunities. Essentially, these claims support the AMO framework as put forward by Hallahan (2000).

Renwick et al. (2013) analysed the separate literatures of EM and HRM and constructed a list of green HRM activities (see Table 2.2). However, this list of green HRM activities and practices is not considered exhaustive. This recent list did not include exploring the reasons why employees exit the firm, as first highlighted by Renwick et al.

(2008). Understanding if employees exit the firm because the firm is 'not green enough', as an example, could facilitate organisations to embrace green management and green HRM so as to maintain a high quality and highly skilled workforce. The Renwick et al. (2013) list includes the HR activities discussed in this study: recruitment and selection; training and development; performance management and rewards and compensation, which are considered to be the key HRM practices most likely to advance employee green workplace behaviours.

2.5.1 Recruitment and selection

With regards to recruitment and selection, Renwick et al. (2013) suggest that firms should:

- be specific in their advertised job descriptions
- include green criteria in job advertisements
- brand the company as a green and socially responsible employer and company (i.e. employer of choice)
- target and hire employees who are very knowledgeable about environmental sustainability and are green aware and
- be transparent and disclose green strategies, objectives and initiatives during employee interviews, induction and workplace socialisation.

Table 2.2 Green HRM activities

Developing Green Abilities	Motivating Green Employees		Providing Green Opportunities
Attracting/selecting *Green issue specified in job descriptions *Green job candidates: applicants use green criteria to select organisations *Green employer branding (employer of choice) *Firms recruit employees who are 'green aware' *Green issues in induction/ socialisation processes *Training & Development* *Employee training in EM to increase awareness, skills and expertise *Training for green jobs and integrated training to create an emotional involvement in EM *Trade union reps get inform-ation on EM and union activist EM training *Green knowledge management *Using employees' tacit knowledge in EM *Training workshops for managers *Green-Masters of Business Administration (MBA)/leadership styles	*Performance management/appraisal* (PMA) *Green performance indicators included in performance management (PM) system and appraisals *Communication of green schemes to all levels of staff through PMA, scheme, establishing firm-wide dialogue on green matters *Managers are set objectives on achieving green outcomes included in appraisals *Dis-benefits in PM system for non-compliance/not meeting EM goals	*Pay/reward systems* *Staff suggestions in EM rewarded *Reward schemes linked to staff gaining EM skills via skill-based pay *Green benefits (travel) rather than pay benefits cards to gain green products *Financial/tax incentives *Monetary-based EM reward system *Monthly managerial bonuses for good EM *Including green targets as part of pay/rewards for senior staff *Executive compensation for managers partly based on EM stewardship *Recognition-based rewards in EM for staff (awards, time off, gift certificates)	*Employee Involvement (EI)* *EI practices in EM incl. newsletters, suggestion schemes, green action teams *Empowerment/engagement* *Encourage employees to make suggestions for EM *Increase empowerment to enhance likelihood of employee participation in EM suggestion schemes *Supportive managerial and supervisor behaviours develop employee engagement in EM *Supportive climate/culture* *Wider EI in EM underpins pro-environment culture *Union role in EI and EM* *EM education programmes for union members *Joint management/union training programmes in EM

(Renwick et al. 2013, p. 9)

As already established, few studies exist that have empirically tested HRM practices within the parameters of green HRM. However, to provide some level of perspective, there are a few available EM and CSR related studies, which suggest that employees are attracted to firms who have a strong environmental and CSR image (Backhaus, Stone & Heiner, 2002; Jones, Willness & Madey, 2013). In addition, organisations that have a green strategic focus and a strong CSR reputation are able to use this as a form of organisational leverage during recruitment and selection processes. Bansal and Roth (2000), Kane (2011) and Renwick et al. (2013) support this assumption and claim that firms can procure a competitive advantage by using their socially responsible green reputations. This is because employees with high levels of skills, abilities and education are unambiguously attracted to working for ethically diligent and environmentally responsible organisations.

There are a number of conceptually developed green HRM recruitment and selection practices, which are expected to contribute to the achievement of organisational green outcomes (Renwick et al., 2013). To benefit from green HRM, HR recruitment and selection processes and programs, organisations should:

1) target and select job candidates that have the skills, abilities and motivation to participate in green initiatives

2) select employees who have similar (green) values as the organisation to ensure a level of congruence

3) ensure that the company externally promotes its CSR platform to stakeholders and potential employees

4) include and promote the firm's green credentials, CSR reputation and environmental objectives in job advertisements and

5) overtly display these credentials during the employee induction process (Harvey et al., 2013; Paillé et al., 2014; Renwick et al., 2013).

2.5.2 Training and development

Of all the HRM and green HRM activities highlighted in the literature thus far, training has been identified as a crucial factor to achieving organisational green outcomes (Cantor, Morrow & Montabon, 2012; Madsen & Ulhoi, 2001; Teixeira et al., 2012). Lee (2009), Renwick et al. (2013) and the Trade Union Congress (TUC) (2014) suggest that green training and development programs are likely to:

- increase knowledge, expertise and skills
- induce an employee's emotional involvement in green initiatives through increased awareness of the effects of poor behaviour and attitudes toward the environment
- develop high level skills and attitudes for managers and supervisors and
- tap into an employee's implied environmental knowledge.

No studies have implicitly explored the effects of green HRM training and development practices on employee workplace outcomes. However, there are notable papers that highlight the importance of training to organisational green outcomes (Paillé et al., 2014; Renwick et al., 2013; Teixeira et al., 2012). A recent study by Cantor et al. (2012) confirmed the findings by Sarkis, Gonzalez-Torre and Adenso-Diaz (2010), which found that organisations that support targeted HR training programs encourage employees to engage with EM initiatives. To support these claims, Cantor et al. (2012) suggests that POS increases an employee's perception of the firm's commitment to their individual development, which then results in the exhibition of employee green behaviours.

In step with EM and green management (Dwyer, 2009; Lee, 2009), employee training and development related studies, Huffman et al. (2009) and Paillé et al. (2014) claim that organisations need to have specialised environmental training and development programs to achieve desirable green outcomes. Govindarajulu and Daily (2004) state that insufficient or unsatisfactory training will likely result in employees who are unwilling and/or unable to participate in organisational environmental efforts. Firms need to provide adequate resources and technical assistance necessary to implement green programs and initiatives. Despite the optimistic conjecture of the anticipated effects of green training, surprisingly, these claims have not been empirically tested within the green HRM domain.

Consistent with the literature (Lawrence & Morell, 1995; Lee, 2009; Paillé et al., 2014) and the green HRM practices as highlighted by Renwick et al. (2013), it is concluded that for firms to benefit from green HRM, organisational training and development processes should be designed to:

1) develop programs that build the technical and management capabilities and skills of employees associated with green management

2) ensure that employees acknowledge their ability (or inability) to undertake required tasks. If the employee is adequately trained, this should positively affect individual motivation, engagement and drive to achieve organisational green goals. Conversely, if an employee has not received adequate training they are less likely to be motivated to achieve the organisation's green goals

3) develop employee knowledge about the effects of individual behaviour on the environment to induce an employee's emotional involvement, engagement and contribution to organisational green initiatives

4) increase the green knowledge of leaders, managers and supervisors as they are effective messengers of organisational policies to frontline employees and

5) by having managers and supervisors overtly display green behaviours, this demonstrates to employees what are the behaviours and attitudes desired by the organisation, and what is expected of employees in the workplace.

2.5.3 Performance management and appraisal

Renwick et al. (2013) suggest that performance management is crucial to increasing the motivations and attitudes of employees to participate in organisational green initiatives. Specifically, Renwick et al. (2013) suggest that firms need to:

- develop a number of performance indicators, which can be accurately measured so that they can be included in the firm's formal performance management and appraisal process
- ensure that information pertaining to green initiatives and company environmental objectives is clearly disseminated to all employees throughout the organisation
- clearly explain the expectations that the firm has of its managers in regards to green outcomes
- clarify KPIs and ensure that these are specified in a manager's performance appraisal
- ensure that employees are unambiguously advised of specific individual KPI objectives and green outcome requirements
- make certain that the skills and capabilities of the employee match that of individual KPIs and assigned job tasks and
- ensure that rewards and benefits are available to employees who achieve green objectives.

These processes and mechanisms display the firm's explicit recognition of employee efforts to achieve the organisation's green goals.

No specific studies have been conducted on performance management and appraisals with regards to the application of green HRM, with Milliman and Clair (1996) suggesting that thus far, formal appraisals within the EM paradigm have been largely limited to employees with higher levels of seniority. Fernández, Junquera and Ordiz (2003) suggest that contingent remuneration can result in higher EM performance, than employees with fixed salaries. However, Renwick et al. (2013) suggest that causation has not been established and that managerial pay may result from, rather than be causal to, improvements in organisational environmental performance.

Dwyer (2009) suggests that firms who choose to embark upon green management and environmentally sustainable initiatives should pursue an organisational culture of 'partnership accountability'. This approach involves employees demonstrating and taking responsibility for the achievement, or conversely non-achievement, of green performance measures in light of the expectations of the organisation. In addition, senior executives, managers and supervisors must visibly define employee roles, expectations and responsibilities and clearly identify individual and group performance expectations and targets (Dwyer, 2009). According to Dwyer (2009), this route ensures an all-encompassing strategic approach to sustainability and realistically identifies that accountability and capacity-building green initiatives cannot be built, or implemented in a 'shotgun' manner. Green initiatives must be introduced and built using a range of organisational and individual skill building processes and motivational incentives.

Renwick et al. (2013) and Govindarajulu and Daily (2004) claim that during the performance appraisal process, employers need to be mindful of invoking negative reinforcements. According to these researchers, negative reinforcements (such as suspending a worker for a chemical spillage) may dis-incentivise employees to participate

in existing or future green initiatives. Specifically, dis-incentives may result in escalating employee absenteeism from the organisation and an increased likelihood of employees failing to report environmental incidents or accidents, for fear of retribution, loss of pay or bonuses, or termination of employment. Organisations need to find a fair and equitable balance when applying penalties for non-achievement of targets, KPIs or work related environmental incidents to avoid negative repercussions for the firm.

Using the above discourse, performance management implemented within the parameters of green HRM is likely to positively contribute to organisational green outcomes (Renwick et al., 2013). Firms need to consider formulating performance management processes within the boundaries of green HRM to:

1) encourage and motivate employees to participate in green initiatives

2) ensure that managers and supervisors are trained and understand the importance of the firms green initiatives to the overall corporate strategy

3) ensure that all levels of the organisation are accountable for the achievement of individual and group level green initiatives

4) ensure that company expectations and KPIs are clearly understood by all employees and ensure that individual KPIs match the capabilities of the individual

5) ensure that managers and supervisors deal impartially with employees who have failed to meet KPIs or targets, or exhibited non-compliant behaviours and attitudes

6) ensure that employees are not publicly embarrassed or humiliated in front of his or her peers (this may be contextually specific, i.e. losing face in Asia) if they have failed to meet targets or been involved in adverse incidents in the workplace

7) deal with employees in a consistent manner, in line with company policies and

8) use precedents and fair and balanced judgements to limit retaliatory or negative responses from employees.

2.5.4 Rewards and compensation

Renwick et al. (2013) have identified a range of green HRM activities related to employee rewards and compensation that are expected to positively contribute toward the achievement of green goals. In particular, Renwick et al. (2013) claim that firms need to:

- reward employees for making suggestions for environmental improvements
- encourage skills development and reward employees with skills-based pay
- monetarily reward managers for meeting EM based KPIs and
- recognise employee efforts with monetary and/or non-monetary awards including incentives such as gifts and time off work.

While no empirical research has been conducted on the effects of green HRM and rewards and incentives, green management studies have edified researchers on the potential benefits of pursuing such a strategy. Merriman and Sen (2012) suggest that pay incentives increase a manager's propensity to enact environmental initiatives, with direct incentives having more impact than indirect incentives that were associated with complementarity. However, incentive effects were undermined by saliently held social norms that managers expressed toward the environment. In other words, if managers already held strong views for environmental protection, the less effect an incentive would have on their decisions to display green behaviour. Merriman and Sen (2012) concluded that larger incentives could outweigh the value of social norms in directing managers to behave more sustainably.

Ramus (2001) claims that despite evidence of praise and rewards positively influencing green organisational outcomes, few organisations have managed to achieve sustainability objectives, primarily due to a lack of motivation and support from management and supervisors. Similar findings were established in a recent study by

Harvey et al. (2013), which found that pilots were dissuaded to achieve green goals because of the lack of support from airport ground staff. Govindarajulu and Daily (2004) suggest that rewards can be used to systematically motivate employees to exhibit desirable green behaviours. However, organisations have failed to capitalise on green performance opportunities because firms have not tailored reward systems that fits the needs of individual employees, nor have they rewarded or recognised employees for innovative green initiatives beyond formalised KPI requirements.

Cantor et al. (2012) found in their study of supply chain employees that employees did not perceive merely the presence of rewards for environmental behaviour as a signal that the organisation was supportive of environmental initiatives. Rather, the study found that if employees perceive there to be a lack of legitimacy from the firm to actually reward employees for green behaviours, then this implies that the organisation does not appreciate nor formally acknowledge the efforts of employees to achieve organisational green goals or demonstrate green behaviours (Cantor et al., 2012). As such, until organisations explicitly endorse rewards to employees for demonstrating green behaviours, then rewards do not accurately signal the intent of the organisation.

The above studies have demonstrated that rewards and compensation can have a positive effect on organisational green performance, under certain circumstances. However, the literature is limited in its ability to apply these assumptions to frontline, production or shop-floor workers. No identified studies were found that have explored rewards and compensation outcomes specific to green HRM, to these particular groups of employees. Frontline workers could provide a valuable insight and a measurable pathway between corporate environmental strategies and green workplace outcomes, as they often make up a large percentage of an organisation's workforce. In the future, firms will need to

be genuine and transparent and implement new approaches to rewarding and compensating employees such as:

1) managers providing subordinates with open and verbal feedback in regards to successfully achieving individual employee green associated KPIs

2) overtly demonstrating the firm's commitment to environmental initiatives through the implementation of rewards and benefits

3) rewarding employees with pay and promotional opportunities when they undertake green skills-based development

4) tailoring green rewards to fit the needs of the individual employee (i.e. non-monetary or gifts)

5) rewarding employees for innovative initiatives, such as having a company 'green' suggestion box

6) acknowledging, both publicly and privately, an employee's contribution to improving environmental processes and

7) ensuring that managers and supervisors are supportive of employee efforts to improve the green performance of the firm and to achieve personal and organisational green goals.

2.6 Conclusion

This chapter presented Part One of the literature review on what constitutes green HRM. How and why the green HRM construct has emerged, which is primarily due to a number of stakeholder pressures, was explored and presented, as was identifying some analogous concepts that have contributed to the development and evolvement of green HRM. An evaluation of a number of rather ambiguous green HRM definitions was made, resulting in a new green HRM definition being presented. The key HR activities that are expected to be associated with green HRM were discussed, as was revealing what drives

firms to seek alternative management strategies such as green HRM. While not empirically proven within the green HRM domain as yet, these drivers could be influential in the adoption of green HRM.

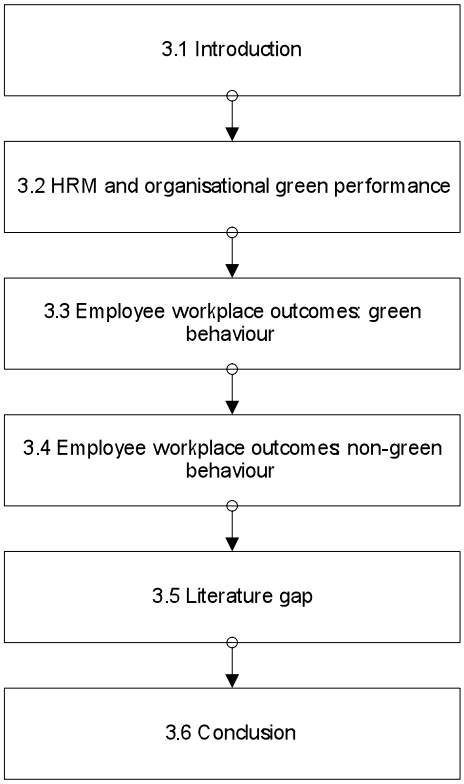
The next chapter will review the literature on the consequences of implementing green HRM by comprehensively exploring existing literature on green HRM conceptual research and related HRM and organisational performance studies. In addition, the chapter will review what is currently known about how HRM (or green HRM) might affect the study's dependent variables: in-role and extra-role employee green and non-green workplace behaviours and intention to quit. Finally, the chapter will discuss current literature gaps and present the four remaining sub-questions.

CHAPTER THREE

LITERATURE REVIEW (PART 2)

EMPLOYEE WORKPLACE OUTCOMES OF GREEN HRM

Figure 3.1 Flowchart of Chapter Three



Chapter Three – Literature Review (Part 2): Employee Workplace Outcomes of Green HRM

3.1. Introduction

The previous chapter outlined the antecedents of green HRM and discussed HRM practices that are associated with the concept. With a considerable amount of financial and personnel resources invested in developing and implementing green HRM processes and policies in the workplace, it is therefore considered important to fully comprehend and understand how, why and if those initiatives have been able to generate workplace outcomes as sought by organisations.

For this reason, the following two chapters will investigate the impact of green HRM on employee workplace outcomes. This chapter will explore the current body of knowledge surrounding green HRM, HRM and green management literature and identify the literature gap while developing and proposing a number of research questions pertinent to this study. More specifically, this chapter will evaluate existing conceptual models and literature pertaining to HRM and organisational green performance. It will also assess green HRM and employee green and non-green behaviour literature, to determine what we presently know about how green HRM impacts firm performance and a range of employee workplace outcomes. The chapter will then seek to identify what we do *not* know about green HRM, highlight gaps in the literature and subsequently develop additional research questions that underpin this research study. The next chapter, Chapter Four, is devoted to developing a conceptual framework and research hypotheses to answer the research questions as discussed in Chapter One.

3.2 HRM and organisational green performance

Some literature suggests there is an intrinsic discord between corporate performance and sustainability agendas. This is primarily because environmental processes are perceived to add to the cost burdens on organisations resulting in a loss of competitiveness (Lee, 2009). However, the majority of more recent HRM and EM research accept that sustainability strategies that encompass green management and HR activities, can in fact improve performance and profitability (Berry & Rondinelli, 1998; Capra, 2002; Jabbour et al., 2008).

3.2.1 Green HRM conceptual models

The current body of green HRM literature is to some extent widely fragmented, with few studies providing any specific guidance or limited empirical support for existing green HRM claims. To this point, exploring what we know conceptually about green HRM can provide some insight into how current literature portrays green HRM and its prospective effect on organisational or employee workplace outcomes.

Daily and Huang (2001) identified the importance of HR factors to the achievement of environmental outcomes in a conceptual paper that explored the relationship between EM and HRM. The subsequent model proposed by Daily and Huang (2001) posited that HR activities, such as training, teamwork, rewards and management support that exist within the parameters of an EMS, are expected to contribute to greater levels of green process implementation. A subsequent paper by Govindarajulu and Daily (2004) continued with this assertion. It suggested more specifically that HRM is likely to contribute to progressive EM efforts through improving employee health and safety, enriching the image of the company, reducing the environmental impact of company operations and advancing company performance and competitiveness. Fernández et al. (2003) added to

this claim and suggested that employee motivation is a key contributor to the achievement of green outcomes, with HRM policies and activities that have an emphasis on employee motivational techniques likely to encourage advanced forms of EM.

Recent conceptual studies that link EM and HRM such as Jabbour & Santos (2008) and Jackson & Seo (2010), flow consistently with these previous environmentally related studies, but apply more specificity by suggesting that green HRM activities such as:

- recruitment and selection processes that attract employees committed to the environment
- implementing performance processes that use environmental criteria
- explicitly rewarding environmental performance
- using continuous green training and education techniques and
- promoting teamwork and workplace interactions to strive for continuous improvements associated with environmental goals,

is likely to achieve the targeted green outcomes as sought by the organisation.

More recent green HRM theory-driven papers by Cherian and Jacob (2012), Liu and Xie (2013) and Milliman (2013) generally support these previous conceptual papers with regards to the development of the green HRM concept. These papers assert that green HRM practices will encourage employees to engage in organisational green initiatives. In addition to the implementation of standard green HRM practices and processes as discussed in the current literature (see Renwick et al., 2013), Milliman (2013) suggests that organisations need to:

- adapt their green HRM practices to suit the context (i.e. national, cultural or industry) in which the organisation operates

- disseminate, measure and communicate the impacts of company operations on the environment and
- explicitly engage with employees who are passionate about environmental sustainability and related activities.

Renwick et al. (2008) developed a model that highlighted a green HRM process, which emphasises a mutualistic relationship between HRM and green performance. The process argues that a firm's green credentials can influence the effectiveness of implementing HRM activities in the workplace. By publicly emphasising and broadcasting that the organisation is a socially responsible one with strong green credentials, organisations transmit 'signals' that attract high-achieving graduates and quality employees (Rangarajan & Rahm, 2011). Inversely, an organisation's HRM activities are expected to contribute to green performance through activities such as performance management, appraisals and establishing incentives based on the achievement of environmental targets, as well as developing appropriate audits for environmental reporting (Maxwell, Rothenberg, Briscoe & Marcus, 1997).

Muster and Schrader (2011) explored the role of green HRM and its effects on employee behaviour, and considers that behaviours in the workplace are affected by an employee's behaviour in the domestic sphere. The crux of the study is that an employee's green behaviours at home are expected to affect their green behaviours in the workplace and vice-versa. Muster and Schrader (2011) suggest that a holistic approach to green HRM is necessary in order to fully understand the motivations behind an employee's intention to act in a particular way. For example, if green HRM processes and activities can tap into an employee's psyche to determine what their existing attitudes and values are toward the environment, then this may help in the development of targeted green training activities.

Some HRM studies support the Muster and Schrader (2011) claims (see Beauregard & Henry, 2009). However, other studies consider it implausible to extrapolate the findings of these studies in the domestic sphere and apply them to a workplace environment, due to inconsistent and contradictory individual motivations (Schelly, Cross, Franzen, Hall & Reeve, 2011).

With HRM said to be a key facilitator of organisational communication and activities, and general HRM behavioural literature claiming that HRM positively influences organisational performance and outcomes through its effect on employee workplace behaviours and attitudes (Becker & Huselid, 2006; Wright, Dunford & Snell, 2001), it would be reasonable to assume that green HRM would have a comparable affect on organisational green performance and green goals. This would likely occur through the application of green HRM processes and activities and as well as having a latent influence on employee workplace behaviours. Current conceptual green HRM literature emphasises these assumptions.

3.2.2 HRM and green outcomes

This section will explore how HRM has been able to influence organisational green outcomes. Outcomes such as green performance, exploring the role of HRM on sustainable outcomes, and how organisations with a green focus can not only improve the firm's overall performance but can also contribute to the improved functioning of a HRM system, will be explored. Recent studies have begun to examine HRM and its effects on task related and pro-environmental employee behaviours (i.e. Robertson & Barling, 2013).

A paper by Jabbour et al. (2008) qualitatively applied a theoretical model put forward by Jabbour and Santos (2008), which investigated the impact of organisations

closely aligning an EM system to HR activities in order to gain continuous improvements for corporate environmental performance. They found that only one of the four companies that were investigated had demonstrated continuous improvement of environmental performance. The company that had shown performance improvements had a global presence with a recognised environmental image, primarily because its key products are environmental technological innovations. The firm's pollution prevention goals and improved environmental performance were found to be supported by intensive and targeted green HRM related activities including training, recruitment, remuneration, performance appraisal, teamwork and non-financial rewards for high environmental performance achievements. The other three firms analysed in the study did not have targeted environmental HRM activities or processes, or have HR management teams that had any substantial knowledge about the potential benefits of linking HRM with EM systems. As such, the remaining three companies were unable to demonstrate any benefits in regards to continuous improvements in environmental performance. From these findings, albeit this was a very small sample, it is possible to extrapolate an assumption that companies who have a strong sustainability focus, will make greater contributions to their EM systems and environmental outcomes by facilitating HRM processes and activities, than for firms who do not link HRM to their EM systems.

Rangarajan and Rahm (2011) conducted a study that sought to determine whether both individual and organisational factors might have some influence on organisational green outcomes. Within the administration of some cities in the United States of America (USA), multi-level factors (i.e. individual and organisational) such as income, education, environmental awareness and evidence of pre-existing green programs were found to be associated with green HRM (Rangarajan & Rahm, 2011). The outcomes were measured by whether the cities had existing environmental initiatives such as advocacy groups,

energy conservation programs, green strategic plans, recycling programs or water conservation initiatives. However, causation was not determined as the results showed that HR does not play a distinct role in the development or implementation of a strategic environmental agenda in the cities studied. Specifically, this study raised the question of whether is there a case of reverse causality, such as: would green HRM result in the emergence of more green programs and initiatives, or would the presence of green programs and initiatives result in the materialisation of green HRM?

Bissing-Olsen, Iyer, Fielding and Zacher (2013) found in their study of daily affect (individuals' emotional experiences) and both task related and proactive environmental behaviour, that creating a workplace that promotes affect and demonstrates concern for the environment is likely to result in augmented levels of employee pro-environmental behaviours. Conversely, creating a climate of negative affect (fear) would likely result in reduced levels of employee pro-environmental behaviours. According to Bissing-Olsen et al. (2013), for firms to increase in-role employee green workplace behaviours, workplaces should have a relaxed, calm and supportive atmosphere, and organisations should make sure that employees are fully aware of the firms green strategies and goals. In a somewhat similar study, Robertson and Barling (2013) suggest that a leader's attitude and forms of leadership within the organisation, as well as the existence of the individual employee's passion for the environment will fundamentally influence levels of an employee's pro-environmental behaviour. These are some of the first known studies that have considered the role of individual social and psychological variables in regards to the exploration of employee green workplace behaviours. However, little distinction has been made, with the exception of the Robertson and Barling (2013) study, to explore employee green behaviours that are beyond formal job tasks.

In summary, existing studies suggest there is a link between HRM and organisational green outcomes. However, most studies pertaining to HRM and associated green management concepts have been content to either conceptualise (Daily & Huang, 2001) or explore the macro level view of the importance of HRM to green performance (Angel del Brio, Fernández & Junquera, 2007; Kramar, 2014; Wagner, 2012). Unfortunately, these studies have chosen these research avenues rather than exploring what micro-level HR strategies or mechanisms drive employees to be motivated to exhibit desirable behaviours, or engage in organisational green initiatives. Moreover, empirical studies that suggest there is a distinct relationship between HRM and organisational green outcomes have been unable to definitively establish these assumptions, due to limited sample sizes. In addition, there have been minimal studies conducted on the effects of HRM on organisational green outcomes within multi-national contexts, which limits the generalisability of the studies and their findings. Further research is required to investigate these under-explored areas of HRM and its effect on organisational green outcomes.

3.2.3 Green HRM and organisational green performance

Organisational performance is reportedly influenced by HRM via its direct and indirect effect on employee behaviours, motivations and attitudes (Becker & Huselid, 2006; Jiang et al., 2012; Pless, Maak & Stahl, 2012). However, green HRM literature has largely investigated the potential of the concept to affect overall firm performance, such as whether green HRM has had some impact on the financial performance of the firm, or improved green performance such as reducing levels of waste and/or energy usage (Jackson & Seo, 2010; Lee, 2009). Green HRM's primary role is to implement practices such as training and education that can bear some positive influence over these green performance outcomes via its effect on employee behaviours and attitudes. As the

following studies seek to demonstrate, green HRM is expected to reveal green performance outcomes additional to, or in place of, macro level firm performance outcomes.

Existing green HRM studies have focussed on the role of green HRM and a number of factors that can influence firm performance without expressly exploring the role of employee behaviours in those performance outcomes. Renwick et al. (2013) and Cherian and Jacob (2012) claim that green HRM has the potential to make a significant contribution to firm performance, beyond mere macro level outcomes. When implementing green HRM, Cherian and Jacob (2012) suggest that firms can expect:

- greater levels of employee retention
- improvements in public image
- attracting quality and 'green focussed' employees
- increases in organisational productivity and sustainability processes
- a lessening of the impact of organisational operations on the environment and
- overall improvements in company performance and industry competitiveness.

Carmona-Moreno et al. (2012) recognise that green HRM is a crucial, understudied concept and as such set out to explore the relationships between green HRM and corporate environmental performance. Results of the study indicate that firms who have environmentally friendly participation schemes for employees and appropriately trained staff who have skills and abilities to implement environmentally sustainable policies, are likely to gain cost and differentiation advantages associated with green schemes. These findings are supported by Christmann (2000) and Lee (2009) who state that well trained workforces with in-house developed green knowledge that is difficult to replicate and capabilities and skills that have been developed through internally applied green HRM training programs, coupled with organisational HRM practices, processes and activities

that are pro-environmental, are likely to result in an organisation gaining a competitive advantage (Huffman et al., 2009).

According to a number of studies including Becker and Huselid (2006) and Boudreau and Ramstad (2005), organisational performance is positively influenced by HRM via its effect on employee behaviours and motivations, with Pless et al. (2012), suggesting that green HRM promotes sustainability through HR development functions such as employee training. Pless et al. (2012) claim that the execution of work and job design that meets environmental requirements and green training and education aimed at improving employee green knowledge and skills, are crucial green HRM processes that encourage employees to participate in organisational green initiatives. Jackson and Seo (2010) and Wagner (2012) support these assertions and also claim that HRM is an essential internal organisational resource that can influence organisational environmental capabilities through tangible and intangible sources, such as employees and labour, and advocating for capability betterment and knowledge acquisition.

Several recent studies support the above suppositions and suggest that although theoretically and empirically underexplored, HRM will likely and positively impact organisational green performance and sustainable competitive strategies through the proper management and supervision of the human and behavioural elements of a firm's human capital (Jabbour et al., 2008; Paillé et al., 2014; Rothenberg, Pil & Maxwell, 2001). Other studies have claimed either insignificant or varied findings in regards to these claims (Lo, Peters & Kok 2012; Khanna & Damon, 1999), which implies that the relationship between pro-active HR or green HRM practices and organisational green related performance is not yet fully established nor broadly understood. Wagner (2011) suggests that sustainability and HRM have a dual relationship with reciprocal causality and suggests that green

programs improve the development and functioning of HRM activities (i.e. training) and policies. As a result, HRM contributes to firm performance (technical and efficiency) including CSR and green related outcomes.

A recent study by Wagner (2012) explored green HRM and whether its execution at the organisational level is likely to drive EMS implementation. The longitudinal study found that employees who are satisfied with the environmental strategies of their organisation actively drive strategic integration of socially related issues such as work-life balance, and health and safety programs. The involvement of HR in the green HRM implementation process is essential, according to Wagner (2012), because of its facilitation via effectual employee interactions. By using diverse forms of distributed communiqué (such as direct/indirect, verbal and print), HRM is able to plainly indicate to employees how the organisation is addressing environmental issues and concerns. As such, there is a greater likelihood that employees will openly demonstrate support for the organisation's environmental and/or socially responsible initiatives, with concern for the environment also more likely to become an important consideration to them (Wagner, 2012).

Wagner (2012) therefore supported the assumptions of Carmona-Moreno et al. (2012) and Lee (2009), in that cost and differentiation advantages are likely to occur when applying green HRM. If employees are satisfied with the firm's commitment to sustainability, the more likely they are to become engaged and motivated to implement the firm's green HRM initiatives (Bartlett & Ghoshal, 2013). This is likely to result in a firm gaining a competitive advantage, particularly if competitors are yet to embrace green HRM or green agendas. Wagner (2012) subsequently called for more studies to develop causal models that integrate other management, OB disciplines and underlying mechanisms, including exploring the psychological and sociological processes of employee motivations.

In an empirical study that sought to validate the green HRM-green performance outcome relationship in the airline industry, Harvey et al. (2013) used a dyadic framework to qualitatively investigate the effects of green HRM on green performance via individual-level employee pro-environmental behaviour. An online survey of a small sample of airline pilots examined whether both direct and in-direct green HRM is likely to affect or contribute to the green performance of airlines. Harvey et al. (2013) used the green HRM conceptual model as developed by Renwick et al. (2008), which argued that if organisations have a strong green image and green credentials, the more likely they are to attract like-minded employees who are motivated to act 'green'.

Harvey et al. (2013) proposed that there are direct and indirect contributions that green HRM makes to organisational performance. A direct contribution or effect refers to targeted green HRM policies designed to explicitly affect employee motivations and attitudes through the application of green policies and practices (Cohen et al., 2010; Teixeira et al., 2012). Direct green HRM effects, which includes activities such as training that improves employee green knowledge and skills, and performance appraisals that result in promotions or salary increases linked to green performance outcomes, are expected to be a catalyst for changes in employee workplace behaviours. Indirect green HRM effects on the other hand, enhance employee commitment by providing employees with mechanisms that enable a consultative and inclusive approach to organisational policy development. Harvey et al. (2013) suggest the indirect effects of green HRM would contribute to improving a firm's green performance by increasing employee involvement and participation in organisational environmental initiatives. At the same time, it erodes the propensity of employees to display behaviours that are environmentally detrimental and hostile to the achievement of the firms green goals.

The role or subsequent effects of HRM or green HRM has not been explicitly confirmed by studies conducted on organisational green outcomes or green performance as the above studies can demonstrate. The role of employee behaviours on organisational green performance is also considered to be ambiguous, although some recent studies have found firms that have green HRM policies and practices in place may be able to gain extra benefits over their competitors by obtaining a competitive advantage through having well-trained and environmentally knowledgeable employees. Adding to the above discourse on green HRM and organisational green performance, firms that implement green HRM should gain a number of additional organisational benefits including cost and differentiation advantages. An improved organisational green performance via employee behaviours and attitudes is likely to occur, which is linked to the execution and implementation of green HRM policies, processes and practices.

3.3 Employee workplace outcomes: green behaviour

Empirical green HRM studies are scarce. This study aims to add to the literature by venturing into the green HRM paradigm and investigating workplace consequences of its implementation. Given that green behaviours are likely to be a routine employee level outcome of green HRM, this section will explore this assumption further.

Paillé et al. (2014) claim that despite the calls of researchers to explore HRM and its effects on green behaviours, there are few studies that have empirically explored the HRM - employee green behaviour relationship. Paillé, Boiral and Chen (2013) and Paillé et al. (2014) found there is a paucity of research that has explored the individual processes that explains what triggers an employee's willingness to display green behaviour, with a meagre number of papers exploring employee green *discretionary* behaviours such as organisational citizenship behaviours for the environment (OCBE).

Maloney and Ward (1973) were quite insightful 40 years ago to identify that the problems of environmental sustainability implementation within firms lies not solely with the actions or strategies of organisations, but with the behaviours of individuals and employees. Specifically, Maloney and Ward (1973, p. 583) stated that:

> '*the ecological crisis is a crisis of maladaptive behaviour…..that the problems fall within the domain of psychology……and that psychology's task is to articulate the problem in terms of individual behaviour and develop guidelines for ameliorative programs*'.

The claims from Maloney and Ward (1973) align with recent statements from Ones and Dilchert (2012a; 2012b) and Jiang et al. (2012), in that before applying the relevant practices to encourage employee green behaviours, it is necessary to understand the mechanisms and individual thought processes, which directly and/or indirectly influence employee workplace behaviours. Without attempting to assess how and why employees behave in certain ways, it is unlikely firms will achieve their green goals.

Ones and Dilchert (2012a) argue that organisations should be actively seeking to understand what drives employee green behaviours, with most contemporary research focussing on how *individual* behaviours impact the environment, rather than directing efforts at researching *employee* green behaviours in the workplace. According to Ones and Dilchert (2012a), in order for organisations to be ecologically sustainable, it is necessary to promote, influence and ultimately change employee workplace behaviours.

However, Ones and Dilchert (2012b) claim that in order to do this it is necessary to understand what we are referring to when we discuss *employee green behaviours*. Firstly, it is essential to highlight the differences between socially responsible and environmental outcomes. Organisational social initiatives are implemented to improve the safety and

health of employees, promoting diversity and positively contributing to social issues, whereas environmental initiatives aim to improve a firm's sustainability and environmentally related outcomes. It is important to understand what distinguishes these two concepts, as it enables researchers to classify specific employee behavioural types (i.e. green), and choose the appropriate instrumentality (green HRM) to motivate, train and reward employee workplace behaviours (Ones & Dilchert, 2012b).

There is a plurality of terms used to describe the domain of pro-environmental behaviours in the literature such as:

- ecological behaviours (Kaiser, Wolfing & Fuhrer, 1999)
- environmental behaviours (Scott & Willits, 1994)
- responsible environmental behaviours (Barr, 2003; Hines, Hungerford & Tomera, 1987)
- environmental actions (Gilg & Barr, 2006; Ramus, 2002)
- conservation behaviours (De Young, 1993; Monroe, 2003)
- environmentally responsible behaviours (Ngo, West & Calkins, 2009)
- environmentally significant behaviours (Stern 2000)
- environmentally conscious behaviours (Lee & Holden, 1999)
- pro-environmental behaviour (Steg & Vlek, 2009; Whitmarsh & O'Neill, 2010)
- pro-ecological behaviours (Ellen, 1994)
- environmentally friendly behaviours (Bamberg, 2002)
- ecologically responsible behaviours (Brown & Kasser, 2005)
- sustainable behaviours (McKenzie-Mohr & Mohr, 1996)
- eco-friendly behaviours (Ohtomo & Hirose, 2007)
- green behaviours (Ones & Dilchert, 2012b; Norton, Zacher & Ashkanasy, 2012; Norton, Zacher & Ashkanasy, 2014)

- workplace environmental behaviours (Robertson & Barling, 2013) and
- daily effect and pro-environmental behaviour at work (Bissing-Olsen et al., 2013; Paillé & Mejia-Morelos, 2014).

Therefore, it is considered essential to clarify what are employee green behaviours and how they differ from behaviours within the parameters of a multiplicity of pro-environmental behaviours as stated above.

Ones and Dilchert (2012a; 2012b) claim that employee green behaviours are distinctly different from pro-environmental behaviours, with the latter being exclusively volitional behaviours that are rooted within an employee's beliefs, personal environmental initiatives and private life. Contrast this with employee green behaviours, which are defined by Ones and Dilchert (2012a, p. 87; 2012b, p. 452) as:

> '*scalable actions and behaviours that employees engage in that are linked with and contribute to environmental sustainability*'.

Clarifying the Ones and Dilchert (2012b) definition further, employee green behaviours are behaviours that can be accurately gauged with regard to how frequent and adept employees are at performing them, and as such organisations are able to quantify the employee's contribution to achieving individual green performance targets and organisational environmentally sustainable objectives. Employee green behaviours can be either prescribed, or not, by the firm as a part of an employee's job role, but even if they are not prescribed, they have a certain amount of organisational direction attached to them (Ones & Dilchert, 2012b).

Bissing-Olsen et al. (2013) and Robertson and Barling (2013) argue that everyday employee workplace behaviours are influenced by a number of characterised factors pertaining to individual employee attitudes and values. Other researchers such as Cherian

and Jacob (2012), Norton et al. (2014) and Ramus (2002) argue that employees are largely influenced by organisational factors such as HR, environmental policies, supervisory support and organisational values. From a pragmatic perspective, routine employee green workplace behaviours should include both in-role and extra-role employee workplace behaviours (Ramus & Killmer, 2007), as both forms of behaviours are likely to contribute to organisational performance outcomes through value creation.

3.3.1 In-role employee green workplace behaviour

Studies pertaining to in-role employee green workplace behaviours are scant, with only a handful of studies that have explored employee green behavioural outcomes. A recent study by Norton et al. (2014) empirically explored employee in-role or task-related green behaviours with the study validating some of the linkages between organisational policies and employee green behaviours. Emerging green related behavioural studies have focussed on general green, pro-social, proactive or pro-environmental behaviours without any clear delineation from common or routine employee workplace behaviours (Bissing-Olsen et al., 2013; Norton et al., 2014).

The distinction between in-role and extra-role behaviours is becoming progressively more diluted, as employees, managers and supervisors might have different interpretations of what constitutes in-role and extra-role workplace behaviours (Belogolovsky & Somech, 2010; Leung, 2008). Leung (2008, p. 45) offers a rational definition of both constructs:

> '*in-role behaviour encapsulates work behaviour that is clearly expected, evaluated and rewarded and that the behaviour is clearly directed toward formalised tasks, duties and responsibilities included in an employee's job description',* while '*extra-role behaviours are activities that are discretionary in nature, which are not directly or explicitly required by the formal reward system, but contribute to overall organisational efficiency*'.

Norton et al. (2014) reports that recent findings in the green behaviour literature is largely inconsistent and claim that this is due to researchers ignoring the subjective mechanisms that are expected to demonstrate a link between individual employee behaviour and organisational policies and procedures. Of those that have explored such mechanisms, Norton et al. (2014) states that social norms are established by employee perceptions of the workplace environment, with Bissing-Olsen et al. (2013) also determining that employees that have an existing propensity toward pro-environmental attitudes are more likely to exhibit task related environmental workplace behaviour.

Norton et al.'s (2014) study explored employee perceptions of organisational factors, namely organisational green climate, and its effect on employee green behaviours. Climate refers to how an employee perceives formal organisational policies, how employees translate these policies into implied actions, and how they see that these policies (and other employee behaviours and actions) are recognised, rewarded and supported by the organisation (Norton et al., 2014). The key findings were that green workplace climate perceptions were associated with employee green behaviour when employees were conducting formal work related tasks, whereas green workplace climate perceptions of co-workers were associated with discretionary employee green behaviours.

The Norton et al. (2014) study established a positive linkage between social and psychological mechanisms that underlie organisational HRM policies and employee green behaviour. However, there remain a considerable number of unanswered questions that relate to multiple pathways between employee perceptions of organisational policies and different forms of employee performance, including both task related and discretionary green workplace behaviours.

3.3.2 Extra-role employee green workplace behaviour

To date, little attention has been paid in the literature to progressing our understanding of extra-role employee green workplace behaviours or establishing how, or why or if, they are likely to impact organisational green outcomes. Daily et al. (2009) argue that this is a serious omission by current researchers and claim that extra-role employee green workplace behaviours are influential in the workplace and are a necessary element for positive organisational environmental performance. For the purposes of this discussion, extra-role employee green workplace behaviours will be defined as:

> '*discretionary acts by employees within the organisation not rewarded or required that are directed toward environmental improvement*' (Daily et al., 2009, p. 246).

General organisational citizenship behaviour (OCB) research is abundant and demonstrates the importance of OCBs to firm performance, organisational cohesion, and employee outcomes (Cohen & Keren, 2008; Farh, Zhong & Organ, 2004; Love & Forret, 2008), with Boiral (2009), implying that it is entirely conceivable to successfully apply the conceptual framework of general OCBs to extra-role employee green workplace behaviours. According to Boiral (2009), Boiral and Paillé (2012) and Paillé and Boiral (2013) the benefits of extra-role employee green behaviours in the workplace is twofold: it can improve the negative impacts of industrialisation on local environments and improve community well-being, as well as improving the environmental performance of the organisation through motivating employees to behave in environmentally friendly ways. In addition, extra-role employee (green) workplace behaviours are generally exhibited at no financial cost to the firm and can provide additional benefits (i.e. financial) for the organisation through greater efficiencies, competitive advantages and improved employee behaviours and attitudes (Lee, 2009).

Paillé et al. (2014) and Daily et al. (2009) claim that discretionary behaviours and OCBE are a promising and highly under-researched area of workplace behaviours, and how or if they contribute to improving a firm's green performance has thus far been largely ignored in the current OB literature. A few studies have highlighted the role of HRM and the significance of employee participation in the achievement of green goals (Daily, Bishop & Massoud, 2012; Jackson & Seo, 2010; Teixeira et al., 2012). However, less attention has been paid to understanding the extent to which an employee's in-role and discretionary green workplace behaviours are stimulated or influenced by HRM or green HRM.

3.4 Employee workplace outcomes: non-green behaviour

Employee in-role and extra-role behaviours have been extensively studied with a plethora of literature pertaining to the concepts (Biswas & Varma, 2012; Farh et al., 2004; Kane, Magnusen & Perrewé, 2012; Van Dick, Grojean, Christ & Wieseke, 2006). According to Zhu (2013), task performance or in-role behaviours refer to core-task behaviours in the workplace and is therefore reflected in the employees official job description and salary. In-role behaviours have three key features, which distinguish them from extra-role behaviours. They are described as formalised workplace tasks, responsibilities and duties, they are likely to be formally rewarded and compensated through performance management and they are included in an employee's official job description (Leung, 2008; Turnley, Bolino, Lester & Bloodgood, 2003).

On the other hand, extra-role behaviours are discretionary and are considered to have two key categories, organisationally oriented and individually oriented behaviours (Zhu, 2013). Organisationally oriented extra-role behaviours are behaviours that are compliant to organisational rules and policies, and individually oriented extra-role

behaviours are altruistically driven (Zhu, 2013). Extra-role behaviours facilitate improved firm performance because they proficiently use existing resources, enable managers to focus on productive activities such as planning, scheduling, analysis and problem solving and they enhance workplace cohesion (Walz & Niehoff, 2000).

Encouraging employees to exhibit desirable behaviours is crucial to organisational success (Govindarajulu & Daily, 2004). Individual motivation is said to be the key driver for employees to actively engage and conduct in-role and extra-role behaviours (Wei & Yazdanifard, 2014), and as such it would be expected that individual motivations for each of these types of behaviours is likely to be discordant. Early OB literature by theorists such as Skinner (cited in Kreitner & Kinicki, 1989, p. 145), suggest that motivation is defined as:

> *'the psychological disequilibrium that arouses behaviour that is directed toward satisfying a specific incentive or goal, thought to restore equilibrium'*,

with Salman (2005, p. 1138) adding that,

> *'the key to understanding employee motivation lies in the meaning of, and relationships among, needs, drives and incentives'*.

According to Govindarajulu and Daily (2004) and Ryan and Deci (2000), employees are motivated to act and behave in different ways. Moorman and Blakely (1995) suggest that cultural factors and relationships within groups (i.e. individualist versus collectivist cultures) can influence employee intentions to exhibit particular or desirable behaviours. The strength and harmoniousness of the social environment in the workplace can facilitate an employee's intrinsic motivation, through fulfilling an employee's innate psychological need (Ryan & Deci, 2000). Therefore, it is more likely that employees will enact in-role non-green workplace behaviours on a continuum rather than as a set of discrete workplace behaviours (Leung, 2008).

Motivation is identified as a key factor in employee behaviours and attitudes, according to Cartwright and Holmes (2006), Crant (2000) and Turnley et al. (2003). Globalisation and internationalisation has resulted in workplaces becoming decentralised and more dynamic, which has had a significant impact on workplace attitudes and motivation, particularly amongst employees. Because of these new workplace dynamics, Crant (2000) suggests that finding alternative ways to influence employee and proactive workplace behaviours are vital determinants for contemporary organisational success. Changes to modern workplaces that chiefly and directly affect employee behavioural and attitudinal intentions include: increasing demands on employee's time; more workplace and job task flexibility; greater levels of responsibility exerted on individuals and teams; expectations that employees will tolerate continual change, and greater ambiguity in job roles (Cartwright & Holmes, 2006; Griffin, Neal & Parker, 2007). In return for these additional demands on employee time and workloads, employees expect to collect higher wages, as well as rewards and compensation linked to workplace performance.

Despite potentially higher wages and additional performance payments, Cartwright and Holmes (2006) claim that employees are seeking employment and workplaces that offer greater intrinsic fulfilment and positively adding to peoples' lives, personal satisfaction and accomplishment, rather than merely providing materialistic (i.e. salary) outcomes and promoting individualistic cultural and social values. Companies that implement a green HRM and environmentally targeted strategy can lay claim to essentially satisfying this intrinsic need (Govindarajulu & Daily, 2004).

3.4.1 In-role employee non-green workplace behaviour

The success of organisational objectives is largely contingent on the proactive efforts of a company's employees to exhibit organisationally directed in-role workplace

behaviours (Crant, 2000; Govindarajulu & Daily, 2004; Salman, 2005). Brief and Motowidlo (1986) state that in-role workplace behaviours involve implementing activities that enable employees to successfully complete their job tasks, which are directly related to the firm's formal reward (salary) system.

In-role behaviours should be consistent with the objectives of the firm, which includes full compliance to company rules and policies (Zheng, 2011), with Neubert et al. (2008) adding that employees conduct their responsibilities based on obligatory job tasks, which is in accordance with their job role and organisational expectations. Specific examples of in-role behaviours are 'disposing of waste according to company policies' or 'this employee performs tasks that are expected of him/her'.

3.4.2 Extra-role employee non-green workplace behaviour

Extra-role workplace behaviours have three key features, which distinguish them from in-role employee workplace behaviours. Extra-role workplace behaviours are voluntary and are not prescribed job duties, they do not naturally occur in the workplace, but are seen as behaviours that will benefit the organisation and they are considered multidimensional. These behaviours can be directed at other individuals, teams or supervisors within the team, or toward the organisation (Belogolovsky & Somech, 2010). Specific examples of extra-role workplace behaviours are 'helping colleagues to complete work related tasks' or this 'employee complies with the company's rules and procedures even when nobody is watching'.

Although it would be logical that the primary aim for research into green HRM would seek to explore *green* performance related outcomes, it is possible that green HRM could contribute to organisational performance through its influence on general and routine

in-role and extra-role employee *non-green* workplace behaviours. As Renwick et al. (2013) have claimed potential employees are attracted to organisations that are seen as pro-environmental. Shen and Zhu (2011) acknowledge that companies with strong ethical values and socially responsible agendas enhance their public reputations, which are then influential in motivating employees to be engaged in organisational initiatives. Green HRM offers the potential to improve overall corporate environmental performance, as well as influencing green *and* non-green company objectives by improving a range of employee workplace behaviours through its socially responsible image and reputation, and not necessarily focussing on green HRM purely for green related workplace outcomes.

3.4.3 Intention to quit

Calls to address the issue of employee turnover or an employee's 'intention to quit', have been addressed in the literature because of its significant negative impact on organisations and the workplace through high costs and organisational disruption (Arthur, 1994). Globalisation, downsizing, restructuring, outsourcing, technological advancements, labour shortages and increasing workloads that requires unique knowledge and capabilities, makes addressing employee retention a crucial consideration within an organisation's management strategy (Holtom, Mitchell, Lee & Eberly, 2008; Luthans & Youssef, 2004). Hom and Griffeth (1995, p. 4) define employee turnover as a:

> '*voluntary cessation of membership in an organisation, by an individual who receives monetary compensation for participating in [it]*'.

Theoretically, employee turnover cognitions are representative of an individual's subjective choices, which will result in a determination as to whether the employee will remain with the organisation or leave (Sager, Griffeth & Hom, 1998). Sager et al. (1998) suggest there are three turnover cognitions that facilitate our understanding of what drives employees to consider leaving an organisation:

1) an employee thinks about leaving the firm

2) an employee actively looks for work outside of the organisation and

3) the employee concludes that at some future point they will leave the firm.

Foundational studies such as Hom and Griffeth (1995), meta-analyses from Griffeth, Hom and Gaertner (2000) and recent turnover studies by Allen, Shore and Griffeth (2003), Maertz, Griffeth, Campbell and Allen (2007), and Newman, Thanacoody and Hui (2012) have demonstrated the importance of understanding why employees choose to move on from organisations and what firms need to do to encourage employees to remain with the firm. Studies have shown that employees who leave an organisation take with them extensive skills and knowledge, which cannot be simply or readily replaced. In addition, the cost to organisations to recruit, train and retain employees is a cost that most organisations struggle to rationalise, with most firms unaware of the real costs of voluntary turnover because the expenditure is hidden within the HR function (Holtom et al., 2008). According to Holtom et al. (2008), the cost of the loss of implicit knowledge is never formally calculated within organisations, with Kacmar et al. (2006) claiming that the actual costs of employee turnover in organisations is exorbitant, with the retraining costs to the fast food industry, exceeding $4.3 billion dollars per year.

Mitchell et al. (2001) developed the job embeddedness model, which reveals how employees 'fit' with their organisation and helps to explain why employees decide to leave their organisation. The model (Mitchell et al., 2001, p. 1104-1105) had three key dimensions:

1) the extent and strength of the attachments between the individual and people, groups or community – these can be social, psychological or financial attachments

2) the extent that the individual believes they are a good match to their job and the environment – the compatibility of personal values and goals and

3) the degree to which they would sacrifice certain things if they left their workplace – the perceived material or psychological benefits that are forfeited if the employee exits the firm such as work colleagues or bonuses.

Mitchell et al. (2001) claim that the better the fit or congruence between the individual employee and organisation, the greater the likelihood that the employee will feel both personally and professionally linked to the firm, and therefore less likely to exit the organisation. The premise of this model is not dissimilar to that of 'fit' theories, SIT and the foundations of organisational identification, in that the better the employee fits and consociates with the organisation and its values, the stronger the identification, and the less likely that the employee will exit the firm.

It could be construed from the above discourse, that employees are not driven to remain with a firm purely from a financial perspective. Employees will consider the impact of quitting, based on other organisational factors such as values, reputation, and the quality of the firm, and individual factors such as losses associated with leaving (i.e. financial or leave benefits), as well as emotional attachments to the firm and/or co-workers. It is therefore reasonable to assume that green HRM may influence an employee's intention to quit through the strength of its green image, public reputation and overt commitment to environmental sustainability.

3.5 Literature gap

Many recent green management studies (see Jabbour, 2011; Kramar, 2014; Siegel, 2009) have highlighted the importance of HRM to the achievement of green objectives,

with Angel del Brio et al. (2007) suggesting that management involvement and employee motivation has a significant effect on the achievement of an environmental action-based competitive advantage. However, current literary exploration of green HRM has thus far been largely limited to conceptualisation. Scattered empirical studies have demonstrated some positive effects of green management and HRM on a range of organisational areas including encouraging desirable employee behaviours and improving attitudes and motivations so that organisations can achieve organisational goals (Daily, Bishop & Steiner, 2007; Jiang et al., 2012), including environmental goals (Daily et al., 2012; Daily & Huang, 2001; Govindarajulu & Daily, 2004). It is expected that green HRM would likely elicit similar organisational outcomes.

Jackson and Seo (2010) proposed that strategic HRM could be an effective tool in which to achieve organisational green goals, with a modicum of studies that have provided empirical evidence of strategic HRM and its contribution to a firm's environmental performance (Paillé et al., 2014). Other studies such as Ehnert and Harry (2012) and Ehnert (2009) suggest that sustainable HRM will positively impact organisational green performance, with Shen and Benson (2014) empirically confirming the positive effects of socially responsible HRM on employee behaviours. Despite some evidence, such as the aforesaid studies that CSR and associated green and socially responsible management applications may be effective HRM tools to apply in the workplace, many questions linger and numerous areas remain unexplored in regards to the effectiveness and role of green HRM on employee workplace outcomes. However, based on this literature review, a number of factors have been identified, which can help to explain the how and the why green HRM might influence or impact employee workplace outcomes.

Firstly, Jabbour et al. (2008), Paillé et al. (2014) and Wagner (2011) claim that green HRM should positively impact employee green and non-green workplace behaviours through processes and practices designed to advance employee green capabilities and knowledge. It is expected that organisations are likely to achieve an improvement in firm performance aligned with environmental sustainability, by improving employee behaviours and attitudes toward the environment. Adding to this argument, Carmona-Moreno et al. (2012) suggest firms that have staff that are well trained in green policy implementation, are likely to gain an industry competitive advantage because these skills and capabilities are difficult for competitors to replicate.

Secondly, creating an atmosphere that promotes affect and concern for the environment, according to Bissing-Olsen et al. (2013), encourages employee green related behaviours. Robertson and Barling (2013) state that existing individual environmental beliefs are also likely to be influential in encouraging employees to engage with environmental initiatives and exhibit green workplace behaviours.

Thirdly, Wagner (2012) claims that higher levels of employee satisfaction in the workplace can be attributed to organisational policies and strategies that are aimed at environmental sustainability. To increase employee satisfaction, firms need to have open communication about the organisations green policies and strategies regarding the environmental platform that has been designed to tackle environmental issues pertaining to the firm's operations (Wagner, 2012). Harvey et al. (2013) add to this and suggest that firms who have a good reputation and public image for being environmentally responsible will attract likeminded employees who are prepared to embrace green management and green HRM initiatives, and in doing so, the organisation is more likely to achieve its green goals.

Upon reviewing the literature in relation to green HRM and associated concepts, it is clear that several key authors and studies have considered the potentiality of green HRM to positively impact a range of employee workplace outcomes. However, a critical review of the research reveals that while these studies provide insights, or identify potential links between green HRM and employee green behaviour, it remains unclear *how* and *why* green HRM influences employee workplace outcomes. Moreover, whether HR policies and processes designed to encourage green behaviours have any impact on non-green behaviours or outcomes desired by the firm is yet to be established. In particular, this study is interested in identifying the social and psychological mechanisms that influence:

(a) the green HRM and in-role *and* extra-role employee green workplace behaviour relationship and

(b) the green HRM and in-role and extra-role employee *non-green* workplace behaviour relationship and an employee's intention to quit.

In order to address the gaps alluded to in this literature review, and achieve the intent of this study pertaining to improving our understanding of the influence of green HRM on employee workplace outcomes, four sub-questions were developed:

SQ2a: What social and psychological processes occur in the workplace, which can help to explain in-role and extra-role employee green workplace behaviour?

SQ2b: Do multiple mediating pathways affect in-role and extra-role employee green workplace behaviour?

SQ3a: What social and psychological processes occur in the workplace, which can help to explain in-role and extra-role employee non-green workplace behaviour and an employee's intention to quit?

SQ3b: Do multiple mediating pathways affect in-role and extra-role employee non-green workplace behaviour and an employee's intention to quit?

3.6 Conclusion

This review has revealed that employee green behaviours are likely to positively contribute to organisational outcomes, through their relationship with green HRM, much like general HRM improves organisation performance through its influence on routine employee workplace behaviour. Therefore, the consequences of green HRM are likely to improve the behaviour and motivation of employees to engage and exhibit in-role and extra-role green behaviours that align with organisational green goals, through its influence on a number of underlying mechanisms. However, green HRM policies, processes and activities may also influence other anomalous employee workplace outcomes. These outcomes are expected to occur through the implementation of an organisation's environmentally responsible platform. Employees who perceive their organisation as ethical, moral and a good corporate citizen, are more likely to display greater levels of commitment and identify with the firm through demonstrating desirable behaviours and remaining with the organisation.

In general, the literature suggests that the impact of green HRM on in-role and extra-role employee green and non-green workplace behaviours and intention to quit, is likely to occur, through both direct and indirect influences. Specifically, this study expects these effects to occur through moderating and mediating pathways such as individual employee values (i.e. green values), organisational (green) climate, organisational support, as well as how an employee identifies with their organisation. However, this is mere conjecture at this point. If an employee:

- is well trained in environmental practices and procedures
- identifies strongly with their organisation due to its environmental platform
- perceives that the firm supports them as individuals by addressing their needs and concerns (environmental), as well as individual capability development and

- values the environment in line with the organisation,

then the green goals as set out by organisation are more likely to be achieved. However, these assertions are yet to be formally validated.

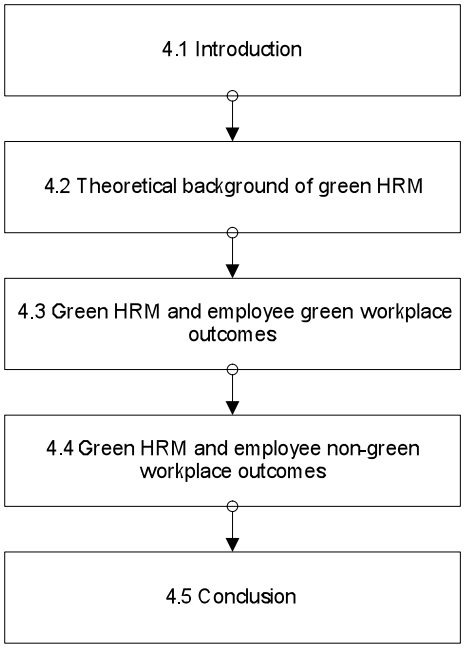
This study aims to empirically explore and determine the accuracy of these assertions, with this literature review playing a pivotal role toward the development of a conceptual model that will enable an exploration of how and why green HRM impacts or influences employee workplace outcomes. The next chapter will outline the theoretical model developed during the course of this thesis, as well as incorporating the identified mediating and moderating variables within the resulting hypotheses.

CHAPTER FOUR

LITERATURE REVIEW (PART 3)

THEORETICAL APPLICATION AND HYPOTHESES DEVELOPMENT

Figure 4.1 Flowchart of Chapter Four



Chapter Four – Literature Review (Part 3): Theoretical Application and Hypotheses Development

4.1. Introduction

In order to address and answer the sub-questions proposed in Chapter Three regarding the social and psychological processes and their effects on employee behaviours, this chapter will draw on the relevant theoretical frameworks to underscore how green HRM and anticipated factors are likely to influence organisational workplace outcomes. Informed by existing theories, these factors: psychological green climate, individual green values, organisational identification and POS, are expected to play an effectual and interactive role between green HRM and in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit. Because few, if any, bona fide green HRM studies currently exist, this thesis will explore the mechanisms through which those factors influence the link between green HRM and employee workplace outcomes, in order to develop the study's hypotheses and conceptual model. Consequently, nine hypotheses are formulated.

4.2 Theoretical background of green HRM

Human resource management possesses the necessary social management tools that can mobilise employee motivation and sustain effective relationships with stakeholders (Dubois & Dubois, 2012). However, despite these claims little is known about the nuances that link HRM or green HRM to the achievement of a firm's green goals. Ulrich (cited in Bowen & Ostroff, 2004, p. 217) suggests:

> '*to make HR practices more than isolated acts, managers and HR professionals must master the theory behind HR work; they need to be able to explain conceptually* ***how*** *and* ***why*** *HR practices lead to their outcomes. Regardless of the*

preferred theory, managers and HR professionals should abstract from it a higher level of reasoning for their day-to-day work and thus better explain why their work accomplishes its goals'.

Human resource activities, processes and practices need to be guided by a theoretical structure, as it is the function of theories to clarify and elucidate how organisational outcomes materialise (Ulrich, 1997). The Ulrich (1997) commentary highlights the need for organisations not just to strive for positive green (or general human capital) outcomes through applying HR practices, but for academicians and HR practitioners to understand *how* and *why* they occur.

Ferris et al. (1998) describe the theoretical underpinnings of HRM, or lack there of, in a paper that examined HRM and its relationship with organisational effectiveness. According to Ferris et al. (1998), while substantial amounts of HRM empirical evidence was being garnered by numerous academics, much of the research lacked a theoretical basis on which these studies were based. Precisely how HRM systems effects occur, so as to explain its influence on organisational effectiveness had not been established, and no systematic efforts by researchers to examine or analyse the mediating processes that may provide an explanation of links between HRM and organisational outcomes were attempted. A consequential call was put out to researchers, to develop and evolve the HRM – organisational effectiveness paradigm with sound theory driven empirical research, which could ultimately test antecedents, mediators, moderators and outcome variables (Ferris et al., 1998). Following this call, the next sections will explore the relevant theories in order to identify and confirm the role of the identified mechanisms, which will subsequently help to explain how green HRM influences employee workplace outcomes.

4.2.1 Institutional theory

Institutional theory claims that organisations and their HRM activities are shaped by the institutional contexts in which they operate (Greenwood, Oliver, Suddaby & Sahlin-Andersson, 2008). Meyer and Rowan (1977) suggest that institutional theory consists of socially constructed norms, decrees and principles that guide the decisions and motivations of an organisation. These socially constructed elements are referred to as institutional pressures that originate from stakeholders and the like (including employees), with organisations said to become 'isomorphic' and conform to these pressures to signal their fitness to stakeholders as a socially responsible entity (Greenwood et al., 2008).

By taking a conformist approach, organisations are said to: reduce the likelihood of external demands for strict accountability; improve prospects of securing additional funds and resources; avoid being socially censured, and increase their chances of professional survival (Greenwood et al., 2008). Human resource management is a crucial ingredient of these socially constructed elements. In addition, human resource practitioners are the key messengers of the firm's commitment to CSR policies, overtly demonstrating the firm's values and instrumental in the development and facilitation of a respected organisational climate.

Institutional theory guides and assists researchers to determine what factors influence a firm's decision to embrace green HRM. According to DiMaggio and Powell (1983), understanding the broader contexts and internal and external pressures placed on organisations today, sheds light on why firms place so much meaning on management and OB concepts - such as green HRM implementation. Responding to these pressures using an instrument such as green HRM legitimises the firm's decision-making and subsequent actions, providing a genuine purpose and aim for implementing and communicating

environmentally related policies in the workplace. Given this theoretical assumption, institutional theory provides a useful macro-level framework in order to consider green HRM communication. In particular, the basis of institutional theory implies that gaining legitimacy and growing a positive external reputation can be a major motivation for organisations to adopt green HRM. While stakeholder pressures provide a useful framework to theoretically improving our understanding of why green HRM is communicated and implemented in the workplace, limited attention has given to empirically exploring this particular aspect in the current green HRM literature.

4.2.2 Stakeholder theory

Stakeholder theory suggests that organisations have multiple stakeholders who are likely to have diverse, if not conflicting, interests in organisational policies, decisions and activities (Freeman, 1984). Due to the influence that stakeholders have over corporate directives that can affect organisational performance, a key undertaking is for firms to ensure they balance the demands and needs of their various stakeholders.

Stakeholder theory's influence on HRM is, in part, due to organisations that practice effective stakeholder management are viewed as better at attracting and retaining employees of a higher calibre (Greening & Turban, 2000; Parmar et al., 2010). This is because the attitudes and behavioural reactions of stakeholders to organisational decisions are largely dependent upon how their interests are addressed by, and within, the organisation. Hence, the better an organisation manages the expectations of their stakeholders the better the organisation is expected to perform. Parmar et al. (2010) suggest that executives often have to make a number of circumspective decisions, which often require tradeoffs that can potentially harm (or benefit) organisational values, strategies and policies. When designing and implementing new management constructs

such as green HRM, organisations need to acknowledge that ever-changing and conflicting interests among organisational stakeholders can be an impediment to the successful implementation of new initiatives (Parmar et al., 2010). If stakeholders' concerns can be effectively addressed and carefully balanced, further value for both the stakeholder and the firm can be created, through increasing a firm's competitive advantage, improving their public profile and growing the firm's market share.

4.2.3 Attribution theory

It is theoretically argued that CSR is a macro-level activity and the perceptions that employees have of the organisation's CSR social policies including social change and sustainability, will affect employee behaviours and attitudes (Rupp, Ganapathi, Aguilera & Williams, 2006). Attribution theory sheds some light on how affective (attitudinal) and cognitive (knowledge) processes affect employee perceptions. It is the perceptions that employees have about organisational social policies and practices, rather than the policies and practices themselves, which are likely to affect employee behaviours and motivations (Nishii, Lepak & Schneider, 2008).

If employees perceive that the organisation's social policies and practices will positively contribute to their personal learning and development, or that they align with their own values and beliefs, then employees are more likely to commit to the full implementation of the firm's policies, processes, and practices. Employees are said to make judgements about the efforts of their organisation's ability to achieve CSR policies and agendas (Rupp et al., 2006). It is an employee's perceptions about these judgements, such as whether the organisation is perceived as responsible, or conversely irresponsible, that is likely to trickle down and affect micro-level consequences such as individual employee workplace behaviour, motivations and attitudes (Nishii et al., 2008).

When applying the rationale of attribution theory to the green HRM and employee workplace outcome debate, it is expected that the relationship between green HRM and employee behaviours will be dependent upon how employees view the organisation's motives for implementing a green HRM strategy (Nishii et al., 2008). If employees view a green HRM strategy as positive for both themselves and the firm, and the strategy recognises something that they care about (i.e. the environment), then it is more likely the employee will view the firm positively and act accordingly. Conversely, if the employee views the implementation of green HRM as purely to reduce costs or exploit employees or stakeholders, then it is less likely that the employee would view the attributes of the firm in a positive light. Hence, it is unlikely the employee would strive to achieve the firm's green goals (Nishii et al., 2008).

4.2.4 Value-belief-norm (VBN) theory

According to Stern et al.'s (1999) study of the VBN theory, individual environmental beliefs and norms will affect individual employee environmental workplace behaviour. Stern (2000) clarifies this by suggesting that an employee's green workplace behaviour is likely to be motivated by a number of elements including attitudinal, contextual and socio-demographic factors, as well as individual capabilities, routines and habits. The theory asserts that an employee's propensity to conduct environmentally friendly behaviours in the workplace is shaped by their values, beliefs and personal norms as well as being enhanced and influenced by their workplace, the decisions and policies of their organisation, workplace colleagues and peers, and the environment or climate in which they work (Andersson, Shivarajan & Blau, 2005; Chou, 2014).

Each segment of the VBN theory posits that it will be a causal factor for the next 'link in the chain', suggesting that there will be anticipated modifications on other

variables farther down the sequence (Andersson et al., 2005). In other words, how the individual values the environment, how they view the environmental initiatives of the organisation along with how they respond to those views, is expected to have some influence over the type and level of positive environmental behaviours, motivations and attitudes that employees will exhibit in the workplace. As far as green HRM is concerned, it is expected that if employees hold intrinsically strong values and beliefs pertaining to environmental sustainability, with the employee willing and capable of conducting assigned tasks related to the organisation's green practices, then it is more likely that employees would embrace a green HRM strategy.

4.2.5 'Fit' theories

According to the literature, 'fit' theories have subsumed a number of variants on the fit conjecture including person-environment, person-job, person-organisation (Boon, Den Hartog, Boselie & Paauwe, 2011; Goodman & Svyantek, 1999; Hoffman & Woehr, 2006), needs-supplies, demands-abilities and supplies-values (Taris & Feij, 2001), in order to determine how or if this construct affects individual employee outcomes. The person-organisation theory posits that there are characteristics of both the organisation and the employee that have the capability to be congruent, and that the degree to which that congruence or 'fit' exists, will influence the behaviours of the employee (Hoffman & Woehr, 2006). Lauver and Kristof-Brown (2001) contend that individual consequences can be predicted by considering how employees 'fit' within their workplace. Supplies-values-fit (SVF) theory, supplies being the aspects of one's work environment that satisfies individual values and values being beliefs that guide personal conduct, behaviours and attitudes, suggests that employee workplace outcomes are dominated by effects generated by organisational supplies. Values were found in the literature to play a lesser, more moderate role on employee workplace outcomes (Taris & Feij, 2001).

Value congruence, according to Hoffman and Woehr (2006) elucidates the similarities between the values of the organisation and the values of the employee, with Edwards and Cable (2009) suggesting that individual psychological fulfilment is a mechanism that links value congruence to outcomes. Ostroff, Shin and Kinicki (2005) claim that if individual values are consistent with that of the organisation, the greater the likelihood of positive workplace behaviours and attitudes being generated.

Therefore, the central themes of the 'fit' theories would support the model proposed in this research. If an organisation supplied an environment conducive to an employee's values and beliefs and as a result the employees values and beliefs were congruent with that of the organisation, it would be expected that the employee would be more likely to exhibit behaviours that are desired by the organisation. Conversely, if an employee's values were incongruent with the values of the firm and/or the organisation did not supply an environment that matched the needs of the employee, then the employee would be less likely to demonstrate desirable behaviours.

4.2.6 Social identity theory (SIT)

King, Felin and Whetten (2010) claim that organisations possess discrete characteristics that make them exclusive, as well as legitimising their operations and distinguishes them from their competitors. These characteristics stem from a company's attributes, ethics and values that are central to the organisation's mission statement and overtly demonstrate to stakeholders and employees what principles guide the firm's strategies, decisions and actions (King et al., 2010).

Ashforth and Mael (1989) claim that employees are more likely to demonstrate support and positive behaviours at work, if they identify strongly with their organisation.

An early organisational identification definition by Patchen, (cited in Riketta, 2005, p. 360), which is considered to be the most comprehensive definition, is:

> '*a variety of separate, thought related phenomena….(1) feelings of solidarity with the organisation; (2) attitudinal and behavioural support for the organisation; and (3) perception of shared characteristics with other organisational members*'.

Organisational identification is simply is defined as:

> '*the perception of oneness or belongingness to the organisation*' (Ashforth & Mael, 1989, p. 34).

although a recent and more succinct organisational identification definition is:

> *'the degree to which an organisation's members define themselves by the same attributes that he or she believes defines the organisation'* (Dutton, Dukerich & Harquail, 1994, p. 239).

However, Tajfel (1978) and more recently, Podnar, Golob and Jancic (2011) argue that organisational identification is broader than a uni-dimensional construct, and that the levels of an employee's 'values and emotional significance that is attached to the membership of the organisation', will determine the employees willingness to overtly establish identification with the organisation. Ongoing identification research has widened the parameters regarding our understanding of employee organisational identification, with some studies suggesting that identities essentially have multiple layers, which can elicit strong emotions. Albert et al. (1998) claim that organisational identification engages with the 'hearts' of employees and is not merely limited to individual cognitive processing.

Organisational identification literature posits that employees are more likely to identify with an organisation, which has a positive external prestige and public image, with employees who experience strong organisational identification exhibiting affirmative employee workplace attitudes (Ashforth & Mael, 1989). Ashforth, Harrison and Corley

(2008) claim that for employees to have an innate connection to their organisation, they must first value the identity of the firm. The visceral values, characteristics and attributes of the firm are what employees ultimately identify with. If those values, characteristics and attributes align or are important to employees, then employees are more than likely to identify strongly with the organisation.

Several studies have used identification to demonstrate and account for differences in employee performance and levels of commitment (Ashforth & Mael, 1989; Dutton et al., 1994), as well as OCB and pro-social behaviours (Kane et al., 2012) and why people choose to help their organisation (Tyler, 1999). These studies have linked the outcomes to organisational identification, with Dutton et al. (1994) claiming when an individual's self-concept matches that of the organisation then this cognitive relationship is referred to as organisational identification.

Social identity theory postulates that an individual's connection to their organisation is primarily motivated by their need to get information, which they believe to be relevant to their personal development (Tyler, 1999). Tyler (1999) suggests that individuals use their membership (employment) in their organisation to construct their social identities, with a constructed social identity considered to be a key motive for employees to adhere to organisational rules and policies, help the organisation to reach its goals and remain with the firm. Tyler (1999) concludes that an individual's social identity shapes key behaviours and outcomes in the workplace and as such:

(1) the strength of the identity will affect the level of an employee's motivation to engage in discretionary behaviours that support the organisations objectives

(2) that once a social identity is formed, that this establishes a social connection which influences how the employee will assess the status of, and pride in, the organisation and

(3) how employees judge the status of the firm has an important impact on the behaviours they will demonstrate, and that these judgements have a greater effect on their behaviour than their assessment of the level of compensation (pay and rewards) that the employee is receiving as a member of the organisation.

The SIT asserts that when organisations yield socially valued attributes that are both internal and external to the firm, employees are likely to feel proud to be associated with the organisation. Subsequently, employees are expected to exhibit desirable organisational outcomes such as extra-role behaviours or intra-organisational cooperation (Dutton et al., 1994). Conversely, if the organisations image is viewed as dissonant, employees are more likely to demonstrate negative behaviours and attitudes, which will adversely impact on organisational outcomes (Dutton et al., 1994). As such, the impact of an organisation's green HRM policy on extra-role employee green and non-green workplace behaviour is dependent upon employee perceptions of the organisation and its underlying motivations.

4.2.7 Social exchange theory (SET)

Social exchange theory (SET) is applied in OB settings in order to provide a basis for improving our understanding of how organisations, managers and supervisors can create a sense of employee commitment and to encourage the exhibition of desirable employee workplace behaviours (Cropanzano & Mitchell, 2005; Emerson, 1976; Wayne, Shore, Bommer & Tetrick, 2002). Gould-Williams (2007) suggests that an employment relationship consists of multiple social and economic exchanges, using the 'norms of

reciprocity' argument, in that an exchange of favours between the two parties (i.e. the organisation and the employee) creates feelings of indebtedness and obligation. For example, if the organisation has treated the employee favourably or has fulfilled their innate personal needs, then the employee feels somewhat psychologically bound to perform desirable tasks or behaviours identified as important to the organisation, until the 'debt' is repaid (Gould-Williams, 2007; Shore, Tetrick, Lynch & Barksdale, 2006).

Allen et al. (2003) and Gould-Williams (2007) found in their studies that supportive HR practices and an encouraging organisational climate positively signals to employees, an organisation's intent to develop and initiate strong social exchanges in the workplace. Gould-Williams (2007) adds that HR practices are employee-focussed activities that demonstrate an organisation's willingness to invest in their workers' development, which signals to employees that the organisation cares and values their workplace contributions.

In a recent paper which theorised that SET could explicate the relationship between high performance HR practices and corporate entrepreneurship in China through the mediation of POS, Zhang and Jia (2010) found that HR practices meaningfully influenced employee POS. This finding supports the earlier findings from both the Allen et al. (2003) and Gould-Williams (2007) studies. Zhang and Jia (2010, p. 759) went so far to suggest that:

> *'from the perspective of social exchange theory, employees cannot help but accentuate their supportive feelings for an organisation, when their organisation implements high-performance HR practices'.*

The implications of the Zhang and Jia (2010) study are that the stronger the social exchanges through improving employee psychological cognisance of organisational HR

policies and practices, the stronger the level of employee POS and a greater connection the employee is likely to have to the organisation.

Several theories have been utilised to demonstrate the linkages between green HRM and employee green workplace outcomes including:

- institutional theory, which presupposes that firms will be guided to implement policies and strategies to gain legitimacy for their operations and to conform to social norms
- attribution theory, which assumes that how employees perceive and process characteristics and qualities of the firm (i.e. being green) will influence their workplace behaviours
- VBN theory, which claims that inherent or learned values will shape employees actions and behaviours and
- 'fit' theories, which suggest there needs to be congruence between the values of the firm and the employee.

Hence, the impact of green HRM on in-role and extra-role employee green workplace behaviour depends upon how the employee views the motivations and quality of the organisation and whether or not there is a level of congruence between the values and beliefs of both the firm and the employee.

Three additional theories are likely to establish the linkages between green HRM and employee non-green workplace outcomes. These theories are:

- stakeholder theory, which surmises that companies need to meet and balance the competing and often conflicting demands of relevant stakeholders
- SIT, which predicates that employees who identify strongly with their organisation will act in accordance with the aims of the firm and

- SET, which posits that positive social exchanges in the workplace will increase POS levels and encourage employee identification to the organisation.

As such, it would be expected that the impact of green HRM on employee in-role and extra-role non-green workplace behaviours and an employee's intention to quit is subject to an employee's perception of how organisations support their workers, in regards to their personal needs and well-being.

4.3 – Green HRM and employee green workplace outcomes

The motivations behind an employee's decision to demonstrate positive in-role, extra-role behaviours and an employee's decision to remain with the organisation, whether they are general or green associated behaviours, is demonstrated in the literature to be driven by several factors. These factors include:

- employee focussed management programs including HR (Boiral, 2009; Jiang et al., 2012; Kinicki, Carson & Bohlander, 1992)
- demographic factors such as gender and levels of education (Kollmuss & Agyeman, 2002)
- external factors including institutional, economic, cultural and social and
- individual factors such as motivation, values, locus of control and knowledge (Csutora, 2012; Kollmuss & Agyeman, 2002; Shen & Benson, 2014).

In addition,

- psychological factors associated with employee perceptions can also affect how they view the prestige of the organisation (Day & Bedeian, 1991; Edwards, 2009; Herrbach, Mignonac & Gatignon, 2004; Kane et al., 2012)
- if the employee trusts and perceives that the organisation supports them and their needs and personal development and

- whether the motivations of the firm behind policy implementation is benevolent and in the public interest (Allen et al., 2003; Maertz et al., 2007; Nasurdin, Hemdi & Guat, 2008; Peelle, 2007).

It is these perceptions that can affect employee behaviour, motivation and attitudes.

Dubois and Dubois (2012) suggest that embedding sustainability and green programs in organisations ultimately pervades the behaviours and attitudes of employees. Human nature and unique individual traits and values present organisations with a distinct challenge: how do you encourage employees to engage with and adopt green management and green HRM initiatives?

To achieve this objective, according to Von Bertalanffy (1972), it is necessary to implement a holistic approach, rather than small management changes that are confined to specific areas or individuals within an organisation (Dubois & Dubois, 2012). Human resource management is viewed as the key facilitator that can successfully implement holistic organisational change involving strategic training and policy implementation, with HR practitioners best placed to respond and execute these initiatives. Von Bertalanffy (1972) claims that behavioural and social science studies do not have linear causality and that investigating workplace perceptions is an interactive process, which is dependent upon a multiplicity of psychological, linguistic, biological and cultural factors. Recent HRM behavioural studies such as Bowen and Ostroff (2004) and Jiang et al. (2012) support these earlier suppositions by Von Bertalanffy (1972), that the success of a HRM initiative, or in this instance a green HRM program, will necessitate a thorough exploration of employee social and psychological processes.

Bowen and Ostroff (2004) and supported by Wright and Nishii (2007) also argue that HR practices are a communication mechanism, which indicates to employees how and why they should engage in particular workplace behaviours. As such, according to Wright and Nishii (2007), HRM can either impede or facilitate the communication process, based on the effectiveness of the organisation's HRM activities and practices. Recent approaches to HRM behavioural research by Jiang et al. (2012), have clarified the role of HRM more explicitly and claim that employee motivation, behaviours and involvement occur through a transactional mediating path. As such, skill-enhancing HR practices (such as new knowledge, skills, capabilities and influencing individual psyche), will directly affect employee skills and abilities, which indirectly affects employee motivation and attitudes, and distally affects organisational performance.

4.3.1 Direct effects of green HRM on employee green behaviour

According to Rousseau and Wade-Benzoni (1994), in order for organisations to implement an effectual business strategy, firms need effective HR practices. Practices such as performance reviews and recruitment or training, are able to generate significant strategic competencies for an organisation, by supplying talented employees who are appropriately trained and rewarded. Rousseau and Wade-Benzoni (1994) suggest that HR practices often provide a more accurate picture of a business strategy, as they have direct effects on workplaces on a day-to-day basis and are easily visible to employees. In addition, HR practices are viewed as key mechanisms with influencing factors that shape employee behaviours, as it is these practices which enable employees to understand the terms of their employment contract (Rousseau & Wade-Benzoni, 1994).

The HRM behavioural literature suggests that HRM influences organisational performance through its effect on employee workplace behaviour (see Becker & Huselid,

2006; Bowen & Ostroff, 2004; Wright et al., 2001). Based on the literature, it is anticipated that green HRM is likely to affect employee behaviour for four primary reasons:

(1) green HRM practices, such as dissimilating the information about the organisation's green focus, emphasising individual green values in recruitment and selection and promoting green values through training, is likely to increase employee green cognisance

(2) work and job design that meets environmental requirements and green training practices designed to improve employee knowledge, capabilities, skills and competence, are key processes that encourage employees to conduct green activities (Pless et al., 2012)

(3) the HRM attribution literature suggests that an employee's perception of why the organisation adopts certain HRM practices determines the effectiveness of HRM practices on employee workplace behaviour (Nishii et al., 2008). A formalised and openly communicated set of green HRM practices and policies, overtly demonstrates to employees the organisation's commitment to being socially responsible and green, and will likely result in the employee acting in accordance with the organisation's green policies and

(4) promotions, appraisals and rewards that take into account individual green performance motivates employees to engage in and contribute to, organisational environmental initiatives and green activities (Renwick et al., 2013).

In terms of workplace outcomes, this study is interested in determining the effects of green HRM on both in-role and extra-role employee green workplace behaviours. While it could be construed that green behaviours could be classed as extra-role, how these behaviours are ultimately classed is dependent upon the industry, the organisation and the expectations of the organisation (Paillé & Boiral, 2013). There could be instances in many

jobs, which require employees to behave 'green', such as jobs that require employees to ensure that toxic waste is not poured in to the local water systems, hazardous materials not disposed of in the local rubbish, or computers are turned off at the end of the day. These task related activities and behaviours would likely be expected of the employee and therefore in-role behaviours and part of a person's job role. On the other hand, extra-role green behaviour is more cryptic in nature and could be as simple as turning off lights when not in use to improve organisational green performance (Paillé & Boiral, 2013).

While both in-role and extra-role behaviours are considered crucial to creating value for the firm and achieving organisational green goals (Norton et al., 2014), each of these behaviours may be driven by different antecedents as employees have different levels of discretion over when and how to exhibit these behaviours within the confines of the workplace environment (Hoffman, Dilchert & Schmitt, 2012; Williams & Anderson, 1991). Chou (2014) argues that green behaviours are pro-social in nature and that they are both discretionary and extra-role. However, Ramus and Killmer (2007, p. 555) are a little more circumspect and suggests that employee green behaviours '*are not invariably, but frequently, extra-role behaviours*'.

With institutional theory positing that firms are driven to conform to social norms in order to gain a level of legitimacy for their company and operations, and attribution theory suggesting that employee perceptions of a firm's intentions of implementing a specific strategy (i.e. green) affect their intention to behave in a particular way, it would be expected that employees would regard the affirmative efforts of the firm to improving operational processes through the implementation of green HRM, which has an environmental and socially responsible agenda, as a positive step. With HRM and potentially green HRM seen as a key mechanism that overtly demonstrates the intention of

the organisation's strategic plan (i.e. sustainability and/or CSR), it is expected that green HRM's implementation would result in positive attitudes and behaviours toward the achievement of the organisations green goals, and also employees acting in accordance with the green policies of the firm. Using this theoretical logic green HRM will facilitate an employee's execution of in-role green behaviours and elicit extra-role employee green behaviour in the workplace. Therefore, the following hypotheses were developed:

Hypothesis 1a: Green HRM is positively related to in-role employee green workplace behaviour

Hypothesis 1b: Green HRM is positively related to extra-role employee green workplace behaviour

4.3.2 Psychological green climate as a mediator in the green HRM-employee green workplace behaviour relationship

Employee behaviours and attitudes are largely driven by the perceptions that employees have of organisational policies. According to attribution theory (Rupp et al., 2006) it is these perceptions that determine the 'climate' of the organisation. Organisational climate has been described in the literature as a key explanatory variable when seeking to understand the effects of HRM on individual employee workplace outcomes (Gould-Williams, 2007). Climate's 'role' is described as:

> *'an intervening variable between the context of the organisation and the behaviour of its employees, and attempts to interpret how employees evaluate their organisation'* (Patterson et al., 2005, p. 379)

Organisational climate is definitively expressed in the literature as an aggregated view of employee psychological climate, with Bowen and Ostroff (2004, p. 205) offering a methodical description of organisational climate as:

> '*the shared perceptions that employees have of their organisation in terms of their policies, practices, procedures and rewards, what is important to the firm, and ultimately what attitudes, behaviours and performance the organisation expects from its employees*'.

The scope of organisational climate has crossed many domains since it was first discussed in academic literature over 50 years ago (Carr, Schmidt, Ford & DeShon, 2003). Despite this, Carr et al. (2003) concede there is still a level of ambiguity between various molar climate dimensions and a number of different individual level workplace outcomes. This ambiguity is blamed on a profusion of climate dimensions used in climate studies over the past couple of decades and according to Carr et al. (2003), climate had subsequently begun to lose its meaning as a theoretical construct. Carr et al. (2003) found that identifying both the affective and cognitive states of an individual, which may have a mediating effect between climate and organisational outcomes, is the key to determining what influences an individual employee's perception of a workplace environment and how this might shape organisational policies (Carr et al., 2003).

Climate is said to emerge from within employee social interactions, whereby employees determine the value of organisational policies and practices that they both personally encounter and observe in the workplace (Kuenzi & Schminke, 2009; Schneider, Ehrhart & Macey, 2013). From these observations, employees are able to determine what types of behaviours and attitudes are expected, supported and rewarded by the organisation (Schneider et al., 2013). According to McMurray and Scott (2013), organisational climate enhances how employees bond with a firm and how policies and strategies affect the welfare and development of the employee.

Psychological climate refers to the perceptions and meanings that employees ascribe to their organisation and their leaders, their job role, co-workers, performance, promotional opportunities and equitable pay (D'Amato & Burke, 2008; James et al., 2008). D'Amato and Burke (2008, p. 2) refine this further by suggesting that psychological climate is:

> *'a reflection of an individual's appraisal and relates to the individual'*.

Burke, Borucki and Kaufman (2002, p. 326) describe it more simply in a workplace context as:

> *'individual perceptions of work environment characteristics'*.

Creating a green climate is essential for corporations that aim to achieve sustainable objectives by implementing a range of pro-environmental policies (Chou, 2014; Norton et al., 2014; Paillé et al., 2014; Ramus, 2002). A green work climate is said to capture the perceptions of employees, regarding the attributes and behavioural norms of the organisation that pertain to environmental sustainability (Norton et al., 2012). According to Chou (2014), for firms to overtly reveal a commitment to environmentalism, which ultimately reflects the organisation's underlying green climate, they should be transparent with employees and stakeholders, openly and publicly commit to green initiatives and socially responsible policies, and develop a green culture and environmentally sustainable programs. In 2012, Norton et al. defined a pro-environmental organisational climate as one that:

> *'captured employees' shared perceptions of their organisations' pro-environmental policies, procedures and practices'*.

However, this definition pre-supposes that employees are aware of the existence of these policies. According to Rogg, Schmidt, Shull and Schmitt (2001), employee

perceptions are affected by whether they are aware that the organisation has documented environmental policies. Norton et al. (2014) later updated their definition of organisational green climate as:

> *'a climate that captures employee perceptions regarding the organisational attributes and behavioural norms within a company that pertain to environmental sustainability'.*

Psychological green climate is a derivative of the aggregated climate construct and is considered to be the perception an individual has of the organisation's pro-environmental or green policies, processes and practices that reflect the organisation's green values. The application of psychological green climate within this study is aimed at forecasting a specific individual outcome (Carr et al., 2003), namely both in-role and extra-role employee green workplace behaviours. A key psychological climate study conducted by Ramus and Steger (2000) discovered a strong link between employee willingness to respond positively to environmental initiatives and policies of the organisation that are publicly circulated to employees. The results of the Ramus and Steger (2000) study supported the notion that if organisations have environmental policies that are well communicated and documented, then employees were overwhelmingly expected to participate in organisational environmental initiatives.

Employees digest and interpret the organisation's HRM practices and policies and in turn form their perceptions of the firm and its values (Ferris et al., 1998; Kaya, Koc & Topcu, 2010; Nishii et al., 2008). It is during this cognitive process that employees will develop their views regarding the intent and climate of the organisation. Day and Bedeian (1991) claim that organisational climates are able to predict, to some extent, an employee's job performance, with Parker et al. (2003) stating that psychological climate is notably related to job satisfaction, burnout and in-role and extra-role job performance.

Kuenzi and Schminke (2009) and Schneider et al. (2013) suggest that an organisational climate, which is facet-specific, such as safety, service or empowerment outcomes or process outcomes such as ethics, is a desirable approach to understanding specific employee outcomes, rather than a generic approach with no definitive aim. Kuenzi and Schminke (2009, p. 637) claim in order to:

'improve the validity of the climate construct',

and address the paucity of facet-specific climate research, researchers need to carefully examine and adopt the appropriate theoretical foundation that fits their research objective.

Rupp et al. (2006) argued that an employee's perception of social programs, such as CSR initiatives, triggers employee behavioural, attitudinal and emotional responses. A recent study by Norton et al. (2014) identified relationships between the perceived presence of organisational environmental policies and employee behaviours, with both task related and proactive green behaviour mediated by green climate. It is therefore argued in this thesis that organisational policies, processes and practices will shape an employee's psychological climate, i.e. individual perceptions of a work environment (Burke et al., 2002; Schneider et al., 2013). Consistent with the psychological climate literature, green HRM will lead to positive psychological green climate perceptions, which are in turn significantly related to in-role and extra-role employee green workplace behaviours. Based on the above theoretical claims and recent research findings, it can be argued that psychological green climate mediates the green HRM-employee green workplace behaviour relationship. Therefore, it is posited that:

Hypothesis 2a: Green HRM indirectly influences in-role employee green workplace behaviour through the mediation of psychological green climate

Hypothesis 2b: Green HRM indirectly influences extra-role employee green workplace behaviour through the mediation of psychological green climate

4.3.3 Moderating effect of individual green values

Contemporary values literature has underscored the importance of values in explaining individual attitudes and behaviour (Cohen & Liu, 2011; Davidov, Schmidt & Schwartz, 2008; Low, 2013). According to Cohen and Liu (2011), values influence the amount an individual will engage with a given situation, and both the perception and interpretation of these situations will determine the individual's response. Individual attitudes and behaviours are likely to be transformed as a result of these perceptions.

In addition to Cohen and Liu's (2011) study on employee behaviours, Paarlberg and Perry (2007) claim that social structures such as beliefs and value systems are key mechanisms that influence employee workplace behaviours. Values, according to Paarlberg and Perry (2007) are socially constructed through interrelationships in a workplace environment, as well as through professional training opportunities, the clarity of organisational goals and strategies, the transparency of rewards and performance reviews and regulatory frameworks implemented by local governments.

Early human values research completed by authors such as Schwartz and Bilsky (1987) sought to define what values were, in order to encourage social psychology research into individual values, behaviours and attitudes. The study conducted by Schwartz and Bilsky (1987, p. 551) found a large number of value definitions in their review, but identified five key components of human values:

1) human values are concepts or personal beliefs

2) human values are about desirable end states or individual behaviours

3) human values transcend specific situations

4) human values guide how individuals evaluate and select behaviours and events and

5) human values are ordered in relative importance to the individual.

These components were later delineated and simplified by Paarlberg and Perry (2007) who define values as:

> *'desirable states, goals or behaviours on which individuals place a high worth, that allows them to choose from available options'*.

Individual green values, although not explicitly pursued in current values literature have been linked to pro-environmental behaviour through early general values research (Schultz & Zelezny, 1998). In a recent study, Chou (2014) explored employee personal environmental norms (i.e. values) and was able to determine that these factors were significantly related to employee environmental beliefs and behaviours. While the Chou (2014) study provides some evidence of the effects of green values in the workplace, further evidence to determine how individual green values are causal to employee workplace outcomes is considered essential.

However, individual green values has not thus far been depicted in the literature as related to both in-role and extra-role employee green workplace behaviours. It is assumed in this study, that individual green values will not have a direct relationship with in-role and extra-role employee green workplace behaviours. Rather, it is expected that individual green values will have a moderating influence on in-role and extra-role employee green workplace behaviours through an indirect relationship with green HRM via psychological green climate.

The SVF theory posits that if personal values are congruent with those supplied by the organisation, this will have a positive effect on employee work attitudes and behaviour (Edwards, 1996, 2008). While it may be self-evident that some conflicting values would likely exist between an individual and the organisation in which they work, it is in the best interests of an organisation to strive for shared, congruent values (Paarlberg & Perry, 2007). A shared ideology that aligns individual values with that of the organisation is expected to result in optimal employee outcomes, such as strengthened organisational identification and positive work attitudes and behaviour (Edwards, 1996, 2008; Edwards & Cable, 2009; Paarlberg & Perry, 2007). The stronger an individual connects with their organisation through aligned values and identification, the greater the likelihood that the employee would commit to achieving organisational goals (Cohen & Liu, 2011).

Ajzen (1991) claims that individual values and beliefs antecede behavioural intentions, which in turn antecede individual behaviour. Oreg and Katz-Gerro (2006) and Stern et al. (1999) suggest the VBN theory can help to explain this pattern of individual behaviour, with the theory positing that individual values guide the intentions of individuals to exhibit pro-environmental behaviour. Stern et al. (1999) and Stern (2000) claim that pro-environmental behaviours are prompted when something of value (i.e. the environment) to the individual or employee is threatened. The Stern et al. (1999) study established that personal moral norms (values) were the main factor for an individual's predilection for exhibiting green or pro-environmental behaviours and attitudes in the workplace. Therefore, it would be reasonable to assume that individual green values would engender a somewhat similar result to the findings from the above studies.

Results from a study by Day and Bedeian (1991) found that employee behaviour is part of a complex interactive process, with the study able to elucidate why the behaviour of

similar (or different) employees within a different (or alike) situation is somewhat capricious. While an element of caution should be acknowledged with these results due to the limited number of dimensions that the study explored, it exposes the role of interactional psychology within an organisational context. Without exploring mediating variables such as climate and values, Day and Bedeian (1991) suggest that the OB discipline will consist entirely of studies that have only explored main effects and would contribute little to expanding our understanding of the dimensions that drive employee behaviours and organisational outcomes. Therefore, as identified by Day and Bedeian (1991), employee behaviour is the interplay of both the person and the environment.

According to Rupp et al. (2006), employees make explicit judgments about their organisation's socially responsible policies and behaviour and it is these judgments that determine whether employees' psychological needs are fulfilled. Therefore, the SVF theory (Edwards, 1996, 2008) supports the model proposed in this study in that if an organisation supplies an environment conducive to an employee's values, the result would be a level of congruence between the values of the employee and the organisation. Hence, it would be expected that the employee would exhibit green workplace behaviours. Conversely, if employee values are incongruent with those of the organisation or the organisation does not supply an environment that matches the need of the employees, then employees would be less likely to demonstrate green behaviour in the workplace.

Two major theories, as previously discussed, i.e. the VBN theory (Stern et al., 1999) and the SVF theory (Edwards, 1996, 2008; Edwards & Shipp, 2007), largely underpin the ways in which values affect individual behaviour, with the VBN theory positing that personal values, beliefs and norms will affect employee workplace behaviour (Stern et al., 1999). Empirical studies such as Andersson et al. (2005), Chou (2014), and Schultz et al. (2005),

have reported a significant and positive impact of personal environmental values on individual green behaviour. These findings point to a direct relationship between individual green values and employee green workplace behaviour. That is to say, individual green values and organisational green values, which are largely driven by organisational policies and strategic decisions, interactively influence employee green workplace behaviour, with green HRM practices and psychological green climate reflecting the result of an employee's judgments of the organisation's green values.

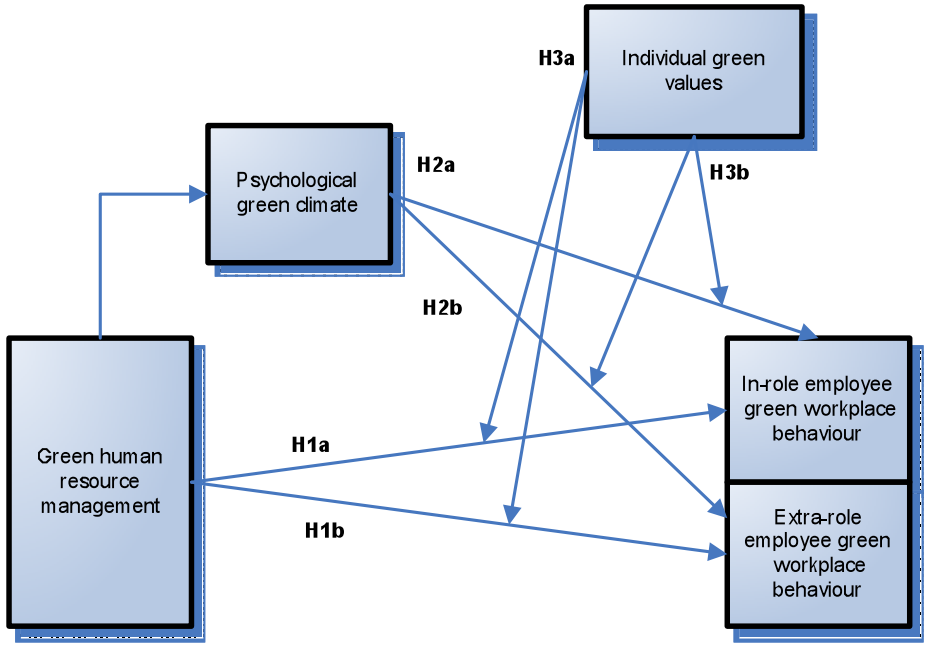
Consequently, individual green values will moderate the effects of green HRM and psychological green climate on green workplace behaviour. Therefore, the following hypotheses were developed using the aforementioned logic:

Hypothesis 3a: Individual green values will moderate the effects of green HRM on (1) in-role employee green workplace behaviour and (2) extra-role employee green workplace behaviour, such that the effects will be stronger when individual green values are high and weaker when low

Hypothesis 3b: Individual green values will moderate the effects of psychological green climate on (1) in-role employee green workplace behaviour and (2) extra-role employee green workplace behaviour, such that the effects will be stronger when individual green values are high and weaker when low

Figure 4.2 summarises the impact of green HRM on in-role and extra-role employee green workplace behaviours. As illustrated, green HRM influences in-role and extra-role green workplace behaviours via a similar psychological and social process with Figure 4.2 outlining the direct, mediating and moderating effects.

Figure 4.2. The theoretical framework and hypotheses for green HRM and in-role and extra-role employee green workplace behaviour



4.4 – Green HRM and employee non-green workplace outcomes

With companies now changing their business strategies and efforts towards a more environmentally focused agenda, HR must adjust its mandate and expand its scope by incorporating environmental management so as to transform how it performs its core HR functions (Cohen et al., 2010; Angel Del Brio, Junquera & Ordiz, 2008). By shifting the focus towards a green agenda, green HRM has increased the multiplicity of the application of HR principles (Ehnert & Harry, 2012; Kumari, 2012; Renwick et al., 2013). Attribution theory suggests that employees interpret and exhibit attitudinal and behavioural responses to HRM practices according to HRM attributes (Nishii et al., 2008). Using this logic, green HRM practices, such as training and considering employee behaviour during promotions and appraisals, will not only lead to green behaviours, but also result in other positive and analogous employee workplace behaviours and outcomes, which should improve organisational performance.

4.4.1 Effect of green HRM on employee non-green behavioural outcomes through the mediation of organisational identification

Employees assess organisational actions and decisions in the context of their social environment. With organisations now expected to conform to social norms (DiMaggio & Powell, 1983; Scott, 1995), it is unsurprising that firms have adopted green and CSR related policies and practices in order to visibly demonstrate the organisation's intentions to its stakeholders and employees. Given that CSR has become a global social norm, effective engagement in CSR helps to build positive external organisational reputations and corporate images (Carroll & Shabana, 2010).

The implications of institutional theory, stakeholder theory, SIT and SET are that the adoption by the organisation of certain policies and strategies, is likely to change the perceptions, attitudes and behaviours of employees and stakeholders in regards to understanding the motivations of organisational agendas. In order to gain legitimacy for their operations and to conform to social norms, organisations will seek to identify and implement policies and strategic directions that meet the demands and needs of the firm's stakeholders, including employees. Green HRM is one way that organisations can do this. Green HRM clearly demonstrates to stakeholders and employees, the commitment of the firm to a social cause that has important implications for the organisation. Therefore, if the environment and green HRM related practices are important to the employee, levels of employee POS and organisational identification would be expected to increase as a result of this green policy direction. Through the adoption of green HRM practices, the organisation sends a message to employees that it is committed to a social cause beyond any mere financial benefit (Renwick et al., 2013).

Organisational identification is viewed as a key inducement to employees behaving in a manner that meets the firm's values, ethics, reputation and management strategy (Ashforth & Mael, 1989). However, organisational identification has also been linked to a number of other consequential outcomes including an employee's intention to quit (Cole & Bruch, 2006), extra-role behaviours (Ge, Su & Zhou, 2010; Kane et al., 2012), in-role behaviours (Chughtai & Buckley, 2010) and a number of employee attitudes and work related intentions such as absenteeism, job satisfaction and job involvement (Ashforth et al., 2008; Riketta, 2005). Despite some studies demonstrating that organisational identification can have a positive role in organisational performance, it is only recently that scholars have taken the concept and its effects as a genuine contributor to OB empirical research (Riketta, 2005).

Organisational identification is a cognitive construct, which demonstrates the congruence between the values of the individual and that of the organisation (Riketta, 2005). As Riketta (2005) points out in his meta-analysis of organisational identification, SIT is the most widely accepted and applied OB theory and illustrates that organisational identification combines both cognitive and affective factors. Tajfel (1978, p. 63) suggests that an employee's identity is:

> '*that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership*'.

Hall, Schneider and Nygren (1970, p. 176-177) add to this by claiming that:

> '*organisational identification is the process by which the goals of the organisation and those of the individual become increasingly integrated and congruent*'.

Hall et al. (1970) clarifies this by suggesting that employees see their integration into an organisation as an incorporation of the values and goals of the firm within the identity of the employee.

Benkoff (1997) suggested that an individual's social identity is an important part of their self-concept, which drives an innate need to belong to groups and organisations, which are highly valued and viewed as publicly reputable. The study found that employee perceptions and attitudes are driven by coherent HRM policies and practices and that it is these policies that facilitate organisational identification (Benkoff, 1997). However, no observable effects on employee behaviours were made during the course of the Benkoff research. Despite that, Benkoff (1997) suggested that to encourage desirable employee outcomes, firms should embark on developing organisational identification, as it is likely to be responsible for a variety of employee behaviours. A later study by Ge et al. (2010) established what Benkoff's (1997) study assumed, in that organisational identification is both directly and indirectly related to extra-role behaviours. The stronger the employee identifies with the organisation, the greater the levels of extra-role behaviours are likely to be displayed in the workplace.

Institutional theory posits that employees assess organisations in the contexts of the social environment, with firms now expected to conform to social norms and acquiesce to societal expectations (DiMaggio & Powell, 1983; Greenwood et al., 2008; Scott, 1995). Given that socially and environmentally responsible actions and practices have become a global social norm, effective engagement in implementing green practices and policies helps to build a positive organisational external reputation that will likely result in increased levels of employee organisational identification (Carroll & Shabana, 2010).

Further to institutional theory, a second theory adds to our understanding as how to organisations can strengthen employee organisational identity. The SIT predicts intergroup behaviours on the basis of perceived group status and legitimacy, with the theory positing that individuals strive to achieve and maintain a positive social identity (Tajfel & Turner, 1979). The SIT asserts that when organisations yield socially valued attributes that are both internal and external to the firm, that employees are likely to feel proud to be associated with the organisation, and will subsequently identify with it (Carroll & Shabana, 2010; Dutton et al., 1994; Tajfel & Turner, 1979), with Ashforth and Mael (1989) arguing that organisational identification results in positive employee workplace behaviours.

In addition, a constructed social identity is considered to be a key motive for employees to adhere to organisational rules and policies, help the organisation to reach its goals and remain with the firm (Tyler, 1999). Tyler (1999) suggests social identities shape key behaviours, motivations and workplace outcomes with:

> (1) the strength of the social identity affecting the level of an employee's motivation to engage in discretionary behaviours that support the organisations objectives
>
> (2) the formation of a social identity establishes a social connection with the firm, which then influences how the employee will assess the status of, and pride in, the organisation and
>
> (3) an employee's judgment of the status of the firm will have an important impact on the behaviours that the employee will demonstrate in the workplace. These judgements will have a greater effect on employee workplace behaviours, than an employee's assessment of the level of compensation (pay and rewards) that the employee is receiving as a member of the organisation.

Moreover, adopting green HRM practices provides employees with opportunities to participate and engage in green activities. A study by Mozes et al. (2011) revealed that employee involvement in CSR is positively correlated to job satisfaction and results in higher levels of organisational identification and motivation. It is suggested that organisational identification is a psychological process with an emotional attachment that overtly demonstrates a sense of pride towards the organisation. Thus, it is directly associated with employee commitment to the firm (Tompkins & Tompkins, 2004). Employees are subsequently motivated to openly display positive work attitudes and behaviour in order to enhance organisational identity and employee self-esteem (Ashforth & Mael, 1989).

Empirical research has shown that organisational identification is positively related to task performance (Edwards & Peccei, 2010; Ngo et al., 2013), OCB (Chen et al., 2013; Edwards & Peccei, 2010; Ngo et al., 2013; Tyler, 1999; Van Dick et al., 2006) and negatively related to intention to quit (Cole & Bruch, 2006; O'Reilly & Chatman, 1986). Using the rationale expressed in the HRM and organisational identification literature, it is expected that green HRM will promote and increase levels of organisational identification through the establishment of organisational credibility, values, image and prestige of the firm as a corporation that is responsible and supportive of employees and their personal development. In addition, it establishes that the firm conforms to social norms and societal expectations by demonstrating a commitment to environmental sustainability. It is expected that the findings from the above studies can be duplicated in this research. These aforesaid studies provide empirical underpinnings for the mediating role of organisational identification in the green HRM-employee non-green work outcome relationship. Therefore, the following hypothesis was developed:

Hypothesis 4: Green HRM is positively related to (1) in-role employee non-green workplace behaviour and (2) extra-role employee non-green workplace behaviour and negatively related to (3) intention to quit through the mediation of organisational identification

4.4.2 Perceived organisational support as a moderator in the green HRM-organisational identification relationship

Perceived organisational support has been recognised as a key antecedent to a number of employee workplace related behaviours and outcomes including turnover intentions (Newman et al., 2012), commitment, motivation, performance and in-role and extra-role employee behaviours (Hui, Wong & Tjosvold, 2007; Wayne, Shore & Liden, 1997; Zhang, Farh & Wang, 2012). Eisenberger et al. (2001, p. 42) define POS as:

> *'an experience based attribution concerning the benevolent or malevolent intent of the organisation's policies, norms, procedures and actions as they affect employees'.*

An employee's POS is influenced by social relationships, social exchanges and socio-emotional needs and by the frequency, extremity and sincerity of praise and approval given by supervisors and management within the organisation (Eisenberger, Huntington, Hutchison & Sowa, 1986). Employees will develop helpful social exchanges with supportive organisations and depending on the extent to which these exchanges and socio-emotional needs are met, will determine the degree to which employees will demonstrate positive and desirable workplace behaviours and attitudes (Eisenberger et al., 2001; Kossek, Pichler, Bodner & Hammer, 2011; Rhoades & Eisenberger, 2002).

The level of an employee's POS is reported in the literature to largely influence employee behaviours and attitudes in the workplace, with Shen and Benson (2014) claiming that if employees have a high level of POS, they will have feelings of

'attachment' to the organisation. The POS concept is said to develop an employee's feelings of how they perceive the firm supports their needs and personal development and if this perception is a positive one, the employee will both psychologically and emotionally commit themselves to the organisation, and work towards the achievement of the firm's goals and objectives (Shen & Benson, 2014). This assumption again supports the SIT supposition, which suggests that organisations that support employees will positively impact an employee's self-concept by addressing the need for self-regard, and as such is likely to increase an employee's level of organisational identification (Edwards & Peccei, 2010). In addition, Edwards and Peccei (2010) claim that support from the organisation also fills the socio-emotional needs that can indirectly boost employee self-esteem and affiliation, which also leads to a greater attachment to the organisation. This attachment, according to Rhoades and Eisenberger (2002, p. 699):

> '*leads employees to incorporate organisational membership and role status in to their individual social identity*'.

Based on stakeholder theory (Freeman, 1984), employees may have different, even conflicting interests from other stakeholders, (i.e. local community and consumers). The empirical study conducted by Sturdivant (1979) revealed that there are significant differences in the attitudes of activist groups and corporate managers towards CSR. As stakeholders' interests may be self-oriented, whether the organisation can achieve the balance in meeting the needs of various stakeholders, ultimately influences their attitudes towards the organisation. More specifically, how employees behaviourally respond to organisational CSR activities to a large extent depends upon how their interests are supported by, and within, the organisation (Royle, 2005).

The SIT also posits that the intent of an organisations policies and norms will have some influence over employee behaviours, depending upon how these policies affect the

individual employee. If employees perceive that organisational policies are supportive of their personal development, needs and values, then employees are more likely to identify strongly with the organisation and behave in accordance with organisational expectations and desires. An employee's behaviour and commitment to the firm is also likely to be affected by the quality of the social exchanges in the workplace, according to SET (Gould-Williams, 2007). The literature suggests that HR practices and an accommodating workplace environment can signal positive workplace exchange relationships, which can affect the level of an employee's POS. Positive social exchanges through the implementation of HR practices, are likely to result in greater levels of employee POS (Zhang & Jia, 2010), which ultimately affect employee commitment and identification, and are consequently expected to result in desirable workplace behaviours. Based on the above discourse it is anticipated that POS (dependent upon the level and extent to which the employee perceives support from the firm) will have a moderating affect and heighten and strengthen an employee's self-worth and membership with the firm. As such, there would be a greater likelihood of higher levels of organisational identification.

A high level of POS evident in an organisation, which is actively engaged in external CSR such as green activities, indicates that an employee's personal interests regarding socially responsible issues have been adequately addressed. In addition, social exchanges in the workplace have positively influenced an employee's perception of organisational support, while meeting the demands of other stakeholders. In this case, the positive effect of green HRM on employee organisational identification will be augmented. To clarify this argument, green HRM, in general, is a positive driving force for employee organisational identification, however, the extent of this positivity is contingent on the levels of POS in the workplace. Thus, the following hypothesis is proposed:

Hypothesis 5: The relationship between green HRM and organisational identification, is moderated by POS, such that the relationship is stronger when the level of POS is high and weaker when the level is low

4.4.3 An integrative moderated-mediation model – the indirect effects of green HRM on in-role and extra-role employee non-green workplace behaviours via organisational identification, which is moderated by POS

Andersson, Cuervo-Cazurra and Nielsen (2014) claim that empirical research that introduces interactive effects has the potential to ratify new theoretical insights that can be applied within management domains. Furthermore, this approach is able to provide detailed predictions about the relationships between multiple variables. Andersson et al. (2014) state that to claim that an interactive model makes a significant contribution to the literature, researchers must theoretically explain how these relationships transpire and not merely statistically detect that an interaction has occurred.

Organisational identification, SIT, SET and stakeholder theory assist in explaining the theoretical underpinnings of the integrative affect of the mediator, organisational identification, and the moderator, POS, as proposed in this final hypothesis. An employee's level of identification with the firm is said to depend upon the perceptions that employees have of the organisation and its ongoing support for individual development, employee well-being and values, as well as the quality of social exchanges in the workplace.

According to SIT, employees that strongly identify with their organisations are said to demonstrate positive employee workplace behaviours that contribute to organisational success, as reported in several academic studies (Edwards & Peccei, 2010; Ngo et al. 2013;

Van Dick et al., 2006). The SET can also shed light on the linkages between positive psychological cognition and supportive HR practices. Zhang and Jia (2010) suggest that HR practices are viewed as an organisation's contribution of positive reciprocal treatment of employees and as a result of the policy implementation, employees are expected to improve their workplace performance to compensate for POS. Stakeholder theory illustrates that an employee's attitude and behaviour are dependent upon how they feel that the organisation has addressed their needs. So, when employees feel a strong connection to the organisation and perceptions of organisational support come from positive social exchanges in the workplace along with a belief that the organisation cares about them and that their needs and interests are being fulfilled, then the employee is expected to display attitudes and behave in a manner that aligns with the organisations goals, values and policies.

In support of the claims from the studies above, POS is expected to have an interactive influence within other variables, which can manipulate organisational outcomes. A meta-analysis by Rhoades and Eisenberger (2002) was able to demonstrate a positive relationship between HR practices (such as rewards, fairness and job conditions) and POS, and conversely found a negative relationship between an employee's intention to quit and POS. Rhoades and Eisenberger (2002) suggests that POS meets the socio-emotional needs of individuals, encourages affiliation with, and approval from others in the organisation and the organisation itself, and that employees are likely to positively reciprocate with desirable behaviours if their socio-emotional needs are met.

Therefore, using this theoretical logic, if an employee's level of POS is high, the employee is likely to have positive social exchange relationships (SET), identify strongly with the organisation and display a positive work ethic (SIT), as well as presenting

behaviours and attitudes in a manner that will achieve organisational goals. Conversely, if an employee's level of POS is low, this demonstrates that the employee does not identify strongly with the firm, has poor social exchanges, and as such is more likely to exhibit negative work behaviours and attitudes that do not align with organisational goals and objectives and potentially exit the firm.

As such, this final hypothesis explores the integrative-moderated mediation relationships in which POS moderates the indirect effect of green HRM on in-role and extra-role employee non-green workplace behaviour and intention to quit through the mediation of organisational identification. It is therefore posited that:

> **Hypothesis 6: The indirect effect of green HRM on (1) in-role employee non-green workplace behaviour and (2) extra-role employee non-green workplace behaviour, and on (3) intention to quit through organisational identification will be moderated by POS, such that the effects on in-role and extra-role employee non-green workplace behaviour will be stronger, and on intention to quit will be weaker, when POS is high in contrast to when POS is low.**

Figure 4.3 summarises the impact of green HRM on in-role and extra-role employee non-green workplace behaviours and an employee's intention to quit. As illustrated, green HRM influences in-role and extra-role non-green behaviours and intention to quit, via a psychological and social process, with Figure 4.3 outlining the mediating and moderating effects. Figure 4.4 illustrates the hypotheses and the expected relationships between all the models variables.

Figure 4.3. The theoretical framework and hypotheses for green HRM and in-role and extra-role employee non-green workplace behaviour and an employee's intention to quit

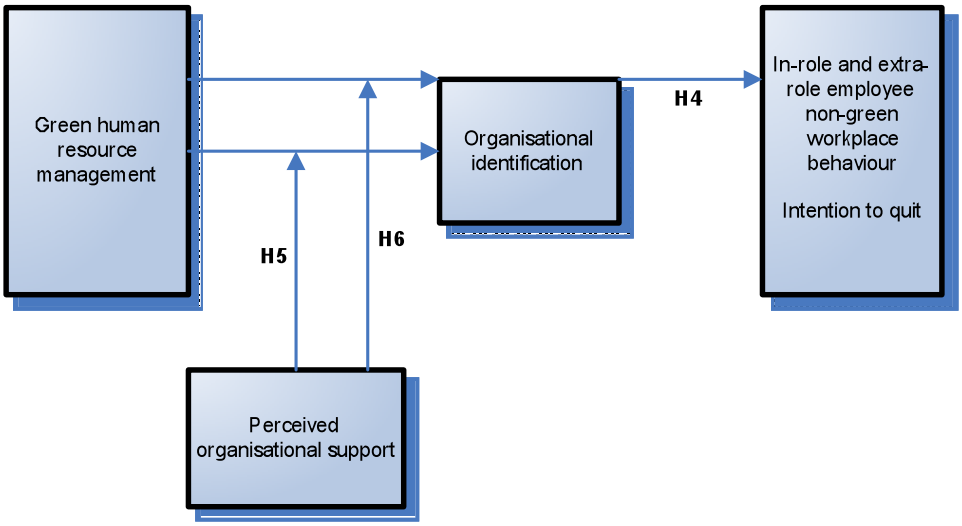
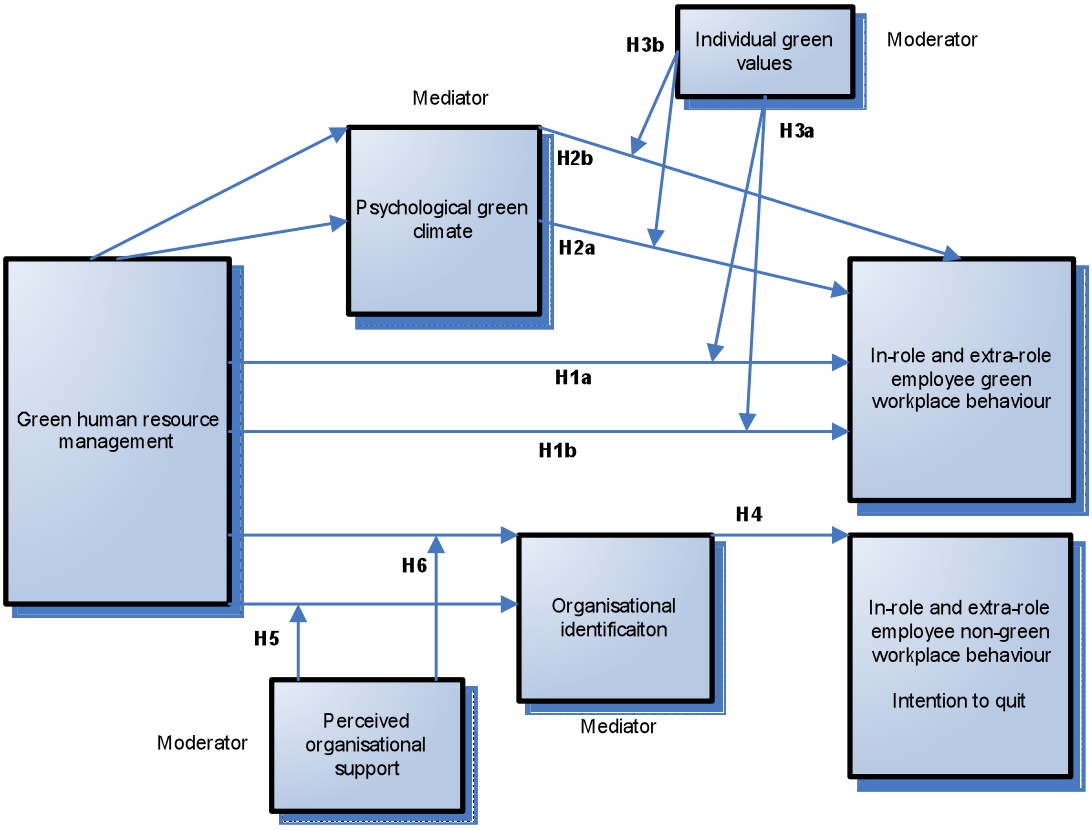


Figure 4.4. A formal illustration depicting the hypotheses and the expected relationships between all the model variables.



4.5 Conclusion

To answer the research questions raised in Chapter Three, this chapter drew upon a range of theories to establish the link between green HRM and employee workplace outcomes. In particular, these linkages explain:

- the decisions made by the firm to conform to social norms (institutional theory)
- managing the expectations of multiple stakeholders that addresses the needs of individual employees (stakeholder theory)
- employee perceptions of the organisation via the firm's characteristics and whether the organisation contributes to an employee's development (attribution theory)
- the extent to which an employee identifies with the organisation, with employees who identify with the firm more likely to exhibit desirable behaviours (SIT)
- positive social exchange relationships via organisational policies and the workplace environment in the workplace is likely to increase an employee's POS (SET)
- the actions, attitudes and behaviours of employees are shaped by their existing values (VBN theory) and
- that congruent values of both the organisation and the employee is more likely to achieve desirable outcomes (SVF/fit theory).

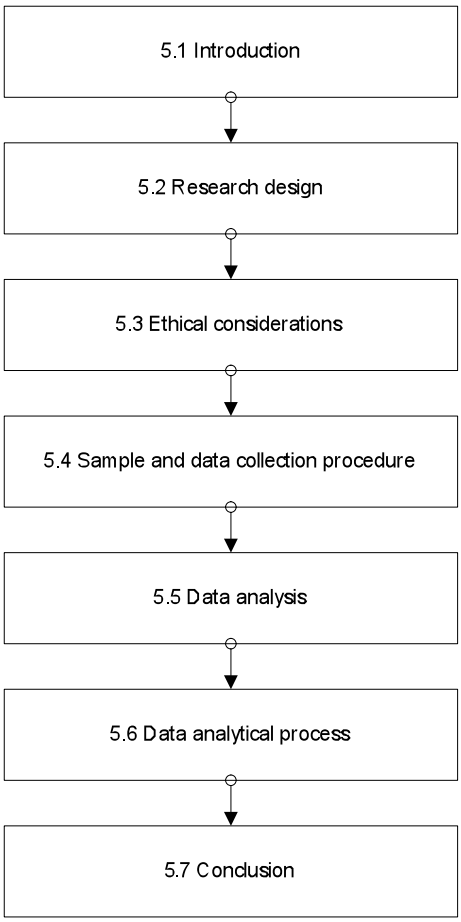
These are the key theoretical constructs that will determine the efficacy of the hypotheses proposed in this thesis.

Guided by relevant theories, a number of identified mechanisms are expected to influence a range of employee workplace outcomes. These mechanisms are underscored in conjunction with the development of nine hypotheses related to the proposed research questions. All hypotheses and their anticipated relationships were formulated and visually displayed. Chapter Five will thoroughly discuss the methodology and a number of contemporary research processes that were implemented throughout this research study.

CHAPTER FIVE

METHODOLOGY

Figure 5.1 Flowchart of Chapter Five



Chapter Five - Methodology

5.1 Introduction

This chapter will explain the methodology that was used throughout this research. The chapter will begin with an outline of the research design, a mixed method approach, and discuss the characteristics of both forms of the qualitative and quantitative methods of research. It will also discuss the ethical considerations of the study along with the sample used and review the processes regarding the collection of the data. The chapter will then illustrate how the green HRM measures were developed and depict the measures used for all variables in both the employee and supervisor questionnaires. Finally, the chapter will identify the methods used for analysing the data, the benefits for using those methods and the key procedures involved in the analytical process. The chapter concludes with a synopsis of the primary points in relation to the methods and processes utilised throughout the study.

5.2 Research design

The key aim as a researcher is to seek to explore and expound current events, as well as seeking to explain future events (Babbie, 2012). Normal human observations are subjective and often interpreted erroneously, whereas, as researchers, our intentions are to avoid these types of errors and make observations through cautious and deliberate acts within the realms of qualitative and quantitative methods of research.

Methods and methodology, according to Bryman (2008, 2012) are two distinct constructs, with methods referring to the instruments of data collection, such as questionnaires or interviews, or specific tools for analysing data, or it may refer to sampling, a specific statistical technique. Methodology is the study of the particular

methods that have been implemented within research, and aims at uncovering the results of premises and practices adopted within an empirical study (Bryman, 2008).

This study tested a sequential exploratory mixed method approach, which according to Creswell (2003) is a pragmatic and pluralistic approach to derive new knowledge. Creswell (2003) suggests that this approach enables researchers to collect and analyse data, without the restriction of working within the parameters of one subscribed method, and provides the best possible course to improve our understanding of a research problem. Creswell (2003, p. 18) defines a mixed method approach as:

> *'……one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g. consequence-oriented, problem-centred, and pluralistic). It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems. The data collection also involves gathering both numeric information (e.g., on instruments), as well as text information (e.g., on interviews) so that the final database represents both quantitative and qualitative information'.*

Although a mixed method approach is considered a relatively new research paradigm, it provides researchers with an alternative to strictly applying either a quantitative or qualitative research design (Leech & Onwuegbuzie, 2009). Mixed methods research involves collecting, analysing and interpreting both qualitative and quantitative data in a single study, with sequential studies generally conducted using qualitative research methods for one phase, and quantitative research for a second or subsequent phase (Caruth, 2013; Leech & Onwuegbuzie, 2009). According to Bryman and Bell (2011), combining qualitative and quantitative approaches enhances the validity, reliability and generalisability of case study research. A quantitative approach to data collection is able to gather large amounts of information and can explore multifarious and dynamic phenomena and apply this to a specific local context (Bryman & Bell, 2011). Both methods play an

equally crucial role, providing a complementarity that enables a complete vision of the research problem to evolve.

Venkatesh, Brown and Bala (2013) have recently depicted seven key purposes for using a mixed method approach to research, which are: complementarity, completeness, developmental, expansion, corroboration/confirmation, compensation and diversity. Specifically, these seven purposes are described as:

a) *complementarity* – to acquire reciprocal viewpoints about comparable encounters or relationships
b) *completeness* – to ensure that a complete representation of encounters or relationships are accomplished
c) *developmental* – to build a range of questions sequentially - using one method which raises questions that materialise from the inferences of a prior method; or one method may present hypotheses or results, which may be subsequently tested in a later method
d) *expansion* – to refine or elaborate on knowledge which has been collected during a previously used method
e) *corroboration/confirmation* – to help in the evaluation and trustworthiness of the implications learned from the alternative method
f) *compensation* – by using two methods, it enables any weaknesses evident in one method, to be countered by the other and
g) *diversity* – to obtain alternative viewpoints of the same or similar experiences and personal associations (Venkatesh et al., 2013, p. 26).

All of the above purposes for using a mixed method approach to research apply to this research study, and will be utilised to expand our understanding of the complexities that are likely to exist between green HRM and employee workplace outcomes.

Although the primary aim of this research is to explore the consequences of green HRM within the workplace, the study has an additional level of complexity that a mixed method research approach is able to mitigate. The complexity, to which this refers, is that the research was conducted in China. The rise of China within the global context and rising interest in comparative management studies conducted between China and the West (Adler, Doktor & Redding, 1986; Tsui, 2009) is growing. However, as Barney and Zhang (2009) acknowledge, the heterogeneity between the East and the West limits the ability to universally apply Western theories, measures and constructs within the Chinese context, without some level of metamorphosis of the theories and/or Western developed and validated measures.

Adler et al. (1986) suggests there are significant differences between the cognitive processes and responses of people from different cultures, and that HRM research needs to contextualise within the boundaries of the contexts in which it is being undertaken. Whetton (2009) supports the earlier claims by Adler et al. (1986) and suggests that research that does not contextualise or be context sensitive is likely to result in a distorted understanding of the findings, and result in a less than accurate assessment of the intent of the research paradigm. Therefore, it is considered that a mixed method approach is important to studies conducted in a non-Western environment with necessary adjustments required, which considers the cultural context in which the research is being conducted.

This research consists of two distinct phases. Phase 1, is a qualitative study, which examined what is meant by green HRM by exploring a singular company to determine the level of green HRM and associated HR practices already being practiced, proposing and developing measures for the concept, as well as accommodating the needs and concerns of local respondents within the parameters of the questionnaire. The measures developed for

green HRM were derived from the results of the qualitative phase of the research, with these measures subsequently used to gather the data during the second phase. Phase 2 is the quantitative portion of the study, which statistically explored the relationships between green HRM, in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit. It also investigated the relationships between green HRM, employee workplace outcomes and a number of mediating and moderating variables.

5.2.1 Qualitative research – Phase 1

Within the social science realm, qualitative research is regarded as the most effective way in which researchers formulate their understanding of: '*peoples' motivations, reasons, actions and the context for their beliefs and actions in an in-depth way*' (Myers, 2013, p. 5). Creswell (2003, p. 18) defines qualitative research as:

> *'.....one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives (i.e. the multiple meanings of individual experiences, meanings socially and historically constructed, with an intent of developing a theory or pattern) or advocacy/participatory perspectives (i.e. political, issue-oriented, collaborative, or change oriented) or both. It also uses strategies of inquiry such as narratives, phenomenologies, ethnographies, grounded theory studies, or case studies. The researcher collects open-ended, emerging data with the primary intent of developing themes from the data'.*

According to Myers and Avison (1997) and Leedy and Ormrod (2001) there are two elements that qualitative approaches possess:

- it enables the study of phenomena that occurs in natural settings, often referred to as a study within the 'real world' and
- that this phenomena is studied in all their complexities.

There are several qualitative approaches used within academic research, which all have differing characteristics to fit within the context and suitability of the research subject. These approaches are:

1) *case study* - which understands a singular person or situation within a natural setting and can be done through interviews, observations, documents and/or audiovisual aids. This approach allows an interpretation of the findings to identify common themes and threads and to synthesise an overall depiction of the case or cases

2) *ethnography* – which seeks to understand how individual behaviours reflect the culture of the overall group and is conducted within a group of people in the same culture. This approach is conducted through observations, structured or semi-structured interviews and document collection, with the overall aim to focus on specific events

3) *phenomenological study* – explores the experiences from the point of view of participants in order to study a particular phenomenon as it is perceived by human beings. This approach can be done through in-depth or unstructured interviews and purposeful sampling of groups of individuals in order to search for 'meaning units', which reflect various aspects of the individuals' experiences and an integration of these 'meaning units' into a mainstream experience

4) *grounded theory* – develops a theory from data that is collected from within a natural setting, using human actions and interactions and explore how they result from and influence each other and

5) *content analysis* – identifies specific characteristics of a body of material using verbal, visual or behavioural types of communication. This approach uses identification and sampling (focus groups) of the material to be analysed with coding of the material in terms of predetermined and specifically defined

characteristics, in order to tabulate the frequency of these characteristics with descriptive or inferential statistical analyses required to answer the questions within the research study (Leedy & Ormrod, 2001, p. 157).

The qualitative approaches that are relevant to this study are the phenomenological, case study and content analysis approaches. These approaches provide the ability to utilise and analyse interviews and sampling formats, to explore green HRM policies and practices in order to integrate the findings into a meaningful and applicatory format.

Although the case study method has been questioned due to concerns regarding its methodological rigour in terms of its ability to meet validity and reliability standards, case studies have provided researchers with tools to explore, generate and test theories within the strategic management fields (Gibbert, Ruigrok & Wicki, 2008). Gibbert et al. (2008) claim that case studies represent an effective methodology that is ideally suited to creating knowledge within the management sphere. Yin (1994, p. 13) describes the scope of a case study as:

> *'…… an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon is broad and complex, where the existing body of knowledge is insufficient to permit the posing of causal questions, when a holistic, in-depth investigation is needed, and when a phenomenon cannot be studied outside the context in which it occurs'.*

The case study approach to qualitative research typically combines multiple data collection methods such as interviews, observations, questionnaires and documentation, which can generate qualitative or quantitative data (Dubé & Paré, 2001). Case studies have three design types: explanatory, descriptive and exploratory (Yin, 1981). This study utilises an exploratory case study approach to investigate:

> *'a relatively new field of scientific investigation in which the research questions have either not been clearly identified and formulated or the data required for a hypothetical formulation have not yet been obtained'* (Streb, 2010, p. 373).

Focus groups are a common method used within qualitative research, which are aimed at capitalising on communication, through the encouragement of interaction between participants in a research atmosphere (Kitzinger, 1995). This method is considered to be helpful when exploring the experiences and knowledge of individuals, as well as examining how and why employees might think in a particular way. According to Kitzinger (1995), focus groups are particularly useful when a researcher is seeking to explore the issues of importance within the group, as well as encouraging the group to generate ideas and questions that can positively contribute to the research. Group conversational forums such as focus groups may also encourage participation from employees who may be reluctant to participate, due to issues such as perceived (or real) intimidation or embarrassment (Kitzinger, 1995). A key component of this research study and a vital reason for conducting the focus group format, were to determine the relevance and validity of the measures that had been conceptually developed through an analysis of the green HRM literature. The focus group format also enabled the researcher to determine whether existing Western influenced and developed measures intended for inclusion in the questionnaire, were understood by members of the group.

It is for these reasons, that phase 1 of this research study will use an exploratory case study approach. Phase 1 explores the policies and practices of a singular company to determine how or if the Company is currently implementing green HRM related practices. It also would be able to confirm the relevance of the questions in the survey, which were developed during this crucial phase of the research.

5.2.2 Quantitative research – Phase 2

This second phase of the research is a quantitative one. Quantitative research is described as the ability to explicitly record observations and to simplify the process of aggregating, comparing and summarising collected data (Babbie, 2012). Creswell (2003, p. 18) defines quantitative research as:

> *'.....one in which the investigator primarily uses post-positivist claims for developing knowledge (i.e. cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data'.*

According to Babbie (2012) quantitative methods offer researchers the ability to use numbers over observations, which are generally considered to provide a greater level of quality and accuracy due to the non-subjective nature of the approach. This phase of the research explores the *why* questions and therefore utilises an explanatory approach within the parameters of a quantitative method. De Vaus (2001) suggests that explanatory research enables researchers to provide explanations of causal factors between different phenomenons, with causation being either a simple causation through a direct relationship, or a more complex causation through indirect or integrative relationships.

Using a survey design as stated by Creswell (2003), provides researchers with an opportunity to develop a quantitative or numerical description of motivations, behaviours and trends that are indicative of a sample of a specific population. The advantages of conducting surveys, is that researchers can generalise findings from a sample being tested within the population, otherwise referred to as external validity (Vogt, 2011). It is considered to be a more accurate form of testing because numbers represent the variables rather than being represented by mere subjective observations (Murray, 2003).

The core aim during this phase of the research is to statistically explore the effects of green HRM on a range of employee workplace behaviours and perceptions. It is considered highly appropriate to use an explanatory, quantitative method to achieve these research objectives. A survey involving the employees within a single case study company was subsequently conducted to collect the quantitative data.

5.3 Ethical considerations

A strict adherence to ethical considerations was made, as it is important to social science studies that researchers consider the effects of their research on participants and ensure that the necessary steps are taken to minimise any negative repercussions of undertaking the study (Babbie, 2012; Bryman, 2001). The researcher submitted an ethics application to the University of South Australia (UniSA) Human Research Ethics Committee (HREC), as required when conducting research that involves human beings. This application was submitted prior to any research being undertaken and was subsequently approved by the Committee. Formal approval from the HREC was provided by electronic communication (see Appendix 3). Participants were advised if they had any concerns about the research, to contact the researcher or the HREC, as participants should be fully apprised and always provide informed consent (Walsham, 2006).

Senior management provided tangible and intangible support for the study with focus group participants giving tacit approval for the taping of focus group sessions. Participants of the interviews and the focus groups were advised verbally and in writing, as were all respondents of the questionnaire that:

- their participation was not compulsory
- it was anonymous and

- that all responses were strictly confidential with no names required to be included or written on the questionnaire.

The organisation was advised at the completion of the questionnaire process that a summary of the findings of the research would be provided at a later date. Since the completion of both phases of the research the collected data has been safely stored within the confines of the researcher's principal supervisors office. It will be retained for a minimum of five years.

5.4. Sample and data collection procedure

5.4.1 Sample - Case study company

The case study company has three factories in China. One factory is in Shanghai and the other two factories are in Heshan, Guangdong province. The firm is a subsidiary of an Australian company, which is a leading global manufacturer of paper, board and film based food-packaging products. In addition to Australia and China, the Company has manufacturing facilities in Indonesia, South Africa, the Philippines and Vietnam, with a global sales network that services all continents. The Company publicly claims that it is:

> *'(s)trongly committed to environmentally sound practices at all sites, we ensure where possible the reuse and recycling of materials, safe disposal of waste and waste minimisation throughout all processes'* (source: Company's website).

In-depth interviews were conducted with the Company's key managerial personnel including the GM, the Senior HR Manager, HR managers and the Environmental and Safety Officer (ESO). The first sub-question was answered, which was able to clarify what green HRM practices were evident in the Company, and as such the findings reveal what green HRM practices are likely to be adopted in other organisations. After the interviews were conducted, corporate documentation and other available materials pertaining to green

HRM and green management were reviewed to build an in-depth picture of the Company and its corporate approaches to green HRM, EM and CSR related processes and practices. These documents comprised of environmental policies and practices found from within the Company's website, and publicly available documents in hard copy, which were supplied by the GM.

5.4.2 Data collection – Phase 1

The qualitative method used during the first phase of the data collection portion of the research, was conducted primarily to identify what or if green HRM practices existed within the case study company, and to facilitate the development of measures for green HRM. To do this, it was necessary to conduct and examine two crucial components:

- the green management and green HRM literature, and existing green HRM practices (or lack thereof) of the Company at the centre of the research and
- conduct interviews and focus groups.

By thoroughly exploring and conducting these two aspects, it became possible to develop suitable measures that could be applied to phase 2 of this study.

Sampling is the method of selecting specific units, such as people or organisations, to enable a generalisation of the results of these units back to the main population from whence they came (Trochim, 2006). This approach assumes that you are able to draw a sample that is representative of the population you are seeking to investigate and although there can be issues with this approach, it is viewed in the literature as an acceptable approach to exploring personal thoughts and understanding the context of individual perceptions, actions and beliefs. Sampling in this instance, (a total of 59 employees across three manufacturing plants) refers to a sample of workers that took part in the focus groups, which were considered to be a credible representation of the Company's

workforce. This sample enabled the researcher to determine the cognoscibility and appropriateness of items intended for inclusion in both the employee and supervisor questionnaire.

A triangulation of sources approach was used during the course of phase 1 of this study. As highlighted by Cohen and Crabtree (2006), using multiple methods of research helps to facilitate a better understanding of the particular phenomenon in question. Specifically, in phase 1 the primary data was collected using a more subjective approach, with the secondary data in phase 2 collected from analysing existing literature and appropriate company documentation pertaining to environmental, HRM and green HRM policies.

The collection of data was conducted in two separate stages. The first stage involved interviewing key management personnel including the GM, senior HR managers and the ESO who were located in the Guangdong manufacturing sites. Interview questions were open-ended and semi-structured (see Appendix 2) to ensure that interviewees could contribute a greater understanding of the organisation's position on green policies, processes and practices in the workplace, rather than providing yes or no answers as found with a structured question approach. The GM was interviewed separately from the HR team, with all managers and the HR team very supportive of the research. The HR manager for North Asia operations, the HR manager for the Heshan factory, the ESO, the researcher's Associate Supervisor (a native Chinese speaker) and the primary researcher attended a meeting to discuss elements of the study. The HR managers and the ESO officer were fluent in both Chinese and English. The meeting discussed what HRM support resources might be required during the course of the data collection, when the questionnaire would be undertaken, as well as explaining what were

the overall objectives of the research. During the course of the meeting, the HR managers confirmed that they have a range of HRM policies that are designed to engage workers in organisational green initiatives and to encourage employees to exhibit green behaviours. The managers also advised that the Company aspired to be 'greener' as part of furthering a corporate strategy to be seen as an environmentally sustainable and socially responsible company.

Specifically, questions put forward during these meetings were aimed at determining if the firm had:

- considered green knowledge or skills during the recruitment and selection process
- offered employees green training and skills development
- developed green KPIs that could be addressed during performance and appraisal reviews and
- considered offering promotional opportunities, rewards or compensation to employees to positively contribute to the organisations achievement of green goals, or the achievement of individual KPIs linked to green outcomes.

The interview sessions lasted for approximately one hour with further clarifications sought at a later time through multi-media types, i.e. phone and email. All of these interviews and clarifications were conducted during the period September 2013 to December 2013. See Table 5.1 for a summary of the profiles of the interviewees.

Table 5.1 Profiles of the interviewees

Position	**Gender**	**Tenure**	**Age**	**Highest Qualification**
HR manager Nth Asia Operations	Female	5.5	40	Bachelor
HR Manager of Heshan plant	Female	6	39	Diploma
ESO officer	Male	2	34	Bachelor
General Manager	Male	6 years	54	MBA

Stage two comprised of three focus groups. The primary purposes of conducting these focus groups was to collect data about the green HRM practices evident, or conversely not evident in the firm, as well as holding discussions about the newly developed green HRM items and other variables' items used in the questionnaire. The focus groups helped to determine whether the Company's employees perceived (or knew) that the organisation had implemented green policies, processes or practices. In addition, employees were encouraged to offer suggestions as to how the newly developed green HRM measures and measures for other variables being tested, could be improved for the workers that would be taking part in the questionnaire process. Animated discussions amongst focus group attendees resulted in requests for examples to be included, which would provide a greater understanding of the context of the questions. Demographic information of the focus group participants is shown in Tables 5.2 to 5.4.

Table 5.2 Profiles of the focus group participants: *Heshan Focus Group 1*

Gender	**Age**	**Highest Education**	**Position**	**No. of years with the Company**	**Similar experience outside of the Company (years)**
Female	39	Bachelor	Manager	7	8
Female	42	University	Manager	9	10
Female	42	University	Manager	8	11
Female	32	University	Manager	8	0
Male	51	University	Manager	4	17
Male	39	University	Manager	1	14
Male	39	University	Manager	7	10
Female	28	Secondary school	Office worker	1	8
Female	22	Secondary school	Packer	4	0
Female	28	Secondary school	Packer	4	0
Female	29	Secondary school	Packer	7	0
Female	32	Secondary school	Packer	3	0
Female	30	University	Office worker	8	0
Male	37	Secondary school	Operator	15	0

Table 5.3 Profiles of the focus group participants: *Heshan Focus Group 2*

Gender	Age	Highest Education	Position	No. of years with the Company	Similar experience outside the Company (years)
Male	32	Trade school	Team Leader	12	0
Male	39	Secondary School	Supervisor	15	5
Male	25	Secondary School	Team Leader	6	1
Male	42	Secondary school	Team Leader	17	1
Male	37	Secondary School	Team Leader	18	0
Male	41	Secondary school	Team Leader	4	17
Male	42	Secondary School	Team Leader	13	8
Female	40	Secondary school	Packer	12	7
Female	35	Secondary school	Packer	1	13
Female	46	Secondary school	Packer	3	10
Female	31	Secondary school	Packer/ Operator	12	2
Female	39	Secondary school	Packer	6	10
Female	50	Secondary school	Packer	12	10
Female	34	Secondary school	Packer/ Operator	12	2
Female	42	Secondary school	Packer	5	0
Female	34	Secondary school	Packer/ Operator	10	3
Female	35	Secondary school	Packer/ Operator	13	3
Male	37	Secondary school	Operator	15	0
Male	26	Trade school	Operator	2	2
Male	23	Secondary school	Operator	2	1
Male	28	Trade school	Operator	7	0
Male	27	Secondary school	Operator	5	2
Male	40	Secondary school	Operator	2	15

Table 5.4 Profiles of the focus group participants*: Shanghai Focus Group*

Gender	Age	Highest Education	Position	No. of years with the Company	Similar experience outside the Company (Years)
Female	40	Secondary school	Packer	9	0
Female	43	Secondary school	Packer	10	0
Male	27	Trade school	Operator	6	0
Female	38	Secondary school	Packer	9.5	0
Male	24	Trade school	Other	6	0
Male	31	Trade school	Operator	10	0
Male	29	Secondary school	Operator	2	0
Male	26	Secondary school	Other	4.5	2
Female	35	Secondary school	Packer	1	0
Male	26	Trade school	Operator	3	2
Male	28	Secondary school	Operator	4	4
Female	34	Secondary school	Packer	2	0
Female	38	Secondary school	Packer	7	0
Male	42	Secondary school	Other	8	15
Male	34	Trade school	Supervisor	10	2
Male	33	University	Supervisor	7	3
Male	32	University	Team leader	6	3
Female	31	University	Supervisor	4	4
Male	40	University	Supervisor	12	5
Female	34	University	Supervisor	7	4
Female	49	University	Supervisor	12	10
Male	36	University	Supervisor	11	2

5.4.3 Data collection – Phase 2

The data utilised in phase 2, was collected through the aforementioned questionnaire process. It was distributed among employees across three plants in two locations in China, between February 20 and March 10, 2014. The Company plants are different in terms of location and size, however, all plants belong to the same company and manufacture food grade paper packaging products for both the Chinese domestic and Chinese export markets. The bulk of employees in both locations are local and migrant Chinese workers with the Heshan plant having the majority of senior management based in that location. The questionnaire was developed through focus group discussions and a literature review. It was first developed in English and translated into Chinese, and subsequently back-translated into English by two senior bilingual researchers, as back-translations are an important component of cross-cultural research to avoid translation errors (Brislin, 1970). The findings from the focus groups ascertained that the Chinese version was suitable for the Chinese participants, despite some minor wording changes and the inclusion of supplementary examples for some items.

Although some researchers suggest that seven or more responses in a Likert scale demonstrates greater reliability, Clason and Dormody (1994) confirm that five items is the traditional Likert scale and satisfactorily works in contemporary management and social science research. As the majority of respondents to the questionnaire were likely to generally have lower than average levels of education, it was considered responsible and equitable to simplify the questionnaire process to avoid any confusion and to suit the capabilities and aptitudes of the intended respondents. As such, a five point Likert scale was chosen, ranging from 1=strongly agree to 5=strongly disagree, which were used for all study variables.

The HR team worked closely with the researcher and managers to recruit employees who were available and willing to participate in the survey. A specially prepared onsite location was provided with participants given time off work to complete the questionnaire. Supervisors had additional time (up to two days) to complete the questionnaires with most supervisors having multiple employees that they would need to review. Accompanying both the employee and supervisor questionnaires was a cover letter that outlined why the research was being conducted, procedures for completion of the questionnaire, along with addressing participation and confidentiality issues (Appendix 4 & 5). Key HR team members and the researcher distributed the questionnaires along with the presence of the researcher at all times to ensure that employee confidentiality was maintained.

At the time the survey was conducted the Company had a total of 642 employees, with 510 employees located in Heshan and 132 employees located in Shanghai. A total of 388 employees took part in the questionnaire process, which equates to a response rate of 60.5% of the total number of employees. Of the 510 employees in the Heshan plant, 260 took part in the questionnaire, providing a response rate of 51%. Of the 132 employees in the Shanghai plant, 128 took part in the questionnaire, providing a response rate of 97%. These response rates are considered to be high by academic standards and beyond what is generally expected in academic studies. The high response rates can be attributed to the strong tangible and intangible support from the GM, the HR team and the employees of the organisation for the research project. Regarding the respondents, on average they had 11.53 years of education (s.d.=2.95) and worked with the firm for 6.22 years (s.d.=4.3). The mean age was 36.30 (s.d.=8.35) and 57.5 per cent of respondents were female.

5.5 Data analysis

5.5.1 Phase 1

The data analysis method used during this portion of the study was a content analysis, which is used to explore the significance of cognitive and social elements of human behaviours in the workplace. Specifically, a content analysis enables researchers to identify the intentions or motivations of individuals or groups, exploring employee attitudes and behavioural responses to organisational policies and communication, and provides a methodology for a systematic analysis of corporate information (Morris, 1994). Content analyses are conducted in social science and management research to achieve the following objectives:

1) to make inferences about the values, sentiments, intentions or ideologies of the sources or authors of the communications
2) they infer group or societal values through the content of communications and
3) to evaluate the effects of communications on the audiences they reach (Morris, 1994, p. 904).

As a part of conducting a content analysis, researchers must implement a transparent and consistent coding approach, which according to Bazeley (2008) is critical when qualitative data is used to facilitate a conversion for use with a subsequent statistical analysis. In addition, Myers (2009) suggests that effective coding assists researchers to reduce the magnitude of the collected data and helps with both the retrieval and organisation of that data. Interview questions were developed based on green HRM literature. Interview questions can be viewed in Appendix 2.

Green HRM measure development

As there are no extant measures for green HRM, existing research was explored as well as information gathered during phase 1 to apply to the development of the green HRM measures. Information gained from representatives of the Company facilitated in the identification of key green HRM practices currently implemented in the organisation. In addition, a green HRM review by Renwick at al. (2013) (see Table 2.2) resulted in the identification of a number of green HRM activities, which were subsequently used as a framework for the measure development process.

Recruitment and selection

At the time the survey was undertaken the firm did not specify sustainability or attempt to portray the firm as an environmentally friendly employer in their job advertisement for most positions it advertised. Currently, there is no formal requirement for candidates to be environmentally knowledgeable or have green related skills. This is perhaps in line with the practice of most of recruiters in China. While environmental issues have become increasingly important in China (Huang, 2013), the majority of the general public still see the environment as a territory for government policy, rather than considering that their own actions or behaviours could affect the environment. However, the Company does have sustainability and leadership included in the job descriptions for senior management positions. Given that the target respondents are largely frontline workers, the recruitment item was not included in the questionnaire.

Environmental issues and practices are included as part of an employee's induction into the firm. Employees are made aware of the Company's values, which include sustainability and adherence to environmentally related policies. More importantly, instructions for both the safe handling of chemicals and a responsible approach to waste water discharge are included in the induction manual. Newly recruited employees are

reminded of the importance of following the proper processes for the handling of chemicals and discharging waste water as they are developed for two reasons: employee safety and as a strict adherence to formal environmental regulations and company policies.

Training and development

All employees receive training for chemical handling and waste water discharge if their job involves or has the potential to involve, chemical or waste water handling. General environmental training and associated processes is offered to all employees. The ESO officer advised that he attended training sessions offered by the Company's customers, which facilitates the Company to comply with their environmental reporting and government requirements. Training sessions offered by the local government on clean production processes were also attended by the ESO. The external training is primarily aimed at conveying the importance of adhering to and achieving, the local government's environmental targets and obligations. Having a company representative at these training sessions demonstrates that the Company positively contributes to the engagement and achievement of these local government targets and obligations, as well as demonstrating that the Company meets audit reporting requirements from its customers. This type of compliance training is not relevant to most employees in the Company, but does play a role in the development of the Company's environmental policies designed to meet governmental regulatory compliance requirements.

Performance Management

The firm's chemical handling and waste water discharge process has been included as a measurable KPI for frontline workers, team leaders and supervisors. Frontline workers also have opportunities for promotions if they have continuously followed the EM process and have had no chemical handling mishaps, or a chemical related accident (i.e. spillage)

for 12 months. On the other hand, if they have one major environmental accident such as spilling chemicals, they will be disqualified from promotional opportunities for an extended period. Supervisors will also be suspended from receiving quarterly or annual bonuses if found responsible for their subordinates accident (for example, the employee did not attend the relevant training before starting his/her work). For senior managers, improving production efficiencies and waste reduction are crucial components of their personal KPIs. In addition, sustainability is a key performance indicator with managers required to overtly demonstrate what processes they have implemented to improve the sustainable operations of the firm.

Rewards and compensation

As mentioned previously, an employee's promotion can be influenced through their performance by improving production efficiencies, as well as complying to the firm's policy on handling chemicals and waste-water in a responsible way. Employees are rewarded for their suggestions to improve production efficiencies and to reduce wastage with a cash reward on offer. Those employees whose suggestions were adopted by the firm were publically recognised with the GM formally presenting the employee with a cash reward in front of all employees.

Preliminary green HRM measures

As a result of the above information, preliminary measures were developed as follows:

1) *My company considers candidates' attitude toward the environment in selection*
2) *My company takes initiatives to promote the environment as a core organisational value*
3) *My company provides environmental training to develop employee skills*
4) *My company considers an employee's environmental performance in promotions*

5) *My company considers an employee's environmental performance in performance appraisals*
6) *My company relates an employee's environmental performance to rewards and compensation*
7) *My company sets environmental goals for its employees*
8) *My company provides support to encourage employees to engage in positive environmental behaviours*
9) *The company is supportive of employees' environmental concerns, and is responsive to feedback when considering the impacts of its operations on the environment*

A subsequent review of these measures resulted in changes to the original statements to reflect the context on which this study is based. This was deemed necessary so that greater specificity was realised during the questionnaire process, as well as offering future researchers testable hypotheses with greater reliability. A thorough review was conducted of existing HRM and environmental management items found in the literature. As a result of this review and further clarifications with the Company's management team, the following changes and adaptations were made to the previous statements. The resulting developed items for green HRM were:

1) *My company sets green goals for its employees*
2) *My company provides training to promote green values*
3) *My company considers candidates' attitudes toward the environment in recruitment and selection*
4) *My company provides training to develop employees' green knowledge and skills*
5) *My company considers an employee's green workplace behaviour in performance appraisals*
6) *My company relates an employee's green workplace behaviours to rewards and compensation*
7) *My company considers an employee's green workplace behaviours in promotions*

As the Company did not consider the attitudes of potential employees during the recruitment and selection phase, item *(3) My company considers candidates' attitudes toward the environment in recruitment and selection*, was removed. As a result of this item's removal, a total of six items were developed.

5.5.2 Phase 2

The complete employee questionnaire can be viewed at Appendix 6, with the complete supervisor questionnaire found at Appendix 7. The conceptual framework contains 10 variables:

- the single independent variable is green HRM
- the five dependent variables are in-role employee green workplace behaviour, extra-role employee green workplace behaviour, in-role employee non-green workplace behaviour, extra-role non-green workplace behaviour and intention to quit
- the two mediators are psychological green climate and organisational identification and
- the two moderators are individual green values and POS.

Measurable items applicable to all model variables will now be discussed.

Green HRM measures

Once the focus groups had been completed along with concluding discussions with the HRM team in the Company, six items were chosen with some minor modifications. The modifications were done to reflect the concerns of the focus group participants that employees would not understand the context in which the questions were being asked. Supplementary examples were included in five of the six items. Therefore, the six items included in the employee questionnaire were:

1) *My company sets green goals for its employees (example – reducing wastage, improving machine efficiency)*
2) *My company provides training to promote green values that will reduce negative effects on the environment (example – reducing pollution in the river, stop throwing rubbish on the road)*
3) *My company provides training to develop employees' green knowledge and skills to improve understanding of why it is important to reduce pollution and look after the environment*
4) *My company considers an employee's green workplace behaviour in performance appraisals (example – improve machine efficiency, reduce paper wastage*
5) *My company relates an employee's green workplace behaviours to rewards and compensation (example – KPI payments for improved efficiency*
6) *My company considers an employee's green workplace behaviours in promotions (example – skill upgrading an lead to a promotion)*

The following procedure was undertaken to validate and assess the reliability of the newly developed green HRM measures:

- an exploratory factor analysis was performed on the measure for green HRM using a half of the sample. The coefficients all exceeded .30. The Kaiser-Meyer-Oklin value was .80 and the Barlett's Test of Sphericity was significant (p<.001). These results supported the factorability of the correlation matrix. The principle axis factoring extracted one factor with eigenvalue exceeding 1 (eigenvalue = 3.05, explaining 43.40 per cent of variance). The individual factor loading all exceeded .70, which indicated excellent reliability (Tabachnick & Fidell, 2007) and
- a confirmatory factor analysis (CFA) was performed on this variable using the other half of the sample. The results supported the single dimensional structure [$\chi^2_{(9)}$ = 25.02, p<.001; CFI=.97; IFI=.97; RMSEA=.06]. It was concluded that the measure for green HRM was usable with the sample. The Cronbach reliability of this scale was .88. The six items and factor loadings are shown in Table 5.5.

Table 5.5. The measures for green HRM

Item	Factor Loading
My company sets green goals for its employees (example – reducing wastage, improving machine efficiency)	.71
My company provides employees with training to promote green values that will reduce negative effects on the environment (example – reducing pollution in the river, stop throwing rubbish on the road)	.74
My company provides training to develop employees' green knowledge and skills to improve understanding of why it is important to reduce pollution and look after the environment.	.77
My company considers an employee's green workplace behaviour in performance appraisals (example – improve machine efficiency, reduce paper wastage)	.73
My company considers an employee's green workplace behaviours to rewards and compensation (example – KPI payments for improved efficiency)	.72
My company considers employees' green workplace behaviours in promotions (example – skill upgrading can lead to a promotion)	.70

Psychological green climate measures

Measures for psychological green climate used in this study were developed from within the green literature and adapted from Chou's (2014) recent study, which examined organisational green climate. As this study was seeking to review it from the employee perspective, not the organisation, adaptation of the measures to suit the context of this research was required. The Cronbach's alpha of this scale was .86

A total of five items were modified and subsequently used in the questionnaire:

1) *Engaging in and supporting green and sustainable initiatives is important in this company*
2) *In this company polluting the environment and wasting energy and resources are considered to be unacceptable*
3) *People in this company are willing to sacrifice some of their self-interests for the benefit of the environment*
4) *In this company employees are encouraged to put forward new ideas on energy saving and environmental protection*
5) *In this company successful people are conscious about energy saving and environmental protection*

Feedback from the focus groups suggested providing examples with two of the proposed measures. Items three and four were subsequently modified. Modifications were:

1) *People in this company are willing to sacrifice some of their self-interests for the benefit of the environment (example – turn off the air conditioner if you do not need it on, rather than keep it on all the time)*
2) *In this company, employees are encouraged to put forward new ideas on energy saving and environmental protection (example – suggestion box)*

Individual green values measures

Individual green values measures were adapted from Chou's (2014) personal environmental norms scale. The Cronbach's alpha of this scale was .83. A total of three items were used from Chou's original seven-item scale:

1) *I feel a personal obligation to do whatever I can to prevent environmental degradation*
2) *I feel a sense of personal obligation to take action to stop wasting resources*
3) *Business and industry should protect the environment*

Participants of the focus group requested examples for two of the three proposed individual green values measures. These measures were subsequently modified to:

1) *I feel a personal obligation to do whatever I can to prevent environmental degradation (example – not throwing rubbish on the road or pouring chemicals down the drain that will end up going in to the river)*
2) *I feel a sense of personal obligation to take action to stop wasting resources (example – saving water or using less electricity)*

Organisational identification measures

Organisational identification was measured using six items from Mael and Ashforth's (1992) well-validated organisational identification scale. The scale has been widely used in many types of organisations and industries and frequently applied in cross-cultural studies. Prior studies have determined there is high internal reliability for the scale. Example items used in this study are 'I am very interested in what others think about this company' and 'this company's successes are my successes'. The Cronbach's alpha of this scale was .82.

Perceived organisational support measures

Perceived organisational support was measured using seven items from Lynch, Eisenberger and Armeli (1999). The original scale was eight items, with the item 'my company cares about my opinions' removed. This is a highly regarded empirically validated scale, which has been widely used in a variety of industries, cultures and countries and has a high internal reliability. Example items 'My company strongly considers the importance of my personal values and goals' and 'If I made a mistake in my job, and advised my supervisor, my company would forgive me'. The Cronbach's alpha of this scale was .85.

Intention to quit measures

Intention to quit was measured using three items from Farh, Tsui, Xin and Cheng (1998). The original scale had four items, with the item 'I may not have a good future if I

stay with this organisation' removed. All items have been validated in a Chinese context in multiple studies, with the scale demonstrated to have high reliability. Example items are 'I may leave this company and work for another company in the next year' and 'I often think of quitting my present job'. The Cronbach's alpha of this scale was .89.

In-role and extra-role employee green workplace behaviours measures

The in-role and extra-role employee green workplace behaviours measures were developed from within the green literature, paying particular attention to a study by Williams and Anderson (1991). However, despite the existence of the Williams and Anderson (1991) scale, changes to the items were required to reflect the objectives of this study. The Cronbach's alpha of this scale was for in-role behaviours .91 and extra-role behaviours .88.

A total of eleven items were selected to use in the questionnaire:

1) *This employee's behaviour of saving paper and energy when operating the machine is beyond the norm*
2) *This employee puts forward new ideas on energy saving and environment protection in the workplace*
3) *This employee promotes environment protection in the workplace*
4) *This employee reminds his colleagues if they did not comply with Company's environmental policy*
5) *This employee turns off the lights and power of electrical equipment to save energy even when no one is watching*
6) *This employee voluntarily recycles even when no-one is watching*
7) *This employee follows the Company's policy of disposing chemicals to avoid polluting environment*
8) *This employee follows the Company's policy of disposing waste water to avoid polluting environment*
9) *This employee follows the Company's best practice of operating the machine in order to reduce paper and energy consumption*

10) *This employee follows the Company's policy of turning off the lights and power of electrical equipment when they are not in us*
11) *This employee follows the Company's recycling policy.*

A minor modification was made at the request of the focus group. As such, all 11 items were included in the questionnaire, with only one minor modification required:

1) *this employee's behaviour of saving paper and energy at work is beyond the norm (especially careful about saving paper and energy).*

In-role and extra-role employee non-green workplace behaviours measures

In-role and extra-role employee non-green workplace behaviours were measured with seven items from Williams and Anderson (1991) and 10 items from Farh, Earley and Lin (1997). All items from the Williams and Anderson (1991) scale were included in this study, and minor adaptations to items were done to reflect the term 'this employee'. Example items include 'this employee performs tasks that are expected of him/her' and 'this employee engages in activities that will directly affect his/her performance evaluations'. The Cronbach's alpha of this scale was .91.

The 10 items from Farh et al. (1997) were from an original 20-item scale. They were chosen because of their applicability to the Company, its employees and because they have been previously applied in Chinese studies. Minor adaptations were to use the term 'this employee', and remove redundant wording. Example items 'this employee is willing to stand up to protect the reputation of the Company' and 'this employee complies with company rules and procedures even when nobody is watching' (original 'this employee complies with company rules and procedures even when nobody watches and no evidence can be traced). The Cronbach's alpha of this scale was .87.

Control variables

Demographic factors such as location, gender, position (in the Company), education, age and tenure were controlled for in the study. Coding was as follows:

location - Heshan = 1, Shanghai = 2

gender – male = 1, female = 2

position – 1 = production workers, 2 = office workers, 3 = team leader, 4= supervisor, 5 = managers

education, tenure and age - were coded as continuous variables, employees stating total number of years of education (i.e. trade school and university), how many years they had worked for the Company and how old they were.

5.6 Data analytical process

5.6.1 Structural equation modelling (SEM)

The data analysis conducted in this research utilised a structural equation modelling (SEM) approach, which is now viewed as a standard tool and the technique of choice for researchers within the social sciences paradigm (Hooper, Coughlan & Mullen, 2008; Hu & Bentler, 1999). This methodology enables researchers to represent, estimate and test formal hypotheses that explore a complex network of relationships between multiple variables (Hu & Bentler, 1999; Suhr, 2006b; Ullman & Bentler, 2009). The key goals of using an SEM approach is to improve our understanding of the patterns of correlations or co-variances amongst a set of identified variables, as well as seeking to explain as much variance as possible within the specified theoretical model (Ullman & Bentler, 2009).

The SEM methodological approach differs from more traditional methods such as regression, correlation and analysis in variance in several specific areas (Suhr, 2006b). The SEM approach is viewed as a highly flexible and comprehensive methodology, which can thoroughly investigate trends, health issues, achievements, self-concepts, exercises, self-efficacy and other unexplained phenomenons. Using SEM, researchers are able to

investigate the plausibility of developed theoretical models that may be able to explain the relationships between variables (Hu & Bentler, 1999), as well as being able to simultaneously solve a multiplicity of related equations to determine parameter estimates (Suhr, 2006b).

Suhr (2006b) states that unlike more traditional forms of statistical methods, SEM recognises that measures are imperfect and can explicitly specify errors during the analysis process. Using a SEM method, researchers are able to conduct multiple tests to evaluate validity and the model fit, rather than simple significance tests as conducted with more traditional methods. Put simply, SEM represents a dominant structure that illustrates the significance of the data analysis through the formulation of multiple statements about a set of dependent and independent, moderating and mediating variables. A pictorial representation is then transformed into a set of equations (Suhr, 2006b) with the equations then tested to determine the fit and estimate the parameters of the variables.

There are two key procedures when executing SEM: validating a measurement model and testing a structural model. Suhr (2006b) identified a number of activities that are involved in the SEM process such as:

- ensure that the relevant theory and literature has been reviewed to support the specification of the proposed model
- develop and specify a model using diagrams and equations
- determine model identification
- identify suitable measures for the model variables
- collect data using appropriate methods (i.e. survey, focus groups)
- conduct preliminary descriptive statistical analyses (i.e. missing data)
- make an estimate of the parameters within the model

- assess the appropriateness of the model fit and
- interpret and present the results of the statistical analysis.

5.6.2 Fit indices

A number of CFAs were conducted during the course of this research. This technique is used to verify the structures of a set of specifically identified observed variables, assess the goodness-of-fit (GFI) and to test discriminant validity (Suhr, 2006a). Discriminant validity enables researchers to determine whether measurements that are expected to be unrelated, are in fact, unrelated (Shuttleworth, 2014). Specific CFAs conducted were the Chi-square (χ^2) GFI index, comparative fit index (CFI), incremental fit index (IFI), root mean square error of approximation (RMSEA) and Akaike Information Criterion (AIC). Confirmatory factor analyses were performed to explore whether the dependent variables were distinctive constructs, with Byrne (2012) suggesting that CFA's help researchers to determine the fit of the model and validate the constructs. Discriminant validity was assessed by collapsing dependent, moderating and mediating variables, which found that all study variables were distinctive constructs. The model that was the best fit was retained.

Goodness-of-fit indices are used to quantify the degree of fit of variables along a continuum and can be classified in two groups: absolute fit and incremental fit (Hu & Bentler, 1999). Absolute fit indices are used to assess how well a priori model reproduces the sample data, with examples of these indices including RMSEA and AIC and incremental fit indices measuring proportional improvement in fit by comparing a target model with a restricted, or nested based models. Examples of incremental fit indices include Normed Fit Index (NFI) and CFI. Fit indices were designed, according to Bentler and Bonett (1980), to contribute to the gathering of information, which has been identified

as having a practical significance. In other words, applying the appropriate indices can identify a statistically significant effect, which can then be evaluated for its practical application to explain the resulting data.

Acceptable values for CFI and a value that constitutes a good fit, according to Hooper et al. (2008) are values that are closest to 1.0. The RMSEA indice requires a value below .06 (Beauducel & Wittman, 2005), with Hooper et al. (2008) suggesting the lower limit for RMSEA should be close to zero and the upper limit must be less than 0.08. Bentler and Bonett (1980) claim that for IFI to indicate a good fit, the indice should have a value close to 1.0 or the value should exceed .95, with Akaike (1987) stating that a model with the smallest AIC is the most parsimonious.

Another example of a fit indice is Chi-square test (Suhr, 2006b). Samples from either hypothesised values in a new study, or from a previously compared population are compared, which enables a researcher to test whether there is any difference in the proportion of samples in each category of the study (Pallant, 2013). A chi-square value, which is close to zero indicates that there are small differences between what is expected from within the hypothesised values or existing studies and what is observed from the resulting data, in regards to covariance matrices (Suhr, 2006a).

5.6.3 Common method variance (CMV)

Measurement errors occur in behavioural research often due to common method variance (CMV) and bias (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Error in measurement threatens the validity of the research and the empirical results, with CMV specifically and directly affecting both the measures and the relationships between the measures being tested. Common method variances occur when research is limited to

exploring a common rater, common measurement context, common item context, or that the characteristics of the items themselves are common (Podsakoff et al., 2003). Researchers need to carefully assess and evaluate how data will be obtained to avoid CMV in research.

To reduce the likelihood of CMV a method model was created and subsequently compared with the conceptual model. Although the method model fitted better than the conceptual model, the method model could only explain 12% of total variance. This is less than half of what is generally observed (Williams, Cote & Buckley, 1989) in academic studies, when method biases are present. Therefore, it was considered that CMV was unlikely to cause any distortion or misleading conclusions to the study's findings.

5.6.4 Hypothesis testing

The final step, according to Anderson and Gerbing (1988) is to fit the data by applying multiple structural models, which then enables a researcher to test the proposed hypotheses. Hypothesis testing models have fewer parameters and are a constrained version of the proposed model. Put simply, hypothesis testing is a method that enables researchers to confirm whether or not a theoretical model fits the sample variance (Schumacker & Lomax, 2010).

The conceptual model proposed in this study indicates there is a partial mediation by psychological green climate and organisational identification. It also indicates there are moderating and integrative moderation-mediation effects of individual green values and POS, between the independent variable green HRM and independent variables in-role and extra-role employee green and non-green workplace behaviours and intention to quit. The selection and use of rival testing models align with current literature (see MacCallum,

1986). The fit of the proposed model and other parsimonious models were compared using Chi-square differences and hypotheses were tested using the maximum likelihood procedure.

5.7 Conclusion

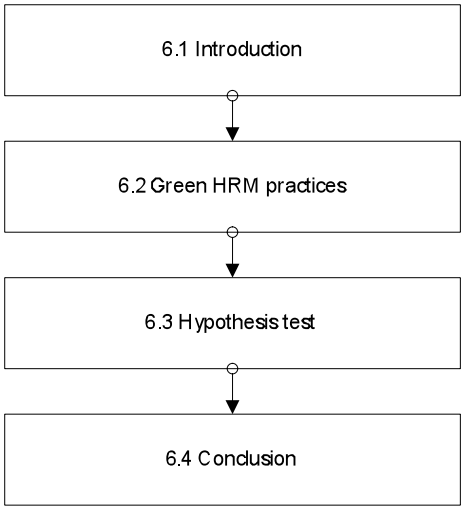
This chapter highlighted the key research design that was used in the study, namely the mixed method approach. Phase 1 was a qualitative phase, with the subsequent phase, phase 2, a quantitative one. A singular manufacturing company operating in two locations in China was the organisation used as the case study. A literature review, semi-structured interviews and finally three focus groups were conducted. This resulted in a greater understanding of the policies, processes and practices of the Company, as well as helping in the development and formulation of green HRM measures. Using a questionnaire process, the research data was collected from a number of primarily front-line and production workers and their immediate supervisor. This latter process occurred during phase 2 and was completed over a two-month period in early 2014. A number of fit indices were used to test the suitability, validity and fit of the models' variables and hypothesised relationships, with the data subsequently analysed using a SEM approach. The next chapter will present the findings for both phases.

CHAPTER SIX

RESULTS

GREEN HRM AND EMPLOYEE WORKPLACE BEHAVIOUR

Figure 6.1 Flowchart of Chapter Six



Chapter Six – Results

Green HRM and Employee Workplace Behaviour

6.1 Introduction

This chapter reports the results of the research study commencing with a breakdown and interpretation of the key elements of the qualitative study, as well as answering the first sub-question. The chapter begins by presenting an analysis of extensive interviews conducted during phase 1 with the Company's GM and senior HR management who are at the forefront of CSR, green management and green HRM related policy development and implementation. The chapter will then detail the results of the quantitative data that was collected via a questionnaire process during phase 2 which answers the remaining four sub-questions and hypotheses. The chapter concludes with a summation of both the qualitative and quantitative research.

6.2 Green HRM practices

In analysing the interview data and company documentation, two key themes emerged that will be discussed at length in this section of the thesis. Specifically, these themes were

1) why and what factors cause organisations to adopt green HRM practices and
2) what forms or types of green HRM practices do organisations implement to achieve their green goals.

Firms experience a number of reasons and motivations for implementing a green strategy, with complex interactions and demands emerging from internal stakeholders such as companies, bureaucracies, customers, consumers and employees. These factors will now be explored.

6.2.1 Factors that influence the adoption of green HRM

Based on the interview results, which were seeking to explore and determine why organisations implement green HRM practices, it was identified that the Company is driven to undertake a green and socially responsible agenda because of a range of external stakeholder pressures from customers, governments and consumers. In addition, the interviews were able to elucidate what green HRM processes and strategies the Company currently applies to encourage employee engagement, participation and exhibition of green behaviours. Specifically, the organisation implements targeted green HRM practices and activities delivered through training, performance management and reward systems and processes. Although recruitment was not explicitly explored in any depth in the interviews because the Company did not currently have a green recruitment strategy, it was evident that the firm was leaning toward considering green values and attitudes of potential employees in future employee selection processes. Based on the above findings, it would be reasonable to assume that by strategically planning green HRM organisational processes and practices, a firm can mitigate negative or resistant employee reactions to green HRM implementation. It may in fact improve employee engagement and participation and achieve green objectives and environmentally sustainable goals.

The Company's senior representatives were well versed and knowledgeable about the transformation in customer and consumer demands over the past decade, as well as fully understanding localised government regulations with regards to environmental compliance. As the parent company is located in Australia, the Company is already aware of and subject to, tough environmental regulatory compliance. As it is the Chinese plants that are the focus of this study, it was considered necessary to explore the motivations of the Chinese operations and determine if they differ from the parent company's operations and how and why they have chosen to implement green HRM policies and practices in

China. As pointed out by the GM, there are distinct differences with the acquiescence that occurs with regards to the implementation of environmentally sustainable processes and procedures between the two countries:

> '*…in Australia, environmental management is linked to Occupational and Health and Safety (OH&S) systems and toward compliance to Australian environmental law, so compliance has a greater and tougher legal requirement. In China, the Company is subjected to many different local and provincial laws which are in fact much simpler - although compliance is enforced through the auditing of company (including customers' audits) processes rather than through bureaucratic enforcement, which makes compliance considerably more complex'* (GM).

Besides complying with government regulations, changing attitudes toward the environment from a number of external stakeholders (particularly key account customers) was highlighted by the managers, as a catalyst for change to the Company's strategies. As such, external stakeholder effects were identified as one of the chief motivations for the Company to adopt environmentally sustainable policies and practices. Ever increasing demands on corporations to improve their operational processes or risk adverse publicity and company product rejection have essentially forced companies to progress their corporate practices and embrace environmental agendas. The GM confirmed these claims:

> '*Demands from our key customers (i.e. McDonalds, KFC, Starbucks) to meet strict CSR and green management guidelines have been driven largely by increasingly more informed consumers who have pressured politicians and governments to set tighter legislation that considers the effects of corporate operations on local environments. Historically, Chinese owned enterprises were poorly equipped (i.e. skills and knowledge), which over the past 20 years has enabled the Company to build a strong reputation in China by applying parent company values, processes and policies. Recently, social media (i.e. WeChat & Weibo) in China has been driving social change and public opinions through its ability to reach large numbers of people, with the public and consumers now forcing customers and suppliers to act conscientiously in response to these demands and recent corporate scandals'* (GM).

The Company has strong, publicly exhibited views about the relevance and significance of an environmental strategy, and considers that it is now not only beneficial, but a crucial ingredient of any corporate agenda. According to the GM, there are significant incentives and benefits for companies who adopt EM and CSR. Discussions with the GM resulted in the identification of specific motivational forces, in addition to pressures from external stakeholders, which have influenced the Company's decision to implement green management policies. These are:

- to fulfil CSR values and align company policies with local governments, parent company and stakeholders' expectations of a socially responsible organisation
- to meet the regulatory requirements as set out by the Central, provincial and local Chinese governments
- to protect the business against negative media and community sentiment, which could affect supplier confidence, production levels and/or product sales
- to mitigate business risk such as financial losses, associated with a poor public or industry reputation
- to improve relations with suppliers and customers by demonstrating the commitment of the Company to sound environmental practices
- to improve employee satisfaction as working for an environmentally responsible company is viewed as a growing requirement among workers and
- to and differentiate the Company's policies, processes, products and employee skills from competitors.

The Company is a global leader and manufacturer of food grade paper packaging, which requires additional food safety processes to be applied in its day-to-day operations. The recent food preparation scandals, such as the one involving a large meat supplier – Shanghai Husi Food Co. Ltd. (see Jourdan, 2014) - in China, impacted the Chinese

domestic market because they supplied meat to local fast food companies (known as quick service restaurants (QSR) throughout China and Asia). When the sales of products from QSRs (Jourdan, 2014; Solomon, 2014) are adversely affected through negative public reactions to food safety violations, this has a trickle down effect on suppliers. Consequently, because the Company services many of these restaurants, the volume of their production decreased. Although the Company cannot control what happens with their customers' products, the Company can control the products it supplies and processes it implements. To demonstrate the Company's commitment to sustainable practices the Chinese operations of the Company have chosen to build a strong brand and CSR reputation to counteract negative perceptions and demonstrate a differentiation strategy from other domestic companies and suppliers within the same packaging sector:

> '*with so many players (packaging companies) in China, we have chosen to build a food grade paper-packaging company with a strong, ethical reputation that establishes our company as a socially responsible entity. The Company seeks to meet all global auditing standards regarding food hygiene and food safety, purchasing raw materials from sustainable and ethical sources, reducing energy and water consumption, protecting native forests and water systems, and implementing processes whereby we recycle and reuse materials in line with global best practices. We have been proactive in responding to these changing conditions by aiming to be ahead of government regulations and our competitors, as well as being reactive to meet our customers' demands'* (GM).

The Senior HR manager added that:

> *'pressures from major customers, such as McDonalds and Starbucks, for improved environmental practices and processes, has seen the Company respond positively and decisively. A strategy that considers positive environmental processes and products is viewed by management as a strong differentiation advantage to that of the Company's competitors, and potentially provides a financial (and competitive) advantage if the Company overtly demonstrates that it meets global best practices in regards to environmentally friendly processes and product development'*.

6.2.1.1 Implementation of green HRM practices

The implementation of a green HRM strategy in the Company was initiated and guided by senior executives and administered by the HR department. Senior executives ultimately play a key role in the development of a green HRM agenda. Specifically, the role of senior managers is to:

> '*identify the strategy (green HRM); request the development of the strategy from the appropriate department (HRM); deploy suitable training and skills programs (green HRM); and await feedback from HR managers on the effects and/or success of the green HRM processes and procedures*' (GM).

Executives expect employee training to be deployed in line with corporate strategies that embrace legal compliance, customer demands, employee considerations and parent company policies. According to the GM, the role of HRM with regard to the implementation of green HRM is to develop:

> '*policies, procedures and activities, auditing and compliance processes, workplace education and training, and knowledge building programs, to ensure that EM and green HRM is fully embedded into the Company's training, performance management and induction processes and programs*' (GM).

In addition, the GM considers that beyond the mere implementation of green HRM activities, HRM have a key role in the:

> '*review of EM, CSR and green HRM process implementation by conducting regular meetings that are included in an annual strategic review of EM'* (GM).

This approach is expected to result in the Company implementing continuous improvement processes in regards to EM, CSR and green HRM compliance as identified as a part of the Company's overall green and socially responsible strategic directives.

The primary role of HR is to ensure that employees are familiar with, informed and engaged with company policies, as well as implementing corporate policy agendas aligned with people management as instructed by senior executives. If employees have a greater understanding of the intentions and motivations behind a company's environmental strategy it is likely to improve employer-employee relations, with the GM stating that:

> '*companies should lead by example. If companies expect their employees to behave in a certain way (i.e. green), then a company needs to openly demonstrate through policy implementation, what it expects in regards to the behaviours and values of its people'* (GM).

According to the GM, what the Company expects of its employees with regards to environmental sustainability should be made clear, entirely visible and unambiguous during induction processes and training regimes for both new and existing employees. The senior HR manager and the HR team further advised that:

> '*the Company has a thorough induction process for new employees, as well as formal processes for introducing new and updating routine environmental skills and knowledge'* (Senior HR Manager).

Specific organisational induction and regular workplace processes included:

- induction sessions that introduce the Company's environmental and safety policies, procedures and practices
- keeping track of local environmental regulations through regular communication with government departments
- updating employee skills, capabilities and knowledge when necessary and
- keeping account of the skills that each and every employee has undertaken and whether or not the skills that they possess match their job tasks.

Assessments of individual capabilities are undertaken periodically, as well as during annual performance reviews or during promotional discussions.

To support the processes of updating the Company's environmental regulations and customer requirements, the Company's ESO attended external information sessions:

> '*offered by customers to ensure that the Company complies with their environmental and social accountability reporting requirements, as well as attending training sessions about clean production processes offered by the local government*' (ESO).

These external sessions are primarily aimed at clarifying the targets and obligations of the Company, as set out by local governments and key customers. As a consequence of attending these sessions and knowledge gained, the HRM team are able to develop and update their training and induction processes and information regimen, to include the latest environmental objectives and localised sustainability goals as identified by the relevant stakeholders.

Green HRM practices in the Company

The processes identified and discussed above involve the application of multiple layers and forms of green HRM practices and activities associated with the four key areas of HRM: recruitment and selection, training and development, performance management and appraisal, and rewards and compensation. The key HRM processes, practices and activities were widely discussed during the interview process to explore the how and the why the Company implements these HRM activities. However, as the Company does not currently have green HRM related recruitment and selection practices these items were excluded from the following section.

Training and development

The responsibility of the execution of training and development programs and processes rests with the HR department, with specific training generally implemented in

line with corporate strategies. Environmental management is a part of the Company's environmental strategy, with the Senior HR Manager advising that:

'*general environmental management training is offered to all employees'*.

However, this training is not at this point in time, compulsory for employees to attend if the training offered is not required as a part of an employee's job role.

The Company openly and publicly identifies as a socially responsible entity. As such, it has developed a cogent induction process and employee development programs that advances key capabilities aligned with environmental responsibility. The Senior HR Manager advised that:

> '*new employees to the Company undergo rigorous training. If employees are required to learn skills, in addition to standard green or non-green training, then the appropriate training is provided unconditionally'*.

Induction training

New employees to the Company undergo a basic induction, which has a meticulous training regime to inform them of the Company's policies and procedures in regards to health and safety. Failure to know and abide by these rules could affect an employee's ongoing employment with the Company. If new employees will be working with and handling chemicals, they will also undergo training that will prepare them in the safe use and disposal of chemicals and hazardous waste, along with what procedures must be followed should a chemical spill occur in the workplace. The policies regarding chemical spills and hazardous waste disposal are aligned with local regulations and parent company expectations with all procedures meeting global best practices.

Ongoing training

When the HR team has identified new processes or procedures that can further improve employee skills or knowledge or improve how chemicals or hazardous waste can be safely removed or disposed of, then additional training will be enforced. These additional training opportunities are over and above what employees are likely to learn during the induction or initial employee training processes.

Ad hoc training

The Company also advised there are often internal and external supplementary training programs. These additional training opportunities require the attendance of a company representative or employees who need specific training to carry out daily work tasks.

Local governments have begun to promote provincial policy initiatives such as clean production, which is now a requirement where the organisation's plants are located in Guangdong. As such, company representatives attend external training to learn what the regulations are in regards to these clean production initiatives. What is learned from this training is then relayed to senior management and incorporated into the Company's green HRM training regimen. If supervisors or managers identify that employees do not have adequate skills or knowledge regarding any facet of their job, paying particular attention to health, safety and environmental or socially responsible policies, then they will be required to attend refresher courses to update their capabilities so that they are able to complete their required job tasks. The Company has a strong belief and is proactive in implementing new policies or procedures if operational processes can be improved, or if stakeholders offer CSR or environmental training that can benefit the organisation and employees. This approach also visibly demonstrates that the Company supports the initiatives of its stakeholders.

Specific green training involves highlighting the dangers of inappropriate disposal of inks and chemicals into the drainage systems, with HR trainers paying particular attention to explaining the effects that contaminated water will have on the local river systems and waterways. Making a distinct connection between the actions and behaviours of employees and the outcomes of disposing of hazardous waste is important in this process. Without employees understanding it is *their* actions that result in the polluting of the water, then it is unlikely that their individual attitudes toward polluting will change. It is also reinforced to employees during training sessions that behaviour that is not in line with the responsible disposal of chemicals will not be tolerated by the organisation, with an employee's monthly performance bonus payments being impacted. A major infringement of the Company's chemical handling policy would result in disciplinary actions that could result in an employee's contract being terminated.

Performance management and appraisal

Performance management is a key process that contributes to the achievement of green outcomes by developing performance indicators, which can assess a firm's environmental risk (Renwick et al., 2013, 2008). As compliance to governmental regulation and customer demands has been identified as a key motivation and a high priority for the Company, a range of initiatives, such as performance indicators are implemented to measure the green or environmental output of employees in the workplace. The Senior HR Manager advised that:

> '*over the past few years the Company has significantly expanded the performance management and appraisal system to be more aligned with similar policies and processes as the parent company'*.

Explicit green performance indicators measured and applied to frontline workers are:

- how much waste (paper and board) employees are producing on their machines, with employees largely working in a small group environment
- measuring efficiencies that are applied to each employee, such as the running speeds of the machines (slow speeds mean less products produced in a given period, and machine efficiency is poor with increased energy consumption)
- closely observing the amount of downtime on machines, (i.e. how long machines are stopped for the machinist to have a cigarette)
- maintaining cost control regarding printing inks, tapes and plates, (i.e. not expending more than standard usage, with the overuse of inks an unnecessary cost and needlessly disposed of in the local water systems)
- checking on machine break downs, and how long the machine is out of action (i.e. speediness of the repairs) and
- closely scrutinising lost time injury (LTI), which refers to an injury where the employee was unable to complete their shift due to an injury that occurred during the shift. The Company has a safety policy that aims for zero injuries in the workplace.

These performance indicators are applied during the performance review process, to determine if employees have achieved the outcomes as identified in their personal KPI targets. To formally appraise employee green behaviour there are several measurable factors that are considered by supervisors such as, machines used in the factories are digitally monitored for product output, which denotes whether an operator has been running the machine as efficiently as possible. Each machine has a waste collection process, which is able to demonstrate whether the packers and operators have been running

(or fixing) the machines to limit unnecessary waste output. Any chemical spillages are formally reported to supervisors, which can affect employee performance appraisals if it is found that the employee knew of the policy but ignored what specific actions should have taken place to avoid contamination.

At the end of each shift supervisors collect the data regarding machine output, efficiencies, waste and machine breakdowns. The data is recorded against each employee working in that shift, which will then be aligned with individual performance appraisals. The outcomes of the above measureable items are applied at a later date during the appraisal process to determine the appropriate application of individual employee rewards and compensation payments.

Supervisors are also required to meet green performance indicators such as:

- meeting customer order deadlines, which require efficient running of machines with minimal machine downtimes and high machine run speeds
- keeping energy related costs low by ensuring machines are efficiently run
- ensure that employees have the abilities and knowledge to undertake job tasks
- ensuring that subordinates obey company policies in regards to chemical spills and handling and hazardous waste disposal and
- reducing quality issues associated with production

Senior managers and managers must also meet green performance targets, such as:

- meeting customer demands and orders, which require supervisors and employees to run machines as efficiently as possible and at desirable run speeds

- make sure that all employees obey company policies in regards to waste minimisation, chemical spills and the disposal of hazardous waste
- ensuring that company costs and outputs, including energy, water and waste related costs are minimised and
- minimising quality issues reduces the amount of product produced. Hence, this diminishes the amount of waste, inks used and water and energy usage is also reduced.

Rewards and Compensation

After developing performance management indicators, a set of equitable company rewards and compensation agreements are made available to employees who meet, or exceed their individual (or group) performance targets or KPIs. The Company:

> '*has a number of specific rewards and compensation payments available to all employees who meet their individual performance targets'* (Senior HR Manager).

Specifically, the Company has designed a of range work related rewards for frontline employees if they have met measurable individual performance items as outlined in the previous section. Specific rewards include: eligibility to receive monthly and quarterly KPI payments, eligibility for an end of year performance review and bonus payment and receive a bonus payment, in the form of a '13th' month additional payment, which is paid prior to Chinese New Year. The last item is a payment that is in line with expectations within the Chinese community.

Supervisors and managers are also eligible to receive organisational rewards associated with green policies and practices. These additional incentives are available if supervisors and managers have demonstrated they can achieve customer orders on time and on budget, have implemented actions to ensure that company costs (i.e. quality issues

and waste curtailed, energy consumption reduced) have been minimised, and take steps to ensure that no chemical spillages or hazardous waste accidents have occurred. All items and employee actions are tracked through regular auditing and documentation to ensure that employees are treated fairly and equitably during the performance review process, and that employees are paid and rewarded for positive actions and behaviours as set out in their individual employee contract.

Employee engagement with green HRM

The Company and HRM team have also explored and subsequently introduced other activities to engage with employees to demonstrate the Company's commitment to CSR including a safety helmet promotion (every employee to receive a free motorbike helmet to promote road safety), having community sports games (company team plays against local basketball and soccer teams) and conducting a local 'mountain climb' to raise money for local families who have family members with severe disabilities. The Company's HR team has also recently initiated: '*two activities specifically aligned with green HRM'* (Senior HR Manager).

The first activity was a 'do-it-yourself (DIY) product competition'. Employees and their children were encouraged to make something useful by re-using the Company's waste paper and board, with the activity having a 'recycle – environmental protection' theme. This activity encouraged employees to be more innovative in their thinking and behaviour toward the environment. Also, the Company recently held its first 'Community Clean Up Day'. This involved all employees including managers, cleaning up and 'greening' the environment surrounding the Company's premises. The clean up day had a 'be sustainable' theme.

The Company has also introduced a 'green' suggestion box, for employees to suggest ways in which the Company can improve its environmental footprint. Although the Senior HR Manager acknowledges that the extra bonus for an employee's suggestion for 'green' initiatives is monetarily small,

> '*using monetary bonuses has resulted in a greater awareness and engagement of employees with environmental initiatives, with the Company seeing a noticeable increase in employee commitment and enthusiasm toward company green initiatives and activities*' (Senior HR Manager).

6.2.1.2 Obstacles for adopting green HRM

When companies implement new management strategies there are likely to be obstacles and potential intransigence, which might affect the efficacy, cooperation and competence to which these new strategies can be implemented. Green HRM implementation would be no exception. The GM of the Chinese operations and the HR managers that took part in the interview process were able to identify several obstacles that they encountered when implementing environmentally related initiatives such as green HRM processes and practices in China. Specific obstacles identified were:

- Lack of knowledge of employees in relation to the effects of company operations and individual behaviours on the environment. Due to a lack of knowledge, employees are not always responsive to organisational initiatives nor are they are aware of the consequences of their own actions or behaviour on the environment
- Poor attitudes and behaviours of local workers toward green initiatives. With most frontline and production workers having limited education, their knowledge of the importance of green initiatives and programs is somewhat limiting to achieving environmental objectives and

- Lack of support from local governments, including a lack of regulation and enforcement of green related policies and processes. Due to local governments failing to enforce environmental regulations, employees and local communities do not see the relevance or importance of changing their behaviours or actions, to limit negative effects on the environment.

The GM highlighted that:

'*the amount of valid and accurate information companies receive from a multitude of stakeholders, and a lack of dedicated resources in local governments to ensure that companies have the accurate information regarding compliance with environmental policies, processes and practices as set by provincial and the Chinese Central Government is a severe impediment to environmental policy compliance'.*

The engagement of employees to company policies and guidelines in regards to the handling and disposal of chemicals and waste water, energy efficiencies, waste reduction and re-using and recycling was highlighted by Company representatives as a significant challenge. Despite this acknowledgement, the HR team advised that explicit company policies and training coupled with recent changes to government regulations and laws pertaining to waste and water pollution, have seen an increase in workers' engagement in the workplace, with growing support for the Company's green initiatives.

China is still developing its internal reactions to global concerns such as environmental degradation and pollution, with the government's focus currently on other key areas of domestic development. The growth of China, especially its infrastructure, FDI and trade has been phenomenal over the past couple of decades. Despite the Company itself enforcing stringent environmental policies and practices,

'*there is still a lack of enforcement and guidance for local or foreign company compliance to environmental standards and global best practices within local*

governments. Until the government acts to enforce the regulations, local Chinese and/or foreign firms will resist embracing environmental management or green management initiatives, such as green HRM' (GM).

China has some way to go to match environmental programs and initiatives such as those found in Western or more developed nations. However, China's observed growth is likely to see its provincial and local governments rapidly adopt green and environmental practices to counteract the effects of its fast paced development (Xinhua, 2015).

6.2.2 Green HRM and workplace outcomes

Phase 2, the quantitative study, answers the remainder of the research questions concerning how green HRM influences in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit.

6.2.2.1 Green HRM and employee green workplace outcomes

Table 6.1 summarises the means, standard deviations and correlations of the variables for the in-role and extra-role employee green workplace behaviours. The relationships of the two employee green behaviour criterion variables with the predictor variables were in the expected direction. In-role employee green workplace behaviour was weakly correlated with extra-role employee green workplace behaviour (r=.18, p<.05); indicating they are correlated, but distinctive constructs (see Table 6.1).

The Measurement model and Common Method Variance (CMV) - in-role and extra-role employee green workplace behaviours

The CFA results showed that the proposed five factor model including green HRM, psychological green climate, individual green values, in-role employee green workplace behaviour and extra-role employee green workplace behaviour, was a good fit to the data

[$\chi^2_{(265)}$=463.75, p<.001, CFI=.97, IFI=.97, RMSEA=.05, and AIC=1264.766]. Comparatively, it was a better fit than other more parsimonious models such as the four factor model collapsing in-role and extra-role employee green workplace behaviour [$\chi^2_{(269)}$=492.27, p<.001, CFI=.86; IFI=.86, RMSEA=.08, and AIC=1363.48, $\Delta\chi^2_{(4)}$=28.52, and p<.001]; the three factor model collapsing green HRM and psychological green climate [$\chi^2_{(272)}$=645.89, p<.001, CFI=.83; IFI=.83, RMSEA=.09, and AIC=1468.77, $\Delta\chi^2_{(7)}$=182.14, and p<.001]; the two factor model collapsing green HRM, psychological green climate and individual green values [$\chi^2_{(274)}$=679.59, p<.001, CFI=.75; IFI=.75, RMSEA=.11, and AIC=1686.80, $\Delta\chi^2_{(9)}$=215.84, and p<.001]; and one factor model by loading all variables on a single factor [$\chi^2_{(275)}$=1060.91, p<.001, CFI=.55; IFI=.56, RMSEA=.14, and AIC=3108.33, $\Delta\chi^2_{(10)}$=597.16, p<.001]. These results indicate that the five study variables are distinct constructs.

Table 6.1 - Means, standard deviations, correlations and reliabilities of the employee green behavioural study variables

	M	S.D.	1	2	3	4	5	6	7	8	9	10
1. Gender	1.58	.49	--									
2. Position	1.77	1.26	-.06	--								
3. Education	11.53	2.94	-.09	.59**	--							
4. Age	36.30	8.35	.11	.05	-.28**	--						
5. Tenure	6.22	4.30	-.02	.14**	-.08	.41**	--					
6. Green HRM	2.26	.91	.02	.02	.07	-.04	-.01	(.88)				
7. Psychological Green Climate	2.23	.80	.03	.15**	.14**	.03	-.04	.61**	(.86)			
8. Individual Green Values	1.65	.68	.13*	.26**	.28*	.06	-.04	.36**	.42**	(.83)		
9. In-role behaviour	2.41	.82	.15*	.14**	.13**	.03	-.03	.37***	.29**	.13**	(.86)	
10. Extra-role behaviour	2.84	.78	.15*	.41**	.06**	-.03	-.09	.25*	.39**	.29**	.18*	(.85)

Note: n = 338, * p < 0.05, ** p < 0.01 (2 tailed), Cronbach's alphas are reported in the parentheses on the diagonal.

6.2.2.2 Green HRM and employee non-green workplace outcomes

Table 6.2 indicates the means, standard deviations and correlations of the variables for in-role and extra-role employee non-green workplace behaviours and an employee's intention to quit.

As shown in Table 6.2 green HRM was positively related to organisational identification. Green HRM, organisational identification and POS were positively related to in-role employee non-green workplace behaviour and extra-role employee non-green workplace behaviour and negatively related to intention to quit. These results are consistent with the research hypotheses. Intention to quit was negatively related to in-role employee non-green workplace behaviour and extra-role employee non-green workplace behaviour, indicating that it has negative impacts on some employee workplace outcomes. In-role employee non-green workplace behaviour and extra-role employee non-green workplace behaviour were weakly correlated (r= .16, p<.05), indicating they are distinctive workplace outcomes.

The Measurement model and Common Method Variance (CMV - in-role and extra-role employee non-green workplace behaviours

A series of CFAs were performed to assess the discriminant validity of the study variables. As shown in Table 6.3 the proposed six-factor model had a good fit with the data. It fitted significantly better than other nested models, such as the five-factor model where in-role employee non-green workplace behaviours and extra-role employee non-green workplace behaviours were combined [$\Delta\chi^2_{(5)}$=236.54, p<.001], the four-factor model with POS and organisational identification collapsed [$\Delta\chi^2_{(9)}$=435.84, p<.001], and the one-factor model with all variables collapsed [$\Delta\chi^2_{(15)}$=896.54, p<.001]. These results indicate that the six variables in the conceptual model were distinctive constructs.

Table 6.2 Means, standard deviations, correlations and reliabilities of employee non-green behavioural study variables

	M	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1.58	0.49	--											
2. Age	36.30	8.35	.10*	--										
3. Education	11.53	2.94	-0.09	-.28**	--									
4. Position	1.77	1.29	-.06	.05	.59**	--								
5. Tenure	6.22	4.30	-.02	.41**	-.08	.14**	--							
6. Individual Green Value	1.65	.68	-.01	-.03	.23**	.01	.03	(.78)						
7. Green HRM	2.28	.91	.02	.05	-.02	.05	.12*	.04	(.88)					
8. OI	2.79	.96	.03	.01	-.05	.04	.06	.23**	.44**	(.82)				
9. POS	2.96	.75	-.05	.06	-.07	.05	.12*	.03	.21**	.32***	(.85)			
10. In-role behaviour	3.16	.81	-.01	.02	-.05	.03	.03	.05	.43**	.41***	.34**	(.86)		
11. Extra-role behaviour	3.24	.71	.10	.07	-.09	.18**	.07	.04	.30**	.35**	.33**	.16*	(.89)	
12. Intention to Quit	2.64	.90	.03	-.03	-.02	-.06	-.13**	-.05	-.33**	-.42***	-.28**	-.29**	-.34**	(.80)

Note: * $p < 0.05$, ** $p < 0.01$, (2 tailed), OI = organisational identification, POS = perceived organisational support.
Cronbach's alphas are reported in the parentheses on the diagonal

Table 6.3. Comparisons of the measurement models

Model	χ^2	df	CFI	TLI	RMSEA
Measurement model 1-The six-factor model (The proposed conceptual model)	1682.36	614	.97	.96	.06
Measurement model 2The five-factor model (in-role and extra-role employee non-green workplace behaviour were combined)	1918.90	619	.81	.81	.10
Measure model 3-The four-factor model (in-role and extra-role employee non-green workplace behaviour, POS and organisational identification were combined respectively)	2118.54	623	.77	.76	.14
Measurement model 4-The one-factor model (all items were loaded on a single factor)	2578.90	629	.62	.61	.21

Note: POS = perceived organisational support.

The study used multi-sourced data and in doing so considerably reduced CMV. However, due to the fact that the data were cross-sectional, CMV might still exist (Podsakoff et al., 2003). To ease this concern, a separate method model was created, in which it was compared with the proposed conceptual model. The results showed that the method model fitted the data better than the original model [$\chi^2_{(577)}$ =1698.33, p<.001, CFI=.98, TLI=.97, RMSEA=.05, $\Delta\chi^2_{(37)}$=84.03, p<.001]. However, the method factor explained only 12% of the total variance. This was less than half of the variance usually observed in prior studies (Williams et al., 1989) and the change to CFI was only .02, which is less than the cut-off value .05 as suggested by Bagozzi and Yi (1990). Therefore, CMV was unlikely to cause any distortion in the results.

6.3 Hypotheses test

6.3.1 In-role and extra-role employee green workplace behaviour

This section specifically seeks to answer the sub-questions SQ2a and SQ2b, by exploring and validating a number of variables aligned with in-role and extra-role employee green workplace behaviours through formalised hypothesised testing.

Hypotheses 1a, 1b, 2a and 2b constitute partial mediation models, in which green HRM directly and indirectly influences in-role and extra-role employee green workplace behaviours through the mediation of psychological green climate. When psychological climate was not included in the models the main effects of green HRM were significant for in-role employee green workplace behaviour: ($\beta = .31$, $p < .001$) and extra-role employee green workplace behaviour: ($\beta = .20$, $p < .01$) after gender, position, education, age and tenure were controlled for. Subsequently, hypotheses 1a and 1b received support.

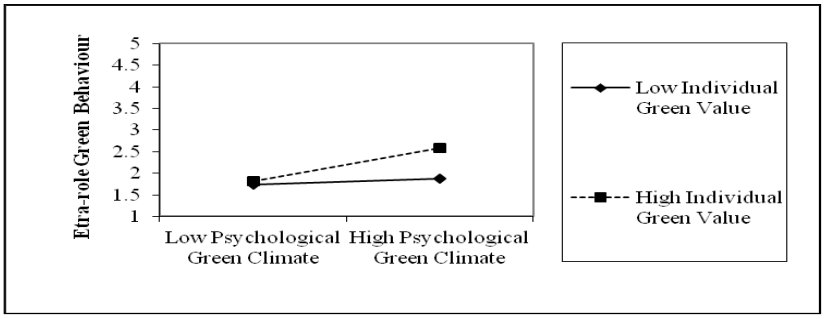
After controlling for demographic variables, the hypothesised partial mediation model for in-role employee green workplace behaviour fitted well with the data [$\chi^2_{(152)}$= 273.6, p<.001, CFI=.99; IFI=.99, RMSEA=.03, and AIC=12935,905], and fitted better than the alternative full mediation model [$\chi^2_{(153)}$= 300.7, p<.001, CFI=.89; IFI=.89, RMSEA=.08, and AIC=13509.30, $\Delta\chi^2_{(1)}$=27.1, p<.001]. The full mediation model for extra-role employee green workplace behaviour fitted well with the data [$\chi^2_{(114)}$= 192.1, p<.001, CFI=.97; IFI=.97, RMSEA=.05, and AIC=12300,35] and fitted better than the hypothesised partial mediation model [$\chi^2_{(113)}$= 218.16, p<.001, CFI=.91; IFI=.90, RMSEA=.06, and AIC=12359.90, $\Delta\chi^2_{(1)}$=26.06, p<.001]. Therefore, the partial mediation model for in-role employee green workplace behaviour and the full mediation model for extra-role employee green workplace behaviour were the preferred models. Green HRM was significantly related to in-role employee green workplace behaviour ($\beta = .20$, $p < .01$), but not significantly related to extra-role employee green workplace behaviour ($\beta = .06$, p=.12). Green HRM was significantly related to psychological green climate ($\beta = .37$, $p < .001$). Psychological green climate was significantly related to in-role ($\beta = .23$, $p < .01$) and extra-role employee green workplace behaviour ($\beta = .33$, $p < .001$).

The indirect effect of green HRM on in-role employee green workplace behaviour through the mediation of psychological green climate was .09. The 1,000 bootstrap sampling revealed that the distribution of the product of coefficients method 95% confidence intervals (CIs) being .002 - 0.18, not containing zero. The indirect effect on extra-role employee green workplace behaviour was .12. The result of the 1,000 bootstrap sampling showed that 95% CIs for the distribution of the product of coefficients ranged between .3 and .22. None of the CIs contained zero. Thus, green HRM directly and indirectly affected in-role employee green workplace behaviour through the mediation of psychological green climate. Hypothesis 2a received support. Psychological green climate fully mediated the green HRM-extra-role employee green workplace behaviour relationship. Hypothesis 2b was partially supported.

Hypothesis 3a predicted that individual green values and green HRM would interactively influence in-role and extra-role employee green workplace behaviour. Hypothesis 3b predicted that individual green values and psychological green climate would interactively influence in-role and extra-role employee green workplace behaviour. To test these hypotheses, the product terms "psychological green climate*individual green values" and "green HRM*individual green values" were created using the mean centred approach to reduce multicollinearity (Aiken & West, 1991). These two product terms were added along with individual green values to the preferred models. After controlling for the main effects of green HRM and individual green values, the two product terms "green HRM*individual green values" (β = .03, p=.16) and "psychological green climate* individual green values" (β = .04, p= .10) were not significantly related to in-role employee green workplace behaviour. The product term psychological green climate*individual green values was significantly related to extra-role employee green workplace behaviour: $\beta = .16$, $p < .05$.

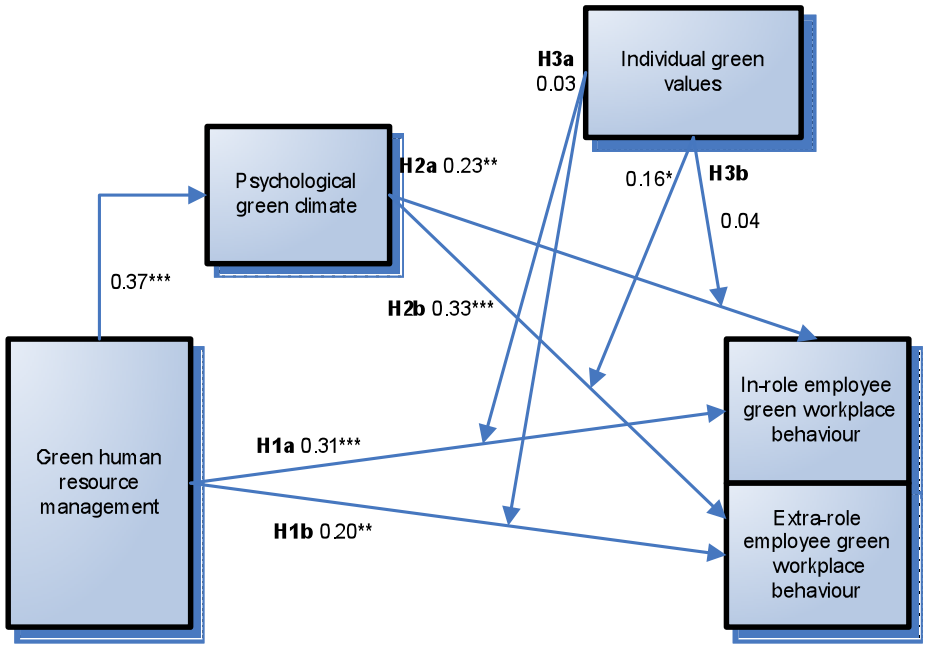
The interactive effect of individual green values and psychological green climate on extra-role employee green workplace behaviour is further illustrated in Figure 6.2. It shows the effect of psychological green climate on extra-role employee green workplace behaviour was stronger when the level of individual green values was high and the effect was weaker when the level of individual green values was low. A path analysis was conducted under both high (i.e. 1 s.d. above the mean) and low (i.e. 1 s.d. below the mean) levels of individual green values. As such, Hypothesis 3a was not supported and Hypothesis 3b was only partially supported.

Figure 6.2 Interactive effect of individual green values and psychological green climate on extra-role employee green workplace behaviour



Completely standardised coefficients for the theoretical model are shown in Figure 6.3, which illustrates the standardised coefficients for the portion of the model containing H1a, H1b, H2a H2b and H3a H3b.

Figure 6.3 – Standardised coefficients for hypotheses H1a, H1b, H2a, H2b, H3a and H3b.



As shown in Figure 6.3, the results of the SEM show that green HRM and psychological green climate have significant direct and indirect relationships with in-role and extra-role employee green workplace behaviours. The paths of green HRM and psychological green climate and in-role and extra-role employee green workplace behaviours were moderated by individual green values. The effects of the moderating path of individual green values, with the exception of the individual green values-extra-role employee green workplace behaviour relationship, were found to be not significant. As such, Hypotheses 1a and 1b and 2a and 2b were supported; Hypothesis 3a was not supported and Hypothesis 3b was only partially supported.

6.3.2 In-role and extra-role employee non-green workplace behaviour and intention to quit

This section specifically seeks to answer the last of the sub-questions SQ3a and SQ3b by exploring and validating a number of variables aligned with in-role and extra-role employee non-green workplace behaviours and intention to quit, through formalised hypothesised testing.

Structural equation modelling was performed using MPlus 7.2 to fit and compare a range of alternative literature-based models, including full mediation, partial mediation and non-mediation models, to test for significance. Hypothesis 4 proposed that organisational identification mediates the effect of green HRM on the three outcome variables: in-role and extra-role employee non-green workplace behaviour and an employee's intention to quit. Firstly, the full mediation models were fitted for the three criterion variables while controlling for the respective control variables. The full mediation model was a poor fit with the data for in-role employee non-green workplace behaviour ($\chi^2_{(204)}$=455.64, p<.001, CFI=.88, TLI=.86, RMSEA=.08), extra-role employee non-green workplace behaviour ($\chi^2_{(247)}$ =513.65, p<.001, CFI=.85, TLI=.84 RMSEA=.09), and intention to quit ($\chi^2_{(147)}$ =251.97, p<.001, CFI=.87, TLI=.86, RMSEA=.10).

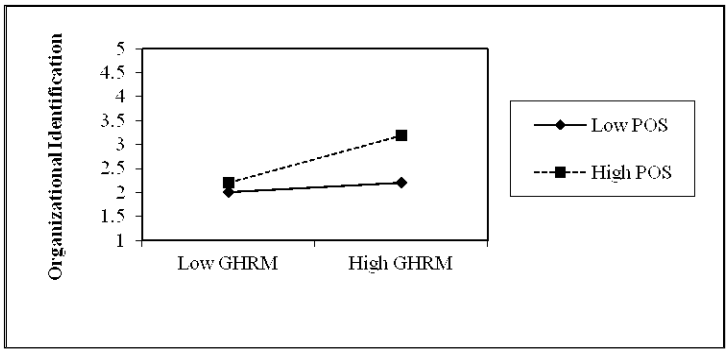
Next, the partial mediation models were fitted, by adding the paths involving green HRM and the three criterion variables respectively. The partial mediation model fitted better than the full mediation model for in-role employee non-green workplace behaviour ($\chi^2_{(203)}$ =446.60, p<.001, CFI=.98, TLI=.97, RMSEA=.05, $\Delta\chi^2_{(1)}$=9.04, p<.001), extra-role employee non-green workplace behaviour ($\chi^2_{(246)}$ =497.24, p<.001, CFI=.97, TLI=.97, RMSEA=.04, $\Delta\chi^2_{(1)}$=16.41, p<.001) and intention to quit ($\chi^2_{(146)}$ =243.82, p<.001, CFI=.99, TLI=.98, RMSEA=.03, $\Delta\chi^2_{(1)}$=8.15, p<.001). Finally, the non-mediation models were fitted, by removing the paths between green HRM and organisational identification. The results showed that the non-mediation model was a poor fit for in-role employee non-green workplace behaviour ($\chi^2_{(204)}$ =461.74, p<.001, CFI=.83, TLI=.82, RMSEA=.11, $\Delta\chi^2_{(1)}$=15.14, p<.001), extra-role employee non-green workplace behaviour ($\chi^2_{(247)}$ =517.38, p<.001, CFI=.78, TLI=.77, RMSEA=.12, $\Delta\chi^2_{(1)}$=20.14, p<.001) and intention to quit ($\chi^2_{(147)}$ =257.51, p<.001, CFI=.80, TLI=.79, RMSEA=.10, $\Delta\chi^2_{(1)}$=13.69, p<.001). Hence, the partial mediation models had the best fit with the data and were retained.

Green HRM was found to be positively related to organisational identification: r = .31, p < .001, in-role employee non-green workplace behaviour: r = .14, p < .01, extra-role employee non-green workplace behaviour: r = .10, p < .01 and negatively related to intention to quit: r = -.13, p < .01). Organisational identification was significantly related to in-role employee non-green workplace behaviour: r = .38, p < .001, extra-role employee non-green workplace behaviour: r = .30, p < .001 and negatively related to intention to quit: r = -.48, p < .001). The indirect effect of green HRM on in-role employee non-green workplace behaviour via organisational identification was .12, p < .01. The 95% CIs with bootstrapping 1,000 samples for the indirect effect ranged between .09 and .14 and did not contain zero. The indirect effect of green HRM on extra-role employee non-green workplace behaviour via organisational identification was .09, p < .01, with 95% CIs using coefficients estimated from 1,000 sample ranged from .07 to .12 (not containing zero). The indirect effect of green HRM on intention to quit was -.15, p < .01. The 95% CIs with 1,000 bootstrap sampling for the indirect effect did not contain zero and ranged between -.20 and -.11. Thus, the results provided evidence to partially support Hypothesis 4.

Hypothesis 5 predicted that POS moderated the relationship between green HRM and organisational identification. A product term "green HRM×POS" was created using the mean-centred approach in order to reduce multicollinearity (Aiken & West, 1991). The models were subsequently fitted, by adding the path involving the product term organisational identification, while controlling for POS. In comparison, these models fitted well with the data for in-role employee non-green workplace behaviour ($\chi^2_{(398)}$ =676.60, p<.001, CFI=.99, TLI=.99, RMSEA=.03), extra-role employee non-green workplace behaviour ($\chi^2_{(456)}$ =793.44, p<.001, CFI=.97, TLI=.96, RMSEA=.04), and intention to quit ($\chi^2_{(316)}$ =600.40, p<.001, CFI=.98, TLI=.97, RMSEA=.06). The product term green HRM×POS was significantly related to organisational identification: (r = .14, p < .01).

The slope tests indicated that when the level of POS was high (1 s.d. above the mean), green HRM was more positively related to organisational identification (r= .46, p < .001) than when the level of POS was low (1 s.d. below the mean, r= .18, p < .01). The moderating effect of POS on the relationship between green HRM and organisational identification is further illustrated in Figure 6.4. Hypothesis 5 was therefore confirmed.

Figure 6.4 Moderating effects of the green HRM-organisational identification relationship



Hypothesis 6 describes an integrative moderated-mediation model in which POS moderated the indirect effect of green HRM on the three criterion variables. The Edwards and Lambert's (2007) approach was adopted to examine mediation at the different levels of the moderator, and moderation at multiple stages of mediation. The first step was to analyse the second stage in regards to the mediation of organisational identification and the direct effect of green HRM on the outcome variables at high (1 s.d. above the mean) and low (1 s.d. below the mean) levels of POS, when green HRM, POS and the product "green HRM ×POS" and the respective control variables were controlled for. Next, these results were used to estimate the indirect effects of green HRM. The results showed that the indirect effect of green HRM on in-role employee non-green workplace behaviour via organisational identification was stronger (r= .24, p < .01) when POS was high in contrast to when POS was low (r= .04, p < .05; Δr= .10, p < .01).

The indirect effect of green HRM on extra-role employee non-green workplace behaviour via organisational identification was stronger (r= .20, p < .01) when POS was high in contrast to when POS was low (r= .03, p < .05; Δr= .17, p < .001). The indirect effect of green HRM on intention to quit via organisational identification was negatively stronger (r= -.28, p < .01) when POS was high in contrast to when POS was low (r= -.05, p < .05; Δr= -.23, p < .001). Hence, Hypothesis 6 was confirmed. The results of the moderated path analyses in relation to two stages of mediation, direct effect, in-direct effect and total effect are indicated in Table 6.4.

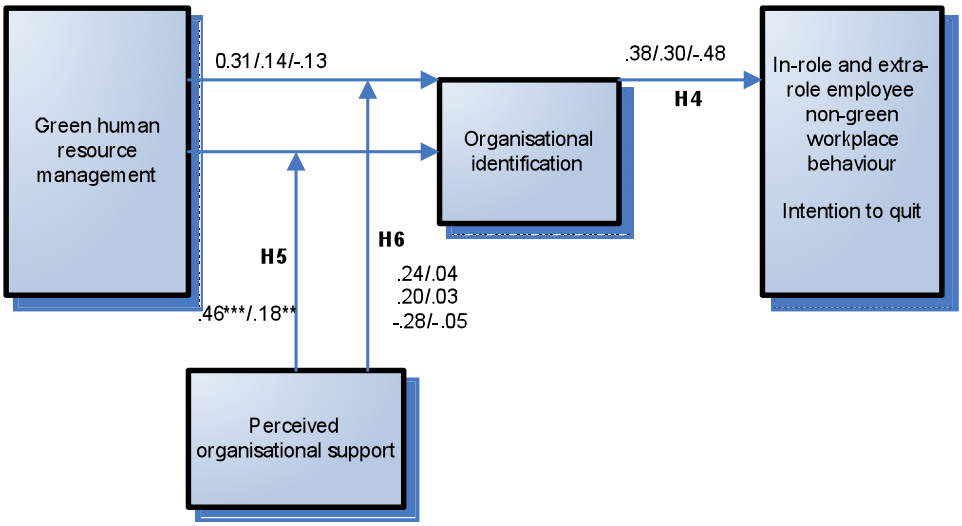
Table 6.4. Results of moderated path analyses for employee non-green workplace behaviour

POS	**Green HRM (X) → Organisational Identification (M) → In-role employee non-green workplace behaviour (Y)**				
	1st Stage of mediation XM	2nd Stage of mediation MY	Direct effect XY	Indirect effect XM * MY	Total effect XY + XM * MY
High level (+1 SD)	r=.46***	r =.52***	r =.10*	r =.24**	r =.34***
Low level (–1 SD)	r =.18**	r =.24**	r=.10*	r =.04*	r =.14**
	Green HRM (X) → Organisational Identification (M) → Extra-role employee non-green workplace behaviour (Y)				
High level (+1 SD)	r=.46***	r =.44***	r =.03	r =.20**	r =.23***
Low level (–1 SD)	r =.18**	r =.16**	r =.03	r=.03*	r =.06*
	Green HRM (X) → Organisational Identification (M) → Intention to Quit (Y)				
High level (+1 SD)	r =.46***	r = -.61***	r = -.01	r = -.28**	r = -.29**
Low level (–1 SD)	r =.18**	r = -.25**	r = -.01	r = -.05*	r = -.06*

Note: r = standardised coefficients, $^{*}p < 0.05$, $^{**}p < 0.01$, and $^{***}p < 0.001$; green HRM=green human resource management, and POS=perceived organisational support.

Figure 6.5 illustrates the standardised coefficients for the portion of the model containing H4, H5 and H6.

Figure 6.5 - Standardised coefficients for hypotheses H4, H5 and H6.



The effect of the modelling as shown in Figure 6.5, graphically illustrates the results of the SEM on an integrative moderated/mediation model, with organisational identification as the mediating factor and POS playing a moderating role. Perceived organisational support was found to have a significant moderating effect on the green HRM-organisational identification relationship. Green HRM was found to have a significant relationship to in-role and extra-role employee non-green workplace behaviour and intention to quit via the mediating effect of organisational identification. Thus, Hypothesis 4 was only partially supported, while Hypotheses 5 and 6 were fully supported.

6.4 Conclusion

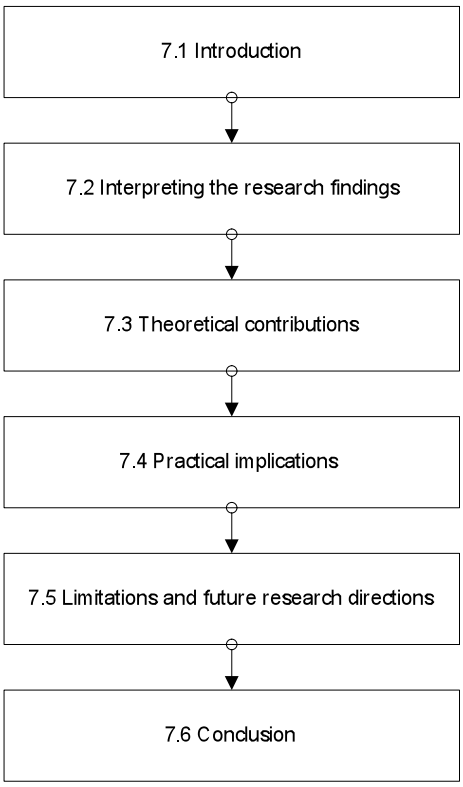
Existing HRM, EM, and green HRM literature suggests that employee behaviours are critical to the success and achievement of a company's green management and sustainability agenda. This study provides evidence that HRM constructs such as green HRM can affect employee behaviours and attitudes. Green HRM was found to both directly and indirectly influence in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit. The results demonstrated that

these effects occur through different social and psychological processes, which supports current behavioural HRM literature (Jiang et al., 2012). A full discussion of these effects, the relationships between all variables, the theoretical contributions that this study makes to the green management and green HRM literature, the practical implications of the results and the limitations and future research directions for green HRM, will be discussed in the next, and final, chapter.

CHAPTER SEVEN

DISCUSSION AND CONCLUSION

Figure 7.1 Flowchart of Chapter Seven



Chapter Seven – Discussion and Conclusion

7.1 Introduction

This chapter interprets and discusses the results of the data analysis and subsequently draws conclusions from this discourse. Firstly, the chapter will discuss the findings of the study and then identify the theoretical contributions that this research will add to the current OB and management literature. Next, the chapter will outline a number of practical implications and applications for green HRM in the workplace, along with outlining the limitations of the current study and suggested directions for future research. Finally, the chapter will conclude with an overview of this research study on green HRM and employee workplace outcomes.

7.2 Interpreting the research findings

This research study is pioneering in its efforts to investigate the effects of the green HRM concept on a range of employee workplace outcomes. It has two key objectives. Firstly, it intends to extend the knowledge base of the current green HRM and green management literature and employee workplace consequences of green HRM. Secondly, this study seeks to expand our understanding of the social and psychological processes and the conditions under which green HRM exerts its influences on employee workplace behaviours.

This thesis developed three primary research questions and five sub-questions, which were explored during two key distinct study phases. The first phase, a qualitative phase, reviewed the extant green HRM literature and explored the mindset of the case study company and the firm's senior managers. This was done in order to identify green HRM practices and activities within the HRM framework of the organisation at the centre

of the research, and to help in the development of green HRM measures. The second phase was a quantitative study, which formally tested the developed measures and hypotheses on a number of organisational and employee behavioural variables.

An important component of this final chapter is to discuss and clarify the findings from both the qualitative and quantitative study phases. The next three sub-sections are devoted to interpreting what the findings represent for the academic community and for coherent corporate strategic planning and the subsequent application of green HRM. The first section will discuss the qualitative portion of the study, specifically highlighting the green HRM practices and how and why the Company has adopted these practices. The second sub-section will discuss the effects of green HRM on employee green workplace outcomes, while the final sub-section will discuss the effects of green HRM on employee non-green workplace outcomes.

7.2.1 Green HRM practices

The Chinese operations of the Company at the centre of the study, was able to identify a range of reasons and motivations for adopting green HRM. Parent company expectations are that the Chinese operations will abide by and apply Australian environmental standards in regards to operational matters that are in line with global best practices. In addition, the Company is unequivocally compliant to Chinese Central, provincial and local government environmental regulations. These government bodies are gradually requiring all companies, domestic and foreign, to become 'green' and genuinely consider the effects of their operations on local communities and the environment. Companies are encouraged to have a particular focus on improving air and water pollution. Other stakeholders, both internal and external to the organisation, have also had a significant impact on the decisions of the Company to implement green HRM. Key

customers (i.e. Starbucks) have driven the Company to improve internal procedures by enforcing regular auditing processes to ensure that the organisation meets social responsibility expectations. Consumers have also become well informed of the effects of multi-national companies' operations on the environment and are often seeking to purchase goods and services from firms who are socially responsible. As the Company views itself as a socially responsible entity, embracing green HRM and socially responsible policies is viewed as a way for the Company to differentiate itself from a multitude of competitors. It also potentially opens up opportunities for gaining an industry competitive advantage. Employees have become a deciding factor for firms to consider when embracing green HRM. Employees are becoming more conscionable when seeking out new employers with socially responsible firms viewed as preferable organisations to work for, regardless of other factors (i.e. salaries). So, public and private pressures from internal and external stakeholders have been pivotal in the Company's decision to embrace green HRM.

Specific green HRM practices implemented within the Company include employee training and development programs, performance management and appraisal processes and potential rewards and compensation. These practices have been designed to meet a firm's green related goals. Training and development activities include safety training, such as the safe disposal of chemicals (i.e. not pour down the drains) and minimisation of waste, training to gain greater efficiencies from machines to limit excessive energy consumption and the safe handling of inks, chemicals and hazardous waste.

Employee job tasks are constantly monitored and subsequently reviewed during individual performance appraisals. Specifically, employee actions and behaviours are measured against machine efficiencies with machine run times and outputs formally measured including production levels and energy usage; chemical spills and adherence to

company policies in regards to hazardous waste and general waste generation, with the Company aiming to significantly reduce the amount of waste generated in all Chinese plants; whether employees are fully trained to perform their job tasks and supervisors, and managers measured against employee compliance to waste, chemical, energy and water related policies and minimisation targets.

Green HRM practices specific to rewards and compensation were developed to support employees who engage with, and actively contribute to, the achievement of the Company's green goals. Employees, who meet or exceed their individual KPIs as set out in their individual employee appraisals are eligible for monthly KPI payments and end of year bonuses. Supervisors and managers are also eligible for rewards and bonus payments if company targets are met including meeting customer product orders, which requires efficient running of machines to achieve a targeted product output. In addition, managers and supervisors are measured against waste minimisation and energy and water usage (reduction of costs), and ensuring that employees are trained sufficiently to ensure that chemical spills and hazardous waste are disposed of in line with company policies and government regulation.

The overall results of the qualitative portion of this study identified that the Company already had a number of internally developed green HRM initiatives. These initiatives were prompted by increasing pressures from external stakeholders, key account customers and a strong compliance by the Company to adhere to local environmental laws and parent company expectations. Subsequently, it was found that the Company had created a workplace environment, where environmental compliance is enforced and individual environmental motivations and green values are recognised and encouraged.

Participants of the focus groups advised that because of the Company's green initiatives, they had become more motivated to be environmentally thoughtful and now consider how their own personal behaviour can negatively affect the environment. Specific initiatives that employees discussed during the focus groups were company rewards and acknowledgement of employees for green behaviours through KPI and bonus payments, and that the Company explicitly promoted the importance of being environmentally responsible. As a consequence, during the interviews and focus groups, employees openly advised that they were proud to be associated with the Company. While this finding demonstrates a distinct relationship between rewards and employee behaviours, for most of these workers who have low education levels, linking rewards to behaviour at least brings sustainability and how poor practices can negatively affect the environment, to the forefront of individual employee cognition. It is possible through the influence of green HRM practices and policies, that once employee judgments and behaviours have changed, that this will have some flow on effect throughout the workplace and/or in the domestic sphere. This is an interesting avenue for future green HRM research, which was first raised by Muster and Schrader (2011).

7.2.2 Effect of green HRM on employee green workplace outcomes

Key factors that were explored in the quantitative portion of the study included investigating the mediating role of psychological green climate in the green HRM-employee green workplace behaviour relationship, a mediation path that had not been previously studied. The study also probed the conditional indirect effects of green HRM on employee green workplace behaviour by investigating the moderating role of individual green values in the multiple stages of the mediation of psychological green climate. Both direct and indirect relationships were established, which occurred through multiple mediating and moderating pathways. To a great extent, these relationships can be

explained by existing HRM and HRM behavioural literature as identified by Bowen and Ostroff (2004) and Jiang et al. (2012), who argue that certain social and psychological mechanisms will shape an employee's propensity to exhibit specific workplace behaviours. Due to the limited empirical evidence of the effects of green HRM, this study provides some practical applications for the concept to improve an organisation's likelihood to achieve its green goals. It also answered the call of Renwick et al. (2013) by developing an enhanced understanding of some of the underlying mechanisms of green HRM.

The organisational climate literature presupposes that employee perceptions of the attributes of an organisation will influence employee workplace behaviour through the establishment of behavioural norms (Norton et al., 2014). Psychological climate is described as individual-level perceptions of a workplace and the process of quantifying culture that is shared ideologies, values and norms (Ivancevich, Konopaske & Matteson, 2013). Psychological climate and culture are diverse constructs, with culture seen as a more stable and long-term construct than psychological climate (Ashkanasy, 2007), with culture not as easily influenced by individual perceptions.

Zohar and Luria (2005) state that it is a combination of company policies and practices that is the primary source for the development of an employee's perception of a firm's organisational climate. Companies that overtly display and implement green policies and procedures are likely to encourage employees to exhibit green behaviours and positive environmental attitudes, because of the effect of policy awareness on employee perceptions. The results of this study goes some way to confirming the suppositions regarding the role of psychological green climate in the workplace, and as such it adds new knowledge to the scant green HRM literature.

This research also extends the SVF theory as identified by Edwards (1996, 2007) by providing empirical evidence of the moderating effect of individual green values on the psychological green climate-extra-role employee green behaviour relationship. It indicates that congruence between individual values and values overtly demonstrated by the organisation, will result in the exhibition of positive employee green workplace outcomes (Ostroff et al., 2005; Paarlberg & Perry, 2003). This particular finding is consistent with past employee behavioural studies, such as Bissing-Olson et al. (2013) who reported that pro-environmental attitude moderates the consequences of daily effect on proactive pro-environmental behaviour, and Chou (2014) who reported that an employee's personal environmental norms positively affect an employee's green workplace behaviour. However, it is necessary to note, that the findings from this research study did not support the findings of the Bissing-Olson et al. (2013) or the Chou (2014) study.

The significance of the findings in relation to the different moderating effects of individual green values and different mediating effects of psychological green climate are important as they improve our understanding of the nuanced social and psychological processes through which green HRM influences individual workplace green behaviour. Generally, the results were able to identify and confirm there are different antecedents of in-role and extra-role employee green workplace behaviours. The direct and indirect relationship of psychological green climate to in-role and extra role employee green workplace behaviours in this study, confirms findings from a similar study by Norton et al. (2014). Norton et al. (2014) found that organisational green climate perceptions were positively associated with task related employee green behaviour. However, the Norton et al. (2014) study found no association between organisational green climate and employee proactive green behaviour. In contrast to Norton et al. (2014), this study did identify a

relationship between psychological green climate and extra-role employee green behaviours, albeit this was an indirect association.

Individual green values were found to moderate the effect of psychological green climate on extra-role employee green workplace behaviour. This can be construed in the way that employees have less choice and discretion over how and when to conduct specific job duties, than they have over whether they exhibit extra-role behaviour in the workplace (Halbesleben, Bowler, Bolino & Turnley, 2010; Williams & Anderson, 1991). The findings suggest that employees commence and demonstrate extra-role green workplace behaviours through influential aspects of value congruence (Hoffman, 1993). This implies that the values of the individual employee and the firm are harmonious.

In contrast to Chou's (2014) study, which found that personal environmental norms have a significant relationship to employee green behaviour, no evidence was found in this study that individual green values moderated the effects of green HRM and psychological green climate on in-role employee green workplace behaviour. This particular conclusion infers that, regardless of the intrinsic values of the employee, the employee will conduct his/her in-role green workplace behaviours in line with the expectations of the organisation and the employee's job role and formal tasks. Even though this study did not find any evidence of the effects of individual green values on in-role employee green behaviours, these findings do present a new perspective on the HRM-employee workplace outcome relationship. The findings also potentially open up an interesting and under-studied avenue for future green HRM research, particularly as there are conflicted findings among recent employee green workplace behavioural studies.

Institutional theory intimates that socially constructed norms and values guide an organisation's behaviour, which ultimately pervades a sense throughout the firm, exactly what the company stands for. Having strong support for a socially responsible and environmental sustainability agenda, explicitly communicates to employees, the community and the government, what is important to the organisation. In turn, this influences employee perceptions of organisational climate.

Attribution theory presupposes that employee perceptions of an organisation's social responsibility agenda will affect individual behaviours and attitudes (Rupp et al., 2006). The findings of this study support this notion, that the affective and cognitive processes that determine employee green behaviours and attitudes are affected by perceptions of the existence of green HRM practices and activities within an organisation. In addition, VBN theory posits that individual values will affect employee green behaviour (Stern, 2000) and dependent upon the extent of the congruence between organisational and individual values, this will determine the degree to which employees will exhibit green behaviours and related attitudes (Taris & Feij, 2001). The results of this study goes some way to supporting this view, as was found in a similar study by Suar and Khuntia (2010). This study supports the opinion of some authors, that congruent values can influence individual employee behaviours and attitudes in the workplace.

7.2.3 Effect of green HRM on employee non-green workplace outcomes

The results of the portion of the study that analysed the multi-sourced data on the effects of green HRM on employee *non-green* behaviours and intention to quit revealed that green HRM generated significant effects on these fortuitous employee workplace outcomes. Rationally, these outcomes would be unexpected and unforseen by an organisation and based on current green management and green HRM research, would be

considered beyond the parameters of green HRM. Despite these suppositions, this study was able to establish that green HRM *was* positively related to in-role and extra-role employee non-green workplace behaviours, and negatively related to an employee's intention to quit via the mediation of organisational identification. Moreover, while green HRM is a positive force for employee organisational identification, POS moderated their relationship and the indirect effect of green HRM on the three criterion variables via the mediation of organisational identification.

The effects of green HRM on in-role and extra-role employee non-green workplace behaviours and intention to quit are likely to be attributable to an employee's perceptions of the quality and genuineness of the firm to combat social responsibility and environmental issues. Companies who explicitly embrace green HRM, green management or CSR, are likely to be viewed positively by employees. Hence, employees are more likely to exhibit a variety of positive workplace behaviours and attitudes. Current green management, EM and CSR literature support this supposition (Angel del Brio et al., 2007; Carmona-Moreno et al., 2012; Klinkers & Nelissen, 1996).

The moderating effect of POS on organisational identification was significant. What this specific finding tells us, is that the more that employees perceive that the organisation supports them and their individual needs, the greater the likelihood the employee will identify with the firm. This position aligns with other POS studies such as Maertz et al. (2007) and Newman et al. (2012). The more an employee perceives that their organisation supports their needs and personal development, the more likely employees will remain with the firm and also the more likely they are to exhibit sought after behaviours and attitudes.

Based on these findings, firms should ensure that they are transparent and openly display their support for employees through positive social exchanges and individual developmental opportunities. In turn, this is likely to strengthen an individual's attachment to the firm, essentially increasing how much the employee is prepared to identify with the organisation. Employees are then more prepared and engaged to build upon their individual green knowledge, skills, education and motivation in order to achieve the organisation's sustainability and CSR goals. Future studies could explore group level forms of organisational support. Areas of research for future studies include exploring the effects of leadership or perceived supervisor support, on employee green workplace behaviours. This area of research would contribute to a greater understanding as to whether employees are more (or less) likely to exhibit green behaviours attitudes dependent on the support and attitudes of their direct leaders or supervisors.

Recent studies such as Newman et al. (2012) contend that supervisor support is a relatively inexpensive way to significantly improve employee commitment to the organisation. Supervisors are entrenched agents in many workplaces and have been found in the existing literature to have a significant effect on employee workplace outcomes (see Dysvik & Kuvaas, 2012; Gagnon & Michael, 2004). Exploring this variable and its effects on employee green workplace behaviours would add another dimension to the current green HRM literature, and could assist in the development and facilitation of specifically targeted green HRM training and education programs.

As mentioned previously, attribution theory can also affect how or if an employee identifies with the firm as the attributes of an organisation can affect how a firm is viewed publicly. The more positively a firm is viewed in the public sphere, the more likely an employee would identify with the organisation. Organisational identification literature, SIT

and SET literature support these suppositions and highlight the importance of the status of an organisation and internal social exchanges (Riketta, 2005; Zhang & Jia, 2010). The theories also highlight the positive influences these factors can have on in-role and extra-role employee workplace behaviours and attitudes. Organisations with a 'high status' in the community and explicitly support their employees through developmental HR practices, are likely to elicit strong feelings of identity among their employees, who are then more likely to reciprocate by visibly supporting their organisation (Riketta, 2005; Tyler, 1999).

The results of the study also support the premises within stakeholder theory, in that if the needs and interests of stakeholders (i.e. employees) are addressed, then they are likely to respond positively by exhibiting desirable behaviours and attitudes (Parmar et al., 2010). The literature suggests that the environment is a key consideration of employees today (Daily & Huang, 2001). As such, if firms provide support for individual employee green related training and development, reward an employee for achieving green associated KPIs and transparently explains its support for and reasoning behind a sustainability agenda, then an employee's needs and interests have been met. As a result, the likely outcome would be the exhibition of desirable employee workplace behaviours, whether they are in-role or extra-role, green or non-green.

The above discourse goes some way to supporting similar employee pro-environmental and green behaviour research by Bissing-Olsen et al. (2012), Norton et al. (2014) and Chou (2014). However, it extends these studies considerably by simultaneously exploring the effects of multiple mediating/moderating variables on both in-role and extra-role employee green and non-green workplace behaviours and an employee's intention to quit. As such, the findings have greatly enhanced our understanding of employee workplace perceptions, and highlighted the importance of strategically targeted corporate

policies if organisations aim to encourage a specific type of employee workplace behaviour.

The overall findings from the research study were able to demonstrate that the green HRM concept *does* affect employee workplace behaviours, and as such identified three key outcomes that align with current literature and anticipated conclusions. Specifically, the findings of the portion of the research attributable to the study of in-role and extra-role employee *green* workplace behaviours, were able to demonstrate that green HRM was both directly and indirectly related to in-role employee green workplace behaviour. With regards to extra-role employee green workplace behaviour, green HRM was only indirectly related, through the mediation of psychological green climate. These findings provide empirical evidence to support the behavioural HRM literature from the following perspectives:

1) HRM practices influence general organisational performance (Wright et al., 2001) and environmental performance (Daily & Huang, 2001) through impacting employee workplace behaviours (Daily & Huang, 2001; Wright et al, 2001) and

2) attributes of a firm's HRM practices will determine what employee behaviour is likely to be affected (Bowen & Ostroff, 2004; Nishii et al., 2008).

The current literature pre-supposes that the primary purpose of the adoption of green HRM is to achieve a firm's green goals by positively impacting in-role and extra-role employee green workplace behaviours. Therefore, this investigative study supports existing HRM behavioural and climate literature, and considers that:

3) HRM may influence employee workplace outcomes through certain underlying mechanisms (Jiang et al., 2012), such as organisational climates (Burke et al., 2002).

These underlying mechanisms largely consist of behavioural and attitudinal characteristics and shared perceptions (Wallace, Hunt & Richards, 1999), with psychological climate found to positively impact employee workplace outcomes (Parker et al., 2003).

7.3 Theoretical contributions

This study contributes to the green HRM and green management literature in several critical ways. Despite some recent conceptual studies that have explored the potential of the green HRM concept and a number green HRM practices identified (Renwick et al., 2013), there is currently a lack of research that has sought to empirically explore green HRM, nor determine its actual influence on employee workplace outcomes. As such, there is little that we definitively know about the what, the how, the why or even if green HRM might affect employee workplace outcomes. Specific outcomes may include employee workplace behaviours and attitudes, positive organisational environmental outcomes or outcomes that green HRM might influence beyond the workplace domain. This is considered to be a serious literary oversight, with this study intended to address the shortfall within the literature that specifically explores the effects of green HRM on a range of employee workplace outcomes.

Since Daily and Huang's (2001) call in the previous decade for research into improving our understanding of the human element of environmental management theory, there has been an increasing amount of attention paid to green HRM by highlighting its latent influence over employee workplace consequences. However, the response from academicians to conduct formalised, empirical studies has been surprisingly slow despite work related constructs (i.e. CSR) favourably exploring employee workplace outcomes of CSR, the so-called 'micro-foundations of CSR' (Aguinis & Glavas, 2012; Carmeli, Gilat &

Waldman, 2007; Jones, 2010). The basis of this research supports the findings from the aforementioned studies and the existing green HRM and HRM literature, in that green HRM practices are expected to positively influence employee workplace outcomes (Harvey et al., 2013; Paille et al., 2014).

The sample used in the study was an Australian company operating in two provinces in China, with manufacturing operations and sales companies in multiple locations around the world. While a singular company sample could be construed as limiting to empirical research, a case study approach was considered to be appropriate for this study. It enabled the researcher to intimately explore green HRM practices within a single company and develop appropriate measures for the construct. In addition, China is a growing economic force in this fast-paced globalised world, so exploring workplace outcomes of a foreign entity operating within the confines of China, potentially provides practical environmentally related information and strategies for international firms to apply to their operations in China or Asia or beyond.

The development of green HRM measures is considered to be a significant contribution to the HRM and green management literature. The green HRM measures were developed through a qualitative process by conducting a thorough literature review, initiating interviews with senior managers and conducting focus groups, as well as a quantitative process whereby an empirical validation of the measures was performed. As a result, the measure development now provides a useful platform for future researchers to develop more cross-culturally comprehensive measures for green HRM. With green HRM basically an emerging management construct, its actualisation in the literature is astonishingly minimal, with researchers only recently embracing its management potential.

Theoretically and perhaps logically, the effects of green HRM are anticipated to be limited to green outcomes only (see, for example, Cherian & Jacob, 2013; Harvey et al., 2013; Jabbour, 2011; Renwick et al., 2013). However, this research study challenged this logic and considered that green HRM might, in fact make contributions beyond mere green workplace outcomes. Because little is currently known about how, why or if green HRM might affect *non-green* employee workplace outcomes, exploring green HRM and its effects beyond the green realm was proportionally explored alongside investigating green workplace outcomes. By concurrently exploring both green and non-green employee workplace outcomes, this study significantly extends our knowledge of green HRM and substantially contributes to increasing our understanding of the 'micro-foundations of CSR'. Hence, the findings of this research develops a better understanding of workplace consequences of green HRM and contributes to the more general HRM and green management literature by suggesting that a set of HRM practices may exert anomalous impacts on a number of employee workplace outcomes.

However, green HRM is to some degree different from CSR, in that it has a more targeted focus than being broadly applied to achieving a range of socially responsible objectives. Green HRM is about specifically developing employee green skills, attitudes, behaviours, capabilities and green cognition enhancement, along with affecting and increasing employee motivation and engagement with an organisation's green platform. It is expected that changes in employee behaviours and attitudes will assist with the successful implementation of organisational green initiatives, while concurrently contributing to the organisation's socially responsible and environmental agenda. Therefore, this study extends the existing green management literature by providing evidence that green HRM practices influence employee motivation, behaviours and

attitudes in the workplace. This can then facilitate the realisation of organisational green objectives and goals.

The findings from this study have shed an important light onto the social and psychological processes through which HRM influences various employee workplace outcomes. The HRM behavioural literature suggests that HRM practices influence employee workplace outcomes via various social and psychological processes, with calls for more research studies to explore the nature of these complex behavioural processes (Jiang et al., 2012). The current literature remains unclear about how different social and psychological processes of HRM are likely to influence employee behaviours, including anticipated and fortuitous employee outcomes. The recent green HRM review by Renwick et al. (2013) identified a lack of understanding of the linking mechanisms between employee participation in environmental initiatives and organisational and employee outcomes, as a major literature gap.

Despite calls for studies to explore the social and psychological processes that influence employee workplace outcomes (i.e. Bowen & Ostroff, 2004; Jiang et al., 2012; Wagner, 2012), this area of green HRM research has thus far been overlooked. This study helps to bridge this gap by providing empirical validation that green HRM influences in-role and extra-role employee green and non-green workplace outcomes including an employee's intention to quit, through different social and psychological processes.

In-role and extra-role employee green workplace behaviours were found to be directly and indirectly influenced by green HRM through employee perceptions of the firms green climate. In-role employee green workplace behaviours were directly influenced by green HRM, which could be an expected outcome, in that employees are

fulfilling the expectations of the firm by completing tasks aligned with their job role. If organisations have green HRM policies in place, then employees would enact on these policies as a part of normal workplace requirements and formally assigned job tasks. On the other hand, extra-role employee green workplace behaviours were indirectly influenced by green HRM through employee perceptions of the climate of the organisation. Individual green values have some influence, but to a lesser extent. Extra-role employee green workplace behaviours are not a requirement of the firm, and are therefore more likely to be influenced by individual values or other social or psychological factors. As such, these behaviours were indirectly influenced by the perceptions of the organisation's commitment to both the organisation's values and employee individual green values.

In-role and extra-role employee non-green workplace behaviours were indirectly related to green HRM, with the green HRM and fortuitous employee non-green workplace behaviour relationship found to occur through a motivational social and psychological process, i.e. organisational identification, rather than transactional processes, such as skill enhancing processes. This is to say, although green HRM in general is a positive force for eliciting employee non-green workplace outcomes, the strength of this force will be dependent upon how employees perceive they are supported by, and within, the organisation. The more pronounced the social exchanges and the stronger the employee identifies with the organisation, the more likely the employee would behave in accordance with organisational goals, and less likely to exit the firm. This finding is considered to be significant, as it enables development of a better understanding of the nuanced effects of green HRM, an important dimension of CSR and green management, on employee workplace outcomes.

This study improves and expands on prior green HRM and CSR research by theorising a circumstance under which CSR can be a positive force for internal stakeholders, i.e. employees. Although the CSR literature recognises that an organisation's stakeholders may have conflicting interests within the parameters of CSR initiatives and that these interests play an important role in influencing an organisation's decision to implement CSR (Roberts, 1992), thus far no adequate academic attention has been paid to the conditions under which stakeholders positively react to organisational CSR initiatives.

This study is therefore considered to be pioneering in its attempts to demonstrate that an employee's positive reaction to green HRM are contingent on the employee's perception of organisational support and the quality of social exchanges in the workplace. The findings confirmed that workplaces encompass a complex net of organisational interactions, exchanges and employee perceptions, which affect workplace outcomes. This study extends the existing literature by providing evidence that HRM practices that implement CSR initiatives can have positive workplace outcomes.

Based on the findings from this study and existing green HRM literature, it is suggested that employees who have strong green values are more likely to notice the intent and overt commitment of the firm to the environment through the implementation of green HRM. As such, an employee will act accordingly with organisational green policies. Employees are also likely to view the organisation positively, judge the climate of the firm to be environmentally focussed, as well as meeting their needs in regards to supporting their individual development through targeted green training. This positivity is likely to increase the likelihood of the organisation achieving its green objectives through desirable employee behaviours and attitudes, and it would be expected that employees are more likely to strongly identify with the firm, and therefore less likely to exit the organisation.

Finally, this research has been able to demonstrate positive and significant relationships between green HRM and both in-role and extra-role employee green and non-green workplace outcomes. However, as has been already highlighted, this occurs through different social and psychological processes. Theoretically, there is no reason why the model proposed in this study cannot be used in alternative national contexts or across different industries or cultures. As such, it is considered that the findings make a significant contribution to not only the academic literature but could also influence managerial decisions and strategic agendas. The adoption of green HRM practices has the potential to:

- improve a number of outcomes including diminishing the harmful effects of company operations on the environment
- improving employee retention rates and in-role and extra-role behaviours and
- increasing a company's public profile as a socially responsible entity.

The potentiality of the green HRM concept to improving organisational outcomes should not be underestimated.

7.4 Practical implications

This research has significant implications for the application of management practices. The application of green management concepts such as green HRM has the capability to induce positive environmental outcomes and implicitly become a contemporary solution to address global environmental concerns (Norton et al., 2014). This position is supported by a growing number of researchers (e.g. Jackson & Seo, 2010; Kumari, 2012; Renwick et al., 2013) who believe that implementing organisational green policies and initiatives can elicit desirable employee green workplace behaviours (Norton et al., 2014). In support of these researchers, the current study provides empirical evidence of positive relationships of green HRM with in-role and extra-role employee green

workplace behaviours, through the mediation of psychological green climate. The study also demonstrates that companies that have strong green HRM policies in place and can effectively implement those policies will generally benefit from desirable employee workplace attitudes and behaviours *beyond* the green domain. It is therefore suggested that once organisational green agendas and goals are established, firms should adopt appropriate green HRM practices to not only effectively achieve green goals, but also to elicit fortuitous employee workplace attitudes and behaviours.

Based on the findings of the current study, organisations should implement a range of green HRM practices and activities if they are seeking to successfully achieve a green goal agenda. More specifically, they should design work tasks to meet organisational green policy requirements and consider providing employees with adequate green training and development and educational opportunities. Such training serves two primary organisational purposes. Firstly, effectual green training improves employee skills, enhances employee green cognition and helps to equip employees with the necessary skills and expertise for the successful implementation of general daily job tasks. In doing so, organisations are better placed to achieve their green goals. Secondly, it increases employee awareness of the importance of environmentally safe and responsible practices and improves individual comprehension of green management and organisational green values.

Individual employee green performance should be appropriately evaluated and considered during formal employee appraisals and performance reviews, promotions and rewards. By linking positive employee green workplace behaviours and subsequent performance appraisals to internal promotional opportunities, pay and compensation, this encourages employees to engage in an organisation's green initiatives, be motivated to

participate in green activities and to positively contribute to green management objectives. These green HRM practices are likely to positively contribute to the successful implementation and achievement of organisational green initiatives and goals. In addition,

> '*CSR activities are useful in developing and maintaining satisfactory relationships with (stakeholders)*' (Roberts, 1992, p.599).

However, as this study suggests, employee interests, values and needs may be different from those of external stakeholders. Organisations that implement and engage in green activities do this primarily to address environmental issues at the behest of external stakeholders. Although, it is important that organisations simultaneously address the interests and wellbeing of employees through providing opportunities for individual growth and development. Supporting the development of individual employee skills and capabilities is an important factor in the acceptance of organisational green policies, as demonstrated by the findings of this research. As shown by the results of this study, a high level of POS will augment the positive effect of green HRM practices on employee workplace behaviours.

Directed recruitment and selection processes that target employees with congruent values would significantly help organisations to attract likeminded employees, with these employees more likely to comply to, and instigate organisational green initiatives (Renwick et al., 2008; 2013). This particular research study did not include '*considering attitudes toward green management in recruitment and selection*' in the measure for green HRM due to the participating firm not having this practice in place at the time of the study. However, this research reveals that individual green values moderate the effect of psychological green climate on extra-role employee green workplace behaviour that as Norton et al. (2014) and Paille and Boiral (2013) suggested, is crucial to achieving organisational green goals. As such, employing workers who have similar values and goals

to that of the organisation, are more likely to engage with and be interested in, achieving organisational environmental objectives.

As a result of these findings, it is therefore important for organisations to take measures to increase congruence between an employee's values and the values supported and promoted by the firm. A well-designed recruitment and selection process is one way to achieve this (Renwick et al., 2008; 2013). During a selection process, organisation's need to consider the values and attitudes of potential employees toward sustainability and social responsibility programs, as well as overtly promoting the organisation's green agendas and CSR programs. Existing research suggests that employers have recognised the need to have explicit environmental policies to attract and retain a new generation of likeminded workers (Milliman, 2013; Philpott & Davies, 2007).

Also, and perhaps more importantly, organisations should effectively communicate their green policies and environmental values to existing and potential employees. Only then are employees able to develop accurate and informed perceptions of the firm and understand what is socially, ethically and morally important to the organisation. It is these perceptions that affect employee engagement and motivation to participate in organisational green initiatives (Madsen & Ulhoi, 2001; Milliman, 2013; Renwick et al., 2013). In this study, the strength of the mediating relationships between green HRM and organisational identification, and green HRM and psychological green climate, demonstrates the importance of this communication. When employees have a positive perception of a firm's commitment to the environment (psychological green climate) and community and social issues, and when they identify strongly with the organisation because of the firm's status in the community, then employees are more likely to exhibit desirable workplace behaviours.

7.5 Limitations and future research directions

This study has several limitations that need to be addressed. First, green HRM and green management practices will have a level of divergence between organisations, industries and economies. The participating firm of this study is an Australian multinational enterprise operating in two provinces in China. Human resource management practices of multinational enterprises are subject to the effect of the country of origin. Ferner (1997) suggests that the nationality of the ownership of a firm is a significant determinant of organisational behaviour, and that this centralisation sets and influences HR policies such as training, salaries and recruitment. As such, the sample of the study may not be representative of wider Chinese industries, as the country of origin of the firm is non-Chinese. Also, the requirements for and standards of, green management practices at the national level in China may be different from other countries, although local Chinese governments, authorities and the domestic media have been actively promoting and implementing green schemes to encourage wider implementation of green management initiatives (Huang, 2013; Wenjun, 2014).

Potentially, the responses of employees to foreign multi-national enterprises (MNE) green policies may be different from that of indigenous organisations. Due to the use of the single-organisation data, this study was unable to perform multilevel analyses to partial out unnecessary organisational contextual effects. It is suggested that future studies consider employing the multilevel approach to take into account organisational contextual effect in HRM research. Furthermore, this research was conducted in a single national context where the institutional environment for organisational green behaviour may differ from other national contexts. Although concerns about the non-representativeness of the sample are to some extent eased by the fact that China is now making a substantial effort to transition to a green economy (Huang, 2013), it is suggested that future research that

replicates this study would be valuable to add to the current literature. Future studies would be particularly beneficial if they are conducted in cross-level settings in order to increase generalisability of these research findings. Cross-cultural research is considered to be especially important for developing a more globally relevant measure for green HRM.

Second, green HRM practices may take time to exert maximum influence on employee workplace outcomes, with the current study collecting data at one point in time. As such, the study was not able to capture the full effect of the adoption of green HRM practices to employee workplace behaviours over time, or to completely rule out reverse causality and CMV. Future research should collect longitudinal data and conduct experimental studies to explore the effect of green HRM interventions.

Third, the HRM literature suggests that HRM influences employee workplace outcomes through multiple underlying mechanisms (Jiang et al., 2012). It was not possible for this study to account for every mediator or moderator that could influence the green HRM-in-role and extra-role employee green and non-green workplace behaviour, or intention to quit relationships. Future studies that explore alternative predicting variables, e.g. from the human capital (skill enhancement) and motivational (job satisfaction) perspectives, would be most valuable to this line of inquiry. In addition, researchers could also consider exploring differential applications of climate concepts to contemporary psychological constructs such as emotional intelligence (Mayer & Salovey, 1993). This area of research might go some way to revealing what mechanisms drive an employee's innate emotional thinking and their subsequent actions, in regards to the exhibition of green workplace behaviours, attitudes and motivations.

Fourth, multilevel modelling is currently gaining popularity in HRM research (Shen, in press). This is because perceptions of HRM practices tend to be similar among employees in the same organisation and different between different organisations. Consequently, employee outcomes of HRM practices are subject to organisational contextual effects (Shen, in press). As such, it may be necessary to explore the green HRM-in-role and extra-role employee green and non-green workplace behaviour relationships at higher levels, such as at the unit or organisational level.

Lastly, the portion of the study and conceptual framework that explored fortuitous employee behaviours, considered a singular mediating path, organisational identification. Green HRM is part of CSR that, as empirical studies suggest, may influence employee outcomes through other social and psychological processes, such as perceived visionary leadership (de Luque, Washburn, Waldman & House, 2008) and organisational pride (Jones, 2010). Similarly, the HR behavioural literature identifies multiple social and psychological processes through which HRM influences employee work attitudes and behaviour (Jiang et al., 2012). Moreover, past studies suggested that CSR effects on individual outcomes may be moderated by a range of factors, such as commitment to ethics (Muller & Kolk, 2010), equity sensitivity (Mudrack, Mason & Stepanski, 1999) and employee discretion (Bansal, 2003). It is therefore suggested that future researchers explore potential theory-based mediating paths through which green HRM impacts on employee non-green outcomes, and factors that may strengthen or weaken anticipated effects of green HRM.

7.6 Conclusion

Renwick et al. (2013) revealed that there is a lack of literature that has explored how employees are motivated to engage with and exhibit green workplace behaviours.

While some researchers have begun to conceptually explore green HRM (Boiral, 2009; Daily et al. 2009), few studies have sought to empirically validate the concept. This research has gone some way to fill this important literature gap and therefore significantly contributes to the green HRM and green management literature in general.

A key aim of this research study was to explore the relationships between both in-role and extra-role employee green workplace behaviours and green HRM. The study found that these relationships occur through different social and psychological processes, with both direct and indirect associations. This finding supports the suppositions put forward by Jiang et al. (2012) and the general HRM behavioural literature, in that mediating and moderating mechanisms play a key role in the determination of employee green behaviours and attitudes. This can be interpreted in the way that in-role employee green workplace behaviour is officially appraised, recognised and related to rewards within the organisation and is therefore considered to be routine, or expected workplace behaviour, and as such is directly affected by green HRM practices and policies. Extra-role employee green workplace behaviours are not officially appraised and rewarded by the organisation. Therefore, these behaviours are principally influenced by individual perceptions of an organisation's green climate resulting from the adoption of, rather than directly influenced by, green HRM.

In addition, Bowen and Ostroff (2004) suggest that researchers should explore the impact of and the interrelationships between HRM system strength and other determinants, such as organisational climate. Green HRM offers similar research opportunities. A call for new studies that explore the strength of green HRM on organisational and psychological green climate, by exploring additional factors such as leadership, emotional decision-making and workplace social relationships is warranted. Other factors can affect the

strength of a relationship and foster the development of a particular climate, such as green climate. According to Bowen and Ostroff (2004), features of HRM (or green HRM), intuitively interact with other socially constructed variables, which is likely to result in improved climate perceptions and outcomes.

Past workplace green behavioural studies have mainly explored the effect of sustainability programs (Paille et al., 2013; Norton et al., 2012, 2014) and leaders' influence (Ramus & Steger, 2000; Robertson & Barling, 2013). Previous research had not adequately accounted for the effect of employee engagement when implementing organisational green policies and practices. Therefore, it is argued that for employees to acquiesce to a green behavioural mantra, they must engage with the organisation and its green practices and policies (Robertson & Barling, 2013; Unsworth, Dmitrieva & Adriasola, 2013), with green HRM practices expected to play an important role in this employee engagement process. As such, this study also contributes to the OB literature in relation to understanding the antecedents of individual workplace green behaviour.

A key contribution to the green HRM literature made by this study was the exploration and construction of a set of green HRM measures which had not to date, been empirically explored nor validated in the current green HRM literature. While these measures were developed and applied within the parameters of a Chinese context with a localised workforce, its practical application and productive implications will enable future researchers to pursue green HRM studies using these measures in alternative cultural, industry and economic contexts.

This study was able to demonstrate that the consequences of green HRM are positive for organisations, as employees are more engaged and motivated to participate and

exhibit behaviours that are aligned with sustainability related policies. The findings from this study support the SVF theory (Edwards, 1996), in that the greater the congruence between employer and employee, the more likely a firm will achieve its goals. In addition,

- stakeholder theory, which requires organisations to balance the needs of its stakeholders,
- social identity theory, which holds that an employee's perceptions of an organisation, its motives and policies, and how it is viewed within the public sphere and
- social exchange theory that determines the level of commitment to an organisation through social exchanges in the workplace,

will also affect an employee's motivation and engagement in organisational initiatives. The findings from this study support these key theories and how they contribute to and elucidate the how and why, firms are able to achieve organisational green goals through the application of green HRM.

Based on the findings of this study, and taking into consideration what the existing green HRM and green management literature suggests, targeting employees who have similar values, motivations and beliefs during the recruitment process, would embed similar minded employees who are more likely to strive to achieve organisational green goals. In addition, organisations that promulgate communication regarding their commitment to and support for sustainability agendas, and employees who consider their actions in regards to meeting environmental compliance requirements, are also more likely to achieve their green objectives. Achieving these green goals is therefore more likely to be successful through the implementation of green HRM processes and activities such as recruitment and selection, training and education, performance appraisals, and rewards and compensation.

Finally, while a key motivation for this research was to determine what could be done for the green HRM concept regarding its overall development and empirical validation, while improving our understanding of its effects on employee workplace behaviours, it was also considered critical to understand what green HRM can do for the wider society as well as the academic and business community. By using green HRM as a conduit to test and validate HRM and green management theories in the context of today's contemporary society, green HRM research may help us to leave a positive legacy for tomorrow's corporations and the environment. The legacy being, that the environment is now likely to be better placed for its fundamental survival existing alongside multinational corporations, organisations and factories, than before we discovered the potential influence of the green HRM concept on employee workplace outcomes.

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Appendices

Appendix 1: Publications derived from this research

Publication 1 resulting from the PhD study

Title: Effects of green HRM practices on employee workplace green behaviour: The role of psychological green climate and employee green values

Authors: Dumont, J., Shen, J., and Deng, X.

Publication status: Under 2nd round review with *Human Resource Management* (ABDC A*), expected to be accepted in 2015.

Abstract

This journal article reports the findings of the PhD study in relation to the effect of green HRM on employee workplace green behaviour and the social and psychological process. In this article, we first reported how we developed the measures for green HRM. We then drew on the behavioural HRM and psychological climate literature along with the supplies-values fit theory, to present and test a conceptual model integrating the effects of psychological green climate and individual green values. We reported that green HRM both directly and indirectly influenced in-role green behaviour, but only indirectly influenced extra-role green behaviour, through the mediation of psychological green climate. Individual green values moderated the effect of psychological green climate on extra-role green behaviour, but it did not moderate the effect of either green HRM or psychological green climate on in-role green behaviour. These findings indicate that green HRM impacts both employee in-role and extra-role workplace green behaviour, however, these influences occur through different social and psychological processes.

In the article, we pointed out that the findings in relation to different moderating effects of individual green values and different mediating effects of psychological green climate for

in-role and extra-role green behaviours are an important disclosure, as they provide a better understanding of the nuanced social and psychological processes through which green HRM influences different individual workplace green outcomes. More generally, these findings highlight that there are distinctly different antecedents of in-role and extra-role employee workplace green behaviours, and provide a new perspective on the HRM-employee workplace outcome relationships and opens up an interesting avenue for further research.

Publication 2 resulting from the PhD study

Title: Perceptions of Green HRM and Non-green Employee Work Outcomes: The Social-identity and Stakeholder Perspectives

Authors: Shen, J., Dumont, J., and Deng, X.

Publication status: Under 2nd round review with Group and Organisation Management (ABDC A)

Abstract

This journal article reports the findings of the PhD study, in relation to the relationships between green HRM and employee *non-green* workplace outcomes, and the associated social and psychological processes. The study drew on the OB and HRM behavioural literature, along with the premises of stakeholder, SIT, SET and attribution theories. Subsequently, a model was presented in order to test an integrative moderated-mediation model in which green HRM was expected to influence in-role and extra-role employee non-green workplace behaviours and intention to quit through a motivational social and psychological process, namely organisational identification. Perceived organisational support was expected to moderate the aforementioned relationships. Analyses of the multisource data have generally supported the research hypotheses.

The article was able to establish that green HRM influences employee workplace outcomes beyond those within the green domain. In particular, green HRM was found to affect fortuitous workplace attitudes and behaviour such as in-role and extra-role employee non-green workplace behaviours and intention to quit.

Green HRM influences these individual workplace outcomes through a motivational social and psychological process, with these relationships contingent on how employees perceive their interests are addressed by and within the organisation. The findings of the research, promotes and develops a better understanding of employee consequences of green HRM, beyond perhaps what the literature would expect to occur. As such, this research also contributes to the more general HRM literature by suggesting that a set of HRM practices may exert anomalous impacts on fortuitous employee outcomes.

Publication 3 resulting from the PhD study

Title: Green HRM practices: A case study

Authors: Dumont, J., Shen, J., and Deng, X.

Publication status: Journal of International Management Studies (ABDC C) (in press)

Abstract

This journal article explored what is meant by green HRM and associated HRM practices. A single case study organisation took part in the qualitative study. This enabled us to gain a greater understanding of what green HRM, or green management HR practices were already being implemented in the Company at the centre of the study.

In-depth interviews were conducted with the organisation's key managerial personnel. The interviews were conducted between September 2013 and December, 2013. These interviews established what green HRM practices existed within the Company, hence, this revealed what green HRM practices are likely to, or can be adopted in, contemporary organisations aimed at improving or increasing sustainability outcomes. After the interviews were conducted and completed, corporate documentation, reports, official websites and other available materials pertaining to green HRM and green management were reviewed to build an in-depth picture of the Company and its corporate approaches to sustainability.

As such, we were able to identify in the article, a number of specific green HRM practices including training and development, performance management, and rewards and compensation that the Company was currently implementing and enforcing.

This case study extends the current theoretical notion of the green HRM construct, and explores how one organisation interprets, assigns and administers HR practices aligned with green HRM. This undertaking enables future researchers to move toward and empirically explore green HRM - a promising management approach to address corporate environmental sustainability agendas.

Appendix 2: Interview questions

General Manager and Senior HR managers – interview questions

1. Is there an Environmental Management System (similar to ISO 14001) operating in the China operations?
   If so, how does it compare to that of the parent company?
   If not, what are the main reasons, which prevent that this from happening?

2. What is your vision of environmental management in your company?

3. Could you:
   List at least three priorities that need to be addressed to improve your firm's environmental performance?

   List three obstacles to implementing EMS in your company?

4. In your opinion, how can HRM be utilised to improve a firm's EMS or environmental performance, or to achieve the company's green goals?

5. What are you and your senior management's roles in the following areas:
   - communicate the environmental policy, plan, and other pertinent information to workers;
   - support cultural change for implementation and operations;
   - reward and empower workers for corrective action and improvement; and
   - review the EMS for progress.

5. In your opinion, what are the key driving forces in China that has driven companies, including yours, to embrace environmental management strategies?

6. Do you view your company's environmental management strategy as pro-active or reactive?

7. In your opinion, do you think that an environmental management strategy offers significant benefits for your company's operations? In what ways?

8. Do you have any specific auditable green measures for your company's environmental performance?
   If so, what are they and how do you measure this?
9. Are you aware of green HRM and do you know what it is?

10. Do you have any environmentally targeted activities that you promote in the workplace?

11. Do you think that employees are responsive to environmental policies?

12. Do you have any specific green HRM activities that align with:
    - Recruitment and selection processes
    - Training
    - Rewards and compensation
    - Performance appraisal processes

13. If these do exist, can you expand and provide details?

(Example - promotional opportunities, monetary rewards, suggestion box)

Appendix 3- Ethics Committee approval

Dear Applicant

Re: Ethics protocol "Green HRM - antecedents and consequences" (Application ID: 0000032272)

Thank you for submitting your ethics protocol for consideration. Your protocol has been considered by the E2 Committee Review Group.

I am pleased to advise that your protocol has been granted ethics approval and meets the requirements of the National Statement on Ethical Conduct in Human Research.

Please note that the E2 Committee Review Group's decision will be reported to the next meeting of the Human Research Ethics Committee for endorsement.

Please regard this email as formal notification of approval.

Ethics approval is always made on the basis of a number of conditions detailed at http://www.unisa.edu.au/res/forms/docs/humanresearchethics_conditions.doc; it is important that you are familiar with, and abide by, these conditions. It is also essential that you conduct all research according to UniSA guidelines, which can be found at http://www.unisa.edu.au/res/ethics/default.asp

Please note, if your project is a clinical trial you are required to register it in a publicly accessible trials registry prior to enrolment of the first participant (e.g. Australian New Zealand Clinical Trials Registry http://www.anzctr.org.au/) as a condition of ethics approval.

Best wishes for your research.

Executive Officer
UniSA's Human Research Ethics Committee
CRICOS provider number 00121B

This is an automated email and cannot be replied to. Please direct your query to ethics@unisa.edu.au.

Appendix 4 – Cover letter to questionnaire participants – Employee

Jenny Dumont
University of South Australia
Australia
jenny.dumont@postgrads.unisa.edu.au

Dear Respondent
各位员工:

I am a researcher at the University of South Australia, Australia. I am currently conducting a study of employee green behaviour and organisational human resource management. Enclosed with this letter is a questionnaire that asks a number of questions about your work, your supervisor and the organisation. Please complete the questionnaire and put it inside the envelope that is provided for you. Please seal the envelope and give it to your supervisor. I will be the only person to view the questionnaire results.

我是澳大利亚南澳大学的研究人员。目前我正在进行一项有关员工环保行为和组织人力资源管理的研究。随信附上的是一份调查问卷，问卷询问了一些关于您的工作，主管和公司的问题。请完成调查问卷，并把它装在我为您提供的信封中。请密封信封并把它交给您的主管。我是唯一会看到调查表结果的人。

The questionnaire will take you about 20 minutes to complete. Please mark your first choice when you see the question, and answer the questions honestly. Your honesty will help to achieve the objectives of the research. All the information that you will provide will be confidential and you will not be identified personally. Nothing that you say on the questionnaire will in any way influence your present or future employment with your company. The questionnaire will assist in finding out what is important to you, your work, and help to identify potential opportunities to improve your workplace.

完成此调查问卷大约会占用您约20分钟的时间。阅读问题后请将您的第一选择作为答案标记出来，并据实作答。您的诚实将有助于我实现课题的研究。您反馈的所有信息都会被保密,我们也无法从问卷中确认您的身份。您对调查表发表的意见也不会以任何方式对您目前或未来的工作产生任何影响。调查问卷将有助于发现对于您和您的工作来说，什么是最重要的，并找出改善您工作场所的潜在机会。

You will be asked to provide your job title, your gender, your age, your education level, and how long you have worked for the company on the questionnaire. You are not to write your name or your address on the questionnaire. Your participation is voluntary, and there is no penalty if you do not participate.
在调查表上，您会被问及您的工作职位、性别、年龄、教育水平，和工作年限。请不要在调查表上写您的名字或您的地址。您的参与是自愿的，如果您不参与调查也不会受到任何处罚。

If you have any concerns about this research, you can contact the University of South Australia's Human Research Ethics Committee at ethics@unisa.edu.au.

如果您对此调查有任何疑问, 请通过以下电子邮箱联系南澳大学人类实验对象操守委员会。ethics@unisa.edu.au.

Without the help and support of employees like you, research in the workplace could not be conducted, and improvements in the workplace would not be possible.

您的帮助和支持不仅仅有助我进行这项研究， 也会促进改善工作场所。

Thank you for your efforts and for taking the time to complete the questionnaire.

感谢您在百忙中抽出时间来完成此调查问卷。

Kind regards,

Jenny Dumont

Appendix 5 – Cover letter to questionnaire participants - Supervisor

Jenny Dumont
University of South Australia
Australia
jenny.dumont@postgrads.unisa.edu.au

Dear Supervisor
各位管理人员

I am a researcher at the University of South Australia, Australia. I am currently conducting a study of employee green behaviour and organisational human resource management. Enclosed with this letter is a questionnaire that asks a number of questions about your company's employees and their behaviour in the workplace. Please complete the questionnaire and put it inside the envelope that is provided for you. Please seal the envelope and give it to your HR representative. I will be the only person to view the questionnaire results.

我是澳大利亚南澳大学的研究人员。目前我正在开展员工绿色行为和组织人力资源管理的研究。随信附上的是一份调查问卷，问卷询问了一些关于您公司的员工和他们在工作场所的行为的问题。请完成调查问卷，并把它装在我为您提供的信封中。请密封信封并把它交给您的人力资源代表。我是唯一会看到调查表结果的人。

The questionnaire will take you about 20 minutes to complete. Please mark your first choice when you see the question, and answer the questions honestly. Your honesty will help to achieve the objectives of the research. All the information that you will provide will be confidential and no employee will have access to, or knowledge about, the information you provide. Nothing that you say on the questionnaire will in any way influence your present or future employment with your company. The questionnaire will assist in finding new ways to improve employee behaviours in your workplace.

完成此调查问卷会占用您约20分钟的时间。阅读问题后请将您的第一选择作为答案标记出来，并据实作答。您的诚实将有助于我实现课题的研究。您反馈的所有信息都会被保密，其他人无法获得。您对调查表发表的意见也不会以任何方式对您目前所在公司或将来就业的公司的工作产生任何影响。调查问卷将有助于找到新的方法来改善员工在工作场所中的行为。

You will be asked to provide your job title, your gender, your age, your education level, and how long you have worked for the company on the questionnaire. You are not to write your name or your address on the questionnaire. Your participation is voluntary, and there is no penalty if you do not participate.
在调查表上，您会被问及您的工作职位、性别、年龄、教育水平，和工作年限。请不要在调查表上写您的名字或您的地址。您的参与是自愿的，如果您不参与调查也不会受到处罚。

If you have any concerns about this research, you can contact the University of South Australia's Human Research Ethics Committee at ethics@unisa.edu.au.

如果您对此调查有任何疑问, 请通过以下电子邮箱联系南澳大学人类实验对象操守委员会。ethics@unisa.edu.au.

Without the help and support of supervisors like you, research in the workplace could not be conducted, and improvements in the workplace would not be possible.

如果没有像您这样的管理人员的帮助和支持，工作场所中的研究就不能进行，更不可能改善工作场所。

Thank you for your efforts and for taking the time to complete the questionnaire.

感谢您的努力，感谢您在百忙中抽出时间来完成此调查问卷。

Kind regards,

Jenny Dumont

Appendix 6: Survey questionnaire – employee (English/Chinese)

Please complete the following information
请完成以下问题并把最适合您的选项圈出来或填上

Employee code_____
员工号

DO NOT WRITE YOUR NAME ON THIS PAPER
请不要把您的名字写在答卷上

Job title	manager	supervisor	office worker	operator	packer	other
职位	经理	主管	办公室人员	操作工	包装工	其他

Gender	male	female
性别	男	女

Age - how old are you? _____
年龄

Education level – how many years have you spent at school or university as a full-time student? _____
教育程度 – 您总共受到多少年的教育(包括小学，中学，技校，大学及其它全日制学校)

How many years have you worked at the company? _____
在职时间 – 在德盟工作共多少年？

Please circle the number (circle only ONE) below that best represents how you feel about the questions and statements that you are being asked. 请把最能代表您对问题的感受的数字圈出来.

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
1. My company sets green goals for its employees (example – reducing wastage, improving machine efficiency) 公司为员工设立了绿色目标.(例如减少浪费, 提高机器效率等)。	1	2	3	4	5
2. My company provides training to promote green values that will reduce negative effects on the environment (example – reducing pollution in the river, stop throwing rubbish on the road) 公司提供宣传绿色环保概念的培训, 有助于减少对环境的破坏(例如减少对河流的污染,禁止乱扔垃圾等)。	1	2	3	4	5
3. My company provides training to develop employees' green knowledge and skills to improve understanding of why it is important to reduce pollution and look after the environment 公司培训员工以提高他们绿色环保知识和技能, 从而加深了解为什么减少污染，保护环境很重要。	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
4. My company considers an employee's green workplace behaviour in performance appraisals (example – improve machine efficiency, reduce paper wastage) 公司做绩效评估时会考虑员工在工作场所的绿色环保行为(例如提高机器效率,减少纸张浪费等)。	1	2	3	4	5
5. My company relates an employee's green workplace behaviour to rewards and compensation (example - KPI payments for improved efficiency) 公司对员工在工作场所的绿色环保行为予于奖励和补助(例如奖励效率提高的KPI奖金)。	1	2	3	4	5
6. My company considers an employee's green workplace behaviour in promotions (example - skill upgrading can lead to a promotion) 公司在员工升职时会考虑该员工在工作场所的绿色环保行为。	1	2	3	4	5
7. Engaging in and supporting green and sustainable initiatives and activities is important in this company 公司重视环保的参与和支持，重视可持续性的倡议和活动。	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
8. In this company polluting the environment and wasting energy and resources are considered to be unacceptable 在公司里，污染环境和浪费能源资源是不可接受的。	1	2	3	4	5
9. People in this company are willing to sacrifice some of their self-interests for the benefit of the environment (example - turn off the air conditioner if you do not need it on, rather than keep it on all the time) 公司的员工愿意为环保牺牲一些私人利益（例如不需要用灯时关掉，而不是任由其亮着）。	1	2	3	4	5
10. In this company employees are encouraged to put forward new ideas on energy saving and environmental protection (example - suggestion box) 公司鼓励员工提出节能和环保的新想法。	1	2	3	4	5
11. In this company successful people are conscious about energy saving and environmental protection 公司的成功人士都有节能和环保意识	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
12. I feel a personal obligation to do whatever I can to prevent environmental degradation (example - not throwing rubbish on the road or pouring chemicals down the drain that will end up going in to the river) 我感觉自己有责任尽我所能去防止环境退化（例如不随地扔垃圾，不把化学品直接倒入最终排入河流的下水道等）。	1	2	3	4	5
13. I feel a sense of personal obligation to take action to stop wasting resources (example – saving water or using less electricity 我感觉自己有责任采取行动，阻止浪费资源（例如不浪费水电等）。	1	2	3	4	5
14. I think that business and industry should protect the environment 我认为企业和工厂应该保护环境。	1	2	3	4	5
15. My company strongly considers the importance of my personal values and goals 公司十分重视我个人的价值观和目标。	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
16. My company really cares about my wellbeing 公司真正关心我的福利。	1	2	3	4	5
17. My company shows very little concern for me 公司很少关注我。	1	2	3	4	5
18. If I made a mistake in my job, and advised my supervisor, my company would forgive me 如果我在工作中犯错并向上司承认错误，我会被原谅。	1	2	3	4	5
19. If given the opportunity, my company would take advantage of me (example - the company might ask me to work longer hours but not pay me extra money) 有机会的话，公司会利用我。(例如公司要求我加班却不支付我加班费.)	1	2	3	4	5
20. Help is available from my company when I have a problem (example – provide paid sick leave) 如果我遇到问题，公司会提供帮助。（例如：如果生病了，允许我休假）	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
21. My company is willing to help me when I need a special favour (example – emotional support and time off work to attend a sick child or parent) 如果我需要特殊帮助，公司愿意提供帮助 (例如: 如果我的家人生病需要照顾， 我可以休假)。	1	2	3	4	5
22. I often think of quitting my present job 我经常想辞职。	1	2	3	4	5
23. I may leave this company and work for another company in the next year 我有可能明年就离开公司，跳槽到另外一家。	1	2	3	4	5
24. I plan to stay in this company to develop my career for a long time 我打算长时间留在公司发展我的职业生涯。	1	2	3	4	5
25. When someone criticises this company, it feels like a personal insult 别人批评公司时，我感觉就像对我个人的侮辱。	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
26. I am very interested in what others think about this company 我很在意其他人对公司的评价。	1	2	3	4	5
27. When I talk about this company, I usually say 'we' rather than 'they' 当我提起公司时，我通常用"我们"，而不是"他们"。	1	2	3	4	5
28. This company's successes are my successes 公司的成功就是我个人的成功。	1	2	3	4	5
29. When someone praises this company, it feels like a personal compliment 当有人称赞公司时，感觉就像在称赞我自己。	1	2	3	4	5
30. If a story in the media criticised the company, I would feel embarrassed 如果媒体报道是批评公司的，我会感到尴尬。	1	2	3	4	5

Appendix 7: Survey questionnaire – supervisor (English/Chinese)

Please complete the following information　　Employee code_____
请完成以下问题并把最适合您及有关员工的选项圈出来　　受您评估的下属的员工号

DO NOT WRITE YOUR NAME ON THIS PAPER
请不要把您的名字写在答卷上

Job title	manager	supervisor	office worker	operator	packer	other
职位	经理	主管	办公室人员	操作工	包装工	其他

Gender	male	female
性别	男	女

Age - how old are you? _____
年龄

Education level – How many years of education have you received in total? _____
教育程度 – 您总共受到多少年的教育?

How many years have you worked at the company? _____
在职时间 – 在德盟工作共多少年?

Please select the number below that best represents how you feel about the questions and statements that you are being asked. As a supervisor, you are being asked to respond to questions about employee behaviours in the workplace. Please be honest in your responses.
请选择最能代表您对该员工在公司的有关行为感受的选项，请据实作答， 公司里任何人都不会看到您的选择.

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
1. This employee's behaviour of saving paper and energy at work is beyond the norm (especially careful about saving paper and energy) 该员工在工作中特别节约纸张和能源(即： 做得比公司所要求的还要好)	1	2	3	4	5
2. This employee puts forward new ideas on energy saving and environmental protection in the workplace 该员工在工作中提出节能环保的新想法。	1	2	3	4	5
3. This employee promotes environmental protection in the workplace 该员工在工作中会宣传环保知识.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
4. This employee reminds his colleagues if they did not comply with Company's environmental policy 如果看到其他员工有违反公司环保政策,该员工会作出提醒	1	2	3	4	5
5. This employee turns off the lights and power of electrical equipment to save energy even when no-one is watching 即使在没有监督的情况下,该员工也会关灯和关闭机器电源节约能源.	1	2	3	4	5
6. This employee voluntarily recycles even when no-one is watching 即使在没有监督的情况下,该员工也会主动做到回收再利用.	1	2	3	4	5
7. This employee follows the Company's policy of disposing of chemicals to avoid polluting the environment 该员工遵守公司关于化学物品处理的规定以避免对环境造成污染.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
8. This employee follows the Company's policy of disposing of waste water to avoid polluting the environment 该员工遵守公司关于废水处理的规定, 以避免对环境造成污染.	1	2	3	4	5
9. This employee follows the Company's best practice of operating the machine in order to reduce paper and energy consumption 该员工遵守公司关于机器操作的规程从而减少纸张和能源的损耗.	1	2	3	4	5
10. This employee follows the Company's policy of turning off the lights and power of electrical equipment when they are not in use 该员工遵守公司关于不使用时关闭灯和设备电源的规定.	1	2	3	4	5
11. This employee follows the Company's recycling policy 该员工遵守公司关于循环再利用的规定.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
12. This employee is willing to stand up to protect the reputation of the Company 该员工愿意在公司外挺身而出，保护公司的声誉.	1	2	3	4	5
13. This employee makes constructive suggestions for improving the operation of the Company 该员工为改善公司营运提出建设性建议	1	2	3	4	5
14. This employee assists new colleagues in adjusting to the work environment 该员工主动帮助新同事适应工作环境.	1	2	3	4	5
15. This employee helps colleagues to solve work related problems 该员工主动帮助同事解决工作中遇到的问题.	1	2	3	4	5
16. This employee complies with company rules and procedures even when nobody watches 即使在没有监督的情况下,该员工也会遵守 公司规程.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
17. This employee often arrives early and starts work immediately 该员工会经常提前上班并马上开始工作.	1	2	3	4	5
18. This employee takes credit, avoids blame, and fights fiercely for personal gain 该员工争抢功劳, 逃避责骂, 斤斤计较个人得失.	1	2	3	4	5
19. This employee often speaks ill of the supervisor or colleagues behind their backs 该员工经常背后说上司或同事的坏话.	1	2	3	4	5
20. This employee conducts personal business on company time 该员工在上班时间做私人事情.	1	2	3	4	5
21. This employee uses company resources to do personal business i.e. copy machines, phone, computer 该员工利用公司资源进行私人业务. 如使用公司复印机,电话,电脑.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
22. This employee adequately completes assigned duties 该员工能充分完成分配的工作任务.	1	2	3	4	5
23. This employee fulfils the responsibilities specified in their job description 该员工履行了岗位描述中的职责.	1	2	3	4	5
24. This employee performs tasks that are expected of him/her该员工在工作中能不负众望.	1	2	3	4	5
25. This employee meets formal performance requirements of the job 该员工符合工作岗位的正常工作要求.	1	2	3	4	5
26. This employee engages in activities that will directly affect his/her performance evaluations 该员工参与对直接影响到自身的绩效评估的日常活动.	1	2	3	4	5

	Strongly agree 非常同意	Agree 同意	Undecided 不确定	Disagree 反对	Strongly disagree 强烈反对
27. This employee neglects aspects of the job that he/she is obligated to perform 该员工会疏忽自己职责之内的事项.	1	2	3	4	5
28. This employee fails to perform essential duties 该员工未能履行其基本职责.	1	2	3	4	5