



**Green Human-Resource Management towards sustainable organizations:**

**A case of KwaZulu-Natal higher education institutions.**

**By**

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## **ABSTRACT**

The Human Resources Management Division, as a strategic partner and one of the important functions in any organisation, can make a significant contribution to ensuring environmental sustainability in the organisations where they operate. Higher education institutions with their power and potential to bring awareness, educate, and influence the nation's thinking, can provide an invaluable contribution to natural resource conservation. The aim of the study was to explore how the Human Resources Management division can contribute to the crucial cause of natural resource conservation sustainability through the greening of organisations. This was a mixed method study conducted amongst Human Resource Practitioners in operational and management levels from three institutions of higher education.

Data were collected using face-to-face interviews and questionnaires. Results indicated that Human Resources (HR) Practitioners had a limited understanding of the concept 'Green HRM'. Green HR activities in the institutions were mainly applied in recruitment and performance management systems where technologically advanced, green and resource-efficient HR methods were used. Regarding engagement of employees on greening issues, training, and compensation, results showed that nothing much is being done in these activities to incorporate 'Green HRM' principles in institutions.

There was no established 'green' organisational culture in the HR divisions and in institutions at large. The study recommends that green clauses should be incorporated into the vision and mission statements of the institutions as well as in organisational and HR policies. Management vision and commitment are key in ensuring success of greening strategies. All employees should be consulted and engaged in every stage of the greening process to ensure their buy-in and commitment. There should be financial and human capital investment in green projects to ensure their success. Establishing partnerships with the private sector is also very important as a source of benchmarking and sharing of ideas in greening projects.

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## LIST OF ACRONYMS AND ABBREVIATIONS

AGCI	Africa Green Campus Initiative
ANOVA	Analysis of Variance
COP 17	Conference of Parties
CIPD	Chartered Institute of Personnel Development.
DUT	Durban University of Technology
EMS	Environmental Management System
EMM	Environmental Management Maturity
ET	Environmental Training
HRM/HR	Human Resource Management
IPCC	Inter-Governmental Panel on Climate Change
ISO	International Organization for Standardization
JSE	Johannesburg Stock Exchange
*sa	(sinne anno) No date and year of publication
NDP	National Development plan.
NEMA	National Environmental Management Act
SHRM	Strategic Human Resource Management
SAQA	South Africa Qualifications Authority
SONA	State of the Nation Address
SPSS	Statistical Package for the Social Science
UCT	University of Cape Town
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization.
UKZN	University of KwaZulu-Natal
USA	United States of America
UZ/UNIZULU	University of Zululand

# **CHAPTER 1**

## **OVERVIEW OF THE STUDY**

### **1.1. INTRODUCTION**

This chapter provides an overview of the study. The Background of the study is explained, the problem statement is declared and the objectives and questions that the study will interrogate are provided in this chapter. The scope and focus of the study is also clarified in this chapter as well as the definition of key concepts in the topic and in the study in general.

### **1.2. STRUCTURE OF THE STUDY**

Chapter two critically examines the existing literature on Green HRM. The existing studies and major arguments in this area of study are also discussed. The evolution of Green HRM concept is also outline in this chapter. The South African context on green sustainability, and the role of the Human Resource-Management Division, and role of higher education institutions in the greening movement are analysed and discussed in this chapter. Theories and models of culture, change and learning in the transformation of organisations towards environmental sustainability are also discussed in this chapter.

Chapter three explains the research process and methodology used in conducting this study. The process is explained and elaborated on, from the research methods used (qualitative and quantitative) to data collection methods (questionnaire and interview schedule), sampling approach followed (purposive sampling and census), data analysis methods and system (Thematic and SPSS). Statistical tests used (Anova, correlation tests, t-tests, normality tests) are also presented and discussed. Methods used to ensure validity and reliability were also explained and lastly how ethical issues were taken into consideration and addressed.

Chapter four presents and discusses results from the interviews. Key themes that emerged from the data collected are presented in this chapter. Verbatim presentation of participant's responses are also presented in this chapter as they convey the participant's emotions, feelings, convictions and sentiments in participants responses during interviews. Findings from previous studies done in different countries globally and found within the body of

knowledge in the discipline of Green HRM are also compared and contrasted with results of this study to see if there are any similarities, consistencies or differences in findings from such different studies.

Chapter five presents a report of findings from the quantitative (questionnaires) results. Descriptive and inferential statistics extracted from quantitative results are presented in this chapter. Statistical tests conducted to test various assumptions and hypothesis relevant to the topic at hand and the outcomes of the statistical tests are also presented, analysed and discussed in this chapter. An integrative discussion of major findings from both qualitative and quantitative approaches of this study are also discussed in this chapter.

Chapter six provides a summary of key findings of the study including findings on the level of understanding of the concept 'Green HRM' by HR Practitioners. The perception of most HR Practitioners and HR divisions in the institutions of higher learning with regards to greening issues in the organization or institutions. Culture practiced within the institutions as far as greening issues are concerned. Findings on the issue of green policy frameworks on greening in the HR division and institutions at large are also presented in this chapter. A proposed practical framework for Green HRM that can be applied across the organisation with the HR Division playing a key facilitation role is also presented in this chapter.

Lastly, chapter seven provided recommendations that institutions and organizations embarking on greening trajectory should consider. Recommendations on what key roles the HR division should play in the transformation of organizations towards being green and sustainable are also outlined in this chapter. Limitations of the study, the conclusion and directions for future research are also outlined.

### **1.3. PREAMBLE**

Globally, the challenges of climate change and natural resources` depletion are a concern to every nation as their negative effects affect the livelihoods and survival of human kind and every living species. Current consequences of shortage in natural resources such as water, arable land and life-threatening droughts require every global citizen in every occupation to take action towards finding solutions. South Africa is one of the countries that is also faced with the negative consequences of climate change. On top of this, we live in a



a water-scarce country Climate-change consequences have made the situation worse as the country has recently been faced with challenges of drought in the form of water shortages as well as the challenge of energy shortages. The researcher had a conviction to investigate the HR role in natural resource conservation and greening of organisations. The following broad and general questions came to the fore: What are HR Practitioners doing to contribute to bringing about solutions to these global and local environmental challenges? What is the role and contribution of HR towards conservation of natural resources? What are the perceptions and attitudes of HR Practitioners towards conservation of natural resources and greening initiatives in the organisations they work for? What role can the HR division in any organisation play to mobilize and influence the workforce to contribute towards natural resource conservation and greening in the organisations where they work?

#### **1.4. BACKGROUND OF THE STUDY**

As a consequence of climate change with all the challenges it poses globally to many countries and societies, sustainability and green practices are now the key words in businesses, institutions and households. Individuals are expected to operate within resource sustainable limits.

Green human-resource management looks at the role that the human resource division plays in assisting organisations to adopt green lifestyles, by being environmentally aware, resource efficient and sustainable. In the 21<sup>st</sup> century, HR practitioners need to move, change and align themselves with the current trends to ensure business sustainability and profitability. The literature has many examples of calls on the HR division to be involved in sustainability efforts within the organisation and to move away from the perception that sustainability activities in organisations are for research and development, production, operations, marketing or any other division except the HR division.

The Human Resources division as a strategic partner in the organisation can play an influential role towards a significant contribution to greening initiatives. (Prasad, 2013; Strandberg, 2009). Higher education institutions with their power and potential to educate, influence and change the nation's thinking and behaviour, can make an invaluable contribution to the fight against resource depletion and to minimize climate change's negative effects on societies (UNESCO, 1997; Sharp, 2003; Cortese, 2003; Niu, Jiang, Li, 2010, Yuan, Zuo and Huising, 2013) Higher education institutions have a profound, moral

responsibility to increase the awareness, knowledge, skills and values needed to create a just and sustainable future, it prepares most of the professionals who develop, lead, manage, teach, work in and influence society's institutions (Gibbons, 1998; Sharp, 2003; Cortese, 2003; Niu, Jiang, Li, 2010, Yuan, Zuo and Huising, 2013). In their review article on Green HRM research and contemporary developments in the field for the last two decades (1996 - 2016), Renwick, Jabbour, Redman, Wilkinson and Muller-Camen (2016), confirmed that HR scholars are undertaking serious discussions and practical interventions that may extend global debates on the HRM role in reducing ecological degradation. This study therefore intends to contribute to that discourse of finding practical interventions and solutions that organisations can implement in their daily activities. to ensure conservation of natural resources.

## **1.5. PROBLEM STATEMENT**

The world is faced with challenges of climate change and natural resource depletion. An ever-increasing rate of consumerism has put a lot of strain on natural resources. As a result of this global challenge, many governments, societies, organisations and corporates are struggling to satisfy the ever-increasing needs and demands of the current generation while ensuring that natural resources are conserved for future generations as well (Seidel, Recker, Pimmer, and vom Brocke, 2010; Bansal, 2002) As a result of these challenges, we see a shortage of resources such as water and food and devastating levels of poverty and severe natural disasters (Schlenker and Lobell, 2010; Rosenzweig, Iglesias, Yang, Epstein and Chivian, 2001).

The challenge of climate disruption and natural resource depletion is a global challenge society is facing. It is everyone's responsibility to monitor their carbon footprints and to conserve the limited natural resources we have. This will benefit the present and future generations. Governments, organisations and individuals all have a role to play in this global fight. Some sectors such as automobile manufacturing (Shatouri, Omar and Igusa, 2012) and in some divisions such as marketing (Taghian and Polonsky, 2015) supply chain (Tachizawa, Gimenez and Sierra, 2015) research and product development have taken it upon themselves to do something and find solutions to this global challenge.

The Human Resource Management division has been tardy in taking responsibility, and green HRM is still lacking in many sectors and organizations (Daily and Huang, 2001; Jabbour and Santos, 2008; Liebowitz, 2010) These are sectors and organisations where there has been imprudent misuse and waste of resources such as energy, water, transport, paper etc. to mention a few. As much as there have been great strides taken in research into this area of green HRM, there is scarcity in research depth regarding its implementation and application in organisations on a daily basis. Most HR practitioners still do not see the relevance of environmental management for human resources management, hence there is apathy and resistance to embrace the concept fully and to apply it to their daily activities (Jackson and Janghoon, 2010, Pallavi, 2012). This is the problem that this study aims to investigate and to propose a solution to developing the Green HRM practical framework. It is only in the last decade that the HR division has started to be aware that this is a huge and serious battle that requires all divisions to be involved in fighting against misuse of natural resources. The broad and overall problem has been mentioned above, but this study seeks to probe the reasons why the human-resource division has been slow in taking part in green initiatives within the organisations. What role can the human-resource management function play in assisting organisations to become green and sustainable? It will investigate the strides that have been taken by HR in this regard. Lastly, future prospects and initiatives that HR can utilise in the quest for resource-efficient and green organisations will be explored. Issues of environmental management challenges and natural resource depletion is not in the top list of challenges addressed by institutions of higher learning yet universities are supposed to be in the frontline of finding solutions to and taking action in the light of such challenges. (Sharp, 2003; Cortese, 2003; Niu, Jiang and Li, 2010) These issues could have been addressed in any sector, because the problem is wide and it affects many sectors across the board but . this study will focus on HR divisions from higher education institutions in KwaZulu-Natal.

## **1.6. PURPOSE STATEMENT**

The main purpose of this study is to investigate how the human resource division through its people-management policies, roles and activities can contribute towards having green and sustainable higher education institutions.

## **1.7. RESEARCH OBJECTIVES**

Specific objectives are;

- a) To investigate the level of awareness and understanding of the Green HRM concept by HR Practitioners;
- b) To investigate green human-resource policies, strategies, and activities that the institution can employ in moving towards sustainable green practices;
- c) To determine how mainstream organisational theories of change, culture and learning can provide useful tools to embed green and sustainable HR practices in the organization;
- d) To determine the extent to which HR roles, according to Ulrich's model, can be employed as useful tools to embed green and sustainable HR practices in higher education institutions; and
- e) To investigate potential benefits for the institution and challenges that the human-resource unit can experience in the quest for green and sustainable institutions.

## **1.8. RESEARCH QUESTIONS**

- a) What is the level of awareness and understanding of the Green HRM concept by HR Practitioners?
- b) How can human resource policies, strategies and activities be employed in the movement towards sustainable and green practices in the institution?
- c) To what extent can mainstream organisational theories of change, culture and learning provide useful tools to embed green and sustainable HR practices in higher education institutions?
- d) To what extent can HR roles, according to Ulrich's model, be employed as useful tools to embed green and sustainable HR practices in higher education institutions?
- e) What potential Green HRM benefits are there for the institution and what challenges could be experienced in a quest towards becoming a green and sustainable institution?

## **1.9. SIGNIFICANCE AND CONTRIBUTION OF THE STUDY TO KNOWLEDGE**

The study aims to inform policy and to advise human-resource policy makers on the importance of infusing an environmental sustainability concept in HR policies. It will also contribute by providing an African perspective on the concept of Green HRM since this concept has not been explored much in South Africa or in Africa as a whole. This study is important in that it also makes an original contribution to the literature by developing a practical framework on how the human-resource function can employ its strategies in assisting organisations to become green, and to achieve their sustainability goals. A framework is an organised structure of ideas, concepts and activities that are described coherently and that can easily be communicated to other people. It can also be considered as an overview of the concepts and practices involved in the project. A framework can be seen from many perspectives and it is devised for a variety of contexts and there are investigative frameworks, conceptual frameworks and even practical frameworks. A framework is different from a model because it is explicit and detailed in character while a model is more concise and implicit. Employed effectively and across the board (i.e. in other sectors) the framework will assist HR divisions in organisations to educate and bring awareness to their employees on green and sustainable development strategies. It will also assist in providing some practical HR-driven methods on how to improve efficiency in the use of natural resources within the institutions.

## **1.10. DELIMITATIONS OF THE SCOPE OF THE STUDY**

The following delimitations were utilised for this study:

To ensure manageability of research process and provision of empirically accurate data, the focus of this research was on conducting an investigative study into how HR divisions in higher education institutions can contribute towards having green and sustainable institutions. Data was collected from HR divisions in three institutions of higher learning in the KwaZulu-Natal province. Human-resources activities of; recruitment, training and development, employee engagement and compensation is where the practical aspect of green human-resources in the institutions were mainly analysed. Participants of the study involved only a portion of the participants at chosen universities, therefore the results of the study cannot be generalised to other universities.

## **1.11. RATIONALE OF THE STUDY**

Globally, the challenge of climate change and global warming is a concern to every nation, as its negative effects affect the livelihoods and survival of human kind and every living species. South Africa is no exception as it is a country that is also feeling the unkind consequences of global climate disruption. It is now acceptable that unintended social, environmental, and economic consequences of rapid population growth, economic growth, consumption of our natural resources, and commercial activities are as much a concern for business as they are for governments (Millar et al., 2012) Bonini et al., (2010) cite sustainability as one of the major forces that will reshape and redefine our world in the coming era. One could ask why the researchers are concerned about green human and natural resource management? why is it important to investigate and research on such as topic? There are many reasons why it is important to look at the issues of green management in today's world. Marcus and Fremeth (2009, p.17) cited the following important reasons why green management matters are important; to encourage organisations to “use resources wisely and responsibly, protect the environment, minimize the amounts of air, water, energy, minerals, and other materials used in the final goods people consume, recycle and reuse these goods to the greatest extent possible, rather than drawing on nature to replenish them, respect nature's calm, tranquillity and beauty, eliminate toxins that harm people in the workplace and communities, reduce greenhouse gas emissions and avoid activities that do irrevocable damage to the climate and broadly to our natural environment”.

Higher education institutions with their power to educate and change the nation's thinking and behaviour can have an invaluable contribution in this fight against resource depletion, climate change and its negative effects on societies. The important role higher education institutions can play is also reflected in them being mentioned in the global United Nations declarations on climate change response strategies such as the Stockholm -1972, Talloires-1990, Halifax – 1991, Swansea -1993 and Thessaloniki -1997 declarations (Wright, 2002). In the current situation and with the present demands upon universities, research has to be responsive to different social needs (Niu, Jiang, Li, 2003). The Human-Resource department as strategic partner, is an employee's champion, a change agent and an administrative partner that has the great ability to influence change and the direction of any organisation. (Prasad, 2013, Strandberg, 2009 Ulrich, 1997) Therefore, human- resource management can

play a vital role in ensuring sustainability and profitability of a business. The broad intention is that this study will contribute to assisting human-resource executives and general practitioners to put into practice the concept of 'Green HRM' in higher education institutions and in all other sectors and to start contributing, enhancing and strengthening their efforts in the fight against natural resource-depletion and misuse of such in their institutions and creating green and sustainable working environments.

## **1.12. CHAPTER SUMMARY**

In this chapter an overview of the study was presented. More specifically, the background to the study, the problem statement and the motivation for the study were discussed. In addition to the above, the aims and objectives of the study, as well as the key research questions were outlined. The scope and delimitations, rationale as well as contribution and significance of the study were also explained. A brief outline of the South African context on green issues and sustainability was also given. In the next chapter, the literature pertaining to Green human-resource management is reviewed and discussed

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTON**

In the review of literature, the following areas are looked at; definitions of key concepts of the study, the South African context of green sustainability, origins of green human resource-management, the role of the Human Resource-Management Division in greening organisations, the role of culture, change and learning in the transformation of organisations towards environmental sustainability, policies, strategies and activities an organisation can employ in the movement towards sustainable green practices, green campuses and lastly the benefits and challenges institutions can face in the quest to become green and sustainable. The review of literature with an impact on South African and other relevant contexts, besides serving as a point of departure, also serves to identify gaps in literature on green HRM in the African context and the vital issues on developing a framework on green human resources.

#### **2.2. DEFINITION/CLARIFYING CONCEPTS**

As the key and underlying concepts in this study, the following four concepts are defined and explained below; Green Human Resource Management, Higher Education institutions and Sustainability and Green Organisations.

##### **2.2.1. Definition of the concept ‘Green Human Resource Management’**

There is not one universally accepted definition of the concept Green HRM, as various scholars and practitioners define it in a number of different ways. Though many definitions of the concept do differ in choice of words and phrasing, what is good is that ultimately they all end up having a similar meaning. The following are some of the definitions of the term found within the body of knowledge in the human resource discipline;

- Mandip (2012, p. 244) explains green human-resources management as “the use of human resource policies to promote sustainable use of resources within business organisations and, more generally to promote the cause of environmental sustainability”.



- In his definition, Prasad (2013, p.15) defines green HRM as “encompassing all activities aimed at helping an organisation carry out its agenda for environment management to reduce its carbon footprint in areas concerning on-boarding and acquisition of human resources, their induction, performance management, learning and development and compensation and reward management”.
- Green HRM is directly responsible for creating green workforce that understands, appreciates, and practices green initiatives and maintains its green objectives throughout the HRM process of recruiting, hiring, training, compensating, developing, and advancing the firms human capital (Mathapati, 2013).
- It refers to the policies, practices, and systems that make employees of the organization green for the benefit of the individual, society, natural environment, and the business (Opatha and Arulrajah, 2014; Mandip, 2012)

As different as the phrasing is in the above definitions, what is important is that from a number of sources one is able to pick out the key statement that specifically clarifies what Green HRM is all about. In this case and for the purpose of this study, the researcher will use the comprehensive definition of Green HRM as stated below:

*...the use of human-resource policies, practices and systems to promote sustainable use of resources within organisations through HR activities and processes of recruiting, hiring, training, compensating, developing, and advancing the firm’s human capital (Opatha and Arulrajah, 2014; Prasad, 2013; Mandip, 2012) .*

### **2.2.2. Definition of the concept ‘Higher Education Institution’**

Higher education institutions in the South African context - include both public and private registered and accredited education institutions that offer a variety of degrees, diplomas and certificates to students who are in possession of matric (high school competence) certificates. In a legal definition provided by South Africa’s higher education act; a higher education institution” means any institution that provides higher education on a fulltime, part-time or distance basis and which is;

- a) merged, established or deemed to be established as a public higher education institution under this Act;
- (b) declared as a public higher education institution under this Act; or
- (c) registered or provisionally registered as a private higher education institution under this

Act (higher education act 101 of 1997, p.5). These institutions include some colleges, universities of technology and traditional universities, which usually offer qualifications from level 5 (higher certificate) to level 10 (Doctoral degree) this according to the *South African Qualifications Authority Act (SAQA Act 58 of 1995)*. For the purposes of this study, the focus was on universities of technology and traditional universities in the province of KwaZulu-Natal, South Africa.

### **2.2.3. Definition of the concept ‘Sustainability’**

The term “sustainability is a very broad term which can mean different things to different people. There is economic or financial sustainability, social sustainability, environmental sustainability etc. (UNESCO, 2012; World Bank, 2012; UNEP, 2014). The Brundtland Commission, who were the pioneers of the concept of ‘sustainability’, defined sustainability as; “meeting the needs of current generations without compromising the ability of future generations to meet their own needs” (Brundtland Commission report, 1987, p.12) Initially, sustainability meant environmental sustainability, but today the term is used to refer to all aspects of social and environmental impacts. Sustainability in an organisation is all about taking care of three very important elements, which are people, profits and the planet also referred to as ‘triple bottom line (Savitz, 2006, Jabbour and Santos, 2008). In HR alone sustainability can cover a variety of areas, but it should be noted that for the purposes of this study the focus will be on the role of HR and how the division can use its policies, processes, systems and activities to contribute towards green organisations.

### **2.2.4. Definition of the concept ‘Sustainable Organisation’**

Searching for the term ‘green sustainable organisation’ in scholarly journals and books one understands that green sustainable organisations are those that conduct their business in a way that ensures natural resources are used efficiently and conserved. Sustainable organisations are those whose internal processes and policies are conscious of the environment and whose practices are geared towards saving natural resources for the benefit of the business, its people and the planet. According to the report of the Brundtland Commission, tabled at the World Commission on Environment Development in 1997, green and sustainable organisations are those “that meet the needs of the present generation

without compromising the ability of the future generations to meet their own needs” (WCED, 1997, p.12).

Many scholars, environmentalists and authors have defined the characteristics of ‘green’ organisations and what is common in most definitions is conservation and efficient use of natural resources for the benefit of our planet, the present generation and future generations. The common term used for that is the term ‘triple bottom line’ which, as was pointed out above, means taking care of people, planet and profit in your organisational or business operations. Rennie (2008) defines a sustainable organisation as the one that attempts to meets customer needs, while at the same time, treating the environment well. In defining what a green and sustainable organisation is, Savitz, defines this as “an organisation that operates its business in a way that causes minimal harm to living creatures and that does not deplete but rather restores and enriches the environment, it is an organisation involved in protection and development of human and social assets from worker commitment to community support” (Savitz 2006, p.ix). Cooney (2009) states that a sustainable organisation should have the following characteristics; it must incorporate principles of sustainability in all of its business decisions, it must provide environmentally friendly products or services, it is greener than its competitors in its daily operations and it must make an enduring commitment to environmental principles in its business operations. This study will follow the above definitions of a sustainable organization, as each definition describes accurately what a ‘green and sustainable organization’ should look like and states vital elements of what all organizations need to do to achieve environmental sustainability. Cooney (2009) definition mentions that sustainable organizations must incorporate green principles, HR divisions in higher education institutions must incorporate greening principles in their policies and daily operations to achieve green institutions. Savitz (2006) mentions that a green organization causes minimal harm to living creatures, does not deplete but rather restores and enriches the environment, it is an organisation involved in protection and development of human and social assets from worker commitment to community support, all that is what HR division should encourage within the institution to achieve a green and environmental efficient institution. While Rennie (2008) defines a sustainable organisation as the one that attempts to meets customer needs, while at the same time, treating the environment well, universities should do that and HR division should play a key role in that process. Lastly, Brundlandt Commission (1997) state that a green and sustainable organisation is that which meets the needs of the present generation without compromising

the ability of the future generations to meet their own needs. Universities while they play a critical role of developing and shaping the current generation should also educate and influence them to take care of the environment in order to ensure that needs of future generations will also be met.

### **2.3. SOUTH AFRICAN CONTEXT ON SUSTAINABILITY**

In the South African context, protection of the environment by government, institutions, industry and citizens is hailed in the constitution and different sector policies and legislation. To mention some of the legislation that talks to the conservation of the environment in the country's legal framework are the following; the *South African Constitution*, that obliges the State to protect the environment for the benefit of present and future generations. In chapter 2 section 24 (a) & (b), it states that;

*“everyone has the right to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development” (Republic of South Africa Constitution Act no. 108 of 1996)*

*The National Environment Management Act (NEMA)* is a framework law that provides for co-operative governance structures and networks, as well as integrated environmental management and environmental impact assessment procedures.

NEMA principles as found in chapter 1 of the act prescribe:

- that development must be socially, environmentally and economically sustainable.
- That waste is avoided, or where it cannot be altogether avoided, minimized and reused or recycled where possible.
- That the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource (*National Environment Management Act, Act no. 107 of 1998*).

Chapter 5 of the *National Development Plan, Vision 2030* (NDP) talks to the need for environmental sustainability and resilience, which is a responsibility of all South Africans to take part in (*NDP, Vision 2030*). Chapter 5 of the National Development Plan further states that South Africa is particularly vulnerable to the effects of climate change on health, livelihoods, water and food, with a disproportionate impact on the poor, especially women and children. While adapting to these changes, industries and households have to reduce their negative impact on the environment. This will require far-reaching changes to the way people live and work (*NDP, Vision 2030*). Companies in South Africa through legislation, interest groups pressure, sometimes government and society in general are expected to abide by the three pillars of sustainability which are; Compliance, governance and ethics which serve as a solid platform for the development of sustainability. Companies and all organisations in general are expected to comply with legislation such as the *National Environmental Management Act (NEMA)*. The King Code on corporate governance regulates and requires companies, especially those listed on the Johannesburg Stock Exchange (JSE), to comply with codes of good and ethical governance and are also required to produce reports on corporate governance and to abide by the code ([www.iodsa.co.za](http://www.iodsa.co.za)). The code of ethics also requires companies to comply with corporate governance requirements such as producing and releasing an annual sustainability report on their environmental impact and what they do to minimize negative effects on the environment as a result of their operations. Thirdly business ethics are encouraged in companies, institutions and organisations within the country through national laws, some institutions have their own internal code of ethics of which all employees and stakeholders are expected to abide by. In zooming in on the public versus private sector green behaviour in South Africa, one discovers that the private sector are trendsetters in this area as they are a step ahead in engaging green practices when compared to the public sector. Private companies such as Nedbank ([nedbank.co.za](http://nedbank.co.za)), Mondi ([mondigroup.com](http://mondigroup.com)), Impahla clothing ([impahla.co.za](http://impahla.co.za)) and others are some of the companies that have publicly practiced, displayed and stated their commitment towards greening their organisations and all operations within their organisations. These private companies have also pledged their support to pro-green environmental initiatives outside their companies in the form of support to environmental organisations and other green community initiatives. In the public sector, universities are slowly taking some initiatives, e.g. in the infrastructure development, whereby new

buildings in universities now try to incorporate green aspects e.g. The Unite building and Research Office building at University of KwaZulu-Natal are two of the green buildings in the institution. In the public sector, one department in government is slowly advocating for greening of the public sector in the country, and that department is the Department of Environmental Affairs. In 2014 the department opened one of their first green buildings in Pretoria, called the Environmental House. This project by the department is expected to be an inspiration to all other public sector departments to follow such an example in their future infrastructure development projects in the country ([www.environment.gov.za](http://www.environment.gov.za)).

Higher education institutions also have their own internal environmental management policies, e.g. *University of KwaZulu-Natal's Mission and Environment Policy* pledge to 'conserve the physical environment and foster a culture of responsible, ethical and sustainable use of natural resources' ([www.ukzn.ac.za](http://www.ukzn.ac.za)). Durban University of Technology strategic plan, strategy driver E, states that the university pledges to 'green the university, building a shared environmental consciousness, build a greening community of practice, bring innovation to address the greening of the campus and actively address how we use energy and water resources, improving consumption patterns' ([www.dut.ac.za](http://www.dut.ac.za)).

#### **2.4. NEED FOR ORGANISATIONS TO BECOME GREEN**

Sustainability has become a key focus for many organisations as climate change, regulatory pressures and societal demands for greater environmental and social responsibility have increased, for employers This focus means a different way of doing business (Cohen, Taylor, Camen, 2012). Companies now need to move away from the comfort zone of just operating 'business as usual' while globally we are faced with a challenge of climate disruption and natural environmental degradation. Mandip (2012, p.244) emphasises this by stating that "companies must realise that they have to develop a powerful social conscience and a 'green' sense of responsibility where corporate responsibility is not an altruistic nice to have, but a business imperative" Cohen, Taylor and Camen (2012) add that organisations should not only prioritise economic gains of growth and profit but they should also be held accountable for their impacts on society and the environment. In Bartlett (2011) it is mentioned that in a research conducted by Ampleo, a firm of Occupational Psychologists, they revealed more reasons why organisations feel the need to 'go green', these include cost

reduction, energy security, attraction and retention of staff, staff well-being, enhanced staff skills and productivity, positive business reputation and superior services and products (Bartlett, 2011).

Internally, what most organisations have been doing to ensure efficient use of natural resources within organisations and to respond to the challenge of global climate disruption, natural resource depletion and their negative consequences, is to establish what is referred to as an 'environmental management system' (Sudin, 2011). The EMS enables organisations to commit to environmental efficiency by planning through policy development and other strategies, implement environmental programmes, assess and evaluate progress and improvement as a result of their environmental management initiatives (Lee, 2009). Furthermore, Lee also emphasises the importance of green management in the organisations, whereby companies manage the environment by developing environmental management strategies (Lee, 2009). In this movement towards green and sustainable organisations, the HR function can play an important role as the driver of environmental sustainability within the organisation by aligning its practices and policies with sustainability goals reflecting an eco-focus (Mandip, 2012).

## **2.5. EVOLUTION OF GREEN HUMAN RESOURCE MANAGEMENT**

In a long time, human resource management and environmental management were perceived as two disciplines that were not similar to one another until the last two decades with the global challenge of climate change and high global carbon emissions. It was then realised that, since people have contributed immensely to such global challenges, it is people again who can come up with solutions. That is when research and scholarly work that combines human resource management and environmental management began to surface. For some time, there was no one specific concept that was used to refer to both concepts combined until the late 90's when research combining human resource activities and sustainability evolved and the concept 'human resource sustainability' began to emerge. The seminal researchers in the area included the following: Bunge, (1995); Wehremeyer, (1996); and Bauer and Smith, (1996).

Green human resource is one of the branches under HR sustainability that focuses more on environmental sustainability through the use of HR policies, activities and processes (Mandip, 2012). Green HRM began to achieve greater prominence in the mid 90's through

the early 2000's as more research interest in this area of enquiry by scholars, consultants and some practitioners was generated.(Bunge, 1995; Wehrmeyer, 1996; Daily and Huang, 2001; Zoogah, 2001; Ramus, 2002)

Green human-resource management as an area of research interest has been around for about two decades.. Bunge (1995) published a study on employee participation in pollution reduction. The study intended to find out if the amount of toxic waste released into the environment by manufacturing facilities could be reduced by formally involving employees in pollution prevention. The study found that manufacturers using a certain combination of three formal employee participation practices had triple the reduction in emissions when compared to manufacturers using none of these practices. In 1996 Wehrmeyer edited a book titled *Greening people: Human resource and Environmental Management*, the book is a collection of articles by different authors who summarily concluded that employees have a vital role to play in greening organisations Wehrmeyer (1996). From the year 2000, more people were becoming aware of the environmental challenges, such as climate change, climate disruption, droughts, floods,natural resource depletion and all other threats to biodiversity leading to poverty and other negative consequences for the earth's inhabitants. As various scholars started to give attention to the concept of green HRM, it evolved and its importance was acknowledged.

The result was extensive scholarly work from such authors as; Ahmad (2015) who looked at green human resource management: policies and practices, Prasad (2013) who examined green HRM as a partner in sustainable competitive growth, Jabbour (2011) investigated how green HRM practices are in organisational culture, learning and teamwork in Brazil. Jabbour & Santos (2008) explored the central role of human resources in the search for sustainable Organisations. Cherian and Jacob (2012) explored green HR practices and their effective implementation in an organisation. Daily and Huang (2001) looked at how to achieve sustainability through giving attention to human resource factors in environmental management. Dutta (2012) assessed the concept of greening people from a strategic dimension and Mandip, (2012) looked at people management and commitment to environmental sustainability. Sudin (2011) proposed a strategic green HRM research model that supports corporate environmental citizenship and many more scholars have researched the area. As mentioned above in the problem statement; as much as there have been great strides in research on this area of green HRM, much still needs to be done regarding its



application in organisations on a daily basis. Most HR practitioners still do not see the relevance of environmental management for human resources management hence there is apathy and resistance to embrace the concept fully and to apply it in their daily activities (Jackson and Janghoon, 2010, Pallavi, 2012) Other practitioners still have the perception that issues relating to environment and resource efficiency within the organisations are issues that should concern other divisions such as, production division, marketing and others, but not human resources. Some practitioners see green HRM as not being the core business for HR, hence they push it to the bottom of the list of things that the division should focus on. This might well be short-sighted and narrow-minded on their part (Liebowitz, 2010; Shatouri, Omar and Igusa, 2012; Jacob and Cherian, 2012; Dutta, 2012; Prasad, 2013) Therefore a lot still needs to be done in the areas of attitude, perception and behaviour of HR practitioners towards green issues.

## **2.6. EXISTING GREEN HRM STUDIES ACROSS COUNTRIES**

There is a paucity of information with regard to Green HRM research in South Africa and even in the African continent as a whole. The majority of studies in Green HRM have been done in South Asian countries such as India, Malaysia, Sri Lanka and also in USA, Brazil and in some European countries. The section below highlights some of the empirical studies on green human resource management conducted in various countries. To ensure comparative capacity countries have been categorized into developing and developed countries. Only findings that are based on the key themes of this study have been presented in this section.

### **2.6.1. DEVELOPING COUNTRIES**

The majority of studies in Green HRM in developing countries have been conducted in Brazil and India with a few studies in Pakistan, China, Malaysia and Sri-Lanka. Below is the list of these countries in no particular or specific order:

#### **BRAZIL**

Brazil is one of the countries that has covered a lot of ground in the study of green human-resource management with prominent and seminal scholars in this area including Jabbour and Jabbour, Santos and Teixeira among top researchers into the concept of Green HRM.

The University of Sao Paulo is a host to most researchers in this area of the HR discipline. The following are some of the empirical studies conducted in Brazil and their findings: Teixeira, Jabbour and Jabbour, Latan and de Oliveira (2016) analysed the relationship between green training and green supply chains in a survey that they conducted in Brazilian firms with ISO14001 certification. The research results indicated that green training tends to help firms improve their green supply chain management to cooperate with customers and implement green purchasing. Jabbour (2013) investigated environmental training and environmental management maturity of Brazilian companies with ISO1400. Using a quantitative exploratory survey-based study, data was collected from 95 companies and subsequently processed using structural equation modelling. Empirical evidence confirmed the research hypothesis H1 which stated that the construct environmental training (ET) relates positively and significantly with the environmental management maturity (EMM) of the companies in the sample, and the power of determination of ET over EMM can be considered 'large' Jabbour (2013).

In 2011, Jabbour investigated how green HRM practices are in organisational culture, learning and teamwork in Brazil. 94 Brazilian companies with ISO 14001 certification were surveyed. Two important conclusions and recommendations were drawn from the study; the first conclusion was that it is important to consider the alignment of the human resource practices systematically in order to put workers in control of environmental management. The second conclusion revealed that little formalisation of the inclusion of environmental issues in traditional human-resource practices can later badly affect the good performance observed in the formation of teams, organisational culture and learning resulting in a negative cycle. On the other hand, companies that are able to align practices and human resource dimensions with the objectives of environmental management can be successful in the organisational journey towards environmental sustainability certification (Jabbour, 2011).

## **INDIA**

India has also covered a lot of ground when it comes to research on the area of Green HRM. Below are some of the findings from Indian studies: Mandip, (2012) examined the nature and extent of Green HR initiatives undertaken by ITC Limited Company in India as a case study. Findings revealed that the focus on improving the operational efficiencies combined

with up-grading of technology have led the ITC company to be the only company in the world, of its size and diversity, to achieve the milestones of being carbon positive, water positive and to achieving almost 100 per cent solid waste recycling. Mandip (2012) also looked at people management and commitment to environmental sustainability and came up with a detailed process model for green HRM on the basis of available literature and empirical research undertaken at ITC Limited Company on green HR. Sakhawalkar and Thadani (2013), explored Green HR Practices and the responsiveness among the employees of I.T. sector in the Pune Region of India. It was found out that 82 per cent of the respondents are aware of the term 'Green HR'. It was further analysed that people who are not aware of the term 'Green HR', are aware of the practices and know that their organisation follows such practices. Hence the term is not known, but the practices are known. From the respondent's frequencies it was found that the Green HR methods were effectively implemented in the organisations. The rate of effectiveness was found out at 72.2 per cent Popli (2014) explored Green HR practices awareness and implementation in the industries in Nasik, India from 18 large-scale manufacturing industries in Nasik. Findings revealed that organisations in Nasik are well-versed about the green HR concept that has been put forward to help them to keep the environment green but still, a few companies are not able to put it into practices in different functional areas of Human Resource Management such as in areas like training and development, the performance appraisal system and some routine activities where non-implementation of this concept of Green HRM takes place.

## **CHINA**

Chinese scholars have conducted various studies in the discipline of Green HRM. Paille, Chen, Boiral and Jin (2012) investigated the relationship between strategic human resource management, internal environmental concern, organisational citizenship behaviour for the environment, and environmental performance in the Chinese context. Data were obtained from 151 matched questionnaires from top management team members, chief executive officers, and frontline workers. Results indicated that organisational citizenship behaviour for the environment fully affects the relationship between strategic human resource management and environmental performance, and that internal environmental concern moderates or changes the effect of strategic human resource management on organisational citizenship behaviour towards the environment.

## **PUERTO RICO**

Maritza Soto (sa) conducted an exploratory study of businesses in Puerto Rico to determine to what extent they are utilising green practices in the workplace and what factors are encouraging or inhibiting this use. Based on 77 survey responses, the research finds that while businesses are aware of the possibilities and opportunities offered and some green practices are being planned, the full implementation of these practices is rare. It finds some support for a number of factors influencing the decision as follows; 55.8 per cent of the population indicated that green behaviour and initiatives are part of performance objectives, 23.4 per cent indicated that there are performance rewards in place to encourage green behaviour, 31.2 per cent indicated that their companies have established metrics and accountability targets for environmental issues such as energy use, water usage, etc., 50.6 per cent indicated that the importance and benefit of establishing 'green' initiatives is mainly to enhance the corporate image, 66.2 per cent indicated that the Human-Resource Department should be responsible for initiating and driving corporate green initiatives.

## **PAKISTAN**

Cheema, Pasha and Javed (2015) looked at Green Human Resource practices, implementation and hurdles in SME's in Pakistan. A 5-point Likert scale from the sample of 140 employees of 42 SME's was administered with 132 useable responses received. Findings indicate that Green HR practices are influenced by several factors (Age, Experience and Gender). All these factors influence employee performance in the sample to adopt green human-resource practices. Conclusively the results show a strong, positive and significant association between overall green HRM practices and employee's performance.

## **MALAYSIA**

Shatouri, Omar and Igusa (2012) investigated the comprehensive approach of multiple advanced technology innovations and human-resource management at Toyota Motor Corporation and they presented three sets of human resource practices that support the innovation-oriented HR system. The findings revealed that strategic HR components like training, performance-based reward, and team development have positive effects on green innovation performance in the automotive industry, while organisational culture serves as a mediator. (Shatouri, Omar, Igusa.2012).

## **2.6.2. DEVELOPED COUNTRIES**

Countries such as USA, Canada, UK, Australia, Italy and France are some of the developed countries that have undertaken notable research in the field of Green HRM, with most studies conducted in the USA.

### **UNITED STATES OF AMERICA**

In America, Green HRM was already recognised by the mid 90's. Researchers such as Bauer and Smith (1996) were already exploring the impact of an ecological stance on recruiting where they surveyed a population of 303 participants and found that a proactive company stance on the environment would be positively related to perceived company attractiveness, intentions to pursue employment with that company, and acceptance of a job offer. Other early studies include a study on employee participation in pollution reduction by Bunge, Cohen-Rosenthal and Ruiz-Quintanilla (1995) who reported the preliminary findings of an ongoing study on the effect of employee participation with findings stating that manufacturers using a certain combination of three formal employee participation practices had triple the reduction in emissions compared to manufacturers using none of these practices. Berrone and Gomez-Mejia (2009) examined environmental performance and executive compensation, using longitudinal data from 469 U.S. firms. They found support for three hypotheses and they summarised these as follows:

“firms with an explicit environmental pay policy and an environmental committee do not reward environmental strategies more than those without such structures, suggesting that these mechanisms play a merely symbolic role.” Berrone and Gomez-Mejia (2009, p.103)

Daily and Huang (2011) investigated how organisations can achieve sustainability through attention to human resource factors in environment management, and they recommended that human resource (HR) factors such as top management support, environmental training, employee empowerment, teamwork, and rewards systems are key elements of the implementation process of an EMS and in ensuring that sustainability goals are achieved by organisations.

## **AUSTRALIA**

Markey, McIvor and Wright (2016) investigated employee participation in carbon emissions reduction in Australian workplaces by looking at the role of employee participation in motivating workplace climate-change mitigation activities. Drawing upon a survey of 682 Australian employers and an analysis of 1329 enterprise agreements, they found strong associations between organisational activities for the reduction of carbon emissions and employee participation in motivating, developing and/or implementing these measures. Their findings also revealed that; engagement with emissions reduction at the workplace level is more likely where employee participation has a substantive role involving deeper and wider influence in organisational decision-making. Conclusively their study confirmed that; different forms of participation have mutually reinforcing impacts over workplace decisions to reduce carbon emissions. Donohuea, Nuttaneeya, and Torugsa (2016) in their study investigated the moderating effect of 'Green' HRM on the association between proactive environmental management and financial performance in small firms. Using data drawn from a sample of 158 small firms in the Australian machinery and equipment-manufacturing sector, they found that Green HRM positively moderates the association between proactive environmental management and financial performance, such that a high level of Green HRM increases the financial benefits of proactive environmental management compared with low levels of Green HRM. The findings show the added value that Green HRM provides when used as an enabler of proactive environmental management.

## **CANADA**

Perron, Cote', Duffy (2006) explored ways to Improve environmental awareness training in business. A case study of two electricity companies is used to illustrate the importance of evaluating environmental awareness efforts. The results of the study suggest that the training performed did not sufficiently increase employee environmental awareness of the company's environmental impacts despite a considerable time and financial investment in a one-time environmental awareness-training programme

## **FRANCE**

Grolleau, Mzoughi, Pekovic (2012) examined the effect of environmental-related standards on employees' recruitment, using a bivariate Probit model, findings showed that voluntary environmental-related standards (i.e., ISO 14001 standard, organic labelling, fair trade, etc.) improve the recruitment of professional and non-professional employees.

## **UNITED KINGDOM**

Harris and Crane, (2002) in their qualitative study on greening of organisational culture employed 44 semi-structured interviews with executives and managers of separate organisations. Findings revealed that managers and executives were aware of, and could articulate, considerable intricacies in their companies' positions regarding green issues. However, managers suggested that there was significant variance in the formality of these positions, with some companies apparently able to refer to official documentation with others relying on less formal approaches. Whilst managers were aware of green pressures, few organisations had responded with the level of enthusiasm hoped for by green activists and managers indicated a somewhat apathetic attitude to such concerns in many of the organisations studied, therefore there was substantial gaps between the company position and actual practices.

## **ITALY**

Guercia, Longoni and Luzzini (2016) In a study in which the respondents were Human-Resource Managers and Supply-Chain Managers operating in Italy, based on a multi-respondent's survey, explored the role played by external stakeholders (i.e. customers and regulatory stakeholders) on the implementation of three sets of green HRM practices (i.e. green hiring, training and involvement and performance management and compensation) and compares the effects of such practices on environmental performance. Findings demonstrate that: (i) customer pressure is associated with all the green HRM practices considered, whereas regulatory pressure is associated only with green hiring; (ii) green training and involvement as well as green performance management and compensation have a positive impact on environmental performance and they mediate the role of customer/stakeholder pressures in improving the environmental performance. Guercia, Montanari, Scapolan and Epifanio (2016) conducted a study based on the reactions of a

sample of Italian graduate students to the websites of seven companies operating in Italy. It addresses two specific issues in the literature about green recruiting practices, namely (1) the distinct and direct effects of green recruiting practices on attracting applicants, and (2) the interactive effect of ‘green’ and ‘non-green’ recruitment practices on attracting applicants. Findings revealed that there is conflicting evidence about green recruitment practices, since there was no support for the predicted relationship between the amount of green information and applicant attraction, whereas green reputation is shown to be significantly associated with applicant attraction. Similarly, results regarding non-green recruitment practices show that the amount of company and job information provided on a website does not have any direct influence on applicant attraction, whereas company reputation as an employer is significantly associated with it.

### **2.4.3. STUDIES ACROSS MULTIPLE COUNTRIES**

Millar, Sanyal and Camen (2016) explored the ways in which a multinational company approached green human resource management in its British, German and Swedish subsidiaries. The results present evidence of proactive environmental management, reflected through a range of operational and people-centred initiatives across the three European countries. Although there is an overarching commitment to environmental sustainability, the positioning and alignment of the environment and HR function differ amongst the subsidiaries, as does the way in which the subsidiaries choose to engage the workforce in environmental sustainability (Millar, Sanyal and Camen, 2016). Ramus (2002) looked at how to encourage innovative environmental actions: what companies and managers must do. In a survey done on employees from firms in 12 countries, firms that are committed to sustainable development and employee environmental initiatives, results showed that both environmental policies and supportive supervisory behaviours can increase the probability that employees will try environmental initiatives.

Alcaraz, Susaeta, Suárez, Colon, Gutiérrez, Cunha, Leguizamón, Idrovo, Weisz, Correia and Pin (2015, p.11) explored the perceptions of human resource (HR) managers with regard to their contribution to social responsibility (SR) and environmental sustainability (ES) in three Ibero-American countries (Spain, the Dominican Republic and Costa Rica), their findings, categorised according to HR activities, revealed the following; Induction - less than 30 per cent of participants reported explicitly that they included some aspects of SR/ES in their



induction initiatives, Recruitment - around 30 per cent of participants mentioned including specific aspects of social responsibility and/or environmental sustainability in their recruitment and selection processes, Training - around 80 per cent of the participants claimed to have had some type of training for SR/ES, Performance management - less than 50 per cent of HR participants claimed to have clear, comprehensive performance management policies tied to SR/ES. (Brío, Fernández and Junquera 2007, cited in Jabbour and Santos, 2008) Based on an investigation involving 110 Spanish companies with ISO 14001 certification, the authors conclude that top management's involvement, the strategic integration of the environmental dimension, as well as employees' motivation and participation, have a strong influence on companies' environmental performance.

## **2.7 OVERALL SUMMARY OF FINDINGS FROM THE VARIOUS COUNTRIES**

The majority of findings from the countries reviewed in this study revealed that factors such as top management support, environmental training, employee engagement and empowerment, teamwork, and rewards systems are key elements in the implementation process of an EMS and in ensuring that sustainability goals are achieved by organisations. In review of studies from these countries, there is also an indication suggesting that organisations may approach sustainability via different routes, such as value-based route which is motivated by personal principles and passion for greening by individuals, a strategic route, which involves a redesign of the business model to position the HR function accordingly in the organisation's greening and sustainability initiatives, and a defensive route which utilises policies and practices to meet legal responsibilities (Cohen et al., 2012) This paper will touch on all these important routes in research and discussions.

Studies also revealed that the level of Green HRM awareness does not always guarantee the implementation of such in the organisation. This is also cited by Millar et al., (2016) who state that; "whilst organisations may be 'talking green', the level to which they may be 'acting green' may be questionable" (Prasad & Elmes, 2005 cited in Millar, 2016, p.194) Studies also revealed that employee participation and engagement strategies do motivate employees to adopt environmentally efficient actions. An Italian study revealed that green reputation is shown to be significantly associated with applicant attraction. There are no noticeable differences in findings from developed and developing countries. As much as all these studies have contributed in taking Green HRM research forward, there has been a

shortfall with regard to provision of practical interventions that can be implemented and applied in organisations on a day-to-day basis towards the efforts of reducing ecological degradation. This study therefore intends to contribute to that discourse of finding practical interventions and solutions that organisations can implement in their daily activities to ensure conservation of natural resources.

There is also scarcity of research on the African perspective of Green HRM, hence this study intends to fill that particular gap. To give an example, with regards to the South African context, green reputation of a company is not significantly associated with applicant attraction because the job market conditions are different from those of European countries as the unemployment rate is very high. Therefore, a comfortable salary and job security will be more significant in attracting candidates for a job in a South African context than the green reputation of a company. The literature review undertaken did not reveal any information on Green HRM in Africa and specifically in South Africa. The research questions posed in Chapter one, therefore, remain unanswered. In cognisance of the aforementioned, it remains necessary to conduct primary research to establish the state of Green HRM in the South African context.

## **2.8. GREEN HUMAN-RESOURCE MANAGEMENT AND HR ROLES IN GREENING ORGANISATIONS**

### **2.8.1. HR Roles in Greening the organisation**

An organisation's Human Resource function can be instrumental in facilitating a comprehensive approach to creating a culture of sustainability and environmental stewardship (Leibowitz, 2010) Cohen, Taylor and Carmen add that "The HR function is critical to achieving success in a sustainability-driven organization. Sustainability practice pervades every aspect of doing business and needs to be embedded across an organization at all levels, becoming an ongoing change process. Since the prime focus and skills of HR professionals include organizational process, change management and culture stewardship, they should take a leading role in developing and implementing a sustainability strategy" (Cohen, Taylor and Carmen, 2012, p.1). Leibowitz concurs by citing that; The Human-Resource Department of a company has the capability to play a significant role in the creation of their company's sustainability culture (Leibowitz, 2010). Eisenstat concurs that

HR has a central role to play in organisational sustainability by stating that the Human-Resource Division can stimulate the inclusion of issues concerning sustainability in the scope of the various relationships that take place inside a company and with external organisations (Eisenstat, 1996 cited in Jabbour and Santos, 2008).

Wirtenberg et al., states that a critical goal for the HR field as a whole is to develop the individual competencies, collaborative strategies, and organisational capabilities required to support their organizations’ sustainability journeys (Wirtenberg, Harmon and Fairfield, 2010). They further list some of the areas in which the HR role and contribution to organisational sustainability will be critical and of value. Those areas include: leadership development, training and development, change management, talent management, creating and inculcating values, collaboration and teamwork, diversity management, health and safety, multiculturalism, and ethics and governance (Wirtenberg, Harmon and Fairfield, 2010).

In this study the role of the Human Resource Division will be explained in depth using Ulrich’s (1997) Model (below) which divides human-resources into four roles, which are:



**Figure 2.1:** Ulrich HR Roles Model (1997) (Image: wordpress.com)

The researcher chose Ulrich’s model as the most important theory/ model to shape this study, as the study is more focused on the roles of HR division in greening and contributing towards environmental and resource efficient institutions. Ulrich’s model is one of the models that holistically touch on the most critical roles of the HR division in any organization. It is the model that intergrates the HR management role (strategic partner)

employees (employee champion), culture (transformation and change agents), customers (harmonising all roles to ensure quality service to customer) and the environment (administration experts i.e. process and general operations) they operate within. This model is of vital importance in answering this study's research objective and question on which are the HR roles that can be employed as useful tools to embed green and sustainable HR practices in higher education institutions. Ulrich's model will assist the researcher to determine what role can HR Practitioners play in embedding a green and environmentally sustainable culture within the institutions. Specific HR roles of being strategic/ business partners, change/ transformation agents, administrative shared service experts and employee advocates/ champions will be explored employing this model with a specific focus on issues of environmental sustainability within the institutions.

Ulrich's model over the years have received widespread applause and commendation as well as criticisms. Those who have praised Ulrich's model indicated their impressions that, over 20 years of its existence the model still plays a pivotal role in HR effectiveness, as most companies who have implemented the model report its positive impact in their HR processes (HR review, 2014). On the other hand critics have given warnings that the model has a potential danger of confining HR practices narrowly in a rigid structural grid and portraying HR practices as being too standardised which is not the case and not supposed to be the case (Boudreau and Lawler, 2014).

Summarily, Ulrich's model (1997) consists of a set of proactive roles divided into two axes: strategy versus operations, and process versus people. (Francis and Keegan, 2006) The four key roles that emerge are strategic partner, administrative expert, employee champion and change agent, the strategic partner role is one in which HR professional's partner with line managers to help them reach their goals through effective strategy formulation and strategy execution (Ulrich and Brockbank, 2005 cited in Francis and Keegan, 2006). Explaining the other three roles meticulously, Francis and Keegan (2006) explain that change agents are responsible for the delivery of organisational transformation and culture change, administrative experts constantly improve organisational efficiency by re-engineering the HR function and other work processes such as introducing 'shared services'. One more role that needs to be mentioned is that of employee champion. This is a particularly interesting role, as it combines a focus on people with a focus on day-to-day operational issues (Francis and Keegan 2006). In his latest modification of roles, Ulrich splits the employee champion

role into the ‘employee advocate’ and ‘human resource developer’, placing the latter as a more future-focused process role (Francis and Keegan 2006).

The following are the four roles explained individually and how they can be employed to propel the green movement within organisations:

**a) Human Resource division as a Strategic Partner**

In other literature the term ‘strategic partner’ and ‘business partner’ are used interchangeably as they are regarded as synonymous under certain contexts. Strategic partnership involves being involved from high levels of decision-making in the hierarchy of the organisation, including the planning phases and drafting policies that will guide overall organisational operations. Millar, Sanyal, Camen, (2016) cited that in matters relating to sustainability in the organisations, the challenge is that the readiness on the part of HR to champion sustainability at a strategic level may be lacking. HR managers may not see themselves as strategic drivers of environmental and sustainability initiatives; instead, they mainly see themselves as ideal partners to communicate the values to encourage behavioural change once strategy has been developed outside of HR (Miller, Sanyal, Camen, 2016)

In the strategic role, HR as members of the executive team should be fully-fledged strategic partners and must impel and guide serious discussions on how the company should be organised to carry out its strategy role. (Ulrich, 1997). This should include the ‘greening’ strategy. HR should be responsible for defining an organisation’s architecture, diagnose any problems that might appear or are in the organisation’s structure and find solutions to address those problems (Ulrich, 1997). Human resource division can, therefore, play a very important strategic role in the greening transformation of organisations by strategically influencing change of policies, recruiting the right people, training and development of staff, ensuring that the organisation is a learning organisation, and by changing the culture and staff behaviour. (Daily and Huang, 2001; Madsen and Ulhoi, 2001; Jabbour and Santos, 2008; Jackson and Seo, 2010; Liebowitz, 2010; Shatouri, Omar and Igusa, 2012; Mandip, 2012; Prasad, 2013). Over and above the strategic emphasis from these various perspectives, human resource division should be fully involved in the crafting and drafting of company’s green philosophy, vision, and mantra. HR should bring forth value propositions that incorporate environmental efficiency and the division should take an active part in

embedding environmental efficiency attitudes and behaviour in employees and in driving policies on green processes.

### **b) Human-Resource Division as a Change Agent**

Change happens, whether organisations, like it or not, change is inevitable. The pace of change is fast and sometimes change is unexpected. There is change in climate, change in technology, change in the economy, change in lifestyles, change is constant in issues that have an effect on employees and the organisation. With so much change taking place, the implication is that, HR practitioners can no longer afford to be complacent and focus only on the traditional roles of HR. HR should adjust, adapt and evolve with the times in order to continue delivering value, productivity and profitability to the organisation. Ulrich (1998) emphasises that HR roles should be aligned with the changes, so that HR cannot only be defined by what it does in the organisation, but be defined by what it delivers, the results that enrich the organisation's value to customers, investors and employees. HR professionals should manage change and transformation in the organisation. Ulrich continues to suggest that, as change agents HR professionals do not need always to execute change themselves, but their major role is to make sure that change is carried out effectively and on time (Ulrich, 1998). The Human-Resource Division is the most important change agent in any institution. Studies have shown that human resources can play a vital role in assisting organisations to change and achieve sustainability (Jabbour, Santos, 2008; Liebowitz, 2010; Prasad, 2013) Change in this case must be holistic, in and out and from top to bottom. This means changes of perceptions, behaviours, attitudes and practices within the organisation, towards a green mind-set and behaviour. Changes are required from the top-level management to the bottom, with everyone being involved. Resistance to change can also be expected, but there is nothing peculiar about that. All the organisation needs to do is to put in place processes that will allow for a bearable transition.

### **c) The Human-Resource division as a group of Administrative Experts**

Traditionally, HR professionals have been labelled as administrators. In their role as administrative experts, Ulrich (2008) states that HR practitioners will need to do away with their traditional image of rule makers, policy police, and rule enforcers, while still making sure that all routines are followed and work is performed efficiently and up to required

standards. Efficiency will need to be improved, with a vast number of HR processes performed daily, processes will need to be fast, better, smarter and cheaper (Ulrich, 2008). Some HR practices are delivered through administrative processes, such as technology, and others through policies, procedures and other administrative interventions. In adopting green practices, HR will therefore need to minimise unnecessary and inefficient paper use, daunting procedures, red-tape and bureaucracy. The future of a green and sustainable HR division is in the adoption of new, cost-effective and efficient administration processes. This means employing faster cost efficient technology in the performance of daily activities. Such as the e-hr systems including; e-recruitment using an online application system and skype interviews for candidates who are far from the institution, online interactive electronic performance management systems, virtual training and self-administered computer training systems.

#### **d) The Human-Resource division as Employee Champions**

Employee championing means equipping and empowering employees with knowledge and skills on green processes. Ulrich in his latest modification of roles, emphasises that being an employee champion also means being a human-capital developer (Ulrich and Brockbank, 2005) In this role HR practitioners must be held accountable for ensuring that employees are engaged and fully committed to the organisation's success. They must ensure that the employment contract is not merely transactional, but relational and all parties to the contract are content (Ulrich, 1998). In this role the employer-employee relationship that is healthy and productive should be built. The HR Division should make sure that they are getting commitment and buy-in from employees and all relevant stakeholders to cheerfully and willingly carry out green projects in the organisation. Mandip (2012) clarifies the role of HR executives here by stating that in educating and bringing awareness to staff on green concerns, a key role for HR environmental executives could be to guide line managers in terms of gaining full staff co-operation towards implementing environmental policies. This means HR needs to nurture supporters and create networks of problem-solvers willing to act to change the status quo. This can only take place if the company establishes formal and informal communication networks with their employees highlighting the company's green efforts, for example in the company newsletter and website (Mandip, 2012). Being an employee champion also means ensuring that employee's needs and resources are provided

and, having healthy relationships in the organisation, will in turn ensure employee commitment to sustainability programmes of the company and ensure success.

## **2.9. ORGANISATIONAL THEORIES AND MODELS**

To transform an organisation from being ‘brown’ to become ‘green’ it will require change in the way things are done currently (culture) and in order to change that culture, empowerment of employees through training and other means will need to take place (learning) and then change of behaviour and actions will need to follow (change). Mainstream organisational theories of change, culture and learning provide a great foundation in the exploration of how organisations can be transformed towards becoming green and sustainable in their operations. These theories will assist the researcher to answer the objective and question in this study which seeks to determine the extent in which processes of change/ transformation, learning/ training and culture within the institution can be used by HR division as tools to embed green and sustainable HR practices in higher education institutions. This as a result of the fact that responsibilities of coordinating and facilitating training or learning, facilitating change and transformation projects and promotion of culture change are part of the HR practitioners mandate within organizations.

Key theories, also referred to as models, that will be looked at are; the organisational culture model (Schein, 1985) organisational learning theory (Senge, 1990) and the organisational change model (Lewin, 1947).

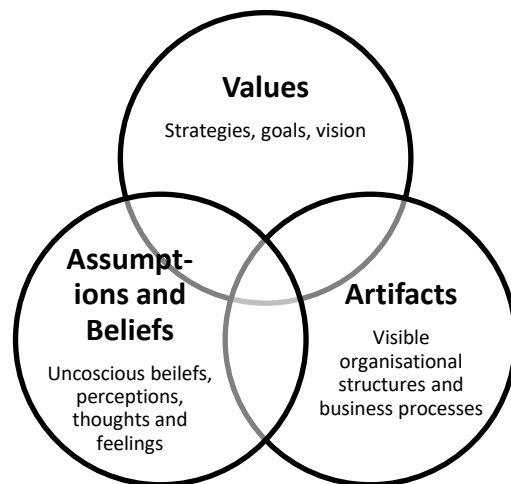
### **2.9.1. Organisational Culture**

Organisational culture theories helps us to understand the kind of vision, beliefs, values, principles and goals an institution requires in embedding a culture of sustainability. Schein (2004), one of the proponents of organisational culture, defines culture as “ pattern of shared basic assumptions that is learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein, 1992, p.12). Furthermore (Cai et al., 1999 and Wilms et al., 1994 cited in Daily and Huang, 2004) state that organisational culture is composed of a set of values and assumptions that guide the individual’s daily work behaviour. For an organisation considering implementing an environmental management system, top



management should consider its organisational culture to ensure success (Daily and Huang, 2004) It is important to consider organisational culture because companies with rigid, top heavy and bureaucratic structures (and culture) have a more difficult time implementing changes as compared to a company that has a flexible and lean organisational structure and culture Janson and Gunderson (1994), cited in Daily and Huang, (2004) , Milliman and Clair concur by stating that an organisation needs to institutionalise environmental initiatives, which means, environmental initiatives need to become part of the organisation's core systems, culture and values (Milliman and Clair, 1996).

Schein's (1985) culture model had three layers, which are; Organisation's Artefacts, Values, Assumptions and Beliefs.



**Figure 2.2. : Schein's Culture Model (1985)**

Applying Schein's model to the achievement of green institutions, means that institutions need to have a clear vision, goals and common beliefs that will ultimately form its unique culture. In everybody's values and belief systems there should be a desire to have a green institution. Employee's attitudes, feelings and behaviour should all be aligned towards natural resource conservation, recycling, reusing and respecting every natural resource at their disposal. Artefacts such as buildings, gardens, electrical systems, water systems, technology systems and other visible structures should all reflect the green philosophy that the institution upholds. Organisations around the globe are opting for green buildings as their workspaces and offices as an alternative to traditional offices. The phenomenon is quite trend-setting as green buildings fulfil certain criterion for reducing the exploitation of natural resources that are utilised in their construction. Furthermore, green buildings include some

enhanced features related to green practices such as energy efficiency, renewable energy, water harvesting and storm water management (Ahmad, 2015) In some cases, certain artefacts will take on additional meaning and become symbols of culture, which can be interpreted to reinforce underlying assumptions, perceptions, beliefs and values they are laden with (Norton, Zacher, Parker and Ashkanasy, 2015). These artefacts and symbols can then guide and motivate employee green behaviour. Norton et al., furthermore state that attitudes and perceptions are also important, employees perception of policies, procedures, and practices should reflect social norms of what the organisation approves of and what is typically done within the company (Norton et al., 2015) To give examples, Artefacts such as the University of KwaZulu-Natal's green buildings which amongst them include 'the Unite Building' and the 'research office building' seen and used every day by the university staff and students have the potential to be a reminder to all, including employees, that the institution has a desire to subscribe to environmental efficiency values.

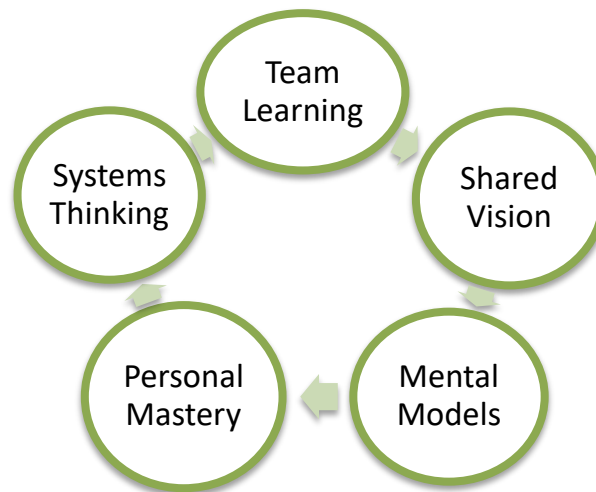
Bertels et al., (2010) maintain that an organisation's culture is both reinforced and reshaped through the daily practices of its members. The organisation's culture guides the decisions of its members by establishing and reinforcing expectations about what is valued and how things should be done. For this reason, culture is often described as 'the way we do things around here.' Over time, an organisation builds up its own culture, providing a sense of identity to its members about 'who we are' and 'what we do' (Bertels et al., 2010) The Human-Resource Division can be instrumental in facilitating a comprehensive approach for creating a culture of sustainability and environmental stewardship (Leibowitz, 2010). There is a rapidly growing body of literature in the HR field on the topic of sustainability, suggesting that more and more HR executives are interested in helping their organisation to become better environmental stewards (Leibowitz, 2010) "As such, in many successful organisations, the HR Department is the keeper of the culture" (Leibowitz, 2010, p.51). The HR Division possesses knowledge and skills to take the organisation's mission, vision, and values, to reinforce a strong, values-driven organisational culture with their many human resource systems, such an approach has been implemented successfully in many companies that wanted to create, for example, a total quality culture" (Blackburn, 1993 and Ulrich, 1993 cited in Leibowitz, 2010).

Norton believes that, aligning environmental sustainability initiatives with existing organisational values and understanding the interconnectedness of each level will most

likely be required in order to maximise the likelihood of environmental efficiency and success within the organisation (Norton et al., 2015) Transformation and changing of culture to ensure sustainability and green campuses is one of the important roles HRM can play in any institution. Another important role of HR will be the training of employees as a way to motivate this new culture of environmental efficiency. Wong (1998) claims that, the need for cultural transformation in adoption of a formal environmental management programme necessitates training, and through education and training, employees then become more aware of the need for quality and environmental control, increase adaptability to change, and change to a proactive culture and attitude (Wong, 1998). Howard-Grenville observed that organisations do not respond in a similar way when faced with same environmental issues. An organisation's culture and, in particular, its constellation of subcultures shape how environmental issues are interpreted and addressed (Howard-Grenville, 2006). Existence of divergent subcultures within the organisation will also bring different interpretations of the challenge at hand and therefore divergent solutions though most of the time solutions will be influenced by the dominant culture (Howard-Grenville, 2006).

### **2.9.2. Organisational Learning and Theories**

Peter Senge, one of the 'fathers' of organisational learning, defines learning organisations as "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together" (Senge, 1990, p.3) Senge's organisational learning model has five disciplines that build a learning organisation. Those five disciplines are; shared vision, personal mastery, systems thinking, mental models and team learning (Senge 1990).



**Figure 2.3: Organisational learning Model (Senge, 1990)**

Out of the five disciplines, for the purpose of this study, only two disciplines will be looked at, and those are shared vision and team learning. Shared vision is a discipline for bringing into alignment the vision and efforts of people organisation-wide. “The principle of shared vision leverages the most productive usage of capital, technology, and human capital since resources are coordinated toward the same ends. Processes, job functions, system-wide problem-solving, and so forth, flow in a common direction” (Senge, 1990 cited in Raines, 2009, p.2). This then means, to achieve a green and sustainable organisation, HR executives and the organisation’s leadership in total, should in a consultative process with employees craft a vision of environmental stewardship, and share that vision with all stakeholders and importantly with employees. Leaders should be proud vision-bearers. They should sell the vision to employees, and encourage employees to embrace and follow up on that vision and lead by example. Shared vision on environmental efficiency will have employees effortlessly and willingly initiating and driving environmental efficiency projects within the organisation, which is the great result of an effectively shared vision.

Team-learning and teamwork is necessary for a successful environmental management system within the organisation (Daily and Huang, 2001). When team-learning exists, there is a flow of information, feedback freely given and eagerly accepted and valued, generative thinking, and innovative problem-solving (Raines, 2009) Raines continue to suggest more benefits of team learning by stating that, in a deeper dialogue, people learn to ask questions that help learning instead of individuals making expert points. There is an awareness of the richness that emerges when people feel safe to say what they really think, how they really

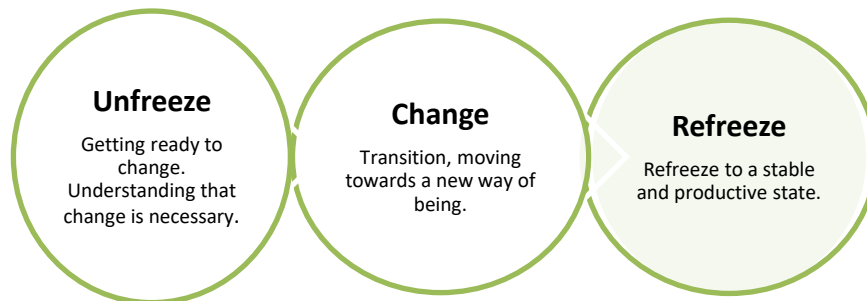
feel, what they really want for themselves and the organisation (Raines, 2009). People learn how to inquire genuinely, with care, and to advocate clearly with balance and suitable substantiating data (Senge, 1990 cited in Raines, 2009). To achieve sustainability in the organisations, there must be a free sharing of information, ideas and opinions.

Leadership and management should adopt an open-door policy where teams and individual employees are afforded a space and opportunity to voice their opinions on how the organisation can be transformed into a green, environmental-friendly and efficient organisation. Teams should be allowed time and platforms to meet, creatively conceptualise greening ideas and share those ideas in spaces without fear or favour. In doing so team learning will be enhanced, teamwork will benefit and green projects will thrive. To ensure a conducive space for team learning and teamwork, HR should play a role of being facilitators of learning, and attempt to promote respect for one another between members and there is respect for each member's opinions and ideas. A team effort towards building a green and environmentally efficient institution will then be achieved. "The creation of structures and opportunities for technical, action, and social learning thus has the potential to transform individual learning about sustainability into organizational learning" (Hugh and Talwar 2010, p.387). Changes in current society occur very quickly. Organisations try to adapt continuously to new technologies, changing climate, changing information, socio-economic changes and change in products. Creating a learning organisation, where do we start? Verduijn and Heijboer, (2016) suggest that; breeding a learning organisation begins with values related to the learning culture of your organisation. It is important to recognise the values that are stated in the vision of learning, as well as the mission statement of the organisation. They furthermore state that a powerful learning culture forms an effective breeding ground for continuous learning. Employees need the skills and flexibility to deal with the ongoing changes in their work and to continue learning (Verduijn and Heijboer, 2016). The institution's vision, mission, values, and policies should all incorporate clauses on the importance of learning to achieve a green, sustainable learning organisation.

### **2.9.3. Organisational Change and Theories**

Change especially at the psychological level, is a journey rather than a simple step, this journey may not be simple and may involve several stages of misunderstanding before people get to the other side (Lewin, 1951). Organisational change theories will help us to understand the journey an institution will walk in the process of changing the culture,

attitudes and behaviours of all, to engage in environmentally sustainable operations. Lewin proposed a three stage theory of change commonly referred to as, ‘unfreeze, change (or transition), freeze (or refreeze).



**Figure 2.4: Kurt Lewin Change model (1947)**

Unfreeze – This is a sensitisation stage, where people, processes and resources are prepared for the approaching change. In this stage people are taken from a state of being unready to change to being ready and willing to take the first step. It is one of the more important stages to understand, as it involves getting to a point of understanding that change is necessary, and getting ready to move away from our current comfort zone (Petrescu, 2010). Petrescu continues to clarify two more stages of Lewin’s model by explaining that “the second stage occurs as we make the changes that are needed, people are moving towards a new way of being. This stage is often the hardest as people are unsure or even fearful. This is not an easy time as people are learning about the changes and need to be given time to understand and work with them. Support is really important here and can be in the form of training, coaching, and expecting mistakes and providing feedback as part of the process. Using role models and allowing people to develop their own solutions also helps to make the changes. It's also really useful to keep communicating a clear picture of the desired change and the benefits to people so they don't lose sight of where they are heading” (Petrescu, 2010, p.2). Refreezing - is the third of Lewin's change stages, “here, people are taken from a state of being in transition and moved to a stable and productive state. As the name suggests this stage is about establishing stability once the changes have been made. The changes are accepted and become the new norm. People form new relationships and become comfortable with their routines. This can take time” (Petrescu, 2010, p.2).

Changing towards sustainability will require both incremental and transformational alterations in organisations (Ryan et al., 2012). Incrementally, in that organisations need to understand that achieving a green organisation is something that does not happen overnight but can take time. Transformational, in that it is not only a matter of recycling or saving water and energy only, it is the matter of the heart, soul, attitudes, behaviour, dedication and commitment. It is not a matter of an individual or a group of individuals, it requires a team effort, uniform mind-set and aligned actions. In this context, encouraging the generation, development, and adaptation of what are sometimes radical solutions to problems posed by environmental degradation will require a degree of trust, respect, and understanding (Ryan et al., 2012)

How do we then change behaviour within the organisation towards a green trajectory? Leibowitz believes that the HR staff are likely to be the only Department that is professionally trained to change the attitudes and behaviour of the executives, managers, and employees, by modifying their many human resource systems (Leibowitz, 2010) Modern HR executives are different from the old personnel administrators, they have a better understanding of the business and the industry. They can therefore utilise strategic HR, through a human capital management approach to successfully implement the change management effort needed to create the new environment-oriented work environment (Leibowitz, 2010).

Change of organisational structure design will also be vital in achieving goals of greening the organisation. Torres, Garcés-Ayerbe1, Scarpellini and Valero-Gill (2015) claim that pro-environmental change improves short- to mid-term business performance both directly and indirectly, through the mediating effect of improvements in organisational design that often go hand in hand with these processes. In a detailed support statement on their findings, Torres et al., (2015, p.320), in presenting the results of their study. confirm three types of short- to mid-term benefits derived from pro-environmental change and they found that “pro-environmental change improves efficiency, by reducing costs and increasing income and/or productivity. Secondly, pro-environmental change helps differentiate the firm’s products from those of competitors, increasing the firm’s market share Torres et al., (2015, p.320) Finally, pro-environmental change helps improve stakeholder relations” These are some of the benefits that organisations embarking on a change journey can yield. This then

does not mean or guarantee that all organisations will achieve great benefits. Circumstances of each organisation will determine their success considering many factors such as; lack of management support, lack of employer buy-in or resistance to change and, lack of resources, and lack of stakeholder buy-in can be some of the challenges organisations can be faced with. Therefore, it is important for an organisation to do a thorough audit of their specific circumstances, plan the change process very carefully and meticulously, consult employees, get stakeholder buy-in before implementation begins to ensure less resistance and some level of success towards achieving sustainability.

## **2.10. POLICIES, STRATEGIES AND HR ACTIVITIES TOWARDS SUSTAINABLE GREEN PRACTICES.**

### **2.10.1. STRATEGY**

*The Business Dictionary* [online] explains strategy as a method or plan chosen to bring about a desired future such as an achievement of a goal or a solution to a problem ([www.businessdictionary.com](http://www.businessdictionary.com)) Strategy is a high level framework that guides a plan of action for all systems within the organisation, in order to achieve the organisation's goals and fulfil its vision and mission. Strategic HRM implies that the primary objective to be achieved through HRM activities is improved firm performance and effectiveness (Jackson and Seo, 2010). The Human Resource Division, as one of the functions within an organisation, needs to have an HR strategy which is aligned with the overall organisation or institution's strategy. Strategic HRM scholars and practitioners interested in achieving environmental sustainability, need to become familiar with the overall broader scope that impacts on environmental issues as a factor of vital importance. A narrow focus on financial performance measures only to gauge effectiveness is inadequate when dealing with green issues (Jackson and Seo, 2010) This means that an environmental strategy should be all-encompassing by taking into consideration a much broader array of ecological performance metrics, including those that are the target of government regulations and those that are reflected in specific industry standards to be successful (Jackson and Seo, 2010).

Consultation with all relevant stakeholders in the crafting and drafting of an institution's greening strategy is also imperative. A survey conducted with HR professionals in the United States in February 2010 by the Society for Human Resource Management (SHRM), in partnership with BSR and Aurosoorya, found that; while HR was much less likely to be



involved in the creation of strategic sustainability programmes (6 per cent), it was more involved in the implementation of strategy (25 per cent) ([www.shrm.org](http://www.shrm.org).) This implies then that HR should be involved in all stages of environmental initiatives, from planning (strategic) to operational (implementation) stages. By being involved in all stages, it will improve quality of delivery and implementation of such strategic environmental initiatives.

### **2.10.2. POLICY**

Policy according to the *Business Dictionary* is; a set of basic principles and associated guidelines, formulated and enforced by the governing body of an organisation, to direct and limit its actions in pursuit of long-term goals ([www.businessdictionary.com](http://www.businessdictionary.com)). “A written environmental policy forms a backbone and skeletal framework from which all other environmental components are attached, including environmental management system (EMS), assessments, audits, reports” (Ramus, 2002, p. 153). The policy aspect of EMS refers to the guidelines that are defined by top level management of an organisation, ISO 14001. Section 4.2, states that the environmental statement must include the following: continual commitment and improvement in the prevention of pollution, commitment to comply with legislation and regulation, a framework for setting and reviewing environmental goals, and commitment to documentation and implementation. Furthermore, the policy must be communicated to employees and must be available to the public (Daily and Huang, 2004).

Environmental policies can be drafted on various issues within the organisation. Examples can be an environmental policy on human resource activities such as on recruitment of employees, performance management, rewards etc. Some of the relevant policies are: the environmental policy on recycling, the environmental policy on transport, the environmental policy on water and energy use etc. An environmental policy indicates to internal and external stakeholders that the company intends to take environmental protection seriously. It tells employees that the company will take a responsible approach to environmental issues. It acts as a guide for employee actions when it has targets and objectives. Ramus warns that we need to be careful not to think that having a written policy only is a guarantee that the company will be proactive and sustainable. Rather it is a necessary prerequisite for sustainable development (Ramus, 2012). Ramus concludes that, successful implementation of environmental policies within the organisation will depend on the environmental

responsibility being shared by employees and managers at all levels (Ramus, 2002). Bohdanowicz et al., (2011) identified that, the greater the strength of green human resource policies, the greater is the intensity of adoption of environmental management systems within organisations (Bohdanowicz et al., 2011 cited in Cherian and Jacob, 2012). They conclude that policies and how they are enforced are the foundation that can ensure that green practices are taken seriously in the organisation and are implemented accordingly, especially when such policies are explicit in terms of accountability required and punitive measures for those who do not comply. It is also of vital importance that a review and revision of HR policies, processes and structures be done at certain intervals to make sure that they are still aligned with the organisation's sustainability principles and goals.

## **2.11. ROLE OF MANAGEMENT ON GREENING INITIATIVES IN THE ORGANISATION**

Management commitment is one of the key factors required to ensure success of environmental initiatives within the organisation. According to Argyis, commitment is about generating human energy and activating the human mind. Without it, the implementation of any new initiative or idea would be seriously compromised (Argyis, 1998 cited in Govindarajulu and Daily, 2004) Ramus (2002) emphasized that; having sustainability policies in place and clear organisational commitment to sustainability are the first and important steps to bringing about management support. Commitment from top management is like a framework for environmental improvement. Top management decides the environmental policies to establish and the level of training and communication required (Govindarajulu and Daily, 2004) Barnes also confirms that it is necessary that management provide commitment to environmental improvement efforts by adopting a formal environmental management system (EMS). An EMS provides a format that gives management the ability to better control the company's environmental impacts (Barnes, 1996, cited in Govindarajulu and Daily, 2004).

A key role for HR environmental executives could be to guide line managers in terms of gaining full staff co-operation towards implementing environmental policies, which means HR needs to nurture supporters and create networks of problem-solvers willing to act to change the status quo (Mandip, 2012). As indicated above, Strandberg specifically mentions the role of HR managers by stating that human resource managers are strategically

well-positioned to play an instrumental role in helping their organisation achieve its goals of becoming socially and environmentally responsible, one which reduces its negative and enhances its positive impacts on society and the environment (Strandberg, 2009). It is therefore clear that management support can affect the success of EMS by promoting employee empowerment to effect changes, affecting organisational culture to support changes, instituting systems to promote desired behaviour, such as: rewards or incentive programmes, providing training, and increasing communication throughout the organisation (Daily and Huang, 2004). As clear as it is, in most organisations managers will tend to be complacent when it comes to participating in environmental initiatives within the organisation. In explaining the reasons for this complacency, Ramus and Stager state that support is not received from line managers as in most organisations environmental management is not the focus of many line manager's attention, even in firms with a clear environmental commitment and policies many managers will still perceive it as not part of their job description. (Ramus and Stager, 2000).

Mandip (2012) states that managers should also be models of green behaviour to employees to encourage buy-in and support from all. Ramus (2002, p.155) concurs by stating that "Supervisor's behaviours that demonstrate support for environmental actions also provide an important message to employees". Senior management in an organisation should continually review the progress of environmental management systems. The purpose of periodic reviews is to ascertain the effectiveness and adequacy or otherwise of the environmental management system. This systematic review contributes to the element of continuous improvement that is essential to the success of maintaining an effective EMS (Daily and Huang, 2004).

## **2.12. GREEN HUMAN RESOURCE-MANAGEMENT ACTIVITIES**

There are a vast number of activities and functions that fall under the mandate of the Human Resource Division within the organisation. For the purposes of this study, only five activities will be focused on. Those activities are: staff recruitment, training and development, performance management, employee engagement, and compensation and rewards management. These activities can be useful tools that the Human-Resource Division can use to employ and embed green practices within the organisation.

### 2.12.1. Recruitment

In explaining the concept of 'green recruitment' Ahmad (2015) defines it as a system where the focus is on the importance of the environment and on making it a major element within the organisation. Complementing this, the recruits should also be enthusiastic, and to some extent, passionate about working for an environment-friendly 'green' company. Ahmad elaborates by stating that recruiting candidates with a green bent makes it easy for firms to induct professionals who are already familiar with basics like recycling, conservation, and creating a more logical world. The recruitment process should be aligned with environment-friendly issues. (Ahmad, 2015) According to Bauer et al., while a reputation for environmental sustainability will be useful in general in an organisation's recruitment efforts, it is also critical for these organisations to attract candidates who have, as part of their core mission, a commitment to environmental sustainability (Bauer et al., 2012). Bauer says that this is "particularly important for the maintenance of the organization's culture supporting environmental sensitivity, for this reason, we see that organizations that have a reputation for being environmentally conscious actively seek candidates who are concerned about environmental matters" (Bauer et al., 2012, p.6).

It is also important for organisations to understand that not all potential employees will be attracted to work for pro-environmental organisations. This is the result of the different perceptions and attitudes people have towards environmental sustainability. There are sceptics who see environmental actions and global climate change as what nature and the world needs right now, while there are those who believe that the whole 'greening' concept is overrated and are therefore not interested to hear about or be involved in the implementation of such a concept. Some of the studies explain these differences in employee attitudes and perceptions as quoted in Bauer et al., (2012). Rodrigo and Arenas (2008) conducted a qualitative study in Chile's construction sector, and three types of Corporate Social Responsibility (CSR) attitudes from employees were identified as: *committed employees* who are very concerned and enthusiastic about CSR issues, *indifferent employees* who care primarily about their own work and careers, *dissident employees* who are frustrated that money spent on environmental issues is not being spent on salaries or other employee initiatives. They have a sense of justice but it is focused on themselves. In another typology,

Soyez, Hoffmann, Wunschmann, and Gelbrich (2009) cited in Bauer et al., (2012, p.7) noted that employee ecological orientation can be classified in terms of four types: *egocentric* individuals are those who are dedicated to sustainability because they enjoy nature and care mainly about their own well-being *eco-centric* individuals care about the environment for its own sake, *anthropocentric* individuals believe that nature serves humans and therefore it needs to be protected and *environmentally apathetic* individuals who tend to believe that environmental concerns have been exaggerated. Therefore, employers should not be naïve and think that if they are involved in a pro-environmental firm, everyone will be attracted to this firm. This is not always the case and firms should take these varying attitudes into account when recruiting and understand that not everyone operates under the same belief system.

A considerable number of studies have claimed that environmentally efficient companies have more potential to attract highly talented individuals as compared to firms that are anti-environmental (Groulleau et al., 2012; Brekke and Nybord, 2008; Frank, 2003; Bauer and Smith, 1996) Giving examples of companies that have adopted green recruitment practices, the management development reviews state that German firms such as Siemens, BASF, Bayer and Mannesmann use environmental activities and a green image to attract high-quality staff. Bristol-Myers Squibb, in Britain, includes environmental training as part of its induction programme for new staff (Wehremeyer, 1996). In their findings, Groulleau et al., (2012) state that a firm's environmental commitments matter to good people-management. Environment-related standards can deliver benefits beyond environmental considerations, such as contributing to successful recruitment which may in turn improve business performance. By attracting environmentally sensitive employees, firms can benefit from self-reinforcing effects and strengthen their greenness, on the other hand, employers with poor green credentials can lose out in the hunt for talented people Groulleau et al., (2012). Once employees have joined the company, the induction or on-boarding process is very important in inculcating the organisation's environmental values in the new recruit. Bauer et al., (2012) substantiates this by stating that; on-boarding opens a rich avenue for fostering environmentally friendly job attitudes and behaviours. Employees are likely to form their beliefs about the depth of the company's commitment to social and environmental goals in the first months on the job, based on the norms encountered, anecdotes told, and mentoring they receive. Organisations need to be aware of how to socialise new employees to foster environmentally friendly behaviours (Bauer et al., 2012).

### **2.12.2. Training and Development**

Green training and development educates employees about the value of environmental management. It trains them in working methods that conserve energy, reduce waste, and diffuse environmental awareness within the organisation, and provide the opportunity to engage employees in environmental problem-solving (Zoogah, 2011). Millar et al., (2016) state that, training programmes tailored to address environmental concerns can involve a three-stage planning process beginning with establishing the need and rationale for the training, defining the training programme objectives and developing content that aligns with the institution. Lebowitz, observed that “more and more people are passionate about environmental stewardship, and appreciate the opportunity to obtain training in this area” (Leibowitz, 2010, p.52) Leibowitz goes on to suggest that “employees should have access to workshops and conferences on ‘back wheel’ technical, ecologically-friendly (eco-friendly) topics, such as recycling, green building materials, energy conservation, and waste reduction” (Leibowitz, 2010, p.52). Talking in relation to capacitating managers and leaders on green issues in the organisation, Leibowitz also advises that the “HR Department should offer leadership- development workshops to help managers develop their ‘front wheel’ soft, people skills, or behavioural competencies, in teamwork, diversity, managing change, and collaboration (Leibowitz, 2010, p.52). Ahmad adds to this by stating that, green T&D activities make employees aware of the different aspects to and value of environment management. It helps them to embrace different methods of conservation including waste management within an organisation and it further, sharpens the skills of an employee to deal with different environmental issues (Ahmad, 2015).

Ramus (2002) in a survey of managers, on best management practices, concluded that environmental training and education, along with establishing a favourable environmental culture for the employees where they feel that they are the part of environmental outcomes, were the most important HRM processes that facilitate the achievement of environmental goals. Environmental training is also cited as a benefit for the organisation in the sense that; it increases awareness together with a heightened level of motivation to make it possible for companies to improve their environmental performance (Millar, Sanyal, Camden, 2016) To emphasize the importance of training at universities on issues of environmental sustainability, Sammalisto and Brorson (2006) in a study conducted at Gavle University and

some industries in Sweden found that training is a key factor during implementation of EMS, and that training may change attitudes and behaviour among managers and employees. Their case study, and practical experiences from industry, indicate that similar methods of EMS training and communication can be shared by industry and universities (Sammalisto and Brorson, 2006). However, ‘academic freedom’ and ‘critical thinking’ may result in the need for more interactive training methods at a university than in industry. However, the overall results of the survey indicate that the training and communication have increased awareness of environmental issues (Sammalisto and Brorson, 2006).

On the other hand, Daily and Huang (2001) suggest that an organisation can devastate its efforts of environmental efficiency if there is little or no support to train and motivate employees to do the ‘right thing’. Other than specific environmental training programmes, additional trainings that deal with interactive skills, team-building, benchmarking, brainstorming and consensus building will help promote a culture where employees feel empowered to participate in environmental programmes (Daily and Huang, 2001). Govindarajulu and Daily (2004) concludes that insufficient training may result in employees who are unable and unwilling to participate in environmental improvement efforts. This then emphasises the importance of training in this regard.

### **2.12.3. Performance management**

Performance management is critical to the success of environmental efficiency programmes within the organisation. According to Ramus (2002) it is important to set environmental targets and goals for improving the company’s environmental performance. Without targets, environmental progress is seldom made (Ramus, 2002). Organisationally, it is imperative that an action plan, balanced scorecard and a clear measurement system for HR’s contribution to organisational sustainability be developed. Stating the role of HR in performance management, Lebowitz suggests that HR staff should modify the performance appraisal rating system to include dimensions for rating people on the following behavioural and technical competencies: teamwork, collaboration, diversity, innovation, and environmental stewardship (Leibowitz, 2010) Ahmad also suggests that job descriptions should be aligned with green tasks and goals to be achieved (Ahmad, 2015). Epstein and Roy (1997) cited in Ahmad (2015) concluded that when HR managers integrate environmental performance into PM systems they safeguard environment management

against any damage. (Wehremeyer, 1996) states that Human-Resource specialists are ideally placed to introduce environmental protection as part of the job description for new and existing posts, the Rover Group carmaker, in Britain, makes environmental responsibilities and qualifications part of every job profile (Wehremeyer, 1996). In their study within the National Health Services in England, Pinzone et al., (2016) found that including environmental aspects in performance management increases employees' willingness to put extra efforts into EM. In fact, employees perceive the use of 'Green' Performance-Management practices as a positive signal of their organisation's concerns about the environment (Harvey et al., 2013 quoted in Pinzone et al., 2016) According to Marcus et al., as a proactive strategy, organisations have realised that it is much more hassle-free to install corporate-wide environmental performance standards, and green information systems/audits to gain useful data on environmental performance (Marcus & Fremeth, 2009). Paille stresses the importance of alignment by stating that, companies that are able to align practices and HR dimensions with the objectives of environmental management and performance can be successful in the organisational journey towards environmental sustainability (Paille et al., 2014) Ramus concludes by suggesting that, taking a comprehensive lifecycle approach to setting performance targets across all activities and for all products and services, the company can move itself towards sustainability (Ramus, 2002).

#### **2.12.4. Employee engagement**

The term employee engagement is very ambiguous and has been defined by scholars and practitioners in various ways depending on the context and discipline under which it is defined. To try to dissect this construct and find some lucid meaning behind it, Mercy and Schneider (2008) define it as a desirable condition, allied to an organisational purpose. It connotes employee involvement, commitment, passion, enthusiasm, focused effort, and energy expended in the service of the organisation. In other words it has both attitudinal and behavioural components. No vision and no strategy can be achieved without involved, empowered, committed and able employees (Daily and Huang 2001). Ryan cautions that, change to sustainability practices can never be wholly successful if treated in some top-down manner, or merely through incentives or sanctions (Ryan et al., 2012) This study will emphasise employee engagement because of the study's focus on the organisational level and specifically on internal human resource processes within the organisation. It is important to note that a network of stakeholders and systems should be considered in the journey



towards achieving sustainability (Ryan et al., 2012). This means that management or leadership of the company cannot just dictate and enforce a sustainability agenda on employees, customers, shareholders, suppliers or any other stakeholders that form part of the organisation. It should be understood that sustainability is a network of dynamic and interdependent systems. It means that all stakeholders should be involved in the journey to achieve successful greening of the organisation. On the external level, government laws and policies should be considered, shareholder interests, community and customer interests and the needs of suppliers and all other stakeholders. Ahmad in emphasising the importance of employee engagement states that, engagement involves employee participation and empowerment activities, it also helps prevent and resolve problems that arise in the workplace that may affect the work (Ahmad, 2015) In fact, Ahmad believes that positive employee relations are an intangible and enduring asset and a source of competitive advantage for any organisation (Ahmad, 2015)

Involving employees in EM has been reported as improving EM systems such as in efficient resource usage (Florida & Davison, 2001 cited in Ahmad, 2015). According to Millar et al., (2016) Employee involvement in environmental management has three foci: first, through tapping into employees' tacit knowledge gained through their close links to the production process (Boiral, 2002 cited in Millar et al., 2016), second, through engaging and empowering employees to make suggestions for environmental improvements (Govindarajulu and Daily, 2004) and, third, through developing a culture in the workplace, that supports environmental improvement efforts. Penzone et al., (2016) in their study found that green employee involvement practices enhance collective organisational citizenship behaviour towards the environment (OCBE). Boiral added that employees are more inclined to make discretionary environmental efforts if the organisation creates opportunities for them to take initiatives, make suggestions and share knowledge (Boiral, 2002 cited in Penzone et al., 2016) and to collaborate with other actors to implement new initiatives addressing environmental issues (Daily et al., 2012; Jabbour et al., 2013). More empirical studies have identified a range of methods to engage the workforce in environmental management, including amongst others, team formation (Teixeira et al., 2012), employee training, developing green leadership (Egri & Herman, 2000; Robertson & Barling, 2013 cited in Millar et al, 2016) and developing a supportive culture (Stone, 2000 cited in Millar et al., 2016). Jabbour (2011) and Jabbour (2013) recommends the use of green teams to involve the workforce in green management practices which can be defined as a team of

people who work together to solve environmental problems that can be used to generate ideas, resolve environmental management conflicts and foster environmental learning.

Employee participation in Green initiatives increases the chances of better green management as it aligns employees' goals, capabilities, motivations, and perceptions with green management practices and systems (Ahmad, 2015) Organisations should reward employees who show greater commitment to environmental stewardship in the organisation. Giving some suggestions on how employee engagement can be implemented within the organisation, Mandip suggests that the important way in which employee involvement and participation can be encouraged within the organisation is to seek entrepreneurs within the company who are socially or ecologically oriented known as eco-entrepreneurs (Mandip, 2012). Eco-friendly ideas should be welcomed from all employees irrespective of their designation which will encourage their interest in environmental issues and make best use of applying their skills.

The HR staff needs to exert influence on management to create a participative work environment where the employees are free to put forward their ideas on green issues since they are the ones who, in reality, are responsible for implementing ethical corporate behaviour in the day-to-day life of the organisation. (Ahmad, 2015). Forman and Jorgensen (2001) commenting on the importance of employee participation in environmental programmes, observed that employee commitment to environment- management programmes was increased when they were offered compensation to take up duties in relation to environmental responsibility. Norton et al., state that one of the rewards for effective employee engagement is that it can result in what is referred to as employee voluntary green behaviour, where employees choose to go beyond what is required by the organisation with regard to environmental behaviour (Norton, Zacher, Parker and Ashkanasy, 2015). Furthermore, Norton et al., explain that employee engagement will lead to employees taking personal initiatives that exceed organisational expectations. This includes prioritising environmental interests, initiating environmental programmes and policies, lobbying and activism, and encouraging others (Norton, Zacher, Parker and Ashkanasy, 2015).

### **2.12.5. Compensation and Rewards management**

Daily and Huang point out that a well-designed reward system can be helpful in promoting employees to perform sound environmental practices (Daily and Huang, 2001). The efficacy of green rewards and compensation was best observed in a study conducted by Berrone and Gomez-Mejia (2009) in a survey of 469 US firms operating in high-polluting industries. They found that the firms having eco-friendly performance paid their CEOs more than non-eco-friendly firms. They also concluded that long-term company results in accordance to pay were associated with greater pollution prevention success. In providing examples of companies that include environmental management in their performance rewards, Wehremeyer (1996) states that US companies Browning-Ferris Industries, Coors Brewing and Huntsman Chemical have tied managers' performance-related bonuses to their meeting environmental targets. A significant proportion of a Browning-Ferris manager's bonus depends on environmental results, furthermore, a manager does not receive any bonus when personal environmental goals are not met. Ahmad (2015) suggests that, if green rewards and compensation systems are aligned to the process of HRM, then a green culture in organisations can be encouraged, Ahmad continues to explain that, by incorporating elements of green management in the compensation programme, managers can promote green behaviour in the employees. Further, managers can ask employees to suggest green ideas pertaining to their individual jobs which can be included in the objectives to be attained for the upcoming year (Ahmad, 2015) Attaining these objectives would be the basis for employees receiving rewards (Ahmad, 2015) Recognition programmes are another popular component of corporate environmental initiatives. For example, the 3P (Pollution Prevention Pays) programme at 3M enables employees who propose a green project to earn recognition awards such as., trips and certificates (Govindarajulu and Daily, 2004). Other non-monetary rewards that have been offered by some US firms to recognise employees who have contributed to meeting environmental goals include paid vacations, time off, preferred parking, and gift certificates (Govindarajulu and Daily, 2004).

Deriving inspiration from the motivation theories of Herzberg (1964) and Maslow (1943), Bartlett (2011) refers to rewards that can motivate employees to be committed to championing green initiatives within the organisation. Bartlett (2011) mentions that three types of rewards can be considered as motivators of green behaviour from employees, those rewards are; intrinsic, extrinsic and social rewards. Bartlett (2011, p.9) continues to give

examples under each stating that “extrinsic rewards - can include; tangible benefits such as pay, fringe benefits, conditions of work and security that individuals receive in return for their green efforts within the organization, intrinsic rewards - can include; psychological rewards that come from being part of a team involved in greening programs, giving employees and opportunity to use their special skills and abilities in greening projects, having a sense of challenge, achievement and feeling that you are making a meaningful difference in the company and society and having one’s efforts recognised and appreciated. Intrinsic rewards come from inside the person and are given by people to themselves, which can only occur if the conditions they experience allow them to feel this way, and lastly social rewards - which are obtained by being with other people, often by having a sense of common purpose and obtaining reassurance or confirmation of identity, being part of an organisation community that is involved in greening initiatives” Bartlett (2011, p.9)

Ramus (2002) found that managers who recognise and reward employees who participate in eco-initiatives by use of formal reward initiatives, public reward and praise had successful environmental projects in their organisations. Ramus continues to suggest that, bonus systems and other monetary rewards should be used to reward employees who are involved in innovative eco-initiatives and problem-solving sessions. Rewards can be a reinforcement to continuously motivate and increase commitment from employees to be environmentally responsible (Daily and Huang, 2001) Ahmad (2015) observed that modern organisations are developing reward systems to encourage eco-friendly initiatives embarked upon by their employees. As quoted in Ahmad (2015), this was revealed in a survey conducted in the UK by CIPD/KPMG that estimated that 8 per cent of UK firms were rewarding green behaviour with various types of awards and/or financial incentives (CIPD/UK, 2007), and these practices can be effective in motivating employees to generate eco-initiatives. The conclusion here, as revealed by the previous studies in this area, is that, using rewards as motivators for green initiatives in the organisations does have benefits for both the individual and the organisation.

### **2.13. GREEN CAMPUSES: ENVIRONMENTAL MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS**

The challenge of climate disruption with its negative effects on living, as it affects the socio-economic and general survival of society, should be featured in the top list of challenges to be addressed by institutions of higher learning. This has been a call by most scholars in the area of sustainability (Sharp, 2003; Cortese, 2003; Niu, Jiang, Li, 2010 cited in Yuan, Zuo and Huising, 2013). The role of education in fostering sustainable development has been mentioned in a number of UN declarations and summits. It is mentioned in Agenda 21 of the United Nations Conference on Environment and Development (UNCED) of 1992, it was also mentioned and reinforced in South Africa at the 2002 Johannesburg Summit on Sustainable development (UNCED, 2002) where delegates from all attending countries signed and enthusiastically agreed to take action to minimise actions that destroy our ecosystem. Some of the UN declarations signed by some countries and their universities are; Stockholm -1972, Talloires-1990, Halifax – 1991, Swansea -1993 and Thessaloniki -1997 declarations (Wright, 2002).

UNESCO issued a very profound statement on the goal and role of education in society by stating that;

*The goal of education is to make people wiser, more knowledgeable, better informed, ethical, responsible, critical and capable of continuing to learn. Were all people to possess such abilities and qualities, the world's problems would not be automatically solved, but the means and the will to address them would be at hand. Education also serves society by providing a critical reflection on the world, especially its failings and injustices, and by promoting greater consciousness and awareness, exploring new visions and concepts, and inventing new techniques and tools. Education is also the means for disseminating knowledge and developing skills, for bringing about desired changes in behaviors, values and lifestyles, and for promoting public support for the continuing and fundamental changes that will be required if humanity is to alter its course, leaving the familiar path that is leading towards growing difficulties and possible catastrophe, and starting the uphill climb towards sustainability. Education, in short, is humanity's best hope and most effective means in the quest to achieve sustainable development (www.unesco.org)*

Having institutions of higher learning seriously adopt a sustainability culture will be a great start to a better society. Higher education can play a vital role in securing a sustainable

future by means of integrating various aspects of campus activities (Cortese, 2003). Niu, Jiang and Li (2010) state that, higher education educates students in all professions, trains future governmental, industrial and academic leaders and thus influences the future in many ways. Emphasising the vital role of higher education institutions in ensuring environmentally efficient and sustainable organisations, Cortese (2003) adds that higher education institutions bear a profound, moral responsibility to increase the awareness, knowledge, skills and values needed to create a just and sustainable future. Higher education institutions have an educational, developmental and moral mandate to fulfil. The scope is very broad and universities need to think globally and not locally and they must understand that they have a profound role to play in educating the nation, economically, socially and developmentally. .They should shape behaviour, promote morals, explore and investigate new ways to propel society forward in order to achieve progressive nations. In a Malaysian study, Foo (2013) found that higher education is a unique intellectual contributor to society's efforts to achieve sustainability, through the practices of skills, consultancies, trainings, and exchange of knowledge. Foo furthermore explains that, university researchers are the first alarms to alert society to environmental challenges, and to assist in spearheading multidisciplinary technical solutions (Foo, 2013).

Müller-Christ, Sterling, van Dam-Mieras, Adomßent, Fischer and Rieckman (2014) suggest some of the practical strategies universities can adopt while embarking on greening campuses and sustainability initiatives as suggested in the 4th UNESCO chair conference on Higher Education for Sustainable Development (HESD) held in September 2011 at Leuphana University of Lüneburg (Germany). According to Müller-Christ et al., (2014) at this UNESCO conference, three 'roundtables' were held on university contributions to sustainable development in the fields of campus, curriculum and community. Key points that came out of the presentations and discussion were the need to: engage all members of the university especially senior administration, make communication the key, link university accountability with campus sustainability, stimulate innovative potential, think beyond the university's physical boundaries to provide transferable models for the surrounding community, and turn universities into 'meeting places' (UNESCO, 2011 cited in Müller-Christ, 2014, p.3).

In the South African context, a number of universities have made efforts to embark on greening campuses initiatives. Some examples are; The Durban University of Technology

Green Campus Initiative, launched in 2012. This has been active in various projects, including the Annual International green campus initiative conference as well as the clean my campus and clean my city campaigns. Not only does the organisation focus on recycling, it also focuses on energy-saving and sustainable living ([www.dut.ac.za](http://www.dut.ac.za)). The University of KwaZulu-Natal (UKZN) conservancy, which focuses on ensuring conservation of natural resources within the institution, with projects such as the university's two nature reserves, recycling, planting of trees on arbour day and other related projects ([www.ukzn.ac.za](http://www.ukzn.ac.za)). UKZN also established an energy-management programme to measure and monitor its resource consumption, motivated by the load-shedding incidents of 2008/9 and the rising costs of electricity. The university decided to embark on this programme in order to investigate how to reduce its energy consumption, utility costs and how to raise awareness, by installing water and energy efficient showerheads on all campuses. In this way the university managed to save approximately R4 million rand on the utility bill 12 months after completion ([kznenergy.org.za](http://kznenergy.org.za)). The University of Cape Town, green campus initiative, started in 2007 and aims to make UCT a sustainable and environmentally friendly institution ([www.greening.uct.ac.za](http://www.greening.uct.ac.za)). The University of Stellenbosch eco-maties initiative, is a student organisation at Stellenbosch University that aims to advance sustainable practices on and around the campus ([www.ecomaties.wix.com](http://www.ecomaties.wix.com)). Rhodes University's RU Green organisation, which is a non-profit student organisation, aims to lead a student crusade to tackle issues of sustainable development and climate change ([www.ru.ac.za](http://www.ru.ac.za)). The African Green Campus Initiative (AGCI) launched in 2012, was created and is being funded by the Southern Africa chapter of the Association of College and University Housing Officers International (Acuho-I-Sac) in collaboration with African Compass and PD Naidoo and Associates. The Department of Higher Education and Training, as well as the Department of Environmental Affairs, are both supporting the initiative ([sanews.gov.za](http://sanews.gov.za)). The initiative is aimed at promoting environmental sustainability and climate change interventions at college and university campuses in South Africa ([sanews.gov.za](http://sanews.gov.za)). Through these initiatives` universities are assessed on energy efficiency, water conservation, biodiversity and nature reserves, green buildings, green purchasing, green programming, waste reduction and recycling, green leadership and innovation. The University of the Western Cape (UWC) was declared Africa's Greenest Campus in 2014 ([www.uwc.ac.za](http://www.uwc.ac.za)) The Durban University of Technology achieved the same award in 2013 ([www.dut.ac.za](http://www.dut.ac.za)).

The above paragraph indicates random, minuscule and scattered green initiatives by South African Universities which reflects inconsistency and clearly shows that they are not infused as part of the culture and lifestyles of these institutions. This is therefore a problem. Successful green projects should be substantial and consistent in their nature in order for them to yield long-term benefits for the institutions. This is therefore one of the challenges stated in the problem statement in chapter 1 of this study. This study has attempted to address this problem specifically from the perspective of the HR division's role in assisting institutions to go green. Sharp (2003) states that it is important to have green campus initiatives that are long-term, sustainable, and infused both in the culture of the organisation and in the mindsets of all stakeholders. Another observation from the literature on South African universities green campus initiatives is that these initiatives are usually initiated and implemented by students, rarely by staff members or campus management. They focus mainly on nature conservation efforts such as planting of trees, cleaning the campus etc. The initiatives are also usually supported by private donors and sponsors not by the university itself and its management. Another important observation which is instrumental in this research is that, these initiatives are not focused on campus management, administration and corporate divisions of the institutions such as human resource division, finance, supply chain division, marketing divisions etc. This then raises serious concerns as these divisions can play a major role in ensuring that campuses achieve a green status and, if involved in these initiatives, their impact will be great and observable. This is one of the reasons this research will focus mainly on the role of the Human-Resource Division in the process to achieve green and sustainable higher education institutions.

In terms of being signatories to U.N. declarations, only five South African universities are signatories of the Talloires Declaration, which was composed in 1990 at an international conference in Talloires, France. Organised by the association for university leaders for a sustainable future (ULSF) as the first official statement made by university administrators of a commitment to environmental sustainability in higher education, the Talloires Declaration is a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities ([www.ulsf.org](http://www.ulsf.org)). The five South African universities that are signatories to the Talloires Declaration are; Rhodes University, University of Cape Town, the then University of Natal which is now the University of KwaZulu-Natal , the University of the Western Cape and the University of Witwatersrand.



Challenges facing higher education with regard to greening of campuses include some of the following: According to Sharp (2002) Universities have been very ponderous in the implementation of green sustainability initiatives, even those who have taken some steps towards action, not much has been done to reach the fullest potential. Some institutions have adopted short-term successful projects and although there is some good in them, the challenge with such projects is that they usually do not contribute to the university-wide change of mindset, culture and operations and they do not translate to university-wide transformation. Sharp (2002) puts this clearly as he states that it is critical to differentiate between project success and institution transformation. Systemic transformation towards building green campuses is what is required. Apathy is another challenge, where most institutions show lack of concern on issues of environmental conservation initiatives. To demonstrate the level of 'non-significance' to their business, some institutions have gone to the extent of not doing much at all, with no policies in place, no committees, no projects and are just moving on with business as usual ignoring one of the biggest global challenges, listed in the U. N's millennium development goals (United Nations, 2008) also listed in South Africa's NDP Vision 2030 and the 2015 nine-point strategy for South African (SONA, 2015). In having the challenge of environmental sustainability mentioned in all these spheres and layers of government, globally, internationally and nationally, reflects the magnitude of this issue's importance. One would then expect universities to be in the frontline of finding solutions and taking action in this regard.

Out of twenty-five universities in South Africa, though the majority of them have an environmental policy in place and a few committees in this regard, not much is being done in the implementation of policy and monitoring. Though there are projects such as African Green Campus Initiative as mentioned earlier, much more still needs to be done. Challenges for higher education institutions to become green include, their complexity in structure, operations and the mandate they fulfil in society. Sharp (2002, p.132) concurs with this statement when he expresses the view that "universities are multi-structured, complex organizations that exists without any single control center from which university-wide changes can be programmed and implemented" Sharp goes on to state that in universities there are numerous subcultures of decision-making styles, time constraints, priorities, and experiences that exists within the university organisation and with varying degrees of differentiation between schools and also students, administration and faculty within schools (Sharp, 2002). This then means complex and bureaucratic structures in most institutions also

pose a challenge when it comes to the implementation of green initiatives within the institution. In their review of challenges and factors deterring higher education institutions to implement sustainable activities effectively, Velasquez et al., (2005) listed the following challenges: lack of awareness, interest, and involvement, organisational structure, lack of funding, lack of support from university administrators, lack of time, lack of data access, lack of training, lack of opportune communication, and information, resistance to change, profits mentality, lack of more rigorous regulations, lack of interdisciplinary research, lack of performance indicators, lack of policies to promote sustainability on campus, lack of standard definitions of concepts, technical problems and lack of designated workspace for sustainability coordinators and committees.

Having such challenges does not mean higher education institution cannot take part in solving the planet's problem of climate change and lack of sustainable living. A number of studies have suggested some solutions for moving forward which include the need for universities to shift their mentality and to perceive themselves as being part of the whole planetary life-support system (Cortese, 2003; Sharp, 2002). Other studies suggest: engaging in transformative learning (Moore, 2015, Wright, 2002) curriculum incorporation of environmental concepts and concerns (Niu, Jiang, Li, 2010; Wright, 2002; Cortese, 2003), having a will to engage in sustainable practices (Cortese, 2003), and allowing wide-scale participation of all stakeholders (Sharp, 2002).

#### **2.14. GREEN HUMAN-RESOURCE MANAGEMENT: BENEFITS FOR THE ORGANISATION**

A significant number of scholars in green HRM, as found in the literature of the discipline, have concurred with one another that there are more benefits than losses in the implementation of green HRM in organizations (Prasad, 2013; Jacob and Cherian, 2012; Leibowitz, 2010; Shatori et al., 2012; Mandip, 2012). In a Survey of 691 companies done in the US by The Society for Strategic HRM, BSR and Aurosoorya, found that; the top five positive outcomes from sustainability initiatives were: 1) improved employee morale, 2) more efficient business processes, 3) stronger public image, 4) increased employee loyalty, and 5) increased brand recognition (SHRM, 2010). Some of the potential benefits of adopting green HRM practices in the organisation as stated in the body of knowledge include the following;

- **An enhanced corporate image and brand** - Prasad (2013) claims that green HRM will give an organisation an enhanced corporate and brand image. Prasad continues by stating that green HR plays an important role in making the employees aware of and concerned for preservation of natural resources and contribute to pollution control, waste management and manufacture of eco-friendly products (Prasad, 2013).
- **Emergence of the green and competitive mantra leading to a firm's improvement in overall performance** - Cherian and Jacob (2012) state that the adoption of HR environmental practices has a number of different advantages which would ultimately benefit the firm. This has led to the emergence of a 'green and competitive' mantra. Cherian and Jacob (2012) state that some of the benefits associated with this adoption include improvements related to a firm's operational performance, promotion of teamwork, improvements in organisational culture, improvement of public image, improvement in retention rate of employees, improvement in attracting better employees, improvement in productivity and sustainability, reduction in environmental impact of the company, improved competitiveness, increased overall performance and reduction in overall cost. They also identified that the management of environmental systems will enable improvements in synchronisation with other management strategies of the firm.
- **Green HR initiatives can help companies find alternative ways to bring down cost without losing their talent**, in green economy organizations have tremendous growth opportunities by going green and creating a new environmental DNA which can bring immense operational savings by reducing their carbon footprint (Prasad 2013).

Benefits relating to individual human resource activities were also stated by these scholars (Ahmad, 2015; Daily, Huang, 2001; Liebowitz, 2010; Shatouri, Omar and Igusa, 2012; Mandip, 2012; Prasad, 2013; Jabbour, Santos, 2008; Madsen, Ulhoi, 2001; Jackson and Seo, 2010). They list the following benefits:

- **Green recruitment** provides the employer with an opportunity to stay ahead of the crowd and to further increase their chance of attracting the most talented of candidates and to retain them after induction (Ahmad, 2015). Grolleau et al. (2012)

in their study on impact of environmental standards of a company on recruitment of employees found that environmental commitment of the company adds to its positive profile .

- **In the area of training and development** of employees, Mandip (2012) claims that training helps to prevent waste in the organisation, in terms of both prevention and reduction of waste, she further suggests that to achieve this benefit, training should be holistic in three stages which she suggests should be: training on environmental legislation, environmental management system and environmental awareness.
- **Regarding compensation and rewards**, a well-designed reward system can be helpful in promoting employees to perform sound environmental practices. Rewards can be a reinforcement continuously to motivate and increase commitment from workers to be environmentally responsible (Govindarajulu & Daily, 2004).
- **In the area of employee engagement**, involvement and empowerment, Ahmad (2015) found that employee participation in green initiatives increases the chances of better green management as it aligns employees' goals, capabilities, motivations, and perceptions with green management practices and systems. Ahmad further maintains that involving employees in EM has been reported as improving environmental management systems such as efficient resource usage (Florida & Davison, 2001 cited in Ahmad, 2015) and reducing waste (May & Flannery, 1995 cited in Ahmad, 2015).
- **A high level of green HRM increases the financial benefits of firms that are proactive in their environmental management compared with firms that have low levels of green HRM.** In their study on the financial benefits of pro-green HRM firms, focusing on small firms who fear that adopting green HRM or any green practices might be a costly exercise rather than beneficial O'Donohue and Torugsa's (2016) findings revealed that; green HRM positively moderates the association between proactive environmental management and financial performance, such that a high level of green HRM increases the financial benefits of firms that are proactive in their environmental management compared with firms that have low levels of green HRM. The findings show the added value that green HRM provides when used as an enabler of proactive environmental management. This study should help allay fear and concerns of small firms about the potential cost burden they may face from increasing governmental and social demands for environmental sustainability

(O'Donohue and Torugsa, 2016) As mentioned above, Torres et al., (2015) in the results of their study also confirmed three types of short- to mid-term benefits derived from pro-environmental change which are:

- 1) change improves efficiency, by reducing costs and increasing income and/or productivity;
- 2) it helps differentiate the firm's products from those of competitors, increasing the firm's market share; and
- 3) pro-environmental change helps improve stakeholder relations.

O'Donohue and Torugsa (2016, p.239) state very clearly the benefits of adopting green practices within the organisation. They state that, "to achieve maximum benefits, today, many firms recognize that a reactive approach to environmental regulation that aims only at compliance is no longer a competitive option, and are adopting a proactive approach to environmental management; an approach characterized by future-oriented management practices, initiated voluntarily with a strategic purpose that extends beyond compliance and mitigation, this to enhance firm performance through emphasis on prevention of waste, reduction in energy consumption, and product and process innovation to minimize environmental impact across a product's life cycle as a competitive priority". Govindarajulu and Daily (2004) emphasise that adopting green HRM practices have benefits across the board, for an organisation, individual employees and all stakeholders involved. They suggest that:

*It is a misnomer that environmental improvement efforts benefit only society or the community. Employees themselves, in addition to companies incorporating improvement practices, can also accrue several benefits. For instance, some of the gains to an organization that can result from introducing employee empowerment and EI in environmental improvement efforts include: improvements in environmental health, worker health, and safety, improvements in economic, liability and, public image, development of more knowledgeable supervisors and employees; and reduced environmental impact of the company, improved competitiveness, and increased overall company performance (Govindarajulu and Daily, 2004, p.370)*

In a nutshell, this statement by Cherian and Jacob (2012, p.31) gives one of the major advantages of green HRM in the organisations as they mention that “employees who are actively involved in environment management principles may play a vital role in arriving at better environmental strategies to be implemented. Employees may feel empowered to adopt specific environment management principles as a result of promoted human resource policies which present better opportunities for improvements related to reduction of waste and promotion of lean manufacturing. This also may help in arriving at greener products and green savings from waste elimination. The promotion of such values will also indirectly improve consumer satisfaction. Today most consumers look for companies which adopt environmental standards”

## **2.15. GREEN HRM: CHALLENGES, LIMITATIONS AND BARRIERS**

In a Survey of 691 companies done in the US by the *Society for Strategic HRM*, BSR and Aurosoorya, found that; “although the majority of companies (68 per cent) were engaged in some form of sustainable workplace practices, 28 per cent of companies were not engaged in any type of sustainable initiatives. The top obstacles preventing organizations from implementing sustainable workplace or business practices were: 1) costs of launching, 2) difficulty measuring return on investment, 3) lack of support from organization’s leaders, 4) costs of maintaining practices, and 5) lack of internal capacity or knowledge” (SHRM, 2011, p.5). The following came out to be some of the challenges of adopting and implementing green HRM practices in organisations:

- **HR Practitioner’s perceptions on greening initiatives** - as mentioned previously in this paper, most human resource practitioners distance themselves from any green initiatives in the organisation. They believe that environmental sustainability and greening of an organisation is not a core responsibility for HR. Jackson et al., (2011) state that the topic of environmental sustainability has become an issue of concern among corporate executives, governments, consumers and scholars, as all these stakeholders are affected by challenges and opportunities brought about by the changing environmental issues. HRM scholars and practitioners alike have been relatively slow to engage in the ongoing discussions and debates. These practitioners have a perception that issues relating to the environment and resource efficiency within the organisations are issues that should concern other divisions such as, production division, research and development, marketing and other units but not

Human Resources. Hence there will be resistance and apathy in some cases. All these authors concurred with this statement (Liebowitz, 2010; Shatouri, et al., 2012; Jacob, Cherian, 2012; Dutta, 2012; Prasad, 2013).

- **Resistance and Apathy** - in elaborating more on challenges, limitations and barriers to greening strategic HRM according to Jackson and Janghoon (2010) in a survey done in the UK cited 'Apathy' as perhaps the single most significant barrier, the general public does not rank environmental issues as among the most important challenges of today. One of the questions in their study was 'What reasons do people give for their own lack of engagement? According to the survey of members of the public in the United Kingdom, there is a long list of barriers to public engagement around the issue of climate change, some of the responses they received included lack of knowledge, uncertainty and scepticism, distrust of information sources, and externalising of responsibility. Threats are viewed as being far off in the distance, other things are more important like reluctance to change personal lifestyles, fatalism, a feeling that one's own individual actions are a drop in the bucket, and the view that government and business should be leading the change efforts (Jackson and Janghoon, 2010). As HR practitioners are also members of society, it is inevitable that a number of them will have one or more of the perceptions and attitudes cited by Jackson and Janghoon (2010). Resistance and apathy within all or some of the stakeholders in the organisation can also pose a challenge in the process of greening the organization (Jackson and Seo, 2001).
- **lack of management support**, where the vision of the organisation does not incorporate any environmental management issues, managers are also unconcerned with greening of the organization and they also see it as not being the core business, not a priority and as a cost or liability to go green. To explain how lack of management support can be a challenge, Ramus (2002) states that in some cases environmental management is not the focus of many line manager's attention and some do not even give attention to employee's environmental management initiatives as they see this as not being a general management task.

- **Lack of alignment between the HR strategy and the overall strategy and vision of the organisation** - the vision and mission of the organisation can uphold the mandate of greening the organisation, while the HR strategy does not, this can also pose a challenge in greening the organisation through the HRM Division..
- **Employees and stakeholder's perceptions, attitudes, behaviour and lack of buy-in** can also pose a challenge, if employees are not motivated, they are sceptical about green practices, and have an attitude of apathy towards such issues. The organisation will therefore face a challenge in its implementation as we need employees to be key partners in greening the organisation.
- **Lack of adequate resources, financial and human resources** can also be a problem. Having no knowledge, skills and competencies within the organisation on environment management processes can also pose a challenge. Consultants can be hired in this regard to train and assist employees within the organisation. It is important to have such skills and competencies, as more creative ideas and innovative ideas can stream in if we have people who are willing and have some level of knowledge. Lack of financial resources can also be a demotivating factor, as some ideas need money to come to fruition. Without financial resources it will be a challenge to achieve total greening of an organisation.

**Table 2.1: Some Benefits and Challenges of Green HRM in summary of the above**

Green HRM: Benefits	Green HRM: Challenges
<p>Enhanced corporate image</p> <p>Efficient use of resources by employees such as, paper, water and energy.</p> <p>Efficient use of equipment, technology and other assets of the organisation such as cars</p> <p>Promoting collaboration and teamwork with employees within the organisation as they work on green projects.</p> <p>Intrinsic and extrinsic motivator to employees involved in greening efforts</p>	<p>Poor public image for the company, especially if it has been publicly exposed on its inefficient use and abuse of natural resources.</p> <p>Inefficient use, abuse and waste of resources by employees; such as paper, water, energy, fuel and other company resources and assets.</p> <p>Complacency and lack of participation from some HR practitioners and employees in general.</p>

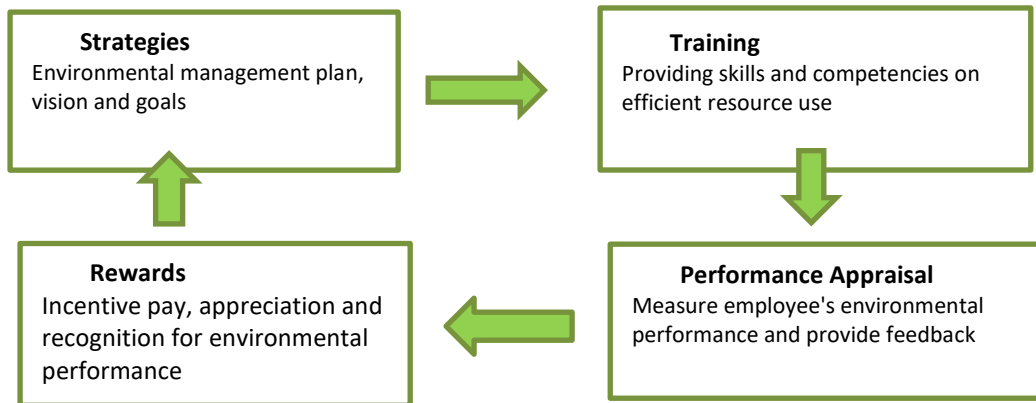


as they get rewards and fulfilment for their contribution	Perceptions by HR practitioners that greening initiatives in the organisation are not part of their job description.
Employee empowerment to adopt a green lifestyle both at work and in their homes	Resistance and Apathy from employees and even HR practitioners.
Improvement in the firm's competitive advantage	Lack of management support
Attracting highly talented individuals who are green activists.	Lack of resources i.e. financial and human resources that will further assist implementation of sustainability projects in the workplace.

## 2.16. EXISTING MODELS IN GREEN HRM

Researchers in green HRM have come up with a number of models, mainly to inform and guide research in the area and to explain the concepts surrounding this HR branch as an evolving area in the body of knowledge. In the review of literature, the researcher has not come across a practical model or framework that can guide HR practitioners on the establishment and implementation of green HRM initiatives and a framework which can be applied to daily operations. Hence the researcher has decided to design a practical, applied framework which can easily be applied to daily HR activities towards greening organisations as an outcome of this particular research project. The following are some of the existing models and frameworks in the area of green HRM:

Milliman and Clair (1996) were among the first authors who proposed a green HRM model with an exploration of the role of HRM in environmental management specifically looking at the best practice environmental examples in US organisations. They constructed a ‘Model of Environmental HRM practices’ consisting of four main steps.



**Figure 2.5:** Milliman and Clair (1996) Overview Model of Environmental HRM Functions

Milliman and Clair’s 1996 Model did not touch on the day-to-day practical application of these HR functions as it was just an overview of the 4 HR functions. The roles of each group of employees i.e. the role of employees involved in different function and the role of management were not clearly defined. How change and learning will be effected in embedding green HR culture in the organisation was also not explicitly explained in this model. Sudin (2011) proposed a research model of strategic green HRM, by reviewing the literature on HR aspects of environmental management, synthesising the thinking arising from the review of this literature, and proposed a research model. From the perspectives of strategic green HRM, Sudin (2011) argued that the new model should include among other things the relationship of assessment-based HR Interventions, environmental management systems (EMS), green intellectual capital (GIC) and corporate environmental citizenship (CEC). Sudin’s Model is a great to guide research. The model points Green HRM researchers in the right direction in areas that will need more scientific scrutiny in order to assist HR and organisations to come up with great green HRM strategies for the organisation. Sudin’s model is purely a research model that does not consider green HRM application in the organisation’s daily operations.

Another proposed model is by Renwick, Redman and Maguire (2008) who proposed a process model for green HRM. The model is basically an overall summary of green HRM concepts and processes, it is not a framework that can be applied specifically to daily HR activities. The model came about by drawing together the extant literature on green HRM, mapping the terrain in the field, and proposing a new process model and research agenda

for Green HRM. Daily and Huang (2001) proposed a conceptual model of EMS-HR, to assist in proper facilitation of environmental management in the organisations. The EMS-HR Model represent the significant interactions of HR factors such as top management support, training, employee empowerment, teamwork and rewards within the five basic elements of EMS which are: policy, planning, implementation and checking and corrective action (Daily and Huang, 2001). Their model was just a conceptual model which was never tested through empirical survey in any organisation. Mandip (2012) came up with a detailed process model of the HR processes involved in green HRM after the review of available literature on green HR, no primary empirical research was conducted as well here. The following HR processes namely recruitment; performance management and appraisal; training and development; employment relations; compensation; and exit were covered (entry to exit) in Mandip's process model. (Mandip 2012).

From all the above models none have proposed a practical framework that can be implemented and applied by HR Practitioners on a daily basis in their workstations. The above models include; an environmental overview model, a conceptual model and a research model. All other models except one were formed as a result of review of literature, no primary empirical research was conducted. This study therefore intends to contribute to the discourse of Green HRM by finding practical interventions and solutions that organisations can implement in their daily activities to ensure conservation of natural resources. This is done in this study through the presentation of a Green HRM practical framework and the long list of proposed practical recommendations that HR divisions and organisations at large can implement in their daily operations. Recommendations have taken into consideration the context of South African organisations and the country's labour market environment, of which most developing countries and some African countries can also identify with.

## **2.17. THE CHANGING ROLE OF HUMAN-RESOURCE MANAGEMENT**

Today's world is dynamic and has turbulent environments both internally within organisations and externally. This is manifested in fast-paced changes in economy, politics, technology and social environments. Constant fluctuations in the economy, regular improvements in technology, ever-changing political environments, changing societal structures and changing weather or climate conditions affect operations in businesses and organisations in general on a daily basis. In today's world, change is inevitable and to evolve

is the name of the game, and change and transformation are the key words. The HR field needs to adjust and adapt with the changes in order to stay up to date, be global and be on top of the game in assisting companies to survive and have competitive advantage over the competition. More studies are now indicating that in the next 2 to 3 decades more than 50 per cent of the jobs existing now will be extinct and there will be new set of jobs that will emerge (Frey & Osborne, 2013). Considering this radical shift in the job market and HR with their critical mandate of human capital management need to be futuristic in their thinking and actions as the work environment is changing from decade to decade due to the fast-paced technology-driven world that we live in. The role of HR in organisations has therefore been changing over the years. In its early days the HR role involved administrators and paper pushers whose major role was to hire and fire people. Over the years that role expanded and HR was seen as involving legislators and regulators within the company whose role was to make policies, rules and to police employees to make sure that they perform and yield profits for the employer. Over the last decade from the late 90's up to the early 2000's the role of HR evolved into being that of a strategic or business partner (Ulrich, 1997) whose responsibility is to be involved in high levels of decision-making in the hierarchy of the organisation, including the planning phases and the drafting of policies that will guide overall organisational operations. As a strategic partner HR has to see to it that the company achieves its goals and objectives and that it has a competitive advantage over competitors. In the strategic role, some critics in the field feel HRM is implicitly managerial in character, focused on employees as 'resources' to be used by employers, rather than assets to be developed, and lacking an employee perspective (Marchington, 2015).

In the last decades, contradictory perceptions on the role of HR have also been observed within and outside the field of HR itself. Some scholars and authors such as Ulrich (1997) have noted the emergent role of HR as employee champion or advocates who are concerned about the rights and welfare of employees while others see HR as management allies who sleep in the same bed with the employer. In 2001, Ulrich and Beatty redefined the role of HR again as managers of talent and intellectual capital who have to ensure that the organisation has both competent and committed employees for the future,. While some of those from outside regard HRM, as little more than a public relations cloak to hide the nastier dagger of work intensification, a wolf in sheep's clothing that tries to con workers into aligning with management interests (Marchington, 2015). In its 'hard' or cost reduction form, HRM has been portrayed as an assault on workers and trade unions, as well as a

management style which scares workers into compliance (Marchington, 2015). Regardless of the contradictory perceptions of the HR role, what cannot be disputed in all of this is that the role of HR has been changing over the years and the global work environment has been changing at a fast pace as well. As a way to adjust to these changing environments and to be able to meet the increased expectations, Ulrich and Beatty (2001, p.294) suggest that “HR professionals must be more than partners, they must be players, players contribute, they are engaged, they add value, they are in the game not at the game, they deliver results, they do things that make a difference” Furthermore, they also proposed six ways in which HR players contribute to the organisation: coach, architect, builder, facilitator, leader, and conscience. HR players who master these roles add value and contribute to an organization’s ability to compete in a significantly expanded playing field (Ulrich and Beatty, 2001,p.294).

In a global Human-Resources Competency Study (HRCS), a longitudinal study at the University of Michigan provided the most global, comprehensive, and empirical identification of the competencies expected of HR professionals and the impact of these competencies on both individual HR professional effectiveness and business performance,. The following key competencies were identified in the study as the key requirements for today’s HR professionals; strategic positioner, credible activist, capacity builder, change champion, human resource innovator and integrator and technology proponent (Ulrich et al., 2012). These competencies cover comprehensively and accurately all the roles that a 21<sup>st</sup> century HR practitioner should possess under the current global work environment and as demanded by such an environment.

As reflected above, it shows how dynamic the role of HRM is and the advantages and disadvantages of this dynamism and how it is perceived differently from a variety of perspectives. The diagram below shows how HR roles have been changing over the years as clarified by Ulrich (1997), Ulrich and Beatty (2001), and Ulrich and Brockbank (2005)

**Table 2.2: Changing Roles of HRM.**

CHANGING ROLES OF HRM IN ORGANISATIONS OVER THE YEARS					
Traditional Roles	Storey (1992)	Ulrich (1997)	Ulrich and Beatty (2001)	Ulrich and Brockbank (2005)	Ulrich, Younger, Brockbank and Ulrich (2012)
Administrators	Handmaidens/Service Providers	Strategic Partner	Coach	Strategic Partner	Strategic Positioner
Policy makers	Providers	Change Agent	Leader	Functional Expert	Credible Activist
Rule enforcers /Regulators/ Policing role	Regulators	Employee Champion /Advocate	Conscience	Human capital Developer	Capacity Builder
	Advisors	Administrative Expert	Facilitator	HR Leader	Change Champion
	Change makers		Architect		Human Resource Innovator and Integrator
					Technology Proponent

Having said it all, the above shows that the HR role keeps on changing, the field is very dynamic in nature as it is influenced by the fast-paced changes in the globe, from the socio-economic changes, we see daily to the political and environmental changes. All the factors compel HR to change, adjust and move with the times to ensure that businesses succeed in this turbulent environment. Some believe that the role of HR is narrowing while others see it as widening. Nonetheless, in whatever way it is seen, what is certain is that change is present in HR. Green HRM is one of the evolving roles for HR as the world is now faced with a new challenge of climate change also referred to as climate disruption. Companies or organisations need to adjust, adapt and be resilient to the changes in climate in order to survive. Therefore, HR as a strategic partner in the organisation needs to play a significant role in this regard as well.

## 2.18. CHAPTER SUMMARY

This chapter reviewed existing literature on ‘green HRM’ in the body of knowledge. Meaning and definitions of concepts such as ‘meaning of green’, sustainability, green

organisations and green HRM were discussed in detail. The body of work on the role of HRM in the organisation and its dynamic nature was also examined from the point of view of 'green HRM roles. HR activities were also looked at and how green actions can be infused in such daily HRM duties in the organisation. Higher education roles and strides in the greening movement was reviewed. Existing green HRM frameworks and models were also reviewed and how mainstream organisational theories and models of culture, change and learning can be used as tools to embed green philosophy and behaviour in organisations. All were reviewed taking into consideration the green HRM perspective. Lastly the potential benefits and challenges of implementing green HRM activities in an organisation were examined.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

*Research is formalized curiosity. It is poking and prying with a purpose.*

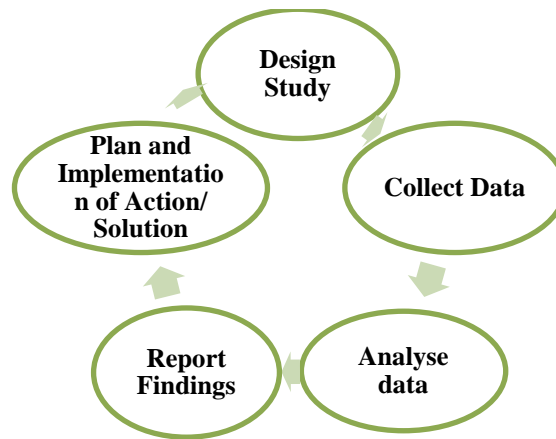
- Zora Nearle Hurston

#### **3.1. INTRODUCTION**

This chapter commences by giving a brief outline of what is research and the basic systematic process involved in research. The epistemological approach the study is situated around is also outlined. Sampling strategy, data collection methods, ethical considerations and issues of reliability and validity are addressed and outlined.

The word ‘research’, is a word that can be very intimidating to many people but in essence research is all about systematic gathering of information about a problem or phenomenon through various methods, such as personal experience, studying events, interviews, observations and other means. All done for the purpose of coming up with solutions or answers to questions. One should also understand that, while research helps us answer questions about our world, it also raises new questions and may change how we look at the world (Neuman, 2011). Research also does satisfy the innate nature of curiosity that most humans are born with, this then means that, as much as research does benefit society, it is also of much benefit to the individual undertaking it. According to Sekaran and Bougie (2013) research is simply the process of finding solutions to a problem after a thorough study and analysis of the situational factors. This chapter will elaborate on the research process followed in this particular study. The systematic process of research involved the general stages of planning, implementation, evaluation and reporting. The research cycle summarily involved the following, as depicted by the diagram below:





**Figure 3.1: Basic Research Cycle**

### **3.2. RESEARCH PARADIGM/ EPISTEMOLOGICAL APPROACH**

The study is situated around a constructivist/ interpretivist paradigm as the researcher wanted to understand the phenomenon under study in detail and practical terms. Therefore, research focused on specific contexts in which people live and work and tried to seek understanding of the context or setting of the participants through visiting their context and gathering information personally through in depth interviews and questionnaires and thereafter making an interpretation of what they found (Cresswell, 2003). Proponents of constructivism–interpretivism emphasize the goal of understanding the ‘lived experiences’ from the point of view of those who live it day to day (Ponterotto, 2005) Cresswell furthermore explains that interpretivist/constructivist researcher tends to rely upon the participant’s views of the situation being studied and recognizes the impact on the research of their own background and experiences (Creswell, 2003) The researcher went through this intensive data collection strategy in order to be able to develop a practical framework for green HRM that can be practically implemented in organizations wishing to adopt a green practice. Constructivists do not generally begin with a conclusive theory, rather they generate or inductively develop a theory or pattern of meanings throughout the research process, the process of research was largely inductive, with the inquirer generating meaning from the data collected. (Creswell, 2003). It must also be noted that this does not mean deductive inferences were not made, as a couple of underpinning theories were used from the beginning to allow the research to test the findings against and develop a framework from an informed point of view. Therefore, there was an interplay between inductive

inference and deductive inference in reasoning and as the study employed a combination of data collection methods being questionnaires and in-depth interviews.

### 3.3. GUIDING QUESTIONS

*Good research questions do not necessarily produce good research, but poorly conceived or constructed questions will likely create problems that affect all subsequent stages of a study (Agee, 2009, p.431)*

The researcher developed critical questions which were pivotal in ensuring that significant and valuable information was extracted from responses. According to Agee; “a question should be like a tool that is much like a steady-cam lens used to document an event or a journey. In the initial stages of study design, the researcher uses the steady-cam to frame an ever-changing broad landscape and then narrows the focus to frame and follow a specific set of events or actions in the broader terrain. However, that terrain is not just any place; it is a specific place with a dense, rich history” (Agee, 2009, p.441). The following were the broad guiding questions in this study:

- How can human resource division through its policies, strategies, activities and overall roles contribute in the movement towards sustainable and green practices in the organization/s (institutions)?
- To what extent can mainstream organisational theories of change, culture and learning provide useful tools to embed green and sustainable HR practices in higher education institutions?

Questions for both interviews and questionnaires were developed in such a way that they were focused on the objectives of the study. Questions were also based on the underlying theories and models of this study which are theories of culture, change, learning and HR roles models. The way the questions are constructed ensured that they are logical, in a language understood by participants and in a terminology familiar to the one used in HR discipline. As a result, respondents were able to understand exactly what the topic and objective of investigation was and how it relates to their work environment. Consequently, respondents were able to answer the questions authentically, without problems and accurately.

### **3.4. RESEARCH DESIGN**

The study followed a methodology of triangulated empirical research approach with a mixed method of qualitative and quantitative research approaches. Triangulation requires that research is addressed from multiple perspectives (Sekaran and Bougie, 2013). Qualitative approach afforded the researcher a chance to seek insights from participants through a less structured, more flexible approach, while quantitative approach allowed the researcher to collect information from a larger number of individuals with the intention of projecting the results to a wider population (Tustin et al, 2005). Human resource practitioners from four institutions of higher learning in KwaZulu-Natal formed the population to be surveyed. Non-probability judgement sampling method was used to select relevant participants for a qualitative sample (interviews). There was no sampling in selecting respondents for quantitative study since a census method was a chosen method to collect quantitative data (questionnaires). Interview schedule and questionnaires were instruments used in data collection. The study was exploratory in nature as not much was known about the concept of 'green human resource' in the South African context and not much information was available in this context of previous studies conducted in South Africa.

### **3.5. SAMPLING**

Sampling is the selection of research participants from an entire population (Durrheim et al, 2006). Population is the abstract idea of a large group of many cases from which a researcher draws a sample and to which results from a sample are generalized (Neuman, 2011). Institutional websites were used as a guide and source for contact numbers and emails used to contact HR Practitioners from the target institutions. In the selection of sample for qualitative study, non- probability purposive judgement sampling strategy was used to select relevant participants for a qualitative sample. In non-probability sampling the probability of any particular member of the population being chosen is unknown as researchers rely heavily on personal judgment (Struwig 2001).

There was no sampling in selecting respondents for quantitative study since a census method was adopted. A census is a type of data collection method that involves the entire population; in a census, information is gathered from every member of the population. The target population for this study was human resource employees in 4 higher education institutions

in KwaZulu-Natal. These institutions are University of KwaZulu-Natal, Durban University of Technology, University of Zululand and Mangosuthu University of Technology with total human resource practitioners totaling +- (90). Letters requesting permission to conduct research were sent to all four target institutions by the researcher. Out of the four universities, only three universities granted the researcher permission to conduct research in their institutions, one institution declined. As the total population was a good and manageable size for this particular study with regards to being good size to answer the research question, collection of data and analysis of data, the researcher decided to adopt a census survey method whereby questionnaires were to be sent to all population elements who were not part of the interviews. Advantages of a census survey are that every member has an opportunity to participate in a survey, accuracy concerns are reduced, it is also easier to administer and report as it includes all persons (Parker, 2011) Advantage of a census is that collected data is more accurate, detailed and is representative of the whole population as every member have an opportunity to participate. Disadvantages of census surveys can include higher costs and more time and longer administration but only if the population is very large (Parker, 2011)

**Table 3.1: Sample size determination table (Adapted from: Krejcie and Morgan, 1970)**

Sample Size Determination Table

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	60	52	120	92
15	14	65	56	130	97
20	19	70	59	140	103
25	24	75	63	150	108
30	28	80	66	160	113
35	32	85	70	170	118
40	36	90	73	180	123
45	40	95	76	190	127
50	44	100	80	200	132
55	48	110	86	210	136

### 3.5.1. Selection of Interviewees

Selection criteria targeted HR practitioners in all units and levels within the institutions. Practitioners who are strategically placed within the HR division such as senior HR

practitioners and managers were the main target group for the interviews. This meant people with more experience and insight not only in HR practice but also in policy formulation and a broader scope of human resource activities from planning phase to implementation stages. These were people in a good position to provide much in depth information as was required by the study through the interview questions administered. The researcher selected participants that are experts in the field of human resources and who were in the position to be able to answer the research question. Therefore, sampling was done in a manner by which the researcher deliberately selected a group of people based on researcher's judgement (Wiid and Diggins, 2009). Judgement sampling method was used to select relevant participants for the interviews. The main purpose here was to have a sample that will enable the researcher to answer the research question. Marshall, confirms that; an appropriate sample size for a qualitative study (for any study in general) is one that adequately answers the research question (Marshall, 1996).

**Table 3.2: Participants and Respondents Per Institution**

<b>Institution</b>	<b>No. of HR Staff in the Institution (+-)</b>	<b>No. of interviews</b>	<b>No. of Questionnaires</b>
University of KwaZulu-Natal	<b>35</b>	<b>5</b>	<b>30</b>
Durban University of Technology	<b>20</b>	<b>5</b>	<b>15</b>
University of Zululand	<b>20</b>	<b>5</b>	<b>15</b>
<b>Total</b>	<b>75</b>	<b>15</b>	<b>60</b>

Out of the four Universities that were approached to participate in this study, unfortunately one of them declined to participate and to give the researcher permission letter to conduct research in their institution, this after a long and tedious application process the researcher went through. The number of higher education institutions surveyed were three as listed in table 3.2. above. Out of a total of 75 HR Practitioners in the above institutions, 15 HR Managers and Senior Practitioners were approached to participate in interviews and interviews were conducted with 15 of them. This then left 60 HR Practitioners as target for quantitative study. Questionnaires were sent to all 60 HR Practitioners and out of the 60

questionnaires distributed, 53 questionnaires were returned yielding an 88% response rate, which is a good response rate in empirical research. According to the sample size determination table at least 52 respondents should respond to the questionnaires.

### **3.6. DATA SOURCES AND DATA COLLECTION**

*Research is to see what everybody else has seen, and think what nobody has thought.*

*- Dr. Albert Szent-Gyorgyi*

Triangulation which is the use of different data collection methods and instruments was used to collect data. Neuman (2011) states that triangulation is when we learn more by observing from multiple perspectives than by looking from only a single perspective. Mixed method research combining qualitative and quantitative methods were employed in this study. Self-administered questionnaires and in-depth interview schedules were the two instruments used in data collection. Data was collected from human source practitioners in four higher education institutions in KwaZulu-Natal. Using triangulation brought about more balance and better levels of credibility to data as the two instruments really balanced and complemented each other. Bailey-Beckett and Turner (2009) concurs with the above sentiments on triangulation as they cite that; by using various methods when collecting data, those methods can complement and verify one another. Using triangulation also helps to seal any gaps in information that may arise, as what is not voiced out very well in one instruments (e.g. in questionnaires) can happen to be explained clearly in another (e.g. in interviews). This helped to bring about data that is more realistic and trustworthy. Kennedy (2009) states that all research methods have their pros and cons, the problem comes when you rely on just one method, the major problem that comes with that is bias, it can be measurement bias, procedurally bias or even sampling bias, he therefore provides a way forward by stating that, using mixed method research can be a solution to minimize the challenge of bias.

#### **3.6.1. Interviews**

Interviews provide in-depth information pertaining to participants' experiences and viewpoints of a particular topic (Turner, 2010). This is one of the major reasons the researcher chose to include interviews in the study. The study focused on investigating the phenomenon of 'Green HRM' within organizations (institutions), practitioner's perceptions,

actions and behaviors in implementation of green HRM practices within their institutions was closely looked at as well as institutional policies, practices, culture and perceptions with regard to Green HRM. Creswell (2003) explains that a phenomenological study attempts to identify people's perceptions, perspectives and understanding of a particular circumstance. Waters (2012) concurs by stating that phenomenological interviews also relate to the understanding of live experiences. Interviews are a qualitative approach to research. According to Agee (2009) in qualitative studies, the ongoing process of questioning is an integral part of understanding the unfolding lives and perspectives of others. Walliman (2005) cites that the flexibility of interviews makes them a useful way of obtaining information and opinions from experts. An appointment was made with selected interviewees a couple of weeks before data collection commenced. Interviews were scheduled in advance by appointment. Fifteen Senior HR Practitioners and Managers who are strategically placed within the HR division were interviewed individually, mostly in their offices and a few in public areas such as coffee shops and one in a building foyer. In-depth interviews were conducted with participants to receive first-hand experience on their view points with regards the implementation of green human resource practices in their institutions. Interview questions were open ended questions that allowed the interviewer to probe and dig deeper to get the best responses from the interviewees. Interviewees also had the liberty to elaborate and fully support their statements and responses to questions posed.

Another advantage of interviews is that; individual interviews allowed participants to be more relaxed, honest and open to answering questions honestly and freely. The interview schedule was designed in such a way that the interviews took 45 to 60 minutes each to complete. Responses were captured and transcribed on an interview schedule transcript by the interviewer. Walliman (2005) notes that while conducting an interview the interviewer is in a good position to judge the quality of the interviewee's answers, evaluating whether the questions have been properly understood and answered in full. As much as interviews provide a lot of advantages in data collection, there are also disadvantages. Dishonesty of interviewees in some answers especially if its issues that affect them directly can taint the results. Incapacity of an interviewer to study body language well can lead to ambiguities in interpretation and analysis of body language which can also distort findings. According to Atieno (2009) "the main disadvantage of qualitative approaches to corpus analysis is that their findings cannot be extended to wider populations with the same degree of certainty that quantitative analyses can. This is because the findings of the research are not tested to

discover whether they are statistically significant or due to chance” (Atieno, 2009, p.17) To minimise such challenges, questionnaires were also part of data collection, and this method of triangulation afforded the researcher an opportunity to compare information collected from different data collection instruments. This is substantiated by Turner (2010) who states that; often times, interviews are coupled with other forms of data collection in order to provide the researcher with a well-rounded collection of information for analyses. This was an opportunity to scan and detect if there are any inconsistencies in the data collected.

### **3.6.2. Questionnaires**

*The quality of data is largely determined by the design of the questionnaire and the questions it contains. Poorly designed and phrased questionnaires will collect inappropriate or inaccurate data.*

*-Tustin et al, 2005.*

Self-administered questionnaires were used to collect quantitative data. Questionnaire is a structured sequence of questions designed to draw out facts and opinions (Tustin et al, 2005). The researcher chose self-administered questionnaires as a method by which to collect quantitative data as they are cost effective, time efficient and self-administration reduces biases as compared to having administration by multiple parties (Walonick, 2000). Questionnaires allowed the researcher to collect data from a larger sample and enabled respondents to provide honest information as anonymity in this data collection instrument is warranted. As much as there are many advantages that questionnaires provide in data collection for research, they also have limitations. Some of the limitations is that questions in quantitative research are usually close-ended, this restrict the respondents to elaborate more in their answers and can therefore result in shallow answers with no substantive answers and reasons behind each answer. Being unable to tap into the respondents body language, voice and tone can have its limitations as it does not provide a clear measurement of the intensity and extent of a particular issue, context or environment. Having to analyse questionnaires using various statistical tests and tools can also tend to be a challenge for researchers who lacks statistical skills and can lead to poor presentation and interpretation of results. Triangulation in this study, with the researcher employing both survey questionnaires and interviews provided a researcher with well rounded information from different data collection tools and perspectives.



Two methods were used to distribute questionnaires; there were questionnaires that were sent by email to some respondents who requested that email was an easier and more convenient method for them. Respondents filled in the questionnaires on computer and emailed them back to the researcher. The majority of questionnaires were manually printed by the researcher and personally delivered to the respondents in their HR offices and buildings in all three institutions that were surveyed. Some respondents opted to fill in the questionnaires on delivery on the spot, while others requested the researcher to come back and collect them on agreed upon time between the researcher and respondents. A period of three months was given to all respondents to fill in the questionnaires and return them. The advantage of questionnaires was that they allowed the researcher to obtain data from a large number of respondents more efficiently. It was a very efficient instrument for data collection with regards to saving time, energy and costs and enabled the researcher to collect data efficiently and timeously from respondents who were based in different institutions and geographical areas (Sekaran and Bougie, 2013).

When designing questionnaires, Sekaran and Bougie (2013) emphasizes that sound questionnaire design principles should be followed. These are some of the principles they advised researchers to focus on in questionnaire design, especially regarding wording and purpose of the questions, and they are;

- Content and purpose of the questions (*what is the objective of the question, what information and feelings do you want to elicit from the question?*)
- Language and wording of the questionnaire (*is the language and your choice of words understood by your respondents?*)
- Type and form of questions (*are they open or close ended, double barrelled or leading, length, too long or short? etc.*)
- Sequencing of questions (*preferably it is advised that questions should be sequenced from general to specific*).

Five-point scale Likert type questions were used in the questionnaire. Respondents had to select an applicable answer on a scale of one to five, one being strongly disagree (SD) and five being strongly agree (SA). The questionnaire consisted of structured closed-ended questions. There was a total of 39 questions, Section A, questions 1 to 4 were on demographic details. Section B was on policies, strategies and activities and had 23

questions. Section C was on change, culture and learning and had 12 questions. In designing effective questionnaires that have a capacity to collect appropriate data, one needs to focus on certain critical issues. The questions were created and phrased in a way that will allow the researcher to collect relevant information that will answer the objectives of the study. The questions were constructed in a language and vocabulary that HR practitioners are familiar with, this also ensured that accurate data was extracted from respondents. As questions were structured in sections, each section had its own subheading guided by the objectives of the study. Researcher chose this chronologically organized structure and sequence to avoid confusing respondents and to facilitate smooth statistical analysis.

### **3.7. Plan for Data analysis and Interpretation**

*A mass of raw data is meaningless and tells the researcher nothing until it is processed to extract meaningful data. Data analysis is therefore an important part of the research process.*

*-Tustin et al, 2005.*

#### **3.7.1. Qualitative Data Analysis**

The objective of qualitative data analysis is to identify, examine, compare and interpret patterns and themes (Hair et al, 2011). Thematic analysis was employed to analyze data collected from interviews. Thematic analysis is a widely-used qualitative data analysis method, it is a method for identifying, analyzing, and reporting patterns (themes) within data (Braun and Clarke, 2006). It minimally organizes and describes your data set in (rich) detail. The purpose of thematic analysis is to identify patterns of meaning across a dataset that provide an answer to the research question being addressed. Patterns are identified through a rigorous process of data familiarization, data coding, and theme development and revision” (psych.auckland.ac.nz). Qualitative researchers develop categories and themes as they work through transcripts or other artifacts and allow the theory and ideas to emerge from the data (Hair et al, 2011) data was divided into categories, subcategories, perspectives and themes and was analyzed to determine findings.

### **3.7.2. Quantitative Data Analysis**

Quantitatively, Software package for statistical analysis (SPSS) version 24 was used to analyze data collected. Researcher chose SPSS because it is a comprehensive statistical analysis computer system for conducting accurate data analysis. SPSS was the preferred system for data analysis because of its built-in techniques to prepare data for analysis quickly and easily. Another advantage for SPSS is its sophisticated reporting functionality for highly effective chart creation and capacity to analyze both small and large data sets. The researcher has provided charts, graphs and tables to give the readers and users of information a condensed picture of the data collected. This will allow the reader to see evidence collected by the researcher and be able to examine it with ease ((Neuman, 2011)

### **3.8. Trustworthiness and Rigor**

To strengthen trustworthiness and rigour, this study applied Guba and Lincoln's four measures which are; 1) *Truth Value*, this to ensure that there is confidence in the truth of findings and there is credibility. Conducting survey to three different institutions from HR practitioners of different ages, backgrounds, levels and using a mixed method research enhanced the credibility of the research as comparisons could be made to determine similarities and it will be easier to determine gaps in information and distortion in such 2) *Applicability*, this to ensure that the way the study is conducted will make it relevant to be applied, transferred and generalized in any similar context 3) *Consistency*, to ensure dependability and reliability of findings i.e. if study was to be repeated with same respondents on similar context findings will be consistently repeated, in this instance Cronbach's reliability test was used to test reliability. 4) *Neutrality*, this to ensure that there is objectivity and no researcher bias on the findings presented (Guba, 1981).

### **3.9. Reliability and Validity**

Reliability means dependability or consistency which suggest that if the same measurement happens under same conditions it must yield similar results to be reliable. To test reliability and consistency of the data collection instrument used, a pilot study was conducted, where fifteen questionnaires were given to HR Practitioners from a higher education institution which was not part of this survey. Results of the pilot survey and results of the actual study indicated consistency. Validity suggest truthfulness and how well an idea fits in with reality

(Neuman, 2011). Saunders, Lewis & Thornhill (2003) define validity as the extent to which the data collection method and/or related methodologies accurately measure what they are intended to measure. Triangulation is when a variety of data sources, different investigators, different perspectives (theories), and different methods are pitted against one another in order to cross-check data and interpretations (Guba, 1981). Cronbach's Alpha was used to determine validity and reliability in quantitative segment. Pilot tests were also conducted with one institution which did not form target population for this study to improve validity and reliability.

### **3.10. Ethical Considerations**

Researchers should abide to the application of appropriate moral principles and ethical standards during the process of conducting research. To ensure that appropriate ethical principles were adhered to, the researcher obtained ethical clearance certificate from the UKZN research office ethics committee before research survey commenced (Ethics clearance number: HSS/0401/016D). Gatekeeper's letters were obtained from the institutions participating in the study. Participants consent was sought before data was collected. Purpose of the research was explained to participants and were made aware that participation is voluntary and they can withdraw anytime from the study when they need. Participants' identity was kept anonymous and the information they have provided confidential and was strictly used for academic purposes only. All sources used in the study were acknowledged through citations and references. Objective reporting of findings was given. Turnitin was used as a method to monitor plagiarism, and the accepted similarity index by the school was observed.

### **3.11. CHAPTER SUMMARY**

This chapter explained the research process and methodology used in this particular study. The process was explained and elaborated on, from the research methods used (qualitative and quantitative) to data collection methods (questionnaire and interview schedule), sampling approach followed (purposive sampling and census) and data analysis methods and system (Thematic and SPSS). Methods used to ensure validity and reliability were also explained and lastly how ethical issue were taken into consideration.

## **CHAPTER 4**

### **PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS :QUALITATIVE STUDY**

#### **4.1. INTRODUCTION**

In this chapter the results of the qualitative study (interviews) are presented, analysed and discussed. Senior Human-Resource Practitioners and Managers from three institutions of higher education in KwaZulu-Natal were approached to participate in the qualitative study. Practitioners who are strategically placed within the HR division such as senior HR practitioners and managers were the main target group for the interviews. This meant that people with more insight, not only in HR practice, but also in policy formulation and a broader scope of human resource activities from planning phase to implementation stages were selected to be interviewed in this study. These were people in a good position to provide much in-depth information as was required by the study through the interview questions administered. The researcher selected participants that are experts in the field of human resources and who were in a position to be able to answer the research question. Therefore, sampling was done in a manner which saw the researcher deliberately select a group of people based on the researcher's judgement (Wiid and Diggins, 2009). The main purpose here was to have a sample that will enable the researcher to answer the research question. In-depth interviews were conducted with 15 Human-Resource Practitioners from three institutions of higher education in KwaZulu-Natal that were part of the survey. All interviews were conducted in places that were conducive and convenient as per the agreement between the researcher and the interviewee. In this case most interviews took place in the offices and workplaces of the respondents and a few in other spaces outside the interviewees offices.

A total of fifteen participants were invited to participate in interviews consisting of five participants per institution, mainly people who are in management levels of the HR division as already stated above. The demographic profile of interview participants was mainly HR Managers with a few Senior HR Practitioners. The average age was 43 with the oldest participant being 56 and the youngest being 29. Average years of experience was 15 years, with two participants who have more than 20 yrs experience in HR. Most participants were

female and there were a few Males. Interview appointments were set up with the fifteen participants and were conducted on days that were convenient to both the participants and the researcher. The majority of interviews took place at the participant's workplaces mainly in their offices some in the boardrooms of their workplaces and a few were conducted in public spaces such as a coffee shop and a foyer of the building. An interview schedule with seventeen questions was used to guide the questioning session as the interviews were semi-formal in nature. Questions were formulated and phrased in such a manner that they would provide the researcher with enough information to enable the researcher to answer the research questions and objectives and to be able to draw out meaningful themes and conclusions in this regard. Questions were divided into the following categories; demographical details of participants, awareness and understanding of the concept 'Green HRM', how strategies, policies and HRM activities can facilitate greening within the institution, how change, culture and learning can be used as tools to embed a green culture in the organisation, HR roles in the greening of the organisation and lastly the benefits and challenges that can be experienced in greening efforts within the organisation.

Interview questions were open-ended questions which allowed the participants to elaborate, substantiate and explain their responses freely without too much restriction. The qualitative data collected was analysed using the thematic analysis method as data was broken down into different themes and categories relevant to the context of this study with some themes emerging from results of this study. The collected data was then analysed accordingly to draw meaningful conclusions. Using the appropriate thematic analysis, the data emanating from the survey were analysed and interpreted in order to identify important patterns and relationships. In the section below (section 4.2.) qualitative data emanating from interviews is presented and discussed. A deductive approach has been used to present results, with the researcher using the predetermined framework of key variables that were in the interview schedule to structure the subtopics below. These key variables and themes are; Understanding of the concept of Green HRM, Policy and Strategy, HR Activities and Roles, Culture, Learning and Change and Benefits and Challenges. Whilst a deductive approach has been used to structure the subtopics in the presentation of findings, discussions under these subtopics have also incorporated an inductive approach, where some key and profound findings from the study provided direction for discussions under some variables. In the discussions, findings of previous studies in the field of Green HRM are also presented and

discussed in order to determine important consistencies, similarities, differences, patterns and relationships with the findings in this particular study.

#### **4.2. PRESENTATION AND DISCUSSION OF INTERVIEW RESULTS**

Data collected from interviews were analysed using a thematic analysis method as data was broken down into different themes and categories that emerged from the responses and from themes relevant to the context of this study. The data were then analysed accordingly to draw meaningful conclusions. Sekaran and Bougie (2013) explains that the first step in qualitative data analysis is *data reduction* - which refers to the process of selecting, coding and categorising data. In analysing data, the researcher started by reading the interview transcripts one by one, line by line very carefully and in detail and making notes of what was very prominent and profound. This reading stage is also referred to as *data familiarisation* - immersion in the raw data by reading transcripts, studying notes and so on, in order to list key ideas and recurrent themes (Pope, Ziebland, Mays, 2000). Relevant pieces of information from words, statements, activities and concepts that were relevant to the research were labelled using different highlighter colour codes and numerical codes to indicate different themes and categories they belong under. This process is called coding. *Coding* – codes are labels given to units which are later grouped and turned into categories (Sekaran and Bougie, 2013). *Categorisation* – is the process of organising, arranging and classifying data into different categories and subcategories (Sekaran and Bougie, 2013) As the data were organised categorically, a pattern of relationships and themes started to emerge from the data and therefore a *Thematic framework* was formed identifying all the key issues, concepts, and themes by which the data can be examined, displayed, reported on and referenced. This was carried out by drawing on prior issues and questions derived from the aims, objectives and questions of the study as well as issues raised by the respondents themselves and views or experiences that recur in the data.

The following themes emerged from interview responses:

- There is limited and vague awareness and understanding of the concept of ‘Green HRM’;
- There are no policies and strategies that talk to Green HRM;
- There were no Green HRM Projects implemented at the institution by the HR Division;

- Green HRM principles are implemented only in Recruitment and Performance Management activities; The Human-Resource Division does not play any strategic or administrative role in greening of the organisation;
- There has been no change of culture and no awareness drives were conducted by the HR division with regard to greening the institution.
- There are Potential Benefits and Challenges regarding Green HRM for the Institutions; and
- Greening is not a priority in institutions of higher learning as there are other pressing priorities.

#### **4.2.1. THERE IS LIMITED AND VAGUE AWARENESS AND UNDERSTANDING OF THE CONCEPT OF ‘GREEN HRM.’**

The first question that was posed to the participants was: what is your understanding of the concept ‘Green Human Resource Management’? This was to determine their knowledge, awareness and understanding of this concept. Out of the fifteen participants, about half of them indicated that they had a limited and vague understanding of the concept of ‘Green HRM’ while a third indicated full understanding of the term, while remainder of participants indicated that they have never heard of the concept before. In requesting them to substantiate what they mean with terms ‘limited and vague’ the majority of them said they understood the term as ‘paperless HR’ and others mentioned it as e-HRM.

However, after it had been explained to them clearly what Green HRM holistically involves, most of them reflected an intuitive appeal and showed much enthusiasm in talking about it and coming up with their own ideas of what HR is supposed to be doing to fully go green. What was also very clear in the beginning was that, though most of them claimed limited to vague awareness of ‘Green HRM’, when the interview proceeded, they later on realised that most questions were based on what they know and on activities they do every day. It is just that they did not know that formally those activities, actions and processes do form part of ‘Green HRM’ and once they realised that, they were very much at ease with the whole interview. This then indicates that some of the participants knew of activities that form part of ‘Green HRM’ the only thing they did not know was just the term ‘Green HRM’. These results also somehow correlate with a study conducted in India by Sakhawalkar and Thadani (2013), who explored Green HR Practices and the responsiveness among the employees of



I.T. sector in Pune Region of India. It was found that 82 per cent of the respondents are aware of the term 'Green HR'. It was further mentioned that people who are not aware of the term 'Green HR' are aware of the practices and know that their organisation follows such practices. Hence the term is not known, but the practices are known. Overall, the results in this study showed there were few HR Practitioners who had no awareness at all of the concept 'Green HRM', even those who were not aware of the term, they were aware of the practices.

#### **4.2.2. NO POLICIES AND STRATEGIES THAT TALK TO GREEN HRM**

Here the interviewer wanted to find out if there were institutional and HR divisional policies and strategies that talk to the greening of the institution. All respondents mentioned that there was nothing about greening and saving of resources in the HR policies that they implement on a daily basis. The majority also confessed that they were not aware of any institutional policies in this regard with only a couple of participants from the same institution who mentioned that they were aware of one clause in their institution's operational strategy that talks about greening of the campus in general but nothing on HR policies.

There were a couple of respondents who stated that they believed that resource efficiency and greening issues are not explicitly stated in HR and institutional policies and operational strategies as there is a tacit belief that saving resources is something that people should know and do in general, with one of the respondents in her words putting it like this;

*[The] Assumption is that employees are aware of the standards that the institution has to use resources efficiently, they should know to use resources efficiently, which is a very ignorant assumption in this instance as it's not always the case*  
(Interviewee, Female, 47)

One other participants added more reasons why higher education institutions don't focus much on having green policies and strategies to drive their activities as he said that public sector institutions decisions are not driven mainly by cost efficiency and profits as it is the case in the private sector; in his own words he stated that;

*Private sector are trendsetters in green issues and policies, public sector always follow far behind as they draw energy from private sector* (Interviewee, Male, 49)

In a study that surveyed 147 UK firms, 77 per cent of firms surveyed were found to have an environmental policy in place within their organisation and fewer than 45 per cent of organisations had integrated environmental concerns in their organisational vision or mission statement. This was found to be the most common means of encouraging staff to behave in a pro-environmental way (Zibarras and Ballinger, 2011 cited in Bartlett, 2011). Out of the three universities surveyed in this particular research the researcher was able to find out that two of the institutions have environmental policies in place and one institution has green clauses in its strategic operational plan. This does correlate with the UK study findings and it indicates that top level management of these institutions are aware of the need to adopt green practices in their institutions since they have drafted environmental policies in this regard. One question that one will now ask is: why is there no effective implementation of the environmental policy? As much as this question is a bit out of the focus for this study which mainly focused on the HR division rather than the organisation as a whole, its answer will help to clarify the position of all managers at all levels and divisions of the organisation. In an attempt to answer it, one will assume that, there is not much pressure either internally or externally that forces managers to ensure full and effective application of policy. Harris and Crane (2002) in their qualitative study on greening of organisational culture which employed 44 semi-structured interviews with executives and managers of separate organisations, found that while most managers are aware of green pressures, few organisations respond with the level of enthusiasm hoped for by green activists and managers display a somewhat apathetic attitude to green concerns in many organisations as substantial gaps between the company position and actual practices were found. Harris and Crane (2002) also found that macro-environmental pressures on organisations were presently insufficient to require anything more than superficial statements of policy.

In this particular study, in the three universities surveyed; HR practitioners were not aware of these environmental policies in their institution, which is a worrying factor in this instance, as it indicates either ignorance or a lack of awareness on their part. HR managers/practitioner's lack of knowledge on greening and resource efficiency policies and activities taking place within their institutions is of major concern as it gives the impression that HR employees only focus on policies that affect their specific division. They ignore policies and other activities, including green activities, that apply to the whole organisation. This is

very worrying especially since HR is a shared services department and its services impact on all employees in the organisation.

The UKZN does have an environmental policy and has a conservancy, which focuses on ensuring conservation of natural resources within the institution, with projects such as the university's two nature reserves and other related projects ([www.ukzn.ac.za](http://www.ukzn.ac.za)) The university also established an energy-management programme to measure and monitor its resource consumption in order to investigate how to reduce its energy consumption, utility costs and how to raise awareness ([www.kznenergy.org.za](http://www.kznenergy.org.za)) but the majority of the, university's HR practitioners were not aware of these. DUT have an operational strategy that talks to greening of the institution and saving natural resources. The university also has a Green Campus Initiative which is active in various projects, including the Annual International green campus initiative conference as well as the clean my campus and clean my city campaigns, Not only does the organisation focus on recycling, it also focuses on energy saving and sustainable living ([www.dut.ac.za](http://www.dut.ac.za)) yet most HR practitioners at the university were not aware of these.

#### **4.2.3. THERE ARE NO GREEN HRM PROJECTS IMPLEMENTED AT THE INSTITUTIONS BY THE HR DIVISION**

Asking HR Practitioners to outline greening projects the HR division is involved in, at their institutions, the majority of participants mentioned that there were no official green projects that the HR Department in their institutions were involved in. They further explained that there were no green HR divisional or even institutional green projects that they were aware of. The *Greening of HR Survey* conducted by Buck Consultants, a human resources and benefits consulting firm from the US, in their survey of 93 US firms found that 54 per cent of respondents incorporate environmental management into their business operations (Buck, 2009). Findings revealed that the common green human-resources initiatives include using web- or teleconferencing to reduce travel (78 per cent), promoting the reduction of paper use (76 per cent), and implementing wellness programmes to foster employees' proper nutrition, fitness, and healthy living (68 per cent) (Buck, 2009). As much as the universities surveyed in this study attempt some of these initiatives, the level at which these are done is very low and minimal to zero effort is put into such projects and initiatives. A lot of work still needs to be done to achieve full commitment by higher education institutions towards

green initiatives and especially on reduction of paper use, energy use and in embedding a culture of saving natural resources.

One participant from the Employee Wellness unit mentioned that in her unit they have some projects such as an annual awareness day and green living workshop where they encourage staff to live green and to adopt healthy lifestyles. She further explained that they recommend to staff, practices such as recycling and planting of organic vegetables as they collaborate and are assisted by the horticulture department within the institution on some of their presentations and workshops. This they do only one day annually which, one might fairly conclude is not enough to dedicate only one day in the whole year on green awareness. In the study that surveyed 147 UK firms, respondents rated internal awareness-raising campaigns and active championing by senior management and green champions or green teams as the most effective ways of encouraging pro-environmental behaviour (Zibarras and Ballinger, 2011 quoted in Bartlett, 2011) this was not found to be the case at all in the three universities surveyed as only one university indicated that they have ongoing green awareness campaigns. The most popular environmental initiative was the recycling of waste materials, with 86 per cent of organisations reporting that they have a recycling scheme in place (Zibarras and Ballinger, 2011 cited in Bartlett, 2011), In terms of recycling the three universities did mention that a few employees who operate on an individual voluntary basis are involved in recycling initiatives.

Another participant, in trying to find reasons why HR divisions do not do much to promote green initiatives in the institutions, mentioned that:

*There is a silent assumption that people should naturally know to use resources effectively, no need for awareness projects (Interviewee, Female, 38)*

Another participant stated that green issues are usually not seen as matters of vital importance especially in public institutions and organisations, he stated:

*Do not expect much from public sector as they are very complacent especially on green issues, policies are drivers in this sector, no policy no action, Private sector are ones who are trendsetters on green issues (Interviewee, Male, 49)*

#### **4.2.4. GREEN HRM PRINCIPLES ARE IMPLEMENTED ONLY IN RECRUITMENT AND PERFORMANCE MANAGEMENT ACTIVITIES.**

In asking the participants to explain and give examples of how green practices are applied in the HR division daily activities within the institutions. Below are the responses given by participants, categorised according to each activity done in the HR division;

##### **a) Recruitment**

All respondents mentioned that their institutions do apply some green activities in their recruitment processes. Specific areas they mentioned include the use of online advertising and online job application processes which includes filling in of application forms online and submitting such using the same online platform. Skype, video and telephone interviewing were also mentioned as being used often. Supplying electronic information packs for interview panel members before and during interviews and electronic information packs for new recruits during induction were now the trend followed in these institutions. When enquiring into what the respondents thought were the reasons that institutions have lately adopted these resource-efficient recruitment methods, one participant mentioned that;

*institutions adopted e-recruitment because they are mainly forced by technological efficiency not by cost efficiency as public institutions are still lagging behind private institutions when it comes to put cost efficiency in the forefront of decision making*  
(Interviewee, Male, 49)

The implication of this last comment is that the perception, at least in some quarters, is that the cost factor is not a key driver and key determinant in making decisions in the public sector. Nonetheless, whatever may be the driving force behind green resource efficient recruitment processes in universities, one can confidently conclude that a lot of ground towards going green in recruitment has been covered by these institutions. This is something that must be welcomed and appreciated as it shows that there is awareness and willingness to embrace resource efficient recruitment methods. There are not many studies that have surveyed the number of organisations in any particular area or industry that are using Green recruitment processes. The majority of studies on green recruitment focused mainly on the concepts of paperless and e-recruitment as a method of using technology in the process of recruitment and they all concurred that there are cost and efficiency benefits in using e-recruitment (Gupta, 2016; Aqayo, 2008; Smith and Rupp, 2004; Haddas, 2004; Chapman & Webster, 2003). Studies in

this area have also looked at whether environmentally efficient companies are able to attract more talent and best talent compared to non-environmentally efficient ones. The majority of these studies concurred that most job applicants are likely to be attracted to apply for a job in green- efficient companies and prefer to be identified with such companies rather than with companies that are not green (Grolleau, Mzoughi and Pekovic, 2012; Wehrmeyer, 1996) To be specific; studies done in the US indicate that graduates and other job applicants pay attention to the environmental management practices and performance of companies and use such information when deciding where to seek employment (Wehrmeyer, 1996; Stringer, 2009 cited in Jackson et al, 2011). Grolleau, Mzoughi and Pekovic (2012), in their investigation using an original database of French firms to determine the impact of environmental-related standards on employees' recruitment, using a bivariate probit model, found that voluntary environment-related standards (i.e. ISO 14001 standards, organic labelling, fair trade, etc.) improve the recruitment of professional and non-professional employees. Environment-related standards can deliver benefits beyond environmental considerations such as contributing to successful recruitment which may in turn improve business performance Huselid, (1995) cited in Grolleau et al.,( 2012) confirmed the US studies by suggesting that a firm's environmental responsibility is an important attribute to job seekers. In South Africa one can make the assumption that this will not be the case because of the vastly different employment dynamics in this country which has a high unemployment rate. In 2015 the unemployment rate was 26, 4 per cent (Stats SA, 2015). Therefore what is more important for job seekers is to find a job, the green profile of the company is of least importance to job seekers in a country where jobs are like a drop in the ocean. On the other hand, results of this survey are consistent with those results that indicated that most companies have adopted green or e-recruitment for cost efficiency as this was also a sentiment shared by most interviewees in this study and South African institutions are almostly on par with other progressive countries when it comes to green recruitment practices as this is also indicated in this survey.

#### **b) Staff Training and learning Programmes**

In giving an indication on whether or not there are any training and development programmes that the HR division run in the institutions, all participants indicated that there is no training or workshops provided by the HR division on resource efficiency or green issues. Only one of the participants from the employee wellness section, mentioned that as much as they do not conduct formal training programmes, in her unit they do have an

awareness campaign with the one annual event and emailed quarterly newsletters to staff members and in some editions of the newsletters they do talk about resource efficiency and green living,

*[The] reason for emailing is that employees have no time to sit for workshops as green issues are not considered a priority (Interviewee, Female, 29)*

To emphasize lack of provision of green training and development programmes by HR and the institution in general, one participant put it in this way

*Green gospel is not preached in this institution, therefore no one will practice what is not preached (Interviewee, Female, 39).*

Another participant emphasised that training and awareness campaigns will be a vital step for any institution wishing to embark seriously on a greening journey.

Looking at other studies in the area of training it became clear that training does contribute positively towards the achievement of green organisations. Teixeira, Jabbour and Jabbour (2012) in their study to understand the relationship between green management and environmental training in 9 large ISO 14001 certified companies in Brazil found that green human-resource management (GHRM) is a relevant approach to companies focussing in environmental management and Corporate Social Responsibility (CSR) issues (cited in Jabbour, 2013) It was ascertained that organisational culture, teamwork, top management support and more technical green management practices are the factors that seem to connect and convert environmental training into more proactive green management, especially for companies in the proactive green management stage (Teixeira, Jabbour and Jabbour, 2012) To emphasise the importance of training at universities on issues of environmental sustainability, Sammalisto and Brorson (2006) in a study conducted at Gavle University and some industries in Sweden found that; training is a key factor during implementation of EMS, and that training may change attitudes and behaviour among managers and employees. Renwick et al., (2013) and Jackson et al., (2011) also advocate that managers must invest in environmental training if they also want to improve environmental management (Renwick et al., 2013 and Jackson et al., 2011).

### **c) Performance Management**

The majority of participants mentioned that an electronic performance (PM) system was used in their institution from the planning phase of performance management where drawing up of personal development plans is done to drafting of key performance areas, measuring and monitoring of performance, rating performance by entering and calculating performance scores up to the last stage of performance scores moderation. All the participants who agreed that electronic performance management system was fully utilised in their institution were all from the same institution, which means that one institution out of the three surveyed had an electronic PM system that was fully operational. All the participants agreed that electronic performance management system is fast, efficient and the best way to evaluate employee's performance levels. In their study within the National Health Services in England, Pinzone et al., (2016) found that including environmental aspects in performance management increases employees' willingness to put extra effort into environmental management (EM) initiatives. In fact, employees perceive the use of 'Green' Performance Management practices as a positive signal of their organisation's concerns about the environment (Harvey et al., 2013 quoted in Pinzone et al., 2016). To achieve green and sustainable campuses, incorporating environmental aspects in performance management of employees will be a good idea as this seems to have potential to motivate employees to be involved in EM initiatives.

### **d) Compensation Management**

In trying to determine whether or not there were any incentives or rewards for employees who are involved in green initiatives and who champion these initiatives within the institutions, the question posed to participants was: Is there any compensation or some form of incentives and rewards to employees who recycle, and those who champion projects for environmental conservation in the institution? A huge majority of participants stated that there were no incentives in their institutions. This is consistent with the UK study that found that reward programmes and promotion decisions were among the least common methods of engagement, just 2 per cent of organisations use penalties for non-compliance (Zibarras & Ballinger, 2011 quoted in Bartlett, 2011). A further 20 per cent of participants stated that they were unsure as they are not fully conversant with specific key performance areas of all employees in all divisions within the institutions and what incentives are given by different



faculties or colleges from their funds, though they clearly stated that from the institutional HR payroll budget there were no such incentives. One participant mentioned *that*

*It will be difficult to have incentives if there is no policy as incentives are linked to policy and the PM system* (Interviewee, Female, 38)

As much as the above studies showed very low to no use of incentives in encouraging green behaviour in organisations and institutions, in her study of five firms with a proven record of encouraging employee environmental initiatives Ramus (2001) interviewed fifty employees and her findings revealed that; 23 per cent of supervisors look for opportunities to praise positive employee performance, both privately and in front of others, 14 per cent reward a good idea by implementing it and giving the responsible employee(s) credit, employees in this study revealed that incentives make a positive contribution in encouraging green behaviour as they are motivated by them to this effect. One other study whose findings are consistent with those of Ramus (2001) is a survey conducted in the UK by CIPD/KPMG which estimated that 8 per cent of UK firms were rewarding green behaviour with various types of awards and/or financial incentives (CIPD/UK, 2007) cited in Ahmad, (2015), and it was found that these practices can be effective in motivating employees to generate eco-initiatives (Ahmad, 2015). The conclusion here as revealed by existing studies in this area is that, using rewards as motivators for green initiatives in the organisations does have benefits for both the individual and the organisation.

#### **e) Employee Engagement**

Asking the interviewees if there are any employee engagement activities facilitated by HR on green issues in their institutions, a huge majority of interviewees stated that HR does not do much on engaging employees with regards to green issues in their institutions. Only one participant from the employee awareness branch of HR stated that on the one green awareness campaign for employees their unit does once a year, they co-opt a few employees who are interested to participate in facilitating programmes of the day. She expanded by mentioning that they also try to engage employees with some few articles on green living which they publish in their quarterly newsletter that is emailed to employees on a quarterly basis. Another participant stated that he is aware that there are a couple of Academics who together with students on a voluntary basis do awareness campaigns once or twice a year on

campus although HR does not facilitate these engagements. In a study done in the UK, informal encouragement by line management and active championing by senior management were common in 38 per cent of organisations (Bartlett, 2011). This was not the case at all in the institutions surveyed in this study as the 80 per cent of the HR managers interviewed indicated that there was no engagement at all with employees on green issues and they indicated that they did not know any management executive involved in engaging staff on green issues. Ramus and Steger (2002) in their study using a sample of people employed at environmentally proactive companies discovered that employees who perceived strong signals of organisational and supervisory encouragement were more likely to develop and implement creative ideas that positively affected the natural environment than employees who did not perceive such signals. Thus, organisational and supervisory factors indicated in research on general and environmental innovation had a positive relationship to employees' environmental innovations. (Ramus and Steger, 2000). The results of this study with 80 per cent of the managers indicating there was no engagement with employees on green issues is a worrying factor as it means that there is no motivator behind employees who are willing to be involved in green initiatives and those who have a potential to be part of such initiatives.

Markeya, McIvora and Wright (2016) In a survey of 682 Australian employers and an analysis of 1329 enterprise agreements, found strong associations between organisational activities for the reduction of carbon emissions and employee participation in motivating, developing and/or implementing these measures. They concluded that engagement with emissions reduction at the workplace level is more likely where employee participation has a substantive role (Markeya, McIvora and Wright, 2016). This recent study shows evidence that employee engagement is still a very important factor that we cannot do without in the establishment of green culture and in the pursuit to achieve green organisations.

#### **4.2.5. THE HUMAN-RESOURCE DIVISION DOES NOT PLAY ANY STRATEGIC ADMINISTRATIVE ROLE IN GREENING OF THE INSTITUTIONS**

In determining how the HR roles of being strategic partners, employee champions, administrative experts and change agents as categorised by Ulrich (1997) can be aligned to

facilitate green issues within the institution the following information was provided by interview participants:

- a) **Strategic Partner Role** – All participants interviewed indicated that there is no Green HR strategy in place in their respective institutions and from the institutional strategy there are no green plans filtered down to HR neither are they aligned to any HR strategy. All participants also concurred that if there were any green plans, HR has a potential to contribute greatly as they are a shared services department that has the capacity to influence all employees within the organisation. They are the heart of the organisation.
  
- b) **Administrative Partner Role** - Efficiency will need to be improved, with a vast number of HR processes performed daily, processes will need to be fast, better, smarter and cheaper. This means using technology and other efficient methods in HR processes and procedures to achieve fast and efficient delivery of services. A huge majority of the interviewees who are of course managers, and some in senior levels of authority within HR divisions, indicated that in this area, they do indirectly encourage staff to use resources efficiently. During the interviews they also mentioned that they observed that on a voluntary basis, some employees do save resources depending on one's level of awareness on green issues as well as on their backgrounds. Recycling, reusing, shredding, switching off copiers, computers and lights when not used, using access codes to determine each employee's consumption level and sharing printers, copiers etc. are some of basic things done in their HR units to minimise wastage of resources.
  
- c) **Change Agent Role** - All interviewees agreed that HR can contribute immensely in embedding change in employee behaviour and practices with regards to resource efficiency or green issues. Nonetheless they all admitted that they have been very complacent in this regard and have played an insubstantial or no role at all in assisting organisations to become green and sustainable. Hence the results here were that all participants stated that there is nothing much or substantial that has been done in their institutions to assist in the transformation of institutions to go green.
  
- d) **Employee Champion Role** - Employee championing means equipping and empowering employees with knowledge and skills on green processes and it also means being a human capital developer (Ulrich and Brockbank, 2005) In the results here; all

interviewees stated that they have done nothing towards championing green initiatives in their respective institutions. Some of the reasons they gave during interviews are that they have enough already on their plate. One manager even put it this way

*With the role of HR division evolving and expanding every day, it will be unfair for the university to give HR Practitioners more functions over and above what they already juggling with. (Interviewee, Female, 38)*

Another interviewee mentioned that

*Our job (HR Practitioners) is already too much and too complicated, especially as HR Practitioners serving higher education institutions in South Africa with all the transformation and changes taking place in this sector, from mergers of different institutions who had different cultures that took place a couple of years back to the current challenges of insourcing and others, we are still overwhelmed and overburdened, therefore it will be unwise for us to take more work than we already have (Interviewee, Male, 49)*

Overall, most Managers expressed a view that taking on greening projects will be biting off more than they can chew and they settled on the opinion that it will do them most good to focus more on their core HR functions.

#### **4.2.6. GREEN CULTURE, CHANGE AND LEARNING IN THE INSTITUTIONS**

A notable number of the participants clearly and openly stated that there is nothing much that has been done in their institutions with regards to embedding a green culture, green work principles and behaviour, and that there were no change programmes and learning programmes in place in this regard. About less than half of participants didn't give a clear cut response but gave various statements in answering the question of culture, change and learning; one participant stated that:

In our institution, *people conserve out of habit and their own personal values and convictions, we have no formal learning and culture change programmes in place* (Interviewee, female, 38)

Another participant stated that

*Conserving resources is just a sensical [sensible] thing to do for most and it also depends on a person's background and awareness of green issues*(Interviewee, Female, 39)

One other participant stated that

*establishing green culture within the institution is not an HR only type of activity, it will require a collective effort from all employees, all levels, all departments and executive management support in order for it to be a success* (Interviewee, Female, 47)

In a study to identify environmental corporate cultures and their relevance conducted in 5 paper-manufacturing organisations in the UK, it was found that there are four most important components of environmental corporate culture, and those components are; co-operative environmentalism, technological growth orientation, centralised damage limitation and socially concerned administration (Wehrmeyer and Parker, 1995 cited in Wehrmeyer, 1996). This then shows that building an environmental culture within the organisation will require an holistic overhaul or change of the organisation, from management and employee cooperation and engagement, to upgrading technology and a display of socially responsible behaviour. Universities surveyed in this study still have a long way to go to make sure that they change their cultures to be environmentally efficient.

In consolidating the above results, one still gets the picture that there is no established green organisational culture in all three institutions. Individual employees only do the basics out of habit, such as when they switch off lights, air conditioners, computers, printers and copiers after work. Even those couple of employees who dispose their used paper on the few recycling bins on some campuses they do it on a voluntary basis and out of their basic

knowledge and awareness of the importance of saving natural resources. There is no planned and set learning programmes in place and there is no planned culture change in place. Of course one does recognise ground that has been covered as far as technological upgrading is concerned, but more cooperation, awareness drives and engagement of all parties, transformation and change of processes, actions and behaviour still needs to be improved drastically to achieve green culture.

#### **4.2.7. THERE ARE POTENTIAL CHALLENGES IN GREENING INITIATIVES**

The question was asked: Has there been any resistance and other challenges towards adoption of green practices within your institutions and what do you think were the causes of such challenges or resistance if there has been any witnessed. A third of participants boldly responded that since there has been no formal green initiatives introduced in their institutions as far as they know and since there is no policy and no enforcement regarding greening issues in their institutions, they have not observed any resistance or challenges in this regard. They also expressed the view that they believe challenges and resistance can only be determined and measured if there is policy and enforcement in place, which of course makes a lot of sense in this regard. Other participants then attempted to answer this question from another perspective of assuming that if there were official greening programmes in place in their institutions this is what they believe would happen in their own words:

*I think there can be resistance as most people are accustomed to old ways of doing things ...Older people specifically can resist as they are the ones attached more to their 'beloved' paper, e.g. I have had an experience where one will request something like a certain HR policy, I will email the policy to them as it is a fast and efficient way to do it, most people especially the older generation will complain about this and request a hard copy of the policy which can be + 100 pages of printing, wasting paper, ink and time that would have been avoided if they accepted an electronic copy (Interviewee, Female, 34)*

Another participant stated that

*Resistance to change is a human habit, and where people do not see how something will benefit them personally, there will always be some form of resistance*  
(Interviewee, Female, 42)

One other participant in responding to the question said:

*Why should there be resistance? What do they have to lose? What would be seen as negative on going green?"* (Interviewee, Female, 47)

These responses, as much as they were frustrating to the researcher because of their polarised nature, from another point of view they were very profound and insightful as they brought about an expansion to the greening of organisations discourse. They interrogated various issues, including the issue of *age* when it comes to using technology as a tool to becoming green. An important issue is that of human *habits* and tendencies to do what we know and what we are comfortable with as human beings. The issue of *benefits* also came to the fore as some assumed that it is a human habit when something new is introduced to always ask the question ‘what will this benefit me’ before they comply and implement. These are issues that I believe requires further research. These issues need to be investigated further to determine the true nature of what they are all about. In a study done in the UK to determine the reasons why people are not engaged in greening activities in general, from business organisations to the society at large, Jackson and Janghoon (2010) cited ‘Apathy’ as perhaps the single most significant barrier, ‘resistance and apathy within all or some of the stakeholders in the organisation can pose a challenge in the process of greening the organisation’.

#### **4.2.8. THERE ARE POTENTIAL CHALLENGES FOR THE HR DIVISION IN ASSISTING THE INSTITUTIONS TO GO ‘GREEN’**

In this study participants were asked to explain what specifically they think would be the challenges for the HR division to assist institutions/organisations to go green? The following answers were provided by participants. The dominant challenge mentioned by most HR

Managers was the issue of *costs* and financial demands as they viewed greening as a practice that will require financial investments in order to improve technology, infrastructure, money for training and awareness campaigns etc. According to the majority of responses all these activities will need substantial funds to be implemented successfully. A second challenge mentioned by the majority of managers interviewed was the fact that HR is already *overburdened* with work that forms the core HR activities. Having an additional function focusing on green issues would stretch their capacity to a point of exhaustion. Thirdly, another participant stated that HR practitioners are *not experts* on green efficiency issues, and that alone will be a challenge as experts in that specific field will be required to establish a knowledge base for this to be successful. As a result, some participants felt that there would have to be a separate unit set up within HR where new people consisting of both HR and environmental or green specialists will have to be employed to drive these green initiatives within the division and institution. A fourth challenge mentioned by participants was the problem of *resistance* to change as one participant even mentioned that;

*Selling the idea to HR staff alone firstly, will also not be a walk in the park, there are natural pessimists who take a long time to see good in anything new or unfamiliar to them* (Interviewee, Female, 52)

Lastly, one participant mentioned that

*Being an educational institution we cannot avoid using paper, paper will always be the challenge in this journey* (Interviewee, Female, 29)

In a Survey of 691 companies done in the US by the *Society for Strategic HRM*, BSR and Aurosoorya, found that “although the majority of companies (68 per cent) were engaged in some form of sustainable workplace practices, 28 per cent of companies were not engaged in any type of sustainable initiatives. The top obstacles preventing organisations and the HR division from implementing sustainable workplace or business practices were: 1) costs of launching, 2) difficulty measuring return on investment, 3) lack of support from the organisation’s leaders, 4) costs of maintaining practices, and 5) lack of internal capacity or knowledge” (Society for Human Resource Management \*(SHRM), 2011, p.5) All these findings are consistent with the findings in this study as mentioned by HR Practitioners surveyed. The challenge of costs was mentioned prominently by those surveyed in this



study. Lack of support from top management or university executive management and some practitioners mentioned that for HR to champion green issues, organisational strategy from the top will need to mention greening of the university and be aligned to HR strategy and policies. Lack of a knowledge base in the HR division in terms of having environmental efficiency experts or specialist within the HR division was also mentioned as one of the profound challenges that HR would face when implementing Green HRM activities.

#### **4.2.9. THERE ARE BENEFITS OF ADOPTING GREEN HRM PRACTICES IN THE INSTITUTION AND IN ANY ORGANISATION.**

All interview participants agreed that there will be benefits in adopting green HRM practices in the institutions. Key words that came out from all participant's responses were the words; *save* and *efficiency*. Saving money, time and resources. Time efficiency, resource efficiency, economic efficiency, streamlined and organised processes, fast turnaround time were some of the benefits mentioned. One other participant even stated that

*this will maximize benefits for the institution and their clients as service delivery will be improved at reasonable costs” (Interviewee, Female, 39)*

#### **4.2.10. GREENING IS NOT A PRIORITY IN INSTITUTIONS OF HIGHER LEARNING AS THERE ARE OTHER PRESSING PRIORITIES**

One of the questions put to participants was : If not much has been done regarding green HRM in your institution, what do you think are the reasons for that?

A huge majority of participants said that they had no idea at all why universities are so complacent when it comes to greening of campuses. While the rest of the participants mentioned that; in a university setting, there are other pressing priorities, e.g. issues of transformation, fees and insourcing protests, funding for student fees, insourcing and outsourcing staff and other priority issues. Green issues are not popular nor are they in the key list of university priorities at the moment, as a result of these pressing priorities . Green issues are then pushed to the back of the list of issues to attend to. One other reason for this problem of complacency from people or organisations when it comes to green issues is ‘Apathy’ as reflected in most studies of Green HRM (Jackson and Janghoon, 2010) and

environmental management as also stated above under ‘resistance and green challenges’. One participant stated that

*Maybe in the near future, green issues will be in the forefront of issues to be addressed by universities in South Africa, seeming that the challenges of water and energy shortages are also slowly creeping in, but for now other issues have taken ... prominence (Interviewee, Female, 52)*

### **4.3. CHAPTER SUMMARY**

In this chapter meaningful results from the interviews as contextualised within the objectives of the study were presented and discussed. Key themes that emerged from the data collected were used as subtopics in a structural layout of results to facilitate easier studying of results and to ensure that all objectives and questions of the study were addressed in this presentation and discussion of results. Verbatim presentation of participant’s responses was also quoted in the presentation of data in order to convey the participant’s emotions, feelings, convictions and sentiments in their responses during interviews. Findings from previous studies done in different countries globally and found within the body of knowledge in the discipline of Green HRM were also compared and contrasted with results of this study to see if there were any similarities, consistencies or differences in findings from different studies. The next chapter will present and report findings from the quantitative (questionnaires) results. The results emanating from both qualitative and quantitative studies will also be discussed collaboratively just to outline important findings and themes that came out of this study as a whole. Discussing the two (qualitative and quantitative results) together will also highlight any consistencies or inconsistencies that might have emerged from the two.

## **CHAPTER 5**

### **PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS: QUANTITATIVE STUDY**

#### **5.1. INTRODUCTION**

In this chapter the results of the quantitative study are presented, analysed and discussed. A census method of data collection was used to collect quantitative data. As mentioned above in Chapter 3, a census method is when all members of the target population participate in the survey. Questionnaires were distributed and sent to all 60 Human- Resource division employees in the three institutions of higher learning in KwaZulu-Natal which were not part of the interviews. There were 39 closed-ended questions in the questionnaire. Questions were formulated and phrased in such a way as to facilitate responses from this particular group to the research question and objectives and to assist the researcher to come up with meaningful conclusions to the study. Questionnaire structure was subdivided into different categories that were: demographical details of respondents, awareness and understanding of the concept 'Green HRM', how strategies, policies and HRM activities can facilitate greening within the institution, how change, culture and learning can be used as tools to embed a green culture in the organisation, HR roles in the greening of the organisation, and lastly the benefits and challenges that can be experienced in greening efforts within the organisation. A total of 53 questionnaires were completed and returned by HR Practitioners, which placed the response rate at 88 per cent. Using a variety of appropriate statistical tests, the data emanating from the survey were analysed and interpreted in order to identify important patterns and relationships.

The captured quantitative data were analysed by using Statistical Package for Social Sciences - SPSS Version 24. Appropriate statistical tests were conducted, which in this case were; descriptive statistical tests (central distribution, frequency variables) inferential tests (Anova, Shapiro-Wilk, Kruskal-Walis, T-tests, Spearman's rank correlation, Normality QQ tests and the Cronbach Alpha test). Descriptive as well as inferential statistics were produced from the collected data. The results obtained from the statistical analysis of the data are presented in various tables and graphs below. The first section below presents and discusses data on the key demographic profiles of respondent in this study. The descriptive statistics

are presented through the use of bar charts as presented below in this chapter and frequency tables (presented in Annexure E). The second section of the discussion, which constitutes the major part of this chapter, presents and discusses results of the Green HRM variables within the institutions surveyed through the use of both descriptive and inferential statistics. The variables presented and discussed include, understanding of the concept 'Green HRM by HR Practitioners, Green policies and strategies, Green HRM activities, learning, change and green culture within the institutions. A variety of appropriate descriptive analyses (section 5.2 to 5.7 below) and inferential analyses (section 5.8 below) are presented, explained and discussed below. Data emanating from the survey were analysed and interpreted, in order to identify important patterns and relationships with the ultimate objective of answering the research questions and fulfilling the objectives of the study.

## **5.2. PRESENTATION OF RESULTS: DESCRIPTIVE STATISTICS**

*Descriptive statistics* - are concerned with the description and/or summarisation of the data obtained from a group of individual units of analysis (Welman, Kruger and Mitchell, 2005). Descriptive statistics are the most efficient means of summarising the characteristics of large sets of data. The aim of descriptive analysis is to provide a summary of the sample (or population) in terms of the variables of interest (Tustin et.al., 2005). A number of statistical techniques can be used to undertake a descriptive analysis, these include frequency distributions, location measures (mean, median, mode), dispersion/ variability measures (range, variance and standard deviation) (Tustin et.al., 2005). The mean is the average measure of central tendency, the median is the middle or central item in a group of observations, the mode is the most frequently occurring phenomenon in a set of observations (Sekaran and Bougie, 2013). Measures of dispersion which includes the range, variance and the standard deviation are used with interval and ratio data, they assist one to determine the variability levels that exists in a set of observations. In this study descriptive statistics were used to present the demographic results of respondents such as their age, gender, work experience and position levels. Descriptive statistics were also used to give a clear summary and picture of respondent's responses to all the questions and variables of this study such as the numbers and percentages of those who are aware of the concept Green HRM, its policies, strategies and activities.

The descriptive statistics are presented through the use of frequency tables, bar charts and pie charts. Meaningful results are contextualised within the objectives of the study. The discussions here also explore and examine the extent to which HR divisions, in the institutions surveyed, follow the principles of Green HRM and involve Green HRM in their daily activities. Analyses and discussions here also focus on key variables of the study as mentioned above, which are; *policies and operational strategies* of these institutions and whether any greening elements feature in their HR policies and strategies. HR daily *activities and roles* are also explored to determine how Green HRM is incorporated into such roles and activities. How the HR *divisional culture and institutional culture* is involved in the greening activities is also looked at. Lastly, *benefits and challenges* experienced in relation to Green HRM and greening activities in general within the institution are also explored and discussed. Findings of existing Green HRM studies across the globe also form part of the analysis and discussions in order to determine important, consistencies, similarities, differences, patterns and relationships. In the presentation and discussions below, meaningful results are contextualised within the objectives of the study and the following relevant variables from the objectives of the study are presented:

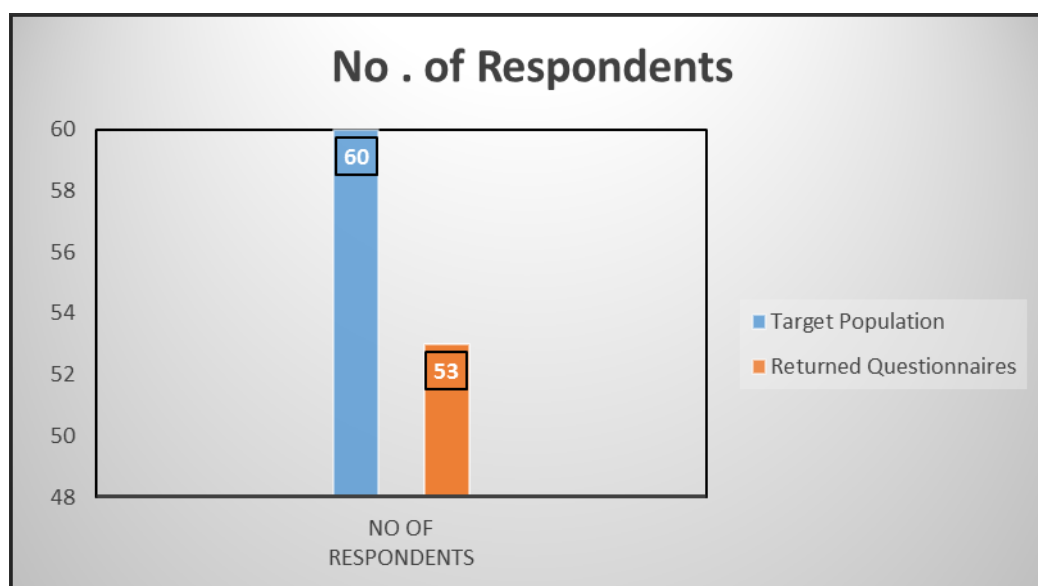
- Demographics of respondents;
- Green policies and strategies in institutions;
- Green HR activities and roles within the institutions;
- Green culture, learning and change strategies;
- Green HRM Benefits and Challenges in the institutions; and
- HR and Institutional efforts in greening.

The weighting of the questions on the 5-point Likert scale was as follows; (Strongly Disagree =1), (Disagree = 2), (Uncertain = 3), (Agree = 4) and (Strongly Agree = 5).

### 5.3. PRESENTATION OF RESULTS: DEMOGRAPHICS

#### 5.3.1. NUMBER OF RESPONDENTS

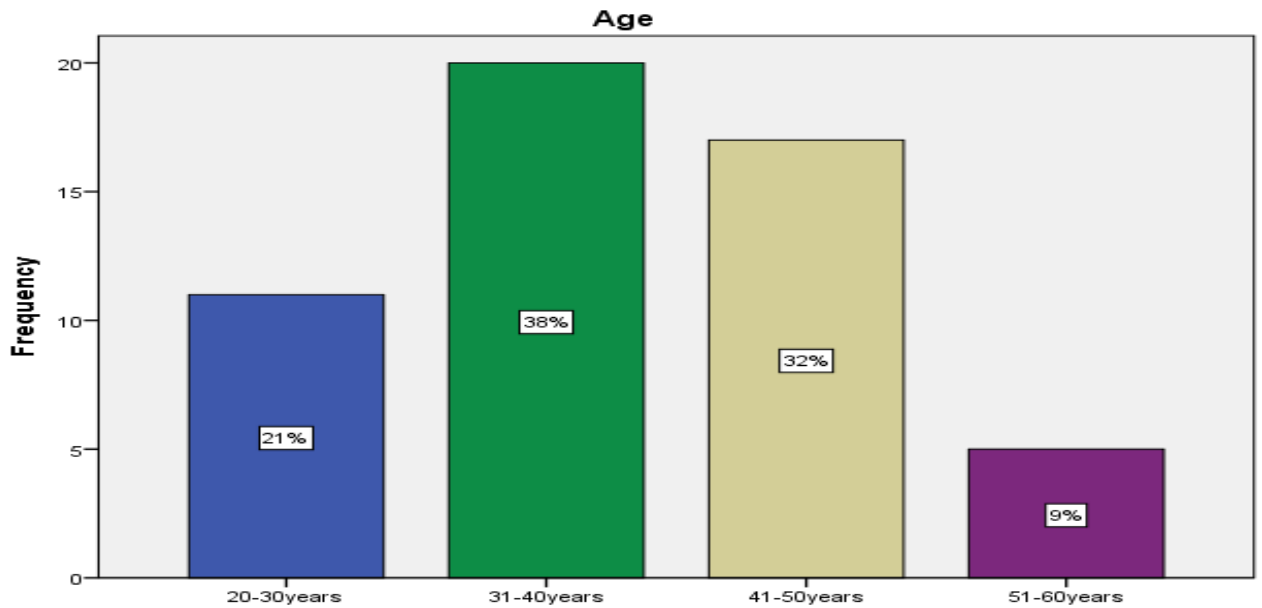
The figure below (figure 5.1) shows that the total number of respondents to questionnaires was 53 from the three institutions surveyed. Since the total population that was targeted for the quantitative study was 60, this means that the response rate was 88 per cent of the targeted population, which is a good response rate that can allow one to generalise findings within the higher education institutions in KwaZulu-Natal.



**Figure 5.1: Number of Respondents**

#### 5.3.2. AGE DISTRIBUTION OF RESPONDENTS COMBINED

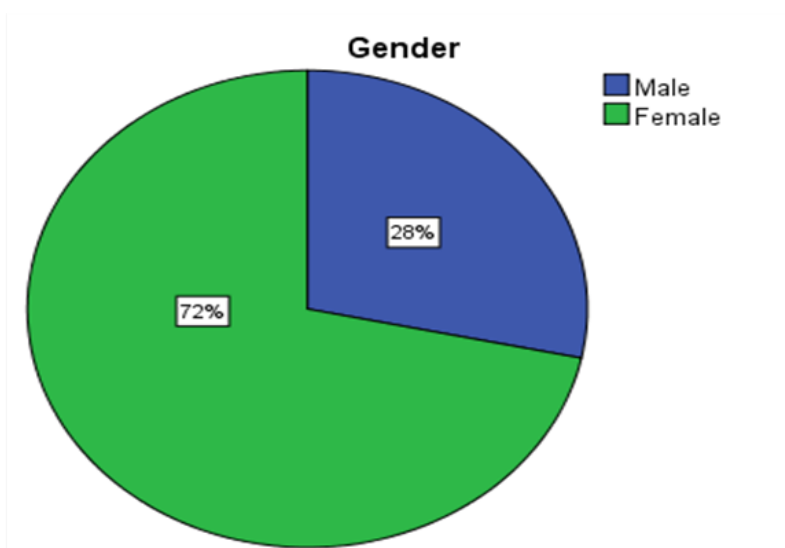
Figure 5.2, below, reflects that the majority of respondents were between the ages 31 to 40 years representing 37.8 per cent of the sample followed by the age group 41-50 years which was 32 per cent of the respondents. The 20 to 30 years old group was 20.8 per cent and smallest group were the 51 to 60 year olds making up 9 per cent of the respondents.



**Figure 5.2: Distribution of Respondents Age**

### 5.3.3. GENDER DISTRIBUTION OF RESPONDENTS COMBINED

The majority of respondents were females as they were 71.7 per cent of the total respondents and males were 28.3 per cent as shown below in figure 5.3. On an interesting note, this has confirmed the researcher’s prior observation of the HR division staff complement across the sectors, not only in higher education. The researcher observed that the HR profession has more females than males. The results in this study confirm this as it shows that the majority of Human-Resource Practitioners are females as the profession seems to attract more females than males. The majority of the studies and official statistics in the discipline also confirm this. The CIPD in the UK states that roughly 70 per cent of their members are female ([www.cipd.co.uk](http://www.cipd.co.uk)). In 2016 the US Department of Labour, bureau of labour statistics revealed that 73 per cent of HR managers are women ([www.bls.gov](http://www.bls.gov)) and in a study by HRxAnalysts in Denmark, 69 per cent of HR Practitioners are women and just above 70 per cent of HR employees are women ([HRxanalysts.com](http://HRxanalysts.com)) In South Africa, a Grant Thornton study in 2011 revealed that 7 out of 10 HR Practitioners are women but only 21 per cent of females are employed as HR Directors ([grantthornton.co.za](http://grantthornton.co.za)) It will be an interesting study to further probe the reasons why this particular profession seems to attract more females than males.



**Figure: 5.3: Respondents' Gender**

#### **5.3.4. OCCUPATIONAL POSITION LEVELS OF RESPONDENTS WITHIN THE HR DIVISION**

The majority of respondents for questionnaires were operational level staff with 88.7 per cent of them responding to the questionnaires as shown in figure 5.4 below. Middle managers who responded to questionnaires represented 11.3 per cent. It should be noted that in the interviews section of this study only senior and management level staff participated, which might also give a reason why there were more operational level respondents for questionnaires.

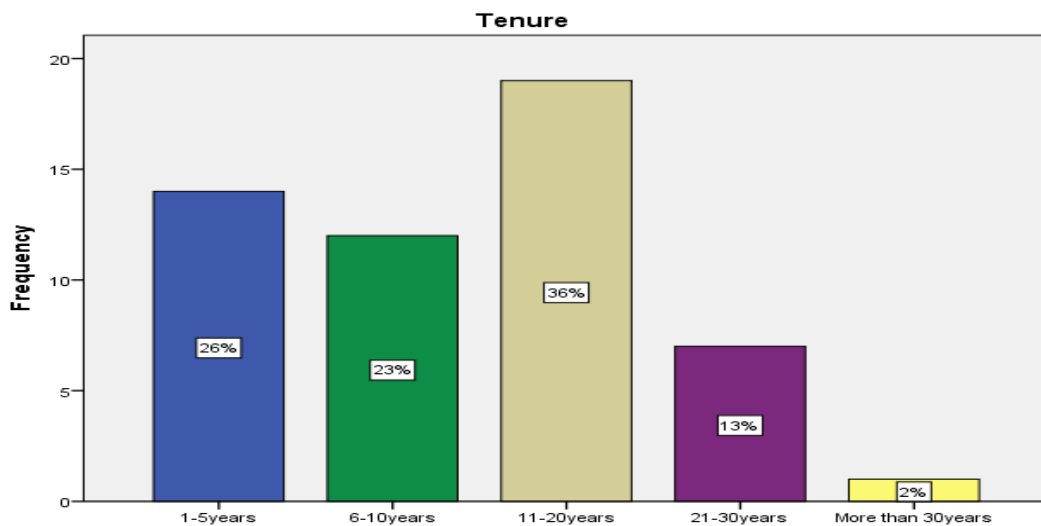


**Figure 5.4: Respondents' Position levels**



### 5.3.5. RESPONDENTS' YEARS OF EXPERIENCE IN HR

Indicated in figure 5.5 below, the majority of respondents had 11 to 20 years of experience in HR i.e. 35.8 per cent of them. They were followed with those that have 1-5 years' experience which was 26.4 per cent of them. The highly experienced Practitioners that have 21 to 30 years' experience were 7 per cent. Having a majority of respondents with 11 to 20 years of experience is a good news for the study as it means that most people who gave their input in the study through filling up the questionnaires are people with greater insight into HR practice and that give one some level of confidence in the accuracy and richness of the information received.



**Figure 5.5: Respondents' Tenure (No. of years' experience in HR)**

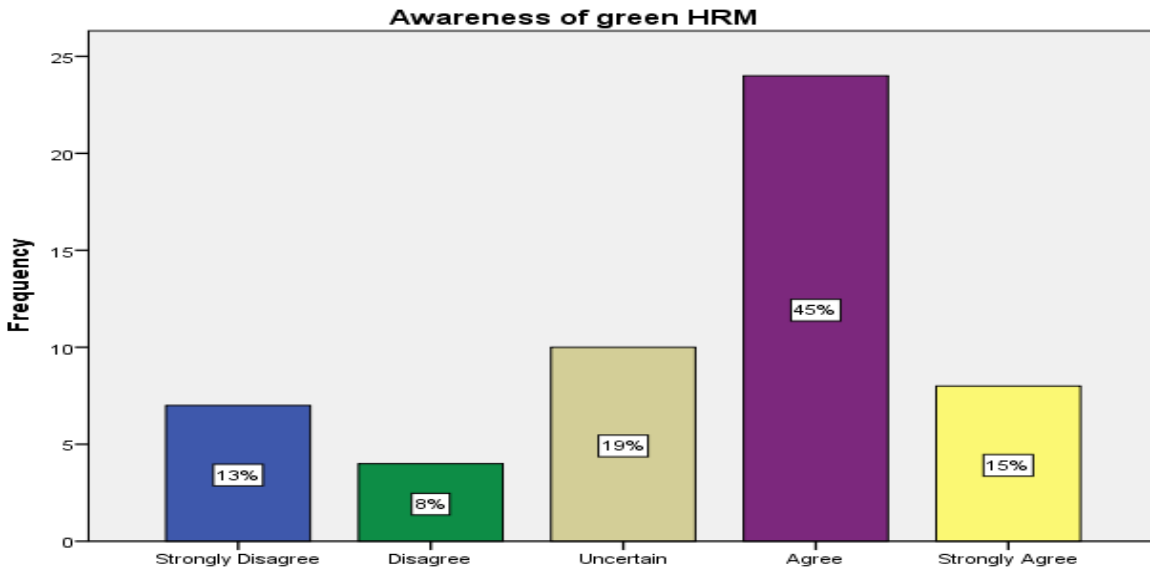
In the following sections below, descriptive statistics results are presented, explained and discussed. The results are categorised according to each of the objectives of this study.

## **5.4. OBJECTIVE 1: TO INVESTIGATE GREEN HUMAN RESOURCE POLICIES, STRATEGIES, AND ACTIVITIES THAT THE INSTITUTION CAN EMPLOY IN THE MOVEMENT TOWARDS SUSTAINABLE GREEN PRACTICES.**

### **5.4.1. AWARENESS OF THE CONCEPT 'GREEN HRM'**

Asked if they are aware of the concept 'Green HRM', as indicated in figure 5.6 below, the modal response here was Agree, with 45 per cent of the respondents agreeing that they do have some level of understanding of the concept 'Green HRM'. 15 per cent strongly agreed that they do fully understand the concept 'Green HRM'. This then means about 60 per cent of the respondents had an understanding of the concept. When combined, 21 per cent of the respondents indicated that they have no understanding of the concept 'Green HRM'. In table 5.1, below, the mean average is (3.42) which indicates that more than half of respondents agreed that they are aware of the concept 'Green HRM' with a Modal (mode) response of 4 which is 'Agree'.

These results are consistent with the results received from the interviews as both in the interviews and in the questionnaires results around half of respondents indicated some level of awareness and understanding of the concept, while less than half of respondents indicated lack of awareness and understanding of the concept. This is also consistent with the results found in an Indian study where they found that a little less than half of employees are completely unaware of the term 'Green HRM' while the remaining employees have slight awareness (Sarode, Patil and Patil, 2016). There is also some correlation with a study conducted in India by Sakhawalkar and Thadani (2013), who explored Green HR Practices and the responsiveness among the employees of I.T. sector in the Pune Region of India. It was found that 82 per cent of the respondents are aware of the term 'Green HR'. It was further mentioned that people who are not aware of the term Green HR are aware of the practices, which is basically the same trend that appeared in this particular study. These results give hope that Green HRM discourse has the potential to be moved forward towards practical and implementation stages if the foundation of awareness and understanding is already set.



**Figure 5.6: Awareness of the Concept ‘Green HRM’**

**Table 5.1: Understanding of the Concept ‘Green HRM’**

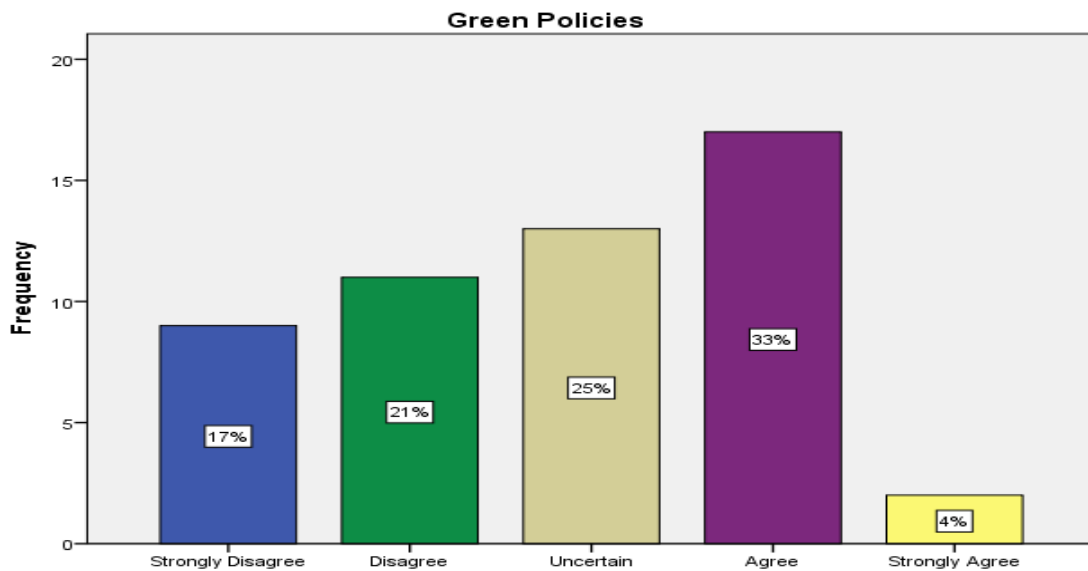
	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.42	4.00	4	1.232

#### **5.4.2. GREEN HRM POLICIES**

Under Green HRM policies, figure 5.7, below, shows that the majority of respondents disagreed that there are green clauses in HR policies. With a total of those disagreeing being 38 per cent In table 5.2, below, the mean is (2.85) which indicates that less than the average number of respondents agreed that HR policies include any clauses of greening and resource efficiency.

The main finding here is that there aren’t many green HR policies in the institutions. This is a worrying factor and not a good sign if the aim is to move towards resource efficiency and greening of the institutions. Policies are very important especially in the public sector institutions as they are the foundation that guides all decisions and activities within the institutions. Having findings like this should be of concern to those in authority, especially if there are ambitions to transform institutions into resource-efficient and environmentally sustainable entities. Green policies are the foundation of green and sustainable organisations, therefore these policies should be

in place to achieve ‘green campuses’. Looking at the results from interviews, consistency is also revealed here as the majority in both interviews and questionnaires revealed that there were no green HR policies or green clauses in HR policies. This is one of the critical areas of concern as policies are the drivers of action and change, especially in public sector institutions. Without policies it will be very difficult to change the status quo and difficult to drive change and to move the institutions in a green trajectory. The researcher did not come across specific policy studies on Green HRM, but the value and importance of having solid and clear policies as drivers of green HRM principles has been echoed long time ago by most scholars in this field. Some of those scholars are Bohdanowicz et al., (2011). They mentioned that, the greater the strength of green human resource policies, the greater is the intensity of adoption of environmental management systems within organisations (Bohdanowicz et al., 2011 quoted in Cherian and Jacob, 2012). The conclusion is that policies and how they are enforced are the foundation that can ensure that green practices are taken seriously in the organisations and are implemented accordingly.



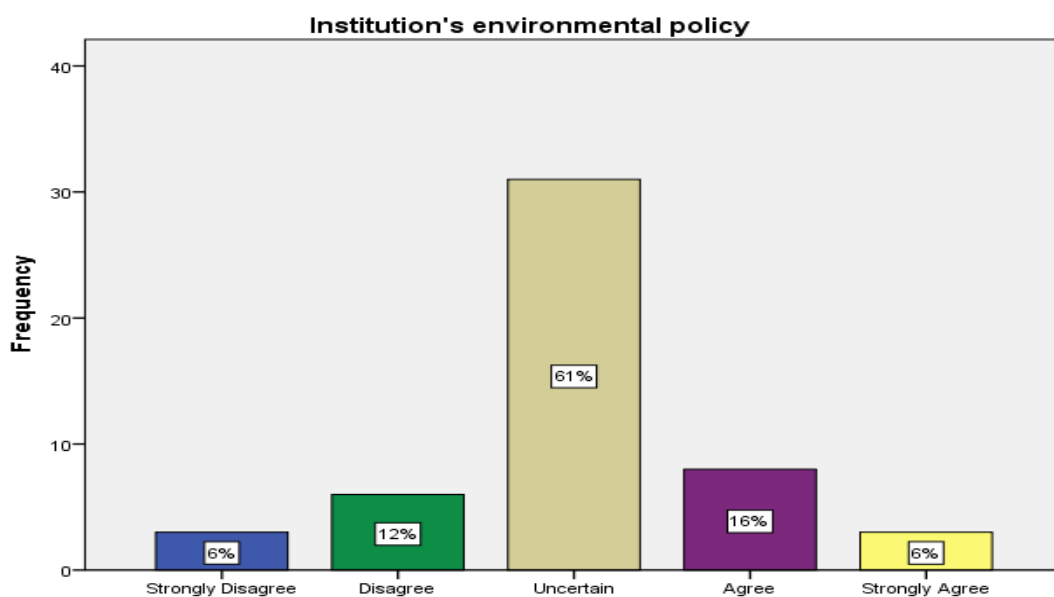
**Figure 5.7: Green HRM Policies**

**Table 5.2: Green HRM Policies**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	52	1	2.85	3.00	4	1.178

### **5.4.3. ENVIRONMENTAL POLICY IN THE INSTITUTION**

Asked if they were aware of any environmental policies in their institutions, the majority of respondents as shown in figure 5.8 below indicated that they were 'Uncertain' representing 61 per cent of them, meaning they were unsure if there were any policies or not. Table 5.3. below indicates that the modal (mode) response was 3 which is 'Uncertain', while the mean was (3.04) reflecting that just slightly above an average number of respondents were 'Uncertain' or unsure if their institutions have a policy or not. This level of 'ignorance' on green issues has been stated in studies by Ramus and Stager (2000) who discovered that in most organisations environmental management is not the focus of many line manager's attention, even in firms with a clear environmental commitment and policies many HR managers will still perceive greening of the organisation as not part of their job description, hence they will ignore any initiatives in this regard. (Ramus and Stager, 2000 cited in Ramus, 2002). Similarities between the findings from questionnaire and interviews in this study can again be observed here as the majority of participants in both interviews and questionnaires did not know whether there was any environmental policy or policies in their institutions. This ignorant perception by HR Practitioners towards greening issues and green policies, as discovered in this particular research, is again consistent with what most scholars also observed in their studies and mentioned in their research papers on Green HRM. Those scholars include; Daily, Huang, (2001); Jabbour and Santos, (2008); Liebowitz, (2010); Shatouri, Omar and Igusa, (2012); Jacob and Cherian, (2012); Dutta, (2012); Prasad, (2013); and Ahmad, (2015). They all mentioned that HR Practitioners believe that environmental sustainability activities in organisations are not within their mandate. They see them as the responsibility of other divisions such as production, marketing, health and safety and others but not HR, and therefore they tend to distance themselves from any environmental sustainability efforts and greening activities within the organisations.



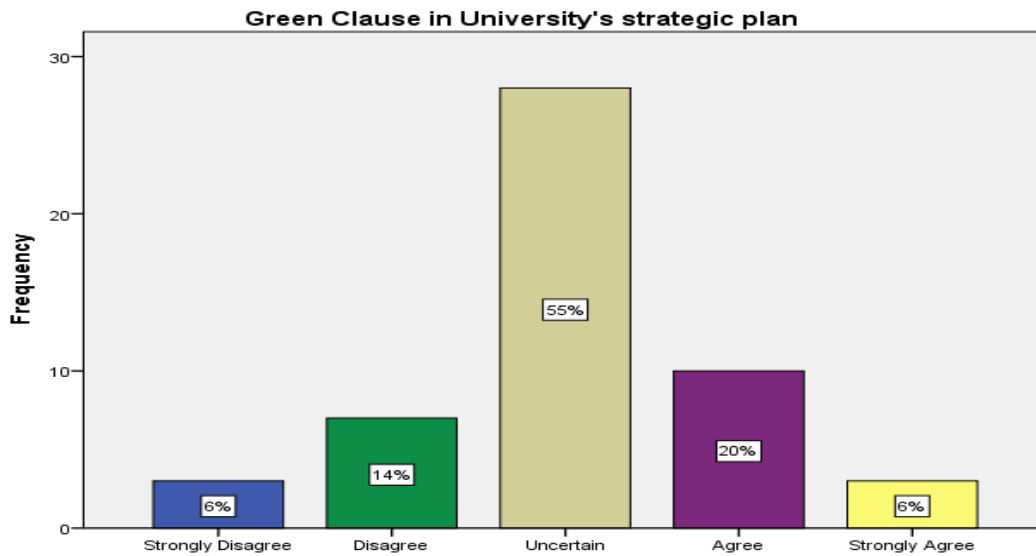
**Figure 5.8: Institution's Environmental Policy**

**Table 5.3: Institution's Environmental Policy**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	51	2	3.04	3.00	3	.871

#### 5.4.4. GREEN CLAUSE/S IN UNIVERSITY'S STRATEGIC PLAN

Figure 5.9, below, shows that the modal response was 'Uncertain', with 55 per cent of respondents not sure whether the institution's strategic plan does have some greening clause in it or not. In table 5.4, below, the mean is (3.06) which indicates that slightly more than an average number of respondents were uncertain/unsure if their institution's strategic plan incorporates greening plans or not. The mode is 3 meaning that most responses here were mainly 'Uncertain' or 'unsure'. The majority of participants in both interviews and questionnaires did not know whether or not there were any green clauses in the university's strategic operational plan as they do not see that linking with their functions within the organisation.



**Figure 5.9: Green clause in the University's Strategic Plan**

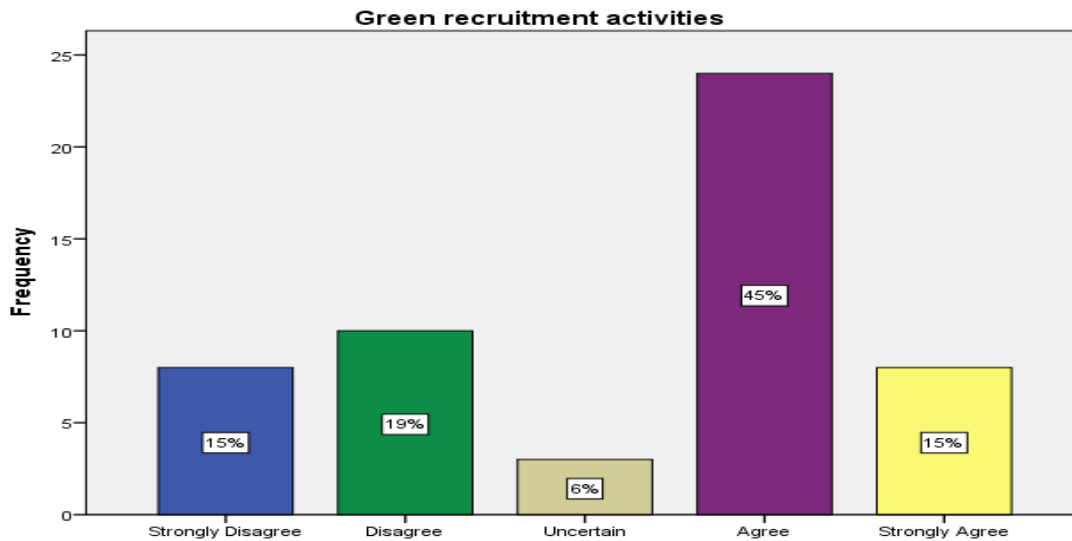
**Table 5.4: Green clause in University's Strategic Plan**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	51	2	3.06	3.00	3	.904

#### 5.4.5. GREEN RECRUITMENT ACTIVITIES IN THE INSTITUTION

The main finding in this area was that the majority of respondents agreed that in the recruitment processes in their institutions, resource-efficient green activities are applied. Figure 5.10, below, shows that 45 per cent Agreed and 15 per cent Strongly agreed, bringing the number of those who agreed to 60 per cent. Table 5.5, below' reflects a mean of (3.26), which indicates that more than the average number of respondents agreed that green processes are incorporated into their recruitment processes. The Modal response was 4, which means that most of the respondents chose the 'Agree' option. There is a similarity of findings again here as both majority of participants from the interviews and questionnaires indicated that the recruitment processes used in their institution were in line with green and efficiency principles with (80 per cent interview participants agreeing and 60 per cent agreement from questionnaires). This is something that deserves acknowledgement and it should be welcomed as it shows that there is awareness and willingness to embrace resource-efficient recruitment methods in recruitment which is a step in the right direction in the ambitions of greening the organisations and for being on par with the global trends and

institutions in this regard. Evidence from previous studies states that companies that use green recruitment practices have a greater potential to attract high talent and good quality candidates who are also green-conscious (Wehrmeyer, 1996; Stringer, 2009 cited in Jackson et al., 2011; Grolleau, Mzoughi and Pekovic 2012). Other studies also found evidence that green recruitment provides a good image for the organisation as well as cost efficiency benefits (Gupta, 2016; Aqayo, 2008; Smith and Rupp, 2004; Haddas, 2004; Chapman and Webster, 2003)



**Figure 5.10: Green Recruitment activities**

**Table 5.5: Green Recruitment activities**

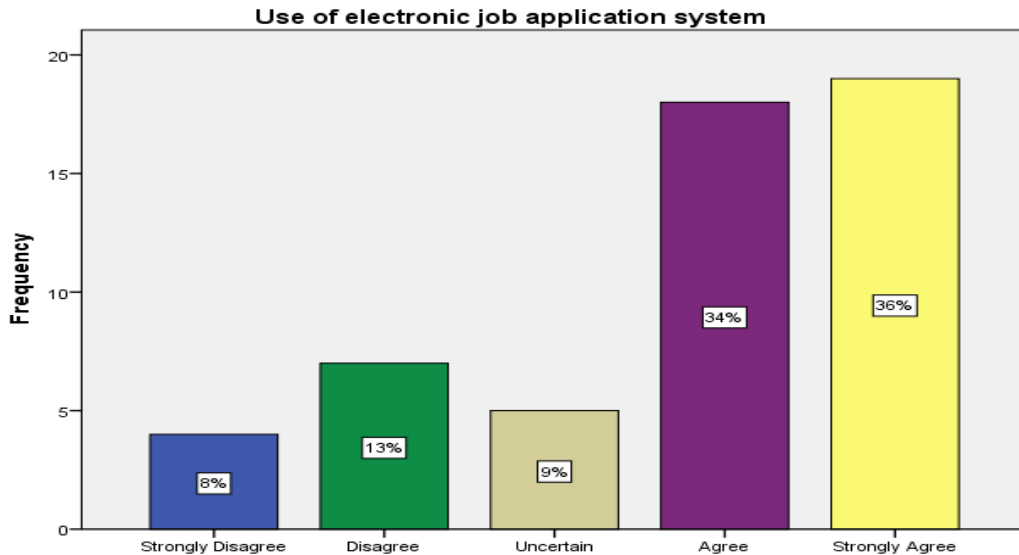
	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.26	4.00	4	1.347

#### 5.4.6. USE OF ONLINE/ ELECTRONIC JOB-APPLICATION SYSTEM

When participants were asked if in their recruitment process allowed candidates to send in their job applications electronically, the majority of respondents ‘Strongly agreed’ which was 36 per cent of them, while 34 per cent ‘Agreed’ (see figure 5.11 below). The two percentages of those who agreed when combined reflect that those in agreement were 70 per cent. In table 5.6, below, the mean is (3.77), which indicates that most respondents leaned towards ‘Agree’ while the mode is 5 which indicates that most responses were option 5 which is ‘Strongly Agree’. The main finding here was that online job application systems



are now the norm when applying for jobs in higher education institutions. This is a great stride towards saving paper resources and other resources and towards greening HR activities in general.



**Figure 5.11: Use of the electronic job application system**

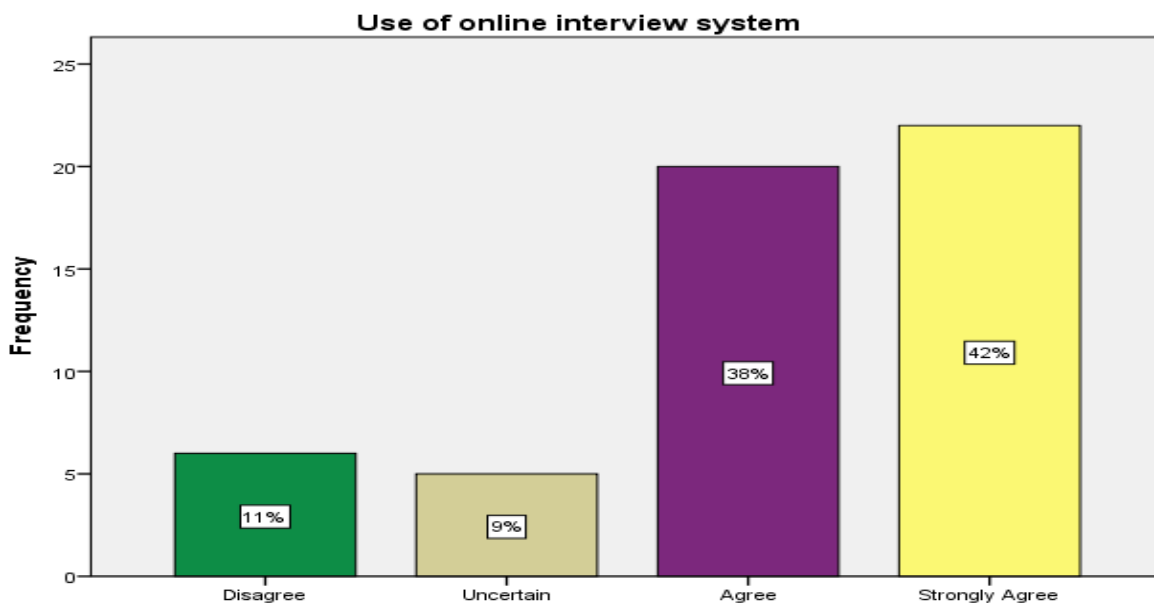
**Table 5.6: Use of electronic job application system**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.77	4.00	5	1.281

#### 5.4.7.USE OF ONLINE/ ELECTRONIC INTERVIEW SYSTEM

Participants were asked if they use the online interview system for candidates that are far from the institution or as part of green recruitment. Figure 5.12 below reflects that the majority of respondents Strongly agreed at 42 per cent and ‘Agreed’ at 38 per cent when combined it means 80 per cent agreed that they use an online interview system. In table 5.7, below, the mean is (4.09), which indicates that the majority of respondents fully agreed that they use an online interview system in their institutions and the mode is 5, which indicates that most people’s answer to this question was ‘Strongly Agree’ . The main finding here is that an overwhelming majority ( 80 per cent) fully agreed that in their institutions electronic, resource- efficient processes are used. This is one of the areas where the institutions have

really covered some ground towards using green resource-efficient processes. In a study of companies in the Pune region of India, Sarode, Patil and Patil (2016) found that about 59 per cent of the companies they surveyed were adequately equipped and encouraged to use video conferencing, E-recruitment, E-HRM and other technology-efficient HR processes, while the other 41 per cent of organisations surveyed were not techno-savvy. In her Masters research where she surveyed a South African company looking at the impact of implementation of e-HRM processes in the HR division, Van Heerden (2011) found that 40 per cent of those she surveyed agreed that the pre-selection stage recruitment activities such as, online job application processes, interviewing and other assessment activities done via e-HR processes are effective. These studies and more are a confirmation that using online recruitment processes is now the trend and direction that progressive companies are taking and that there are more pros than cons in the use of online recruitment and interview systems. This should be a motivation for organisations to consider migration from paper-based manual recruitment processes to the online, fast and efficient recruitment processes.



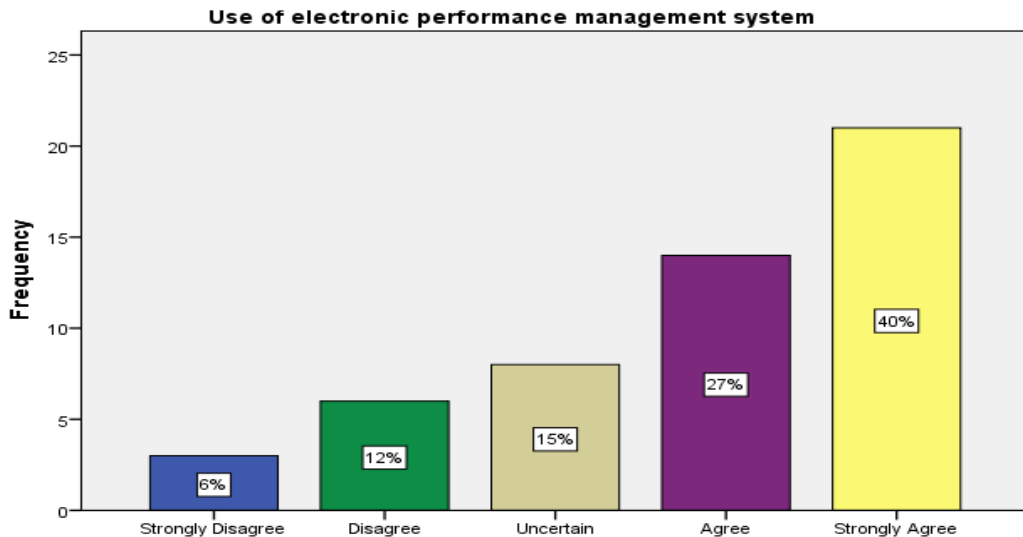
**Figure 5.12: Use of an online interview system**

**Table 5.7: Use of an online interview system**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	4.09	4.00	5	.986

#### **5.4.8. USE OF ONLINE/ ELECTRONIC PERFORMANCE MANAGEMENT SYSTEMS**

Asked if the performance management system that is used in their institutions was electronic, as indicated in figure 5.13 below, the majority of respondents with 40 per cent 'Strongly Agreed' while 27 per cent 'Agreed' bringing the total of those who were in agreement to 67 per cent. Table 5.8, below, reflects a mean of (3.85) which is an indication that the majority of respondents leaned towards agreement and a mode of 5 which indicates that most respondents, in response to this question, chose the option 'Strongly Agree' Again, there is consistency in the results from both interviews and questionnaires with regard to this area of performance management. The majority of respondents in interviews agreed that the PM system in their institutions was electronic and efficient. The results that indicate that most responses agreed that the PM was electronic and efficient were mainly from UKZN followed by Unizulu, who's system was being improved during the time of this research as well as at DUT. These results also show a progressive move towards greening some of the key services of the HR Department in higher education institution, which is a positive step forward in a journey to achieve green HR divisions and ultimately green institutions. In other studies; in the study within the National Health Services in England, Pinzone et al., (2016) found that including environmental aspects in performance management increases employees' willingness to put extra effort into environmental management (EM) initiatives. In fact, employees perceive the use of 'Green' Performance Management practices as a positive signal of their organisation's concern for the environment (Pinzone et al., 2016).



**Figure 5.13: Use of an electronic performance management system**

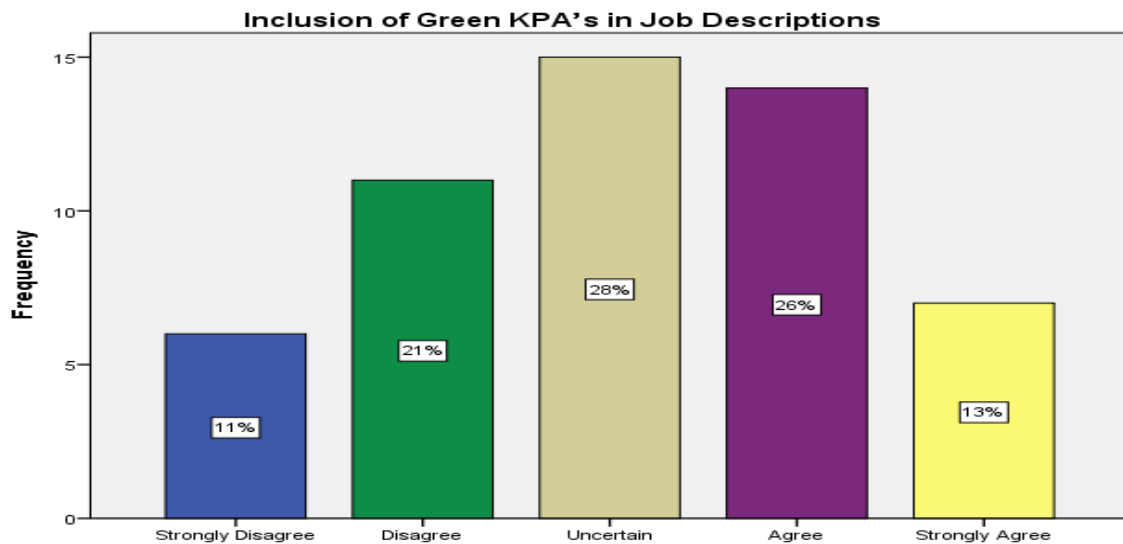
**Table 5.8: Use of an electronic performance management system**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	52	1	3.85	4.00	5	1.243

#### **5.4.9. INCLUSION OF GREEN KPA'S (Key Performance Areas) IN JOB DESCRIPTIONS**

Results as shown in figure 5.14, below, reflect that 26 per cent of the respondents 'Agreed' that green KPA's are included in job descriptions of employees. 13 per cent 'Strongly Agreed' Table 5.9, below, reports a mean of (3.09) which indicates that most respondents were 'Uncertain' or unsure of whether or not green KPA's were part of most employees job descriptions. This might be because of the fact that most HR Practitioners indicated that details in job descriptions in their institutions are usually drafted and agreed upon by the employee and his/her immediate supervisor in their respective units. This then makes it difficult for HR Practitioners to be fully conversed with what is entailed in each and every employee's job description. The main finding here was that a notable number of employees agreed that there is some kind of green KPA's in their assessment, although when the researcher did some informal follow up questions in this area, most respondents reflected a limited understanding of what Green KPA's entail. This is also reflected by a highly notable number of those whose response was uncertain. Results here should be taken with discretion

and the Researcher will advise that further research should be done in this specific area in order to reach more conclusive findings. As stated, the modal response (mode) as reflected in table 5.9, below, was therefore ‘Uncertain’ for this particular question. As much as the percentage of those who agreed that KPA’s are included in the job description is promising with a total of 39.6 per cent of those who agreed, much still needs to be done to ensure that green KPA’s are included in every employee’s job description and that they are formally performance assessed. This will be a motivator for employees to put an effort into green initiatives within the organisation. In a study done in Pakistan by Jabbar and Abid (2015), they found that if employees are involved in eco-initiatives and are forced to practice green HR policies, then they would do better in organisational environmental performance regardless of whether they are satisfied with their jobs or not. This then emphasises the fact that policies are vital as drivers of performance within the organisation. Therefore performance expectations and standards should be linked to policy in order to be taken seriously by employees and to be implemented accordingly. Studies have also provided evidence that, including environmental aspects in performance management, increases employees' willingness to put extra effort into environmental management (EM) initiatives (Pinzone et al.,2016).



**Figure 5.14: Inclusion of Green KPA’s in Job Descriptions**

**Table 5.9: Inclusion of Green KPA's in Job Descriptions**

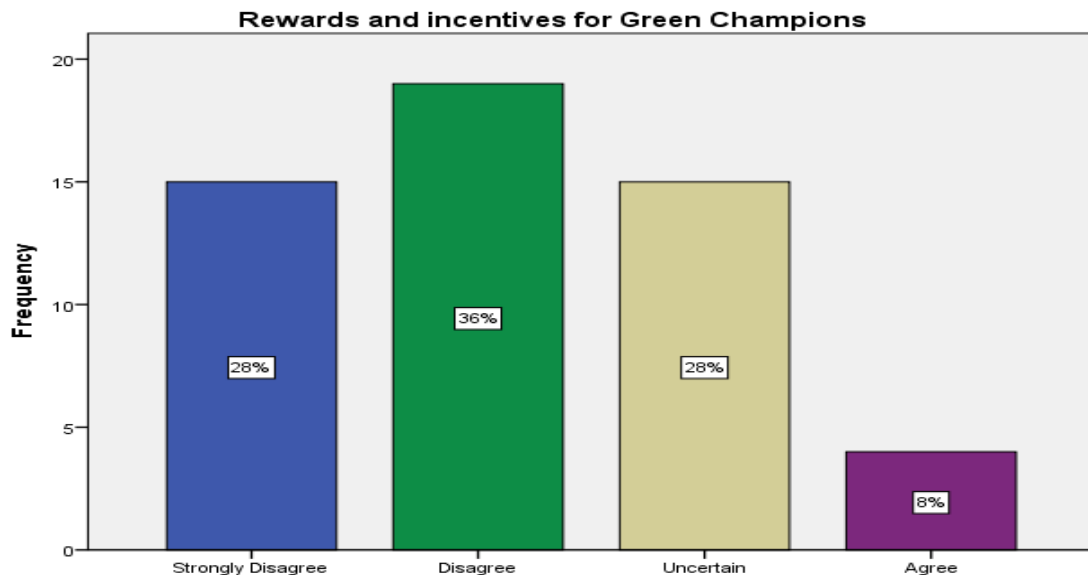
	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.09	3.00	3	1.213

#### **5.4.10. REWARDS AND INCENTIVES FOR GREEN CHAMPIONS**

The modal response here, as shown in figure 5.15, below, was 'Disagree' with 36 per cent of respondents indicating that there are no rewards and incentives for employees who take green initiatives in their institutions and 28 per cent 'Strongly Disagreed'. The total combined for those who disagreed is 64 per cent. In table 5.10, the mean is (2.15) and the mode is 2. This indicates that the majority of respondents 'Disagreed' with the statement as they indicated that no incentives and rewards were provided to those who initiated and championed green initiatives in their institutions. The main finding here was that no rewards and incentives were provided to employees who took on greening initiatives within the institutions, most of these employees took such initiatives on a voluntary basis and as motivated by their own personal values.

These results are also consistent with the results from interviews as a notable majority of participants in interviews also indicated that there were no such rewards and incentives provided to employees who champion green initiatives within the organisation. This is of course something that higher education institutions, or any other organisation for that matter, should take into consideration when deciding to adopt green culture. The majority of studies in this area (as stated in section 2.9.5. of chapter 2 above) have proven that providing incentives to employees, who put a greater effort into green initiatives, becomes a motivator for all to be involved as rewards will benefit both the individuals and the organisation and ultimately everyone. Ramus (2002) found that managers who recognise and reward employees who participate in eco-initiatives using formal reward initiatives, public rewards and praise had successful environmental projects in their organisations. A study conducted in the UK by CIPD/KPMG estimated that 8 per cent of UK firms were rewarding green behaviour with various types of awards and/or financial incentives (CIPD/UK, 2007 cited in Ahmad, 2015), and it was found that these practices can be effective in motivating employees to generate eco-initiatives (Ahmad, 2015) Another study whose results are similar, to the ones found in this study is that done in Puerto Rico by Soto (sa). In that study

it was found that only 23 per cent of the companies surveyed have some green rewards and incentives in place to reward green behaviour within companies, and 77 per cent of companies have no such rewards in place. Soto continues to state that reasons for this are because “environmental and sustainability initiatives are too often viewed as something noble to do for the planet but not something that is a responsibility of all individuals. As long as this attitude prevails, going green will always be seen as something nice to do when there is spare time and money. It is leadership's responsibility to frame sustainability as the business issue that it is. Employees need to understand the strategic case for pursuing sustainability, the threats associated with ignoring it, and the opportunities it presents” (Soto, \*sa) .



**Figure 5.15: Rewards and incentives for Green Champions**

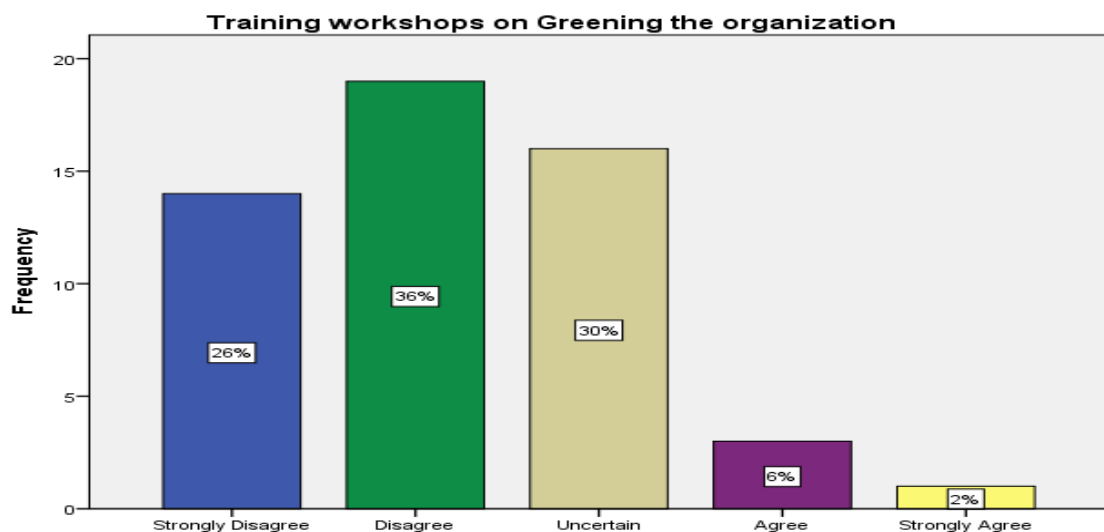
**Table 5.10: Rewards and incentives for Green Champions**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	2.15	2.00	2	.928

#### 5.4.10. TRAINING WORKSHOPS ON GREENING THE ORGANISATION

As shown on figure 5.16, below, the majority of respondents 'Disagreed' that there are training and educational workshops on greening conducted by HR in their institutions. With 36 per cent who 'Disagreed' and 26 per cent who 'Strongly Disagreed' putting the number of those who indicated that there are no educational trainings and workshops on greening the institution and green living in their institutions at 62 per cent. In table 5.11 below, the mean is (2.2) which shows that most respondents disagreed with the statement as they indicated that no training workshops on greening the organisation were conducted in their institutions. The mode is 2, which also indicates that the majority of respondents 'Disagreed' with the statement. Similarities between the two groups are also manifested here as both results show that the majority from interviews and questionnaires indicate that there are no training and educational programmes provided to employees in the institutions on greening issues. The main finding here was that no training workshops and educational awareness programmes are provided to employees on greening of the institutions.

This should also be something that higher education institutions or any other organisation wishing to embark on the greening journey should take into consideration. The majority of studies in this area (as stated in section 2.9.2. of chapter 2 above) have proven that providing educational awareness, training and skills to employees on greening and sustainable living contributes significantly to the success of green initiatives within the organisation (Millar, Sanyal, Camden, 2016; Leibowitz, 2010; Sammalisto and Brorson, 2006)



**Figure 5.16: Training workshops on Greening the organisation.**

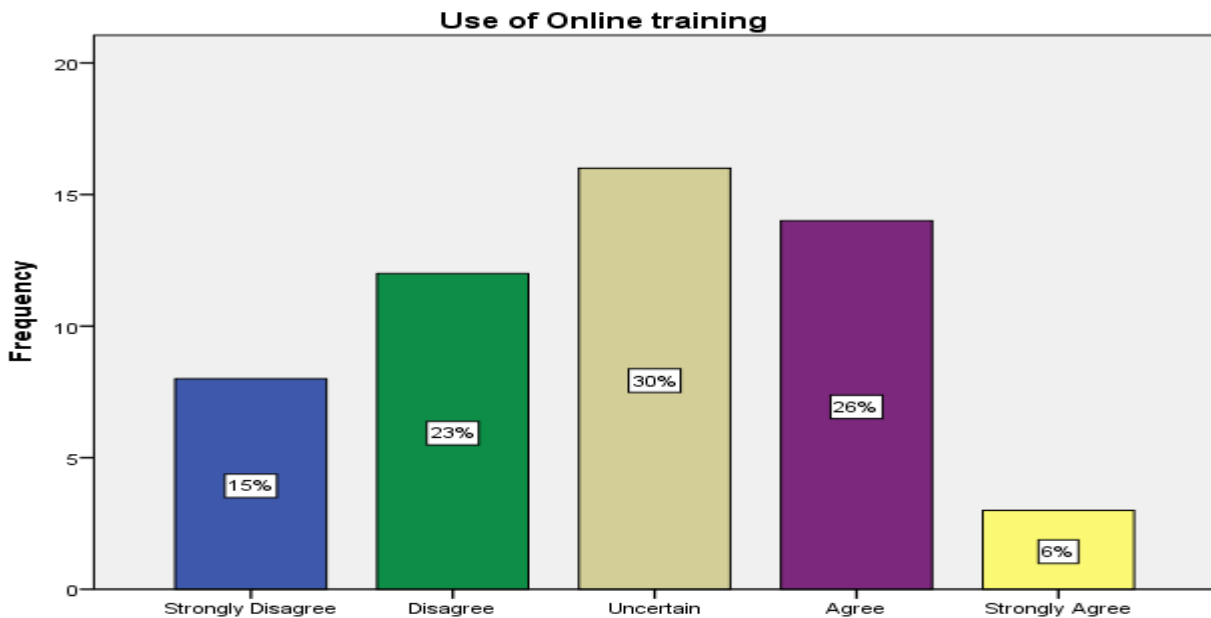


**Table 5.11: Training workshops on Greening the organisation**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	2.21	2.00	2	.968

#### 5.4.11. USE OF ONLINE TRAINING

Participants were asked if they use some online training especially where there is no need for employees to travel long distances to reach a training venue. As indicated in figure 5.17, below, the majority of respondents were ‘Uncertain’ in this area to the extent of 30 per cent of them. 23 per cent ‘Disagreed’ and 15 per cent ‘Strongly Disagreed’ putting those who indicated that online training is not used in their institutions at 38 per cent. In table 5.12, below, the mode is 3 indicating that the majority of respondents were ‘Uncertain’ and the mean is 2.85, which means that the majority of the respondents were in Disagreement’ with the statement indicating that online training was not used in their institutions.



**Figure 5.17: Use of online Training**

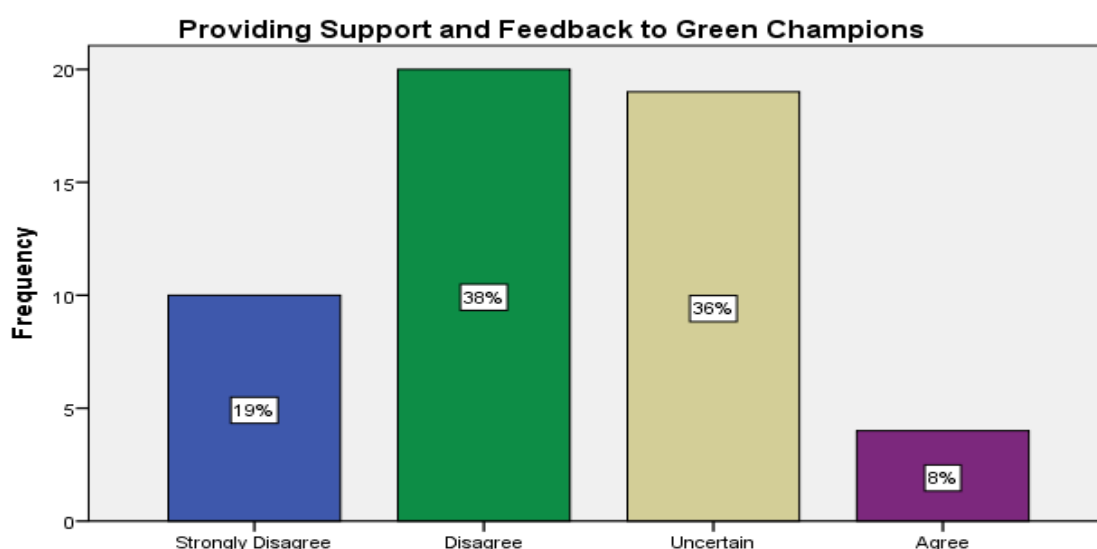
**Table 5.12: Use of online Training**

Valid	Missing	Mean	Median	Mode	Std. Deviation
N = 53	0	2.85	3.00	3	1.150

#### **5.4.12. PROVIDING SUPPORT AND FEEDBACK TO GREEN CHAMPIONS**

The question was asked whether or not the HR division provides any support and feedback to employees who are initiating and involved in green initiatives As shown in figure 5.18, below, the modal response was 'Disagree' at 38 per cent of respondents indicating that there was no such support and feedback given by HR to employees involved in greening initiatives and 19 per cent of respondents 'Strongly Disagreed' as well with the statement putting a total number of those who disagreed at 57 per cent. A notable number of respondents seemed to be uncertain/ unsure as 36 percent of them neither agreed nor disagreed. The mean response is 2.32, which is an indication that most respondents disagreed with the statement, and the mode was 2, which also shows that the majority 'Disagreed' (shown in table 5.13). Again, the results here were consistent with those from the interviews as the majority in both interviews and questionnaires indicated that support and feedback was not given to employees who are taking up green initiatives within the organisation.

This is not good for Green HRM discourse. Evidence has indicated that employee engagement is still a very important factor that we cannot do without in the establishment of green culture and green organisations (Ramus and Steger, 2000; Markeya, McIvora and Wright, 2016), as also indicated in (section 2.9.4, in chapter 2 above). More studies have emphasised the importance of employee involvement and feedback processes for greening initiatives to succeed, Penzone et al., (2016) in their study found that green employee involvement practices enhance collective organisational citizenship behaviour towards the environment (OCBE). Boiral added that employees are more inclined to make discretionary environmental efforts if the organisation creates opportunities for them to take initiatives, make suggestions and share knowledge (Boiral, 2002 cited in Penzone et al., 2016) and collaborate with other actors to implement new initiatives addressing environmental issues in the organisation.



**Figure:5.18: Providing Support and Feedback to Green Champions**

**Table 5.13: Providing Support and Feedback to Green Champions**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	2.32	2.00	2	.872

## **5.5. OBJECTIVE 2: TO DETERMINE HOW CULTURE, CHANGE AND LEARNING INTERVENTIONS CAN BE USED AS TOOLS TO EMBED A GREEN CULTURE**

Table 5.14, below, displays results on questions that were posed to determine if the HR divisions in the institutions surveyed are playing any role to embed green culture through change of employee behaviour and attitudes towards general activities and habits. Also it was explored how the HR division is assisting employees to learn new attitudes and behaviour that promote resource efficiency and greening of the organisation.

As indicated in table 5.14, below, mainly employees were not allowed to work from home, although travelling has negative consequences for carbon emissions which can be minimised if more employees can be encouraged by HR to work from home if there is no need to come to the office on certain days. There are no respondents who strongly agreed to this work

from home practice as it shows 0 per cent response in strongly agree and a very small percent of 4 per cent who agreed, which then means work from home practice is mainly not encouraged. On the other hand, encouraging staff to share cars through carpooling and lifts is also something that HR never really encouraged as there is also 0 per cent response under strongly agree and a mere 6 per cent agreed, which then gives one a conclusion that the carpooling idea is also something that is not encouraged. Regarding encouragement of reuse and recycling of natural resources such as paper, plastic etc. there was some slight encouragement with 41 per cent agreeing and 8 per cent strongly agreeing.

Asked if there were any observable staff actions to save resources such as water, electricity, paper etc., more than half of those surveyed agreed with 30 per cent agreeing and 28 per cent strongly in agreement. Enquiring if employees are involved in any environmental awareness campaigns within the institution at any particular time, the majority of respondents disagreed indicating that employees do not or are mainly not involved in such campaigns with 28 per cent strongly disagreeing and 36 per cent disagreeing.

Asked if there are day-care centres within their campuses that can be used by employees for convenience and to cut down on travelling, again the majority of employees disagreed that in their respective campuses there were day-care centres with 34 per cent of those who strongly disagreed and 19 per cent who disagreed.

Asked if they saw it as important to have green buildings, offices and other green artefacts in the institution, since there are some studies that have found out that having green buildings and offices increases employee productivity and boosts their health and well-being (Garzone, 2006; Miller, Pogue, Gough and Davis, 2009; Singh, Syal, Grady and Korkmaz, 2010), the majority of respondents agreed with 41 per cent agreeing and 36 per cent strongly in agreement.

In an attempt to determine the general attitude of employees towards saving of natural resources, results showed that 38 per cent agreed that it is important to save natural resources and 2 per cent strongly agreed. This was a very concerning result as it means that less than half of those surveyed (40 per cent), when combined, see the importance of saving natural resources. Having said that, one also needs to be aware of the fact that, education and awareness can play a major role in changing people's attitudes. If few employees are

involved in such campaigns (14 per cent agree and strongly agree combined), it is likely that only a few employees will see the saving of resources as important in this regard. Although most of them see it as important to have green buildings, artefacts and offices, their attitude shows that as much as they see it as important to live in 'nice' green spaces they also do not see it as important for them to be involved in creating these spaces. They see it as a responsibility of some other 'people' or units within the institution and not the responsibility of HR, which is consistent with the studies that found that the HR Division does not see greening of the organisation as part of their responsibilities or mandate (Daily and Huang, 2001; Jabbour and Santos, 2008; Liebowitz, 2010; Shatouri, Omar and Igusa, 2012; Jacob and Cherian, 2012). This is also consistent with the results shown on this same table (5.14), below, on efforts that HR has made towards greening the institutions with only 13 per cent of those who agreed that HR does put some effort into greening and 0 per cent who fully/strongly agree.

When asked if the HR Division has enough duties already within their scope and therefore greening functions should not be added to HR. Responses to this question left the researcher with more questions than answers as the majority of respondents disagreed with the statement, 39 per cent disagreed and only 16 per cent agreed. By disagreeing they were then indicating that the HR division does not have too much on their plate, if needed they can take up greening duties. This is the only question whose response showed inconsistency with findings in the interviews where most managers interviewed believed that HR is overloaded with work, therefore the division cannot afford to take green responsibilities unless a totally separate branch of green HRM with specialist staff can be established. Although one will also explain the inconsistency here due to the differences of levels between those who were interviewed and those who responded to questionnaires, as the majority of those interviewed were Managers while the majority of questionnaire respondents were operational level staff. This then means Management feel they are overloaded with work while the majority of operational staff feel that the load is manageable. This will be one of those topics that the researcher can recommend further investigation into to probe deeper and to look at all aspects. Disappointingly the institutional efforts towards greening were also seen to be minimal by HR Practitioners as there were only 2 per cent of those who strongly agreed that the institution as a whole from the top does put effort in greening and only 17 per cent agreed. Respondents were asked if they had observed any positive staff behaviour towards greening initiatives and employees making

an effort to take action to use resources efficiently. Combining those who strongly disagreed and disagreed, 35 per cent of respondents disagreed and when combining those who strongly agreed and agreed 28 per cent agreed while 36 per cent indicated they were uncertain or not sure. This means then that the majority of respondents have not observed any positive actions from fellow staff members on attempts to save and use resources efficiently. This means that for these higher education institutions, they still need to launch more education and awareness campaigns for their employees on going green and using resources efficiently. When asked if there is a 'Sustainability Co-ordinator' employed in their institutions, the majority of respondents indicated that they were not sure or did not know with a 57 per cent response from those who were 'uncertain', while 35 per cent disagreed (combination of strongly disagree and disagree), and only 8 per cent agreed (combination of strongly agree and agree). The researcher discovered that there are no specific 'Sustainability Co-ordinators' employed in all three institutions, except that one of the institutions had a Co-ordinator who focused on energy efficiency within the institution and who does not encompass all sustainability-related initiatives in his mandate.

Asked if there are any sustainability committees established in their institutions, the majority of respondents did not know hence 53 per cent of them were 'uncertain', 36 per cent disagreed (combination of strongly agree and agree) indicating that there was no such committee and 11 per cent agreed (combination of strongly agree and agree), the researcher here also discovered that in two institutions there are some sort of ad-hoc green committees who undertake green initiatives once in a while within institutions but these are not permanent committees, hence they are not fully engaged in greening operations on a daily basis within the institution.

Regarding employee resistance to being involved in greening activities there was more 'Uncertainty' with 58 per cent of respondents who neither agree nor disagree. One could also attribute the uncertainty, to the interview findings in this study where the majority of HR Managers stated that it will be very difficult to measure employee resistance on greening issues in the institution because there is not much formal expectation that employees should be involved in such activities. There are not many formal job descriptions that require employees to be involved in greening and hence not much of green KPA's can be measured during performance evaluations which is the best tool that can formally give us a clear idea if there was any resistance or not.

**Table 5.14. Green HRM: Culture, Change and Learning Aspects**

<b>Culture, Change and Learning Aspects</b>	<b>Number of Responses</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
HR encourages us to work from home if there is no need to come to Campus	53	57%	34%	6%	4%	0%
HR encourages us to use car-pooling, lifts or public transport when coming to work	53	30%	42%	23%	6%	0%
There are staff recycling and reuse projects in the institution	53	19%	15%	17%	41%	8%
There are HR-driven initiatives to save water, paper and electricity in the institution	53	9%	20%	11%	30%	28%
There are HR-driven environmental education and awareness campaigns	53	28%	36%	21%	11%	4%
There is a day-care centre for our kids on campus.	53	34%	19%	19%	19%	10%
There are green buildings and other green infrastructure and artefacts in the institution.	53	0%	4%	19%	41%	36%
What is the attitude of employees on saving natural resources?	53	8%	19%	36%	38%	2%
Behaviour of staff towards greening initiatives.	53	7%	28%	36%	26%	2%
Availability of a green committee	53	21%	15%	53%	9%	2%
Availability of a Sustainability co-ordinator	53	24%	11%	57%	6%	2%
The HR division has too much work within their scope. Greening duties should not be part of their duties.	53	22%	39%	17%	16%	6%
The HR Division efforts in greening the institution.	53	23%	30%	34%	13%	0%
Institutional efforts at greening	53	17%	19%	44%	17%	2%
Employee resistance towards greening efforts	52	2%	23%	58%	13%	4%

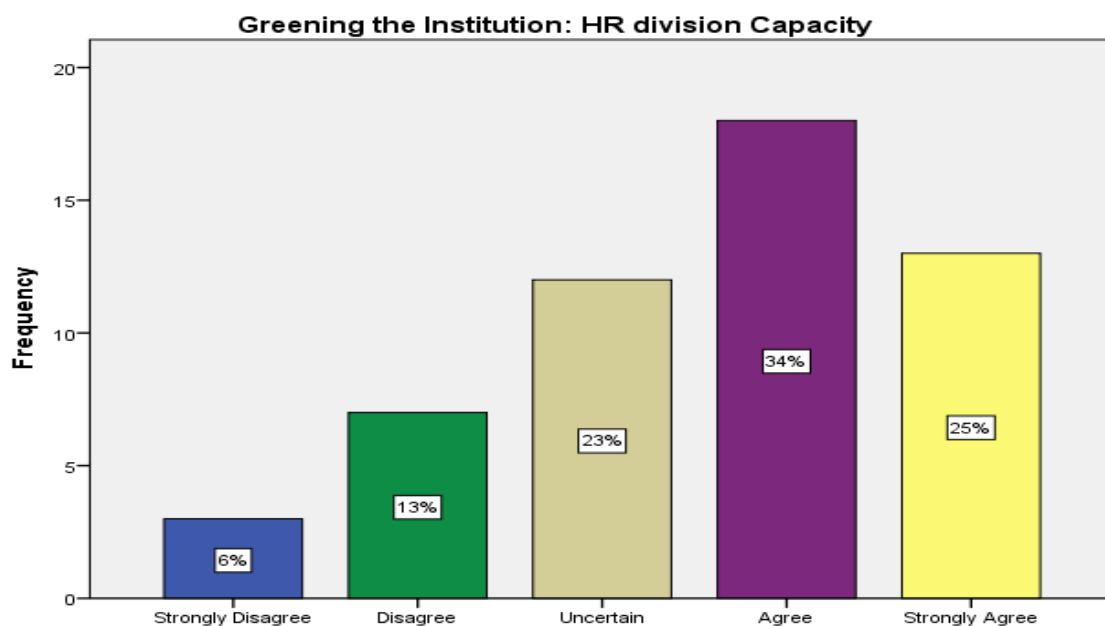
## **5.6. OBJECTIVE 3: HOW HR CAN PLAY A ROLE IN EMBEDDING GREEN AND SUSTAINABLE HR PRACTICES IN THE INSTITUTIONS**

### **5.6.1. GREENING THE INSTITUTION: HR DIVISION CAPACITY**

Asked if the HR division has the capacity to play a role towards contributing towards the greening of the institution; the majority of respondents 'Agreed' with 34 per cent agreeing and 25 per cent 'Strongly Agreeing' putting the number of those who believed that HR has capacity to contribute to greening of the institutions at 59 per cent as shown in figure 5.19, below. The results also show that those who did not see any capacity and contribution that HR could make towards greening of the organisation were 19 per cent in total combining those who 'Disagreed and Strongly Disagreed'. The number of respondents who neither agreed nor disagreed were 23 per cent. These results tell us that as much as HR practitioners do not want to involve themselves in organisation's green initiatives, (only 15 per cent HR involvement rate indicated in this study below), the majority of them or more than half of them still believe that HR does have the capacity to contribute towards having green institutions that use our natural resources judiciously and efficiently.

Table 5.15, shows that the mean was 3.58 which, of course, shows that there was an above-average number of those that believed that HR can contribute towards greening the institutions as also reflected in the mode which was 4, indicating that the majority of respondents 'Agreed' that HR can contribute to greening the institutions and organisations. Interview participants had a mixed view on this question although most of them agreed that the HR division has the capacity to contribute towards greening efforts in the organisation. They emphasised that, due to other factors such as being over-burdened with HR responsibilities, and focusing on other pressing priorities, green issues were not their priority focus at the moment. A notable number of interviewees said that although HR can contribute to greening initiatives in the organisation, they will need a bit of help from other experts such as environmental specialists, engineers, sustainability co-ordinators etc. They even suggested that a special wing in the HR Department will have to be created where a mixture of different experts from Human Resource experts, Public Relations or communication experts, Environmental management specialists, engineers and others will have to be part of the team focusing on green projects within the organisation.





**Figure: 5.19: Greening the Institution: HR Division Capacity**

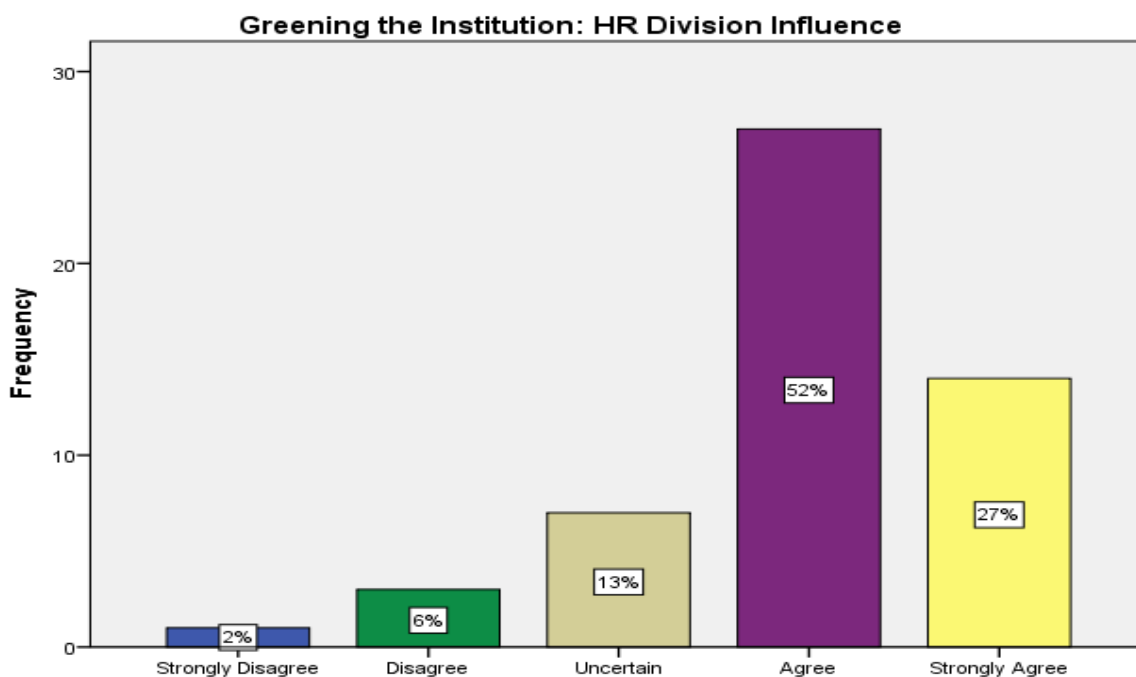
**Table 5.15: Greening the Institution: HR Division Capacity**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.58	4.00	4	1.167

### 5.6.2. GREENING THE INSTITUTION: HR DIVISION INFLUENCE

In an attempt to find out if the HR Division can have any significant influence on greening the institutions as they are one of the strategic partners and their function cuts across all divisions and units within the organisation/institutions. A question was put to HR Practitioners: to determine if their division could have any influence on embedding a green culture and, in broader terms, on greening the institution. Figure 5.20, below, shows that a notable majority of HR Practitioners agreed that HR can have a significant influence on greening, with 51 per cent of them 'Agreeing' and 27 per cent 'Strongly Agreeing' their total combined for those in agreement came to 78 per cent. Those who 'Disagreed' were 6 per cent and 2 per cent 'Strongly disagreed'. 13.5 per cent were 'Uncertain'. The mode was 4, which indicates that the majority believed that HR can have a significant influence on green organisations and the mean was 3.96, which also indicates that there were more than

the average number of respondents who agreed (as shown in table 5.16). Results from interviews indicated agreement that HR can play an influential role as a change-agent, transporting the institution to a green space. All interview participants concurred that HR can influence a move to a green institution. Explaining from the different roles that HR plays in the organisation, they mentioned that as strategic partners, change agents and employee champions, HR has a potential to contribute greatly as they are a shared services Department that has the capacity to influence all employees within the organisation. To reiterate a claim made earlier, the HR Division is the heart of the organisation.



**Figure: 5.20: Greening the Institution: HR Division Influence**

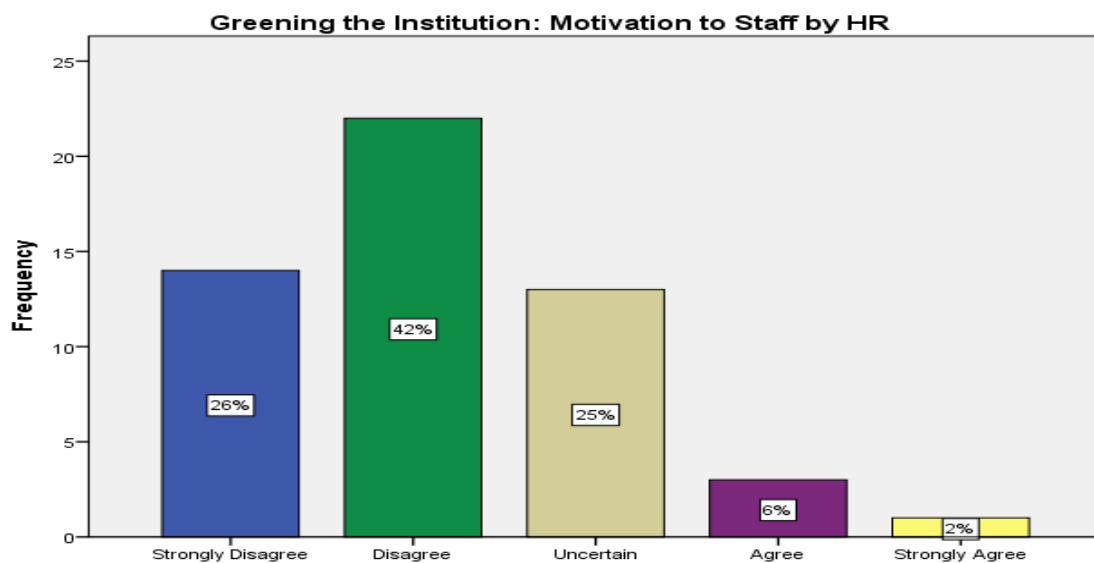
**Table 5.16: Greening the Institution: HR Division Influence**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	52	1	3.96	4.00	4	.907

### 5.6.3. GREENING THE INSTITUTION: MOTIVATION OF STAFF BY HR

To determine whether or not the HR division motivates employees to embark on greening initiatives, a question was posed to HR practitioners: Do you motivate employees to take

up greening activities in the institution? As reflected in figure 5.21 below, the modal response was ‘Disagree’ with 42 per cent of respondents while 26 per cent of them ‘Strongly Disagreed’ indicating that they are not playing any motivational role for staff on greening issues. Those in disagreement combined were 68 per cent. Table 5.17 below shows that the modal response (mode) was 2 indicating that the majority of respondents chose the option ‘Disagree’ and the mean was 2.5 which also shows that most respondents disagreed. HR Managers interviews from all three institutions admitted that there is not much they have done to motivate staff to be involved in green initiatives within the institution. About 60 per cent of interview participants clearly and openly stated that nothing much has been done by the Human Resource Division with regard to embedding a green culture, green work ethic and behaviour, and that there were no change programmes and learning programmes to motivate the employees in place in this regard. Other interview participants stated that if there were established green policies, strategies and top management support in this area, they believe that everyone was going to be motivated to be involved in green initiatives.



**Figure 5.21: Greening the Institution: Motivation to Staff by HR**

**Table 5.17: Greening the Institution: Motivation of Staff by HR**

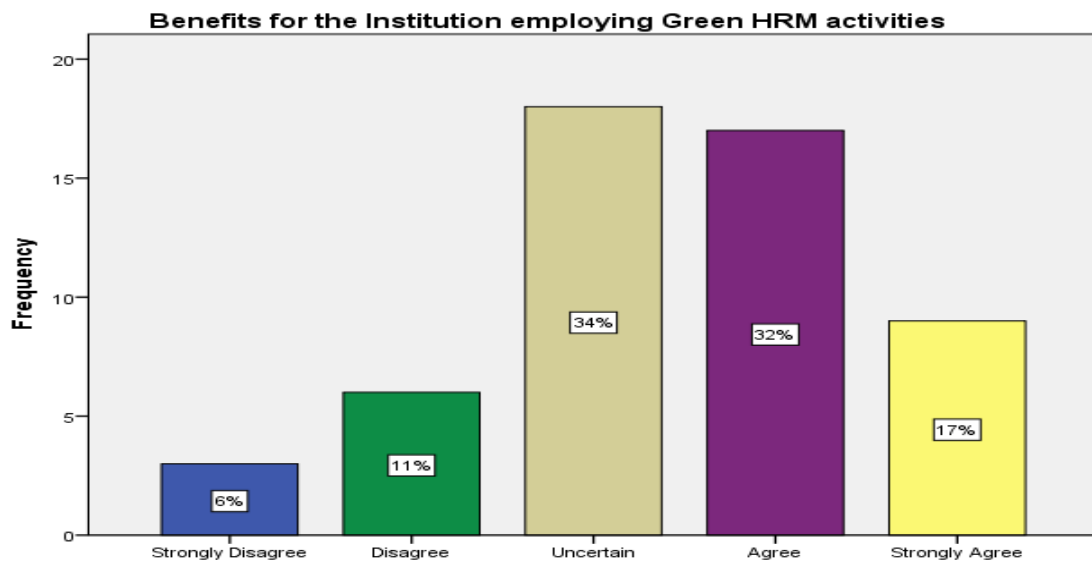
Valid	Missing	Mean	Median	Mode	Std. Deviation
N = 53	0	2.15	2.00	2	.949

## **5.7. OBJECTIVE 4. TO INVESTIGATE POTENTIAL BENEFITS AND CHALLENGES THAT THE HUMAN RESOURCE DIVISION AND THE INSTITUTION CAN EXPERIENCE IN THE QUEST FOR A GREEN AND SUSTAINABLE INSTITUTION.**

### **5.7.1. BENEFITS FOR INSTITUTIONS EMPLOYING GREEN HRM ACTIVITIES**

Participants were asked if Green HRM could yield any benefits for the institution when employed in daily practices. The modal response here, as shown below in figure 5.22, was 'Uncertain' at 34 per cent, although it is important to note that a significant number of respondents 'Agreed' at 32 per cent. Those who agreed felt that there will be benefits for the institution adopting Green HRM practices while 17 per cent strongly agreed, with an equal number of 49 per cent of those who agreed. This means that the majority of respondents agreed that there are benefits for the institutions in going green. Those who strongly disagreed and disagreed equalled 17 per cent combined.

The mean was 3.43 (shown in table 5.18, below) which is skewed towards 'Agree', meaning that just above the average number of respondents agreed. The mode is 3, which means that the majority of respondents chose the option 'Uncertain' (shown in table 5.18, below). These results are consistent with the interview results where the overwhelming majority (100 per cent) of HR Managers also agreed that there are benefits to reap when organisations adopt a green culture. Key words that came out in interview participant's responses were the words; *save* and *efficiency*. Saving money, time and resources and time efficiency, resource efficiency, economic efficiency, streamlined and organised processes, fast turnaround time were some of the benefits mentioned. These results are also consistent with results from a majority of existing studies in the area of green HRM. The following scholars in their studies also found that benefits can be received by organisations going green (Prasad, 2013; Jacob and Cherian, 2012; Leibowitz, 2010; Shatouri, Omar and Igusa, 2012; Mandip, 2012)



**Figure 5.22: Benefits for the Institution employing Green HRM activities**

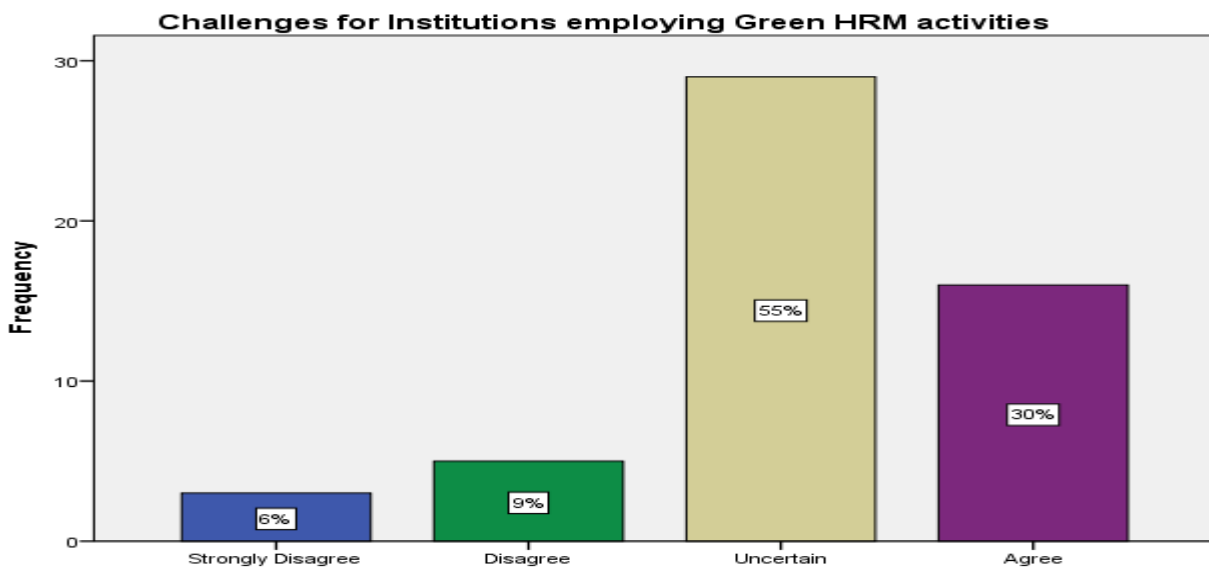
**Table 5.18: Benefits for Institutions employing Green HRM activities**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.43	3.00	3	1.083

### 5.7.2. CHALLENGES FOR INSTITUTIONS EMPLOYING GREEN HRM ACTIVITIES

On the question whether they foresee any challenges for institutions who will be fully engaging in Green HRM, the modal response as shown below figure 5.23 was 'Uncertain' at 55 per cent. A notable number of 30 per cent of respondents 'Agreed' that they foresee challenges in institutions adopting Green HRM practices while only a small percentage of 5.7 per cent Strongly disagreed and 9.4 per cent disagreed. This then tells us that, as much as most respondents see benefits (49 per cent shown figure 5.22 above), they also see challenges in the greening journey (30.2 per cent, figure 5.23) The mean was 3.09 (shown in table 5.19. below) a slightly above-average number of respondents were 'Uncertain' in this question. The mode is 3, which means that the majority of respondents chose the option 'Uncertain' (shown in table 5.19. below) The majority of participants in interviews also mentioned that challenges will be a possibility for institutions adopting green culture. Some of the challenges they mentioned in interviews included; issues of *costs* as they stated that

initiating green projects will need some financial investment which is usually a challenge for most organisations as they will have a priority list in their budgets and green projects will usually be found at the bottom end of that list if they are included on the list at all. HR Managers interviewed also mentioned the issue of *resistance* as another challenge, where they mentioned that most employees will resist any initiative if they do not see how it will personally benefit them. These findings are consistent with findings of a USA survey which discovered that lack of support and resistance from managers, lack of funds and lack of knowledge are some of the reasons that can contribute to failure of green initiatives in the organization (Society for Human Resource Management, 2011).



**Figure 5.23: Challenges for Institutions employing Green HRM activities**

**Table 5.19: Challenges for Institutions employing Green HRM activities**

	Valid	Missing	Mean	Median	Mode	Std. Deviation
N =	53	0	3.09	3.00	3	.791

## **5.8. PRESENTATION OF RESULTS: INFERENCE STATISTICS**

A researcher, normally needs to go beyond a mere description of the data obtained from a sample (descriptive statistics). The researcher wants to make inferences about the population on the grounds of what was found and observed and this is called inferential statistics (Tustin et al., 2005). We use inferential statistics to make judgments of the probability that an observed difference between groups is a dependable one, or one that might have happened by chance in this study, thus, we use inferential statistics to make inferences from our data to more general conditions. Including inferential statistics comparing variables such as age, gender, occupational levels in this section was important for this study as it brought more enlightenment on some questions such as which group is more aware and informed about green human resource principles. Also indicates to us which occupational level is more willing to engage in green HR activities and which institution/s are more advanced in application of green HR principles. In case the participating institutions be interested in the results of this study, this can help them to benchmark and share information and ideas with one another going forwards in implementation of Green HRM practices. Overall, these comparisons assist in understanding the concept of green HRM more and its application from different contexts and perspectives. This is an area that the researcher believes can also be extended in future research.

We use descriptive statistics simply to describe what's going on in our data ([www.socialresearchmethods.net](http://www.socialresearchmethods.net)) For this study, the researcher used a number of tests to determine various factors around the concept of Green HRM within organisations. Tests were performed firstly to determine the normality of data distribution (Shapiro-Wilk test and Normality QQ tests), to also determine if there was any significant relationship between a number of variables (Spearman's correlation), to also compare behaviour of various groups with regards to Green HRM (Kruskal-Wallis, Anova and T-tests).

Overall, the following tests were performed on the data collected; Normality QQ tests, ANOVA, Spearman's correlation test, T-tests, Shapiro Wilk test, Kruskal Wallis H test and Cronbach Alpha test (for reliability). In this study 'awareness and understanding of the concept 'Green HRM' was used as a dependent variable in order to determine how it influenced or impacted on the way in which HR Practitioners were able to perform their

Green HRM activities (independent variables) within the institution. Tests here were done to test the relationship between understanding and application of Green HRM in the institutions versus Age, Gender, Occupational levels and different institutions. These statistical tests were uncharted territories in Green HRM hence it was vital to the study of Green HRM to explore such relationships. The section below outlines and discusses the normality tests first followed by the rest of the inferential statistical tests performed on the data.

### 5.8.1. NORMALITY TESTS: SHAPIRO-WILK TEST AND NORMALITY QQ PLOTS

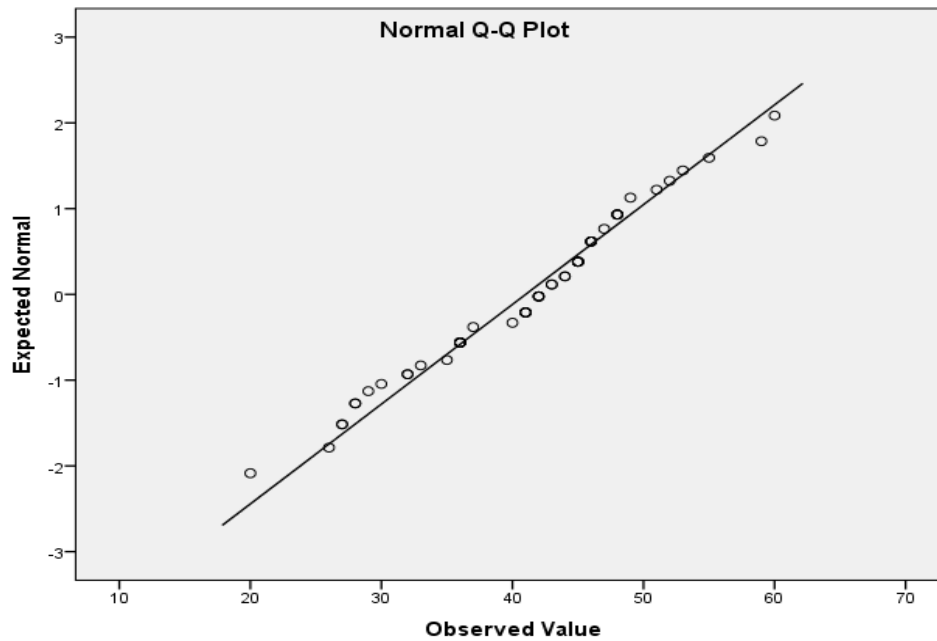
The Kolmogorov-Smirnov test and the Shapiro-Wilk test are the two well-known tests used to test normality in the distribution of data. The Shapiro-Wilk Test is more appropriate for small sample sizes (between 10 to 55 units), but can also handle sample sizes as large as 2000 (statistics.laerd.com). For this reason, the researcher opted to use the Shapiro-Wilk test as the numerical means of assessing normality of data distribution in this study. In the Shapiro-Wilk Test, if the Sig. value is greater than 0.05, the data is normal, if it is below 0.05, the data significantly deviate from a normal distribution (statistics.laerd.com). Table 5.20. below indicates a Sig. value of (.462) which is greater than (0.05) and this indicates that the data from this study was normally distributed.

**Table 5.20: Shapiro-Wilk Normality test**

Test for Normality		
Shapiro Wilk		
Statistic	df	Sig.
.979	53	.462

In order to determine normality graphically, one can use the output of a normal Q-Q Plot (statistics.laerd.com). The data are normally distributed if the data points are close to the diagonal line, if the data points stray from the line in an obvious non-linear fashion, the data are not normally distributed (statistics.laerd.com). Normality tests were conducted to determine the distribution of data in this study and the normal Q-Q plot below (figure 5.24) shows that the data was normally distributed as the data points are all plotted close to the line in a linear fashion, there are no data points scattered astray or away from the line.





**Figure 5.24: Normal Q-Q Plot Normality Test**

### 5.8.2. ANOVA TESTS

Saunders et al., (2003) state that if a quantifiable variable is divided into three or more distinct groups using a descriptive variable, the researcher can assess whether these groups are significantly different using one-way analysis of variance (ANOVA). An analysis of variance test (ANOVA) is similar to the t-test with the exception that the comparison of means is between more than two groups, and a p value less than  $p < 0.05$  or equal to  $p = 0.05$  indicates that, statistically, there is a significant difference in the responses between the groups, and a p value greater than  $p > 0.05$  indicates that, statistically, there is no significant difference in the responses of the different groups (Saunders, Lewis & Thornhill: 2003). ANOVA analyses the variations within and between groups of data by comparing the means and showing whether or not the means of various groups are different from one another (Sekaran and Bougie, 2013).

In this study three institutions were surveyed, and to analyse the difference between mean variances of these three groups an ANOVA test was carried out. ANOVA tests were conducted on selected data collected from the survey, specifically on HR division activities, this was done in order to ascertain whether or not there was any significant correlation

between the understanding and awareness of the 'Green HRM' concept and the way HR practitioners perform their daily activities. Awareness of Green HRM was then used as a dependent variable in this case and all other variables such as recruitment, training and development, performance management, compensation, employee engagement (support and feedback) and culture and attitude towards saving resources were independent variables. ANOVA test results revealed the following:

In determining the level of awareness, knowledge and understanding of 'Green HRM' between and within different age groups, table 5.21.1. below reflects a p value of  $p > 0.120$ , which is greater than  $p > 0.05$ . This then means there is statically no significant difference in the way the different age groups understand the concept of Green HRM. This is manifested by the fact that all group means were above 3.00 as reflected in table 5.21.

Table 5.21 below reflects the different mean values from different age groups. There is statistically no strong significant difference in the way different groups understand the concept of 'Green HRM'. As indicated in table 5.21 below, the slight difference in mean averages tell us that age group 51- 60-year-old with a with a mean value of (4.00) had a slightly better knowledge and understanding of what green HRM entails as compared to the other three groups surveyed. They are followed by the age group 31 – 40-year-olds with a mean value of (3.80.) The age group 20 -30 year olds follows with a mean value of (3.09) and the group that have shown less knowledge and understanding of the concept is the group 41-50 year olds with a mean value of (3.00). There was statistically no significant difference as all group had mean values of 3.00 and above. The body of knowledge in Green HRM does not provide much information with regard to the relationship between greening and age. More research is needed to probe if age differences contribute to different levels of understanding of the concept of 'Green HRM' or not. Further studies will also assist in clarifying if there is any association between the two constructs (age and green knowledge). There is a vast number of factors one will need to probe to determine what influences one's level of understanding of green processes. Factors such as educational background, career paths and experience of working for different companies and different sectors will also need to be taken into consideration. All these factors and more can have an influence on understanding the application of green principles within the work processes. Therefore, it will be very ignorant for one to consider only the age factor as the main determinant of people's understanding of greening processes as there are many more factors involved over-

and-above the age factor.

**Table 5.21: Understanding of Green HRM in Age Groups: ANOVA**

Descriptives								
Understanding of green HRM								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
20-30years	11	3.09	1.300	.392	2.22	3.96	1	5
31-40years	20	3.80	1.056	.236	3.31	4.29	1	5
41-50years	17	3.00	1.414	.343	2.27	3.73	1	5
51-60years	5	4.00	.000	.000	4.00	4.00	4	4
Total	53	3.42	1.232	.169	3.08	3.75	1	5

**Table 5.21.1. Understanding of Green HRM in Age Groups: ANOVA**

ANOVA					
Aware of green HRM					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.759	3	2.920	2.041	.120
Within Groups	70.109	49	1.431		
Total	78.868	52			

In determining the level of Green HRM concept awareness and understanding between the three institutions that were part of this survey, an analysis of variance test was performed. Table 5.22.1. below reflects a p value of  $p > 0.059$ , which is greater than  $p > 0.05$ . This then means there is statically no significant difference in the way the three institutions surveyed understand the concept of Green HRM. This is manifested by the fact that all group means were above 3.00 as reflected in table 5.22 below.

Although there is no statistically significant difference in the p-value. Results of the test as shown in the three mean values for institutions in table 5.22 below indicated that DUT and UniZulu have better awareness and understanding levels when compared to UKZN. The mean values of UniZulu and DUT was (4.00 and 3.92) respectively. UKZN scored low on awareness and understanding of the concept with a mean value of (3.12) in table 5.22, they scored higher on implementation of green practices and display of green behaviours in their

daily operations in table 5.24 below. A tentative conclusion that one can draw here is that an understanding of Green HRM practices does not guarantee the application of such in daily operations. Employees can fully understand the greening processes and practices but if resources are not provided, opportunities not created and the environment within the institution is not conducive for them to apply these practices, they will have the understanding but with no implementation. This again is consistent with the statement by Millar et al., (2016) who state that; “whilst organizations may be ‘talking green’, the level to which they may be ‘acting green’ may be questionable” (Prasad & Elmes, 2005 cited in Millar, 2016, p.194). An Indian study by Popli (2014) explored Green HR practices awareness and implementation in the industries in Nasik, India from 18 large-scale manufacturing industries in Nasik. Findings revealed that while most organisations in Nasik were well versed about the green HR concept, some companies were not able to put it into practice due to internal circumstances within the organisations. This means then that awareness and knowledge don’t automatically translate to application and implementation.

**Table 5.22: Understanding of Green HRM in Institutions: ANOVA**

Dependent Variable: Understanding of green HRM: <b>Descriptive</b>								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Unizulu	7	4.00	1.414	.535	2.69	5.31	1	5
DUT	12	3.92	.669	.193	3.49	4.34	3	5
UKZN	34	3.12	1.274	.218	2.67	3.56	1	5
Total	53	3.42	1.232	.169	3.08	3.75	1	5

**Table 5.22.1. Understanding of Green HRM in Institutions: ANOVA**

<b>ANOVA</b>					
Aware of green HRM					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.422	2	4.211	2.989	.059
Within Groups	70.446	50	1.409		
Total	78.868	52			

In determining the level of Green HRM awareness and understanding between different occupational levels within the institutions, results as indicated in table 5.23.1 below reflects a p value of  $p > 0.382$ , which is greater than  $p > 0.05$ . This then means there is stastically no significant difference in the way different management levels understand the concept of Green HRM. This is again also reflected by the fact that all group means were above 3.00 as reflected in table 5.23 below.

Table 5.23 below, indicate that there was no significance in the knowledge and understanding of green HRM. Middle management showed a slightly better understanding when compared to operational level staff with their mean values being (3.83) for middle management and (3.36) for operational level staff. In the Green HRM discipline, the body of knowledge and previous studies have not provided much information in this area as well i.e. with regards to the relationship between greening and occupational levels.

**Table 5.23. Understanding of Green HRM in Management Levels: ANOVA**

Dependent variable: Understanding of green HRM: <b>Descriptives</b>								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Middle Management	6	3.83	1.472	.601	2.29	5.38	1	5
Operational Level	47	3.36	1.206	.176	3.01	3.72	1	5
Total	53	3.42	1.232	.169	3.08	3.75	1	5

**Table 5.23.1. Understanding of Green HRM in Management Levels: ANOVA**

<b>ANOVA</b>					
Aware of green HRM					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.184	1	1.184	.777	.382
Within Groups	77.684	51	1.523		
Total	78.868	52			

When comparing the level of green HRM practice and implementation between the three institutions surveyed. Table 5.24.1. below reflects a p value of  $p < 0.021$ , which is lesser than  $p > 0.05$ . This then means there is stastically significant difference in the way the three institutions surveyed implement green HRM practices.

In determining implementation of Green HRM practices and green behaviour per institution, an Anova test was performed to compare the mean values of the three institutions with regards to green behaviour. Results as shown in table 5.24 below indicate that UKZN has better green HRM implementation and practice with a mean value of (43.2) followed by UniZulu with a mean value of (39.2) and DUT with a mean value of (35.5).

**Table 5.24: Implementation and Practice of Green HRM Practices Per Institution: ANOVA**

Descriptives								
Implementation and Practice of Green HRM Practices								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
UniZulu	7	39.2857	10.48355	3.96241	29.5901	48.9814	27.00	60.00
DUT	12	35.5833	9.78364	2.82429	29.3671	41.7996	20.00	51.00
UKZN	34	43.2647	6.92518	1.18766	40.8484	45.6810	27.00	59.00
Total	53	41.0000	8.59562	1.18070	38.6308	43.3692	20.00	60.00

**Table 5.24: Implementation and Practice of Green HRM Practices Per Institution**

ANOVA					
Implementation and Practice of Green HRM Practices					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	547.037	2	273.519	4.151	.021
Within Groups	3294.963	50	65.899		
Total	3842.000	52			

A Multiple Comparison Test was also done to compare green behaviour and implementation of Green HRM Practices in the three institutions. Results as shown in table 5.25, below, indicated that statistically there is no difference in green behaviour between DUT and UniZulu as they have the same average of green behaviour with a sig. value of ( $p = .606$ ). There is also statistically no significant difference in green behaviour between UniZulu and UKZN as the sig. value is greater 0.05, as it is ( $p = .470$ ). There is also statistically no significant difference in green behaviour between DUT and UKZN as the sig. value is ( $p = .019$ ), which is also greater than  $p > 0.05$ .

**Table 5.25: Multiple Comparisons: Green Behaviour Per Institution: ANOVA**

Dependent Variable: Green Behaviour						
Tukey HSD						
(I) Institution	(J) Institution	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
UniZulu	DUT	3.70238	3.86080	.606	-5.6231	13.0278
	UKZN	-3.97899	3.36933	.470	-12.1173	4.1594
DUT	UniZulu	-3.70238	3.86080	.606	-13.0278	5.6231
	UKZN	-7.68137*	2.72577	.019	-14.2653	-1.0975
UKZN	UniZulu	3.97899	3.36933	.470	-4.1594	12.1173
	DUT	7.68137*	2.72577	.019	1.0975	14.2653

\*. The mean difference is significant at the 0.05 level.

A Multiple Comparison Test was also done to compare green behaviour between and within the different age groups. Results as shown in table 5.26, below, indicated that statistically there is no significant difference in green behaviour between the different age groups as all significance values were greater than  $p > 0.05$ , which statistically signifies no significant differences in response.

**Table 5.26: Multiple Comparisons: Green Behaviour and Age: ANOVA**

Dependent Variable: Understanding of Green HRM						
Tukey HSD						
(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
20-30years	31-40years	-.709	.449	.400	-1.90	.49
	41-50years	.091	.463	.997	-1.14	1.32
	51-60years	-.909	.645	.500	-2.62	.81
31-40years	20-30years	.709	.449	.400	-.49	1.90
	41-50years	.800	.395	.192	-.25	1.85
	51-60years	-.200	.598	.987	-1.79	1.39
41-50years	20-30years	-.091	.463	.997	-1.32	1.14
	31-40years	-.800	.395	.192	-1.85	.25
	51-60years	-1.000	.609	.364	-2.62	.62
51-60years	20-30years	.909	.645	.500	-.81	2.62
	31-40years	.200	.598	.987	-1.39	1.79
	41-50years	1.000	.609	.364	-.62	2.62

### 5.8.3. KRUSKAL-WALLIS TEST

The Kruskal-Wallis H test, sometimes also called the ‘one-way ANOVA on ranks’ is a rank-based non-parametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable (statistics.laerd.com). It is considered the non-parametric alternative to the one-way ANOVA, and an extension of the Mann-Whitney U test to allow the comparison of more than two independent groups (statistics.laerd.com). Kruskal-Wallis H test was performed to compare ‘green behaviour’ means of the three institutions surveyed in this study. The mean values in table 5.27, below, indicate that there was a statistically significant difference in the awareness levels of Green HRM from the three groups of employees in the three institutions surveyed. Table 5.27 shows that UniZulu HR division staff members have greater awareness of the concept ‘Green HRM’ with a mean of (36.1) as compared to DUT (31.9) and UKZN staff with a mean of (23.3) on awareness.



**Table 5.27: Kruskal-Wallis: Awareness of Green HRM in Institutions**

Aware of Green HRM: Ranks			
	Institution	N	Mean Rank
Aware of green HRM	UniZulu	7	36.14
	DUT	12	31.92
	UKZN	34	23.38
	Total	53	

In determining which institution displayed more green behaviour than the others, table 5.28, below, indicates that there was a statistically significant difference in green practices and green behaviours from the three groups of employees in the three institutions surveyed. Table 5.28, below, indicates that UKZN had better green behaviour than the other two institutions with a mean average of (43.2) while DUT followed with a mean average of (35.5) while UniZulu had a mean average of (39.2). These results tell us that, employees can have knowledge and better understanding of the concept, but, if policies, resources and processes are not in place for them to implement what they know, then they cannot put into practice their knowledge. This is reflected in the fact that UniZulu scored higher on awareness and knowledge of the concept ‘Green HRM’ but scored less on incorporation of green practices and green behaviour in performance of their HR activities. While on the other hand UKZN scored less on awareness, but scored more on green behaviour in their HR practices. These results once more are consistent with findings from an Indian study by Popli (2014) who explored Green HR practices awareness and implementation in the industries in Nasik, India. These findings were briefly considered above. As mentioned previously in this study, awareness and knowledge of Green HRM doesn’t automatically translate to application and implementation.

**Table 5.28: Kruskal-Wallis: Green Behaviour in Institutions**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
UniZulu	7	39.2857	10.48355	3.96241	29.5901	48.9814	27.00	60.00
DUT	12	35.5833	9.78364	2.82429	29.3671	41.7996	20.00	51.00
UKZN	34	43.2647	6.92518	1.18766	40.8484	45.6810	27.00	59.00
Total	53	41.0000	8.59562	1.18070	38.6308	43.3692	20.00	60.00

#### 5.8.4. SPEARMAN'S RANK ORDER CORRELATION

In a research project that includes several variables like this one, one often wants to know how one variable is related to another, so that the nature, direction and significance of the bivariate relationships of the variables used in the study can be understood (Sekaran and Bougie, 2013). The Spearman's rank-order correlation is the nonparametric version of the Pearson product-moment correlation. Spearman's correlation coefficient, ( $\rho$ , also signified by  $r_s$ ) measures the strength and direction of association between two ranked variables (statistics.laerd.com). Spearman's Correlation is one of the variables that is used to examine relationships between two ordinal variables (Sekaran and Bougie, 2013). Spearman's Correlation was used in this study to examine if there is any relationship between HR employees' awareness of green HRM and the way they performed their daily activities. The coefficient of correlation is a summarising type of number which varies in value from +1.0, which means a perfect positive correlation/relationship, to -1.0, which means a perfect negative correlation/relationship. From the actual figure computed, one deduces whether there is a negative or positive relationship between the variables. A coefficient ( $r$  value) between 0.10 and 0.29 or -0.10 and -0.29 indicates a weak correlation; if it is between 0.30 and 0.49 or -0.30 and -0.49, it indicates a moderate correlation, and if a coefficient falls between 0.50 and 1.0 or -0.50 and -1.0, it indicates a strong correlation. A coefficient close to zero indicates no relationship at all (Ferreira, 2000).

In determining if there is any form of association between awareness of Green HRM and how HR Practitioners practiced their daily HR activities, in the table below, table 5.29, results indicate that there was a weak correlation or simply no significant relationship between Awareness of Green HRM practices ( $r = -.079$ ) and how HR Practitioners practiced or performed their daily HR activities or functions ( $r = -.079$ ). This is also consistent with the results of the Kruskal-Wallis test as indicated in table 5.29 Above, where UniZulu employees were more aware of the Green HRM concept but indicated less incorporation of green practices in their daily HR activities. While UKZN employees indicated less awareness but a better incorporation of green practices in their daily HR activities.

**Table 5.29: Spearman’s Correlation: Awareness of Green HRM and Green HRM Activities/ Practices.**

Correlations				
			Aware of green HRM	Green HRM Activities
Spearman's rho	Aware of green HRM	Correlation Coefficient	1.000	-.079
		Sig. (2-tailed)	.	.572
		N	53	53
	Green HRM Activities	Correlation Coefficient	-.079	1.000
		Sig. (2-tailed)	.572	.
		N	53	53

In determining if there is any form of association between awareness of Green HRM, availability of green policies in the HR division, results in the table below, (table 5.30), indicate that there is a perfect strong correlation between availability of green policies in the HR division ( $r = .301$ ) and awareness of Green HRM practices ( $r = .301$ ). This then informs us that the existence of green policies is important to inform employees on greening principles and practices that are expected from them. This result again confirms and is consistent with the results found in the qualitative results of this study (section 4.22 above) where managers that were interviewed mentioned that policies are a very important guideline and information tools that guide operations and practices that should be followed in performing one’s job on a daily basis.

**Table 5.30: Spearman’s Correlation: Awareness of Green HRM and Green Policies**

Correlations				
			Aware of green HRM	Green policies in HR Division
Spearman's rho	Aware of green HRM	Correlation Coefficient	1.000	.301*
		Sig. (2-tailed)	.	.030
		N	53	52
	Green policies in HR Division	Correlation Coefficient	.301*	1.000
		Sig. (2-tailed)	.030	.
		N	52	52

\*. Correlation is significant at the 0.05 level (2-tailed).

### 5.8.5. T- TESTS

T-tests are parametric statistical hypothesis tests used to determine if two sets of data are significantly different from each other. They are hypothesis test of the mean of one or two normally distributed populations. Several types of t-tests exist for different situations, but they all use a test statistic that follows a t-distribution under the null hypothesis (www.minitab.com). In the study t-tests were performed to test if there is any difference in the way males and females in the HR division employ green practices in their daily duties. Another test was performed to determine if age has any impact on application of green HRM practices and if there is any significant relationship between age and application of green HRM practices. The following were the two hypotheses tested:

#### *Hypothesis 1*

Ho: There is no difference in the way genders apply green HRM practices in the institution.

Ha: There is a difference in the way genders apply green HRM practices in the institution

Table 5.31 below indicates that there is no significant difference in the way males and females apply green practices in the performance of their daily HR activities, with the mean averages of (41.4) for males and (40.8) for females. This means then for Hypothesis 1, we reject the alternative hypothesis (Ha) and accept the null hypothesis (Ho).

**Table 5.31: Gender and Green HRM Activities T-Test**

Group Statistics					
Gender		N	Mean	Std. Deviation	Std. Error Mean
Green HRM Practice	Male	15	41.4000	7.72565	1.99476
	Female	38	40.8421	9.00908	1.46147

#### *Hypothesis 2*

Ho: Age has no impact in the way employees apply green HRM practices in the institution.

Ha: Age has an impact on the way employees apply green HRM practices in the institution.

Table 5.32 below indicates that there is a slightly significant difference in the way different age groups apply green practices in the performance of their daily HR activities, with the mean averages of (45.5) for the 20-30-year-old group and a mean of (40.8) for the 31 to 40-year-old group. This means then for Hypothesis 2, we accept the alternative hypothesis (Ha)

and reject the null hypothesis (Ho). In a study conducted in Italy by Guerci and Carollo (2016) they conducted interviews with HR Managers on green recruitment issues, and they reported that; “all the HR managers interviewed recognized the positive impact of communicating sustainability plans to potential applicants, especially to young and educated ones, because younger people are considered more sensitive to environmental matters” (Guerci and Carollo, 2016, p.223). The results in this study shows some level of consistency with this Italian study as reported in table 5.32 below that 20-30 year olds agreed that they are slightly more likely to apply green practices (mean – 45.5) than 31 to 40 year olds (mean- 40.8).

**Table 5.32: Age and Green HRM Activities T-Test**

Group Statistics					
	Age	N	Mean	Std. Deviation	Std. Error Mean
overall practice	20-30years	11	45.5455	11.07577	3.33947
	31-40years	20	40.8000	7.59917	1.69923

As stated above in section 5.8.2, the body of knowledge in Green HRM does not provide much information with regard to the relationships between greening and age and between greening and gender. More research is needed to probe if age and gender differences contribute to different levels of understanding and application of the concept of Green HRM. Further studies will also assist in clarifying if there is any association between these constructs (age and green knowledge, gender and green knowledge). There are a vast number of factors one will need to be probed to determine what influences one’s level of understanding of green processes. Factors such as cultural background, educational background and career profile will all need to be taken into consideration. All these factors and more can have an influence on understanding and in the application of green principles within the work environment. Therefore, it will be very ignorant for one to only consider the age and gender factors as the main determinants of people understanding greening processes as there are more factors involved over and above the age and gender factors.

## 5.9. COMPARATIVE STATISTICS: RESULTS FROM THE THREE INSTITUTIONS SURVEYED

The tables below (table 5.33 to 5.37) provide a layout of results from each of the three institutions surveyed. Comparison of differences and similarities in results is provided in the table below. The following are findings from the results of the three institutions:

**Table 5.33: All three Institutions: Comparative Statistics: Awareness of Green HRM and Policies**

Variables	Institutions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Awareness of the Concept 'Green HRM'	DUT	0%	0%	25%	58%	17%
	UKZN	18%	12%	21%	41%	9%
	UNIZULU	14%	0%	0%	43%	43%
Green policies and strategies.	DUT	0%	17%	8%	58%	17%
	UKZN	24%	24%	36%	15%	0%
	UNIZULU	14%	14%	0%	71%	0%
HR efforts on greening	DUT	17%	17%	33%	33%	0%
	UKZN	24%	35%	38%	3%	0%
	UNIZULU	29%	29%	14%	29%	0%
Institutional efforts on greening	DUT	8%	17%	25%	42%	8%
	UKZN	18%	21%	52%	9%	0%
	UNIZULU	29%	14%	43%	14%	0%

**Awareness of the concept 'Green HRM'** – UNIZULU had the majority of respondents who indicated that they had some level of awareness of the concept Green HRM with a combined total of 86 per cent . DUT was second with 65 per cent or respondents agreeing that they were aware of the concept. Out of the three institutions, UKZN had the least number of respondents who indicated they were aware of the concept Green HRM with a combined total of 50 per cent of those who agreed (as show in table 5.33 above). Overall results indicate that an average number of respondents had some level of awareness of the concept, but how much awareness or awareness on which level, is another study on this own that will need some form of measurement tool to be in place. Conclusively awareness seems to be there although the implementation of green practices is minimal as shown in the above results for both interviews and questionnaires. Results clearly indicate that HR practitioners from these institutions are doing little to nothing with regards to green initiatives and implementation of such within their institutions.

**Green policies and strategies in the institutions** – DUT had the majority of responses in this area as most respondents agreed that there is some green policies and green clauses in some of their policies and in the university’s strategic plan. The total percentage of those who agreed at DUT is 75 per cent. UNIZULU also had a notable number of those who agreed with 71 per cent. The majority of UKZN respondents disagreed as they stated that they were not aware of any green policies in the organisation and especially in the HR Division (as show in table 5.33 above). Overall results indicate that DUT and UKZN have notable foundations on which to build green policies and strategies but, more still needs to be done. On the other hand UNIZULU results indicate that not much has been done in developing green policies and strategies for the institution and in communicating such to employees, the institution will need to look into this area closely going forward.

**Table 5.34: All three Institutions: Comparative Statistics: Green HRM Activities.**

<b>Variables</b>	<b>Institutions</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
Green Recruiting activities	DUT	25%	25%	8%	25%	17%
	UKZN	15%	21%	6%	50%	8%
	UNIZULU	0%	0%	0%	57%	47%
Online submission of job application forms	DUT	8%	42%	17%	33%	0%
	UKZN	9%	6%	9%	35%	41%
	UNIZULU	0%	0%	0%	29%	71%
Online interview of job candidates	DUT	0%	33%	33%	8%	25%
	UKZN	0%	9%	12%	35%	44%
	UNIZULU	0%	0%	0%	57%	43%
Induction of new recruits that includes green philosophy of institution.	DUT	0%	50%	42%	8%	0%
	UKZN	23%	21%	50%	6%	0%
	UNIZULU	14%	14%	43%	29%	0%
Green Performance Management Activities	DUT	9%	45%	36%	9%	0%
	UKZN	0%	0%	3%	35%	62%
	UNIZULU	29%	14%	43%	14%	0%
Include green KPA’s on Performance assessment.	DUT	17%	42%	33%	0%	8%
	UKZN	3%	15%	29%	35%	18%
	UNIZULU	43%	14%	14%	29%	0%
Performance scores administered online	DUT	16%	50%	33%	0%	0%
	UKZN	0%	0%	0%	32%	68%
	UNIZULU	29%	14%	43%	14%	0%

Training and awareness activities.	DUT	17%	42%	33%	8%	0%
	UKZN	24%	38%	35%	3%	0%
	UNIZULU	57%	14%	0%	14%	14%
Online training	DUT	17%	33%	50%	0%	0%
	UKZN	12%	21%	23%	38%	6%
	UNIZULU	29%	14%	29%	14%	14%
Rewards and Incentives provided to green 'champions'	DUT	17%	50%	33%	0%	0%
	UKZN	29%	32%	32%	6%	0%
	UNIZULU	43%	29%	0%	29%	0%
Support and feedback provided to employees	DUT	0%	58%	33%	8%	0%
	UKZN	24%	35%	35%	6%	0%
	UNIZULU	29%	14%	43%	14%	0%

**Green Recruiting activities** - In table 5.34 above all respondents from UNIZULU agreed that green recruiting practices were used in their institution, followed by UKZN with 58 per cent of those who agreed and DUT had 42 per cent of those who agreed. On specific recruiting processes such as the online submission of job application forms by candidates applying for job positions in the institutions UKZN and UNIZULU had an overwhelming majority of those who strongly agreed and agreed that job application forms are submitted online with 76 per cent (UKZN) and 100 per cent (UNIZULU) when combining the strongly agree and agree response, DUT had only 33 per cent of those who agreed with the majority disagreeing at 42 per cent.

Asking the question whether online interviews such as via Skype or video-conferencing were conducted in their institution when the circumstances call for such, the majority of respondents from UKZN and UNIZULU strongly agreed and agreed with an overwhelming 100 per cent for UNIZULU and 79 per cent for UKZN when combining those who agreed and those who strongly agreed, DUT 33 per cent of those who agreed with 33 per cent of those who were 'uncertain' and 33 per cent who disagreed.

Asked if any information on the green philosophy of the institution is included during induction of new recruits, in table 5.34 above all three institution provided responses that generally indicate that this was not done at all, with those agreeing being very few: with only 8 per cent (DUT), 6 per cent (UKZN) and 29 per cent (UNIZULU). The majority of respondents said there was no green philosophy communicated to new recruits with the following response rates when combining those who strongly disagreed with those who



disagreed: 50 per cent (DUT), 44 per cent (UKZN) and 28 per cent (UNIZULU), the rest of the respondents were 'uncertain' on this, as reflected in table 5.34, above. Overall results indicate that UNIZULU has advanced with regards to implementation of their online recruitment system as this is 100 per cent administered online with everything from advertising of vacancies, to candidates using the online system to apply for jobs and online interviews conducted with candidates from distant locations. In a conversation with the researcher, UNIZULU respondents even mentioned that they provide new recruits with a memory stick that contains all the basic information they need to know about the institution including the policies of the institution which is a great step to efficiency as this minimises the use of paper files given to new recruits. DUT and UKZN have covered some good ground in this area as well as more than 60 per cent of their recruitment systems are also, online and efficient.

**Green Performance Management Activities** – In table 5.34 above, UKZN had the majority (97 per cent) of respondents who agreed that their performance management system is green in orientation as they mentioned that it is completely electronic and a resource efficient system. DUT and UNIZULU had the majority of their respondents disagreeing, with 54 per cent at DUT and 43 per cent at UNIZULU with DUT stating that their PM systems had been put on hold for review and UNIZULU stated that theirs is under review and a new system is being developed that will be totally electronic and resource efficient. On specific performance management processes such as whether or not green KPA's are included in employee's performance agreements in these institutions; the majority of respondents at DUT and UNIZULU strongly disagreed and disagreed with a combination of those who strongly disagreed and disagreed being as follows; DUT (59 per cent), UNIZULU (57 per cent). With UKZN, the majority agreed at 53 per cent but, there were a notable number of those who were 'uncertain' and very few who 'strongly agreed' and 'agreed' as shown in table 5.34 above. Asked if they enter employee's performance scores and performance profile online, UKZN strongly agreed with an overwhelming majority of 100 per cent while DUT disagreed with 66 per cent and UNIZULU disagreed with 43 per cent. A notable number of respondents from DUT and UNIZULU were 'uncertain' as reflected in table 4.26 above. The overall results show that UKZN is far more advanced with regards to their Performance management system as their system is 100 per cent administered online and respondents agree that this is a fast, environmentally efficient and convenient system for them as well.

**Training and awareness activities** – In table 5.34 above, the general response here was that, HR divisions in all three institutions do not have green training and awareness programmes in place. The numbers indicate that the majority of respondents in all three institutions disagreed and with a combination of those who strongly disagreed and disagreed per institution being as follows: 71 per cent disagreed from UNIZULU, 62 per cent disagreed from UKZN and 59 per cent disagreed from DUT. On specific training activities such as using online training to avoid having participants travelling long distances to attend training workshops, results indicate that UKZN does make some effort to ensure that training takes place closer to where the staff is or even at their fingertips through the use of technology with 44 per cent of respondents agreeing while DUT respondents totally disagreed with none of them agreeing (0 per cent) and 50 per cent in disagreement with the statement, the majority of respondents from UNIZULU also disagreed with 43 per cent in disagreement when combining those who strongly disagreed and disagreed (as show in table 5.34 above). Overall results indicate that institutions still need to do more work on ensuring that training and development programmes are presented in a way that saves natural resources such as ensuring minimum travel, minimum paper and other resources.

**Rewards and Incentives provided to green ‘champions’** – In table 5.34 above the majority of respondents from all three institutions disagreed that rewards were given to those involved in green initiatives and projects. The percentages of those who strongly disagreed and disagreed were; 67 per cent from DUT, 61 per cent from UKZN, 72 per cent from UNIZULU. There is no institution that strongly agreed with the statement out of all three institutions surveyed (as show in table 5.34 above). Overall, institutions have done nothing in this area. Institutions will need to understand that studies have found that when staff is rewarded and incentivised for doing projects that save resources, they become motivated and encouraged to undertake such projects which in the end usually benefit both the organisation and the employees (Daily and Huang, 2001; Govindarajulu & Daily, 2004; CIPD/UK, 2007).

**Support and feedback provided to employees** - the majority of respondents from all three institutions disagreed that support and feedback was given to those involved in green initiatives. Meaning that from all three institutions there was not much support or feedback given to those who initiate green projects. The percentages of those who strongly disagreed and disagreed were; 58 per cent from DUT, 59 per cent from UKZN, 43 per cent from

UNIZULU. Interestingly out of the three institutions none of them strongly agreed with the statement (as show in table 5.34 above). Overall, the results here indicate that from all three institutions there was not much support or feedback given to those who initiate green projects and in order for any environmental initiative to be a success, teamwork, support for one another and feedback together with management support is vital.

**Table 5.35: All three Institutions: Comparative Statistics: HR Division Capacity.**

Variables	Institutions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Motivation of staff by HR division	DUT	17%	25%	50%	8%	0%
	UKZN	32%	47%	15%	6%	0%
	UNIZULU	14%	43%	29%	0%	14%
HR division information to staff on green initiatives	DUT	0%	9%	9%	55%	27%
	UKZN	3%	6%	15%	59%	18%
	UNIZULU	0%	0%	14%	14%	71%
HR Division capacity to embed a green culture in the institution	DUT	33%	8%	25%	33%	33%
	UKZN	9%	18%	21%	41%	12%
	UNIZULU	0%	0%	29%	0%	71%

**Motivation of staff by the HR division** – the majority of respondents from all three institutions disagreed that motivation was given to those involved in green initiatives. Meaning that from all three institutions there was not much motivation given to those staff members who initiate green projects. The percentages of those who strongly disagreed and disagreed combined were; 42 per cent from DUT, 79 per cent from UKZN, 57 per cent from UNIZULU. Only 8 per cent agreed from DUT, 6 per cent agreed from UKZN and 0 per cent agreed from UNIZULU although they interestingly had some 14 per cent who strongly agreed (as show in table 5.35 above). Overall results indicate that from all three institutions there was not much motivation given to those staff members who initiate green projects. Institutions need to understand that, the HR division as a strategic partner, change agent and employee champion in the organisation can play a vital role in motivating employees to adopt green behaviour and in influencing change within the organisation.

**HR Division’s influence on staff regarding green initiatives** - When respondents were asked the question : Does the HR division have any capacity to influence staff in the whole institution to adopt green practices? The majority of respondents from all three institutions

agreed. Percentages combining the ‘agree’ and ‘strongly agree’ responses indicated that 82 per cent of respondents from DUT agreed. At UKZN 77 per cent of respondents agreed and at UNIZULU, 85 per cent of respondents agreed that HR has the capacity to influence change to a greener institution (as show in table 5.35 above).

**HR Division’s capacity to embed a green culture in the institution** - When respondents were asked the question : Does the HR Division have the capacity to embed a green culture in the institution, the majority of respondents from all three institutions agreed. Percentages combining the ‘agree’ and ‘strongly agree’ responses indicated that 66 per cent of respondents from DUT agreed. At UKZN 53 per cent of respondents agreed and at UNIZULU, 71 per cent of respondents strongly agreed that HR has the capacity to embed a green culture within the institution (as show in table 5.35 above).

**Table 5.36: All three Institutions: Comparative Statistics: Green HRM Benefits and Challenges for the Institutions.**

Variables	Institutions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Green HRM Benefits for the institutions.	DUT	0%	25%	33%	33%	8%
	UKZN	6%	9%	35%	29%	21%
	UNIZULU	14%	0%	29%	43%	14%
Green HRM Challenges in the institutions	DUT	0%	25%	33%	42%	0%
	UKZN	6%	6%	68%	21%	0%
	UNIZULU	14%	0%	29%	57%	0%

**Green HRM Benefits for the institutions** - When respondents were asked the question : Are there any benefits for the institution in adopting Green HRM? The majority of respondents from all three institutions agreed. Percentages combining the ‘agree’ and ‘strongly agree’ responses indicated that 41 per cent of respondents from DUT agreed. At UKZN 50 per cent of respondents agreed and at UNIZULU, 57 per cent of respondents agreed that there are benefits for institutions adopting Green HRM (as show in table 5.36 above).

**Green HRM Challenges for the institutions** - When respondents were asked the question: Are there any possible challenges for the institution adopting Green HRM? the majority of respondents from UNIZULU agreed with 57 per cent agreeing that there are possible challenges. 42 per cent of respondents from DUT agreed. UKZN had very few respondents

who agreed (21 per cent) the majority of respondents at UKZN were ‘Uncertain’ (68 per cent), (as show in table 5.36 above).

**Table 5.37: All three Institutions: Comparative Statistics: Greening Efforts from HR Division and the Institution.**

Variables	Institutions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
HR efforts on greening	DUT	17%	17%	33%	33%	0%
	UKZN	24%	35%	38%	3%	0%
	UNIZULU	29%	29%	14%	29%	0%
Institutional efforts on greening	DUT	8%	17%	25%	42%	8%
	UKZN	18%	21%	52%	9%	0%
	UNIZULU	29%	14%	43%	14%	0%

**HR efforts on greening** - When respondents were asked the question : Are there any HR division efforts to adopt green practices within the institution? the majority of respondents from all three institutions disagreed. Percentages combining the ‘disagree’ and ‘strongly disagree’ responses indicated that 34 per cent of respondents from DUT disagreed. At UKZN, 59 per cent of respondents disagreed and at UNIZULU, 58 per cent of respondents disagreed that HR division puts any effort towards green initiatives in the institution. Interestingly out of the three institutions none of them strongly agreed with the statement (as show in table 5.37 above).

**Institutional efforts on greening** - When asked the question : Are there any institutional efforts to adopt green practices within the institution? There was a mixed response to this particular question. The majority of respondents from UKZN were ‘uncertain’ at 54 per cent. At DUT, the majority of respondents agreed that in their institution there is some effort being made to institute green initiatives with 50 per cent of them agreeing, combining those who agreed and strongly agreed. At UNIZULU, there was half-and-half between respondents who were uncertain and those who disagree, with 43 per cent of respondents indicating they were ‘uncertain’ and another 43 per cent disagreeing. (as show in table 5.37 above).

## 5.10. RELIABILITY STATISTICS: CRONBACH

There are a number of different reliability coefficients. Commonly used is the Cronbach's alpha which was also used in this study. The Cronbach's Alpha can range from 0 to 1. Cronbach's alpha was also calculated as part of the reliability test to assess how consistent the results were. A value of 0.7 or higher is a very good value, which means that if the survey was carried out with a larger sample of respondents, the same results would have been arrived at, 0.7 is the reliability which is acceptable according to Cronbach's requirements. (Coakes and Steed 2007). A Cronbach's test was conducted for different categories of questions in this study and one Cronbach for all questions combined as shown in table 5.38 below. In this study a combined Cronbach for all 35 questions (variables) was above 0.7 as it was .820, which is an acceptable reliability result..

**Cronbach's Reliability: Table 5.38.**

Category	No. of Items	
Policies, Strategies and Activities	14	.828
Change, Culture and Learning	12	.785
Overall	35	.820

## 5.11. CONSOLIDATED SUMMARY OF QUANTITATIVE AND QUALITATIVE RESULTS COMBINED.

This section seeks to provide a consolidated summary of results from both the interviews (qualitative) and questionnaires (quantitative). Similarities and inconsistencies in findings from the two approaches will also be discussed in this section. Main findings from the two sections will also be highlighted. The section is structured and laid out using themes that emerged from this;

### **There is limited and vague awareness and understanding of the concept of Green HRM.**

Results from both interviews and questionnaires were consistent as they indicated that more than half of participants have some level of awareness and understanding of the concept. While less than half of the respondents indicated lack of awareness and understanding of

the concept. This is also consistent with the results found in an Indian study where a little less than half of employees are completely unaware of the term 'Green HRM' while remaining employees have slight awareness (Sarode, Patil and Patil, 2016).

### **No policies and strategies that talk to Green HRM.**

Consistency was also revealed here as the majority in both interviews and questionnaires revealed that there were no green HR policies or green clauses in HR policies. This is one of the critical areas of concern, as policies are the drivers of action and change especially in public sector institutions. Without policies it would be very difficult to change the status quo and difficult to drive change and to move the institutions in a green trajectory. The researcher did not come across specific policy studies on Green HRM, but the value and importance of having solid and clear policies as drivers of green HRM principles have been echoed a long time ago by most scholars in this field. Some of those scholars are Bohdanowicz et al., (2011). They mentioned that, the greater the strength of green human resource policies, the greater is the intensity of adoption of environmental management systems within organisations (Bohdanowicz et al., 2011 quoted in Cherian and Jacob, 2012).

### **Green HRM Activities: Recruitment**

There is similarity in the findings for both interviews and questionnaire results as the majority of participants from both approaches indicated that the recruitment processes used in their institutions were in line with green and efficiency principles. This is something that deserves noting and should be welcomed as it shows that there is an awareness and a willingness to embrace resource-efficient recruitment methods which is a step in the right direction for the ambitions of greening the organisations and for being on par with the global trends and institutions in this regard. Evidence from previous studies states that companies that use green recruitment practices have a greater potential to attract talented and good quality candidates who are also green-conscious (Wehrmeyer, 1996; Stringer, 2009 cited in Jackson et al, 2011; Grolleau, Mzoughi and Pekovic 2012). Other studies also found evidence that green recruitment provides a good image for the organisation as well as cost-efficiency benefits (Gupta, 2016; Aqayo, 2008; Smith and Rupp, 2004; Haddas, 2004; Chapman and Webster, 2003)

### **Green HRM Activities: Performance Management Systems**

Again, there is consistency in the results from both interviews and questionnaires with

regard to the area of performance management. The majority of respondents in interviews agreed that the PM system in their institutions was electronic and efficient. This result also shows an upwards move towards greening some of the key services of the HR Department in higher education institutions, which is a progressive movement in a journey to achieve green HR Divisions and green institutions. Pinzone et al., (2016) in a study in England, found that including environmental aspects in performance management inspires employees to be committed and to give in extra efforts into environmental management (EM) initiatives. Pinzone's study also revealed that employees perceive the use of 'Green' Performance Management practices as a positive signal of their organisation's concerns for the environment (Pinzone et al., 2016).

### **Green HRM Activities: Rewards and Incentives**

Results from the questionnaires showed that about 64 per cent of respondents disagreed that there is any type of rewards and incentives for those employees who are advocates and champions of greening initiatives within the institutions. These results were similar to what was found from interviews as a significant majority of participants in interviews also indicated that there was no rewards and incentives provided to employees who champion green initiatives within the organisation. Similarly, results from a study done in Puerto Rico by Soto (sa) , also found that only 23 per cent of the companies surveyed have some green rewards and incentives in place to reward green behaviour within companies, and 77 per cent of companies have no such rewards in place. Ramus (2002) also found that managers who appreciate and awards employees who participate in eco-initiatives by use of official and formal reward initiatives, public reward and praise had successful environmental projects in their organisations. CIPD/KPMG in a study in UK estimated that 8 per cent of UK firms were rewarding green behaviour with different types of awards and/or financial incentives (CIPD/UK, 2007 cited in Ahmad, 2015), and it was found that these actions can be effective in encouraging employees to generate eco-initiatives (Ahmad, 2015).

### **Green HRM Activities: Learning and Training Programmes**

The similarities between the two groups is also manifested here as results show that the majority from both interviews and questionnaires indicated that there are no training and educational programmes provided to employees in the institutions on greening issues. This is something that higher education institutions or any other organisation wishing to embark on greening journey should take into consideration. The majority of studies in this area have



proven that providing educational awareness, training and skills to employees on greening and sustainable living contributes significantly in the success of green initiatives within the organisation (Millar, Sanyal, Camden, 2016; Leibowitz, 2010; Sammalisto and Brorson, 2006)

### **Green HRM Activities: Employee Feedback and Engagement**

Again, the results here were consistent as the majority of participants in both interviews and questionnaires indicated that in their institutions employees were not engaged on greening initiatives and there was no support and feedback provided to employees who are taking up green initiatives within the institutions. These are not good news for Green HRM discourse as evidence has indicated that employee engagement is still a very important factor in the establishment of green culture and green organisations. These are some of the studies that have emphasised the importance of employee involvement and feedback processes for greening initiatives to succeed; (Ramus and Steger, 2000; Markeya, McIvora and Wright, 2016; Penzone et al., 2016).

### **HR Capacity and contribution towards change of culture and greening in the Institutions**

An overwhelming majority of participants from both interviews and questionnaires agreed that HR divisions in their institutions are not doing much to influence a change of culture towards greening the institutions. Although, the significant majority of respondents especially from questionnaires 'Agreed' that, though it will be difficult and will take time, the HR division has the capacity and potential to contribute by influencing a change of culture towards greening of the institutions. These studies concur that HR division can play a significant role in greening organizations; (Leibowitz, 2010; Cohen, Taylor and Carmen, 2012; Jabbour and Santos, 2008).

### **There are Potential Benefits and Challenges of Green HRM for the Institutions**

Results from both interviews and questionnaires were consistent with the overwhelming majority of HR Practitioners agreeing that there are benefits to reap when organisations adopt a green culture. Key words that came out from all interview participant's responses were the words; *save* and *efficiency*. Saving money, time and resources. Time efficiency, resource efficiency, economic efficiency, streamlined and organised processes, fast turnaround time were some of the benefits mentioned. These results are also consistent with

results from a majority of existing studies in the area of green HRM. The following scholars in their studies also found that benefits can be received by organisations going green (Prasad, 2013; Jacob and Cherian, 2012; Leibowitz, 2010; Shatouri, Omar and Igusa, 2012; Mandip, 2012)

Although the majority of participants agreed that organizations can reap benefits from adopting Green HRM initiatives and any environmental efficiency initiatives in general, the same also agreed that possible challenges can be encountered with greening projects. The key challenges stated by interview participants were; issues of costs, work overloaded with HRM duties, employee resistance and challenge of changing entrenched staff behaviours and culture change within the institutions. Similarly, findings from a survey conducted in the US by the *Society for Strategic HRM*, BSR and Aurosoorya, they found that; the top obstacles preventing organisations from implementing sustainable workplace or business practices were; costs, lack of management support, and lack of knowledge capacity from those entrusted with the task (SHRM, 2010).

## **5.12. CHAPTER SUMMARY**

In this chapter meaningful results as contextualised within the objectives of the study were presented and discussed. Key variables of the study were used as subtopics in structural layout of quantitative results to facilitate easier studying of results and to ensure that all objectives and questions of the study were addressed in this presentation and discussion of results. Tables and graphs were also used to present statistical findings and to ensure ease of reading and organisation. A consolidated summary of results from both the interviews (qualitative) and questionnaires (quantitative) was also presented in this chapter. Findings from previous studies found within the body of knowledge in the discipline of Green HRM were also compared and contrasted with results of this study to see if there were any similarities, consistencies or differences in findings from different studies. The next chapter will further review the main findings of the study and chart the way forward through presentation of a proposed framework emanating from these findings.

## **CHAPTER 6**

### **MAJOR FINDINGS AND A PROPOSED GREEN HRM PRACTICAL FRAMEWORK**

#### **6.1. INTRODUCTION**

In this chapter a layout of comprehensive overview of the main findings is provided. A Green HRM Practical Framework, informed by the findings of this study is proposed as a way forward in implementation of Green HRM in higher education institutions.

#### **6.2. MAJOR FINDINGS**

##### **6.2.1. Awareness and understanding of the ‘Green HRM’ Concept**

Findings revealed that the majority of HR Practitioners and their divisions in the institutions surveyed have a moderate knowledge and understanding of what Green HRM is about. As a result of this, there is a moderate to minimum application of green principles in HR. ‘Green HRM’ activities and processes within the institutions are not carried out at the optimal level. South Africa’s Green HRM implementation appears to be far behind when comparing it to that of countries that have invested in more research and in promoting more awareness of this area of HR. Countries such as Brazil, India, China, UK, U.S and others have covered some ground when it comes to implementation of Green HRM principles in their institutions and organisations in general. Findings also revealed that awareness and knowledge of Green HRM doesn’t automatically translate to application and implementation. Establishment of a solid policy framework, embedding green culture through learning strategies and behavioural change interventions, as well as providing incentives and putting in resources such as financial resources and others is what will ensure that implementation takes place.

##### **6.2.2. The role of HR Practitioners and their Perception of Green HRM**

The study found that most HR practitioners perceive the Greening role as being outside of their scope of work and not within their mandate. Some HR practitioners view the role as an additional burden to the already overburdened job description they have to follow in their

organisations. One other factor that brings about hesitation from the HR community to embrace the sustainability role is the lack of expertise within HR on green-related skills and knowledge.

### **6.2.3. Green HRM Policy Framework**

Findings revealed that there are no HR policies and no greening strategies that talk to the greening of the organisation. Institutionally, insufficient policy framework and lack of divisional policies that talk to green issues is a challenge. Lack of management involvement and support when it comes to greening issues is also a contributor to the lack of a clear policy framework in this instance. Unavailability of funds to support green initiatives is also a challenge. Green issues are at the bottom of the list of priorities for South African universities who are now more concerned with transformation challenges and there is a view that there are more pressing priorities at these institutions than greening issues.

### **6.2.4. Green HRM Activities**

Regarding activities, it was found that recruitment is one of the areas where the institutions surveyed have covered some good ground on efficient, green recruitment methods. Findings also revealed that in South Africa, being a green company with great accolades in greening does not play a major role in the attraction of talented potential candidates for jobs in the company. South African jobseekers are more concerned with securing a permanent, secure, well-paid job with good benefits than a company with green accolades. A notable effort to go green in recruitment has been displayed with about 80 per cent of participants in interviews mentioning that green HRM processes are followed in the recruitment processes in their institutions.

The performance management system also followed as one of the activities that is becoming more green and efficient in the institutions of higher learning, with one of the institutions surveyed using a completely 100 per cent electronic system in its management of performance. Another institution is already in the process of designing its completely electronic PM system. Regarding involvement of employees in greening initiatives, the results were disappointingly bad as 80 percent of the HR managers interviewed indicated that there was no engagement at all with employees on green issues and they indicated that they did not know any management executive involved in engaging staff on green issues. It

was a similar case regarding the issue of ‘rewards and incentives’ and ‘training and learning programmes as the majority of HR Practitioners stated that no incentives were provided to those initiating and championing green projects in the institutions and there was no form of official training provided to employees in this area.

#### **6.2.5. Green HRM Culture and Change.**

Findings also revealed that there was no established ‘green culture’ in the institutions surveyed. There was no change and transformation plans to embed and instil a culture of saving resources and going green within the institutions. The handful of employees who will do any small pockets of green initiatives e.g. a small awareness campaign by a certain Lecturer with his/her students and class, will do so on a voluntary and personal basis with no HR involvement or broader institutional involvement.

#### **6.2.6. Green HRM Benefits and Challenges.**

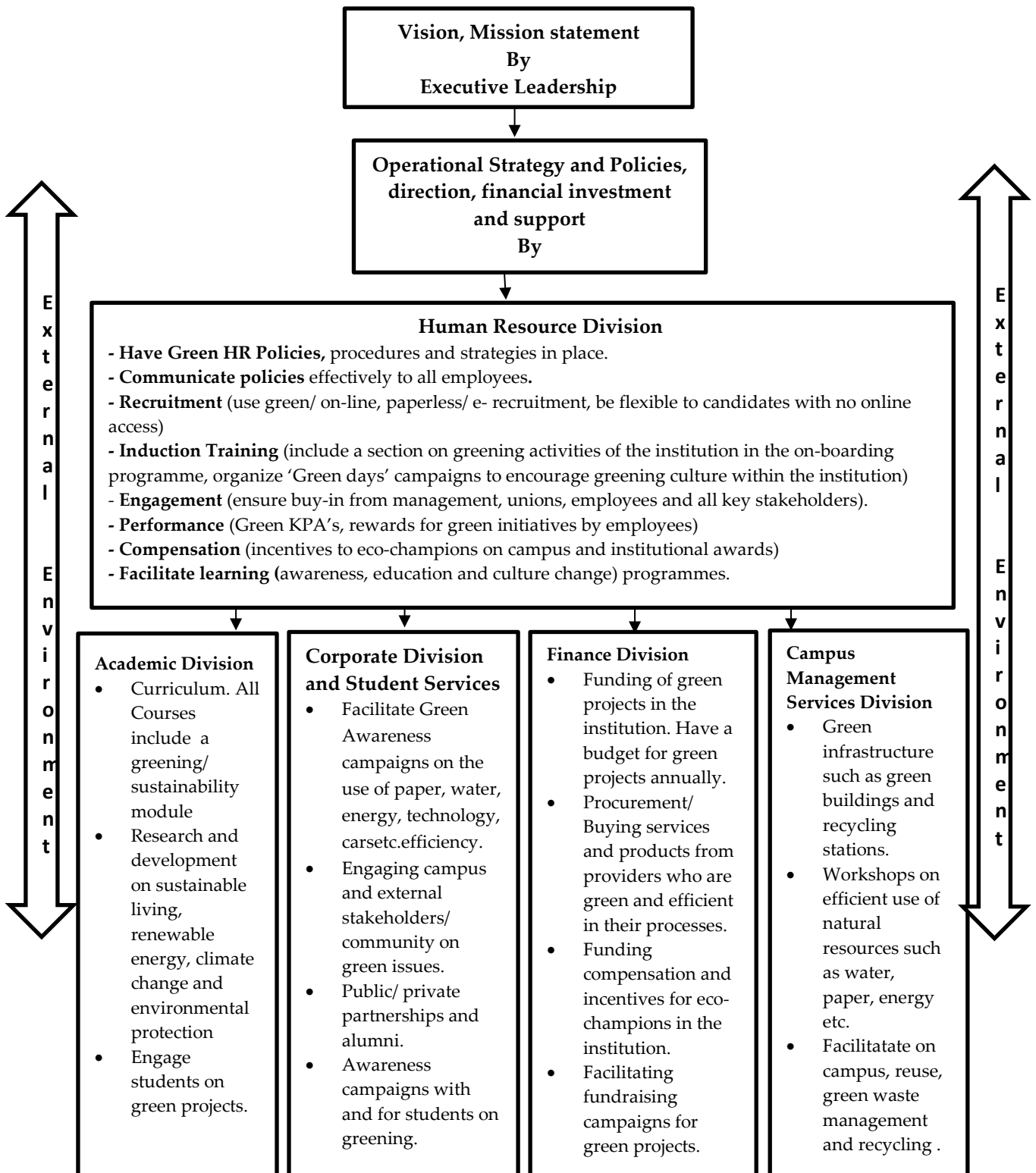
The majority of interviewees agreed that there are benefits in institutions adopting a green culture. They cited saving resources and cost efficiency as a major benefit, with a few citing that the institution’s image will also benefit. Major challenges facing South African higher education institutions that were cited that inhibited investment in green initiatives were, issues of transformation, the fees issue and insourcing issues. These were cited as taking priority in higher education over green issues. Furthermore, lack of management direction and support, lack of skilled human capital to drive the green agenda, apathy and ignorance from employees and a possibility of employee resistance were all challenges mentioned.

### **6.3. PROPOSED GREEN HRM FRAMEWORK**

As a contribution to the Green HRM discourse and the greening of organisations movement, the researcher from the beginning envisaged the development of a practical Green HRM framework that can easily be applied practically in the daily activities of the Human Resource Division. In their review article on Green HRM research and contemporary developments in the field over the last two decades (1996 -2016), Renwick, Jabbour, Redman, Wilkinson and Muller-Camen (2016) confirmed that HR scholars are undertaking serious discussions and practical interventions that may extend global debates on the HRM role in reducing ecological degradation.

This study therefore intends to contribute to that discourse by finding practical interventions and solutions that organisations can implement in their daily HR activities to ensure conservation of natural resources. Below (figure 6.1) is the Proposed Green HRM Framework developed from the findings of this particular study. A framework is an organised structure of ideas, concepts, activities and other things that are described with coherence and which can easily be communicated to other people. It can also be considered as an overview of the concepts and practices involved in the project. The Framework can be seen from many perspectives and it is derived from a variety of contexts in what is referred to as investigative frameworks, conceptual frameworks and even practical frameworks. A framework is different from a model because it is explicit and detailed in character while a model is more concise and focused. Explanation of the content of this framework is provided below the diagram.

**Figure: 6.1. Proposed Green HRM Practical Framework**



The Green HRM Practical Framework - is a practical framework that can guide HR practitioners on the establishment and implementation of Green HRM initiatives and can be applied in daily operations towards greening organisations. It is a framework aimed at assisting the Human Resource function to employ its strategies in assisting organisations to become green, and achieve their sustainability goals. This framework proposes that greening efforts in the organisation should begin with the *Vision and Mission Statement* of the organisation. This means it should begin at the top level executive management of the organisation. In the *Vision and Mission Statement* the greening philosophy should be included as well as in the organisation's operational strategy, policies and procedures. Executive Management should play a major role in driving the greening philosophy and supporting all other functions and structures in the organisation to drive the same. Management also needs to play a role through injection of investments in greening initiatives and projects, because in the beginning of such initiatives financial resources are usually needed before return on investments can be realised. The top management, middle managers and supervisors should be equipped with skills and inspired to mobilise all the workforce so that everybody's buy-in and commitment can be secured to enable the institution to carry out greening projects successfully at all levels of the institution. It is also very important that the green philosophy should be filtered down and be linked to divisional policies and procedures, especially in the public sector organisations where people, work and accountability is usually driven by formal policies and procedures.

The Human Resource Division, as the heartbeat of the organisation, is strategically positioned to spread the greening gospel throughout the organisation to all divisions. The most important role HR should play in this regard is to be a 'change agent' that designs and implements learning programmes and facilitates the transfer of greening skills through conducting workshops and trainings on using resources efficiently. HR should facilitate transformation programmes that will embed green behaviour in the culture of the organisation. HR should also display this green culture in all their activities from recruitment (entry) of new employees up to the exit (retirement or resignation) of employees from the organisation. This means in recruitment, training, performance and compensation management, green processes should be applied. In the implementation of these Green HRM activities, HR should take into context the environment they work in and the labour market conditions of the country. In the case of a developing country like South Africa, for example,



there will be candidates applying for jobs manually using paper as not everyone has access to online resources like computers and the internet. Institutions and companies should be flexible enough to consider such issues. Financial and equipment resources to facilitate processes online can also become a challenge in some sectors and institutions, as not every company can afford all the requirements of online operations especially smaller companies and organisations that may struggle to afford higher costs of data and computer equipment. HR should also assist and influence all other divisions in the organisations such as the finance, academic, corporate and campus management divisions to apply the same green principles within their divisions.

In the case of higher education institutions, the following key and strategic divisions should contribute in the following ways towards the greening cause; Academic division – this division should ensure that the curriculum and courses offered in all faculties do incorporate modules on green sustainability. Even if it is one module per qualification or even a chapter in one of the modules offered in a certain qualification as the issue of greening the organisations and our countries is a responsibility of every citizen in every occupation, therefore all courses should incorporate some information on green living. Research and development on sustainable living, renewable energy, climate change and environmental protection should be encouraged and supported. Academics should also mobilise, inspire and motivate students to be involved in green projects within the institution and outside in the communities. Corporate division - they should, in collaboration with HR, assist in the facilitation of green awareness campaigns that will encourage staff to use paper, water, energy, technology, cars etc. efficiently. This division should also engage the university community and external stakeholders/ community on green issues by facilitating the formation of public/ private partnerships and involvement of alumni relations. Finance Division - this division should ensure that there is funding and a budget available and set aside for green projects in the institution. They should streamline their supply chain processes by ensuring that most of the products and services procured for the university are from providers who are green and efficient in their production processes. They should also budget for the funding of rewards and incentives to compensate those employees who put more effort into greening the institution i.e. the ‘eco-champions’ in the institution. Campus Management and Maintenance services division – should ensure that new buildings and any new infrastructures built comply with green buildings specifications. Any renovations done to existing buildings and structures should also incorporate green building principles. They

should ensure that there are a notable number of visible recycling stations for paper, cans and plastic on all university campuses to ensure that waste that is disposed of by tens of thousands of people who are on university campuses on a daily basis is reused, recycled and upcycled. Every infrastructure on campus should be built and modelled in a way to ensure efficient use of natural resources such as water, energy, paper etc. The Human Resource Division, in its central role, is in a good position to influence and inspire all these divisions to be involved in a quest to achieve green campuses. Understanding the fact that HR Practitioners are not full experts of the greening science, they can then work in collaboration and employ the services of environmental scientists, engineers who are skilled in natural resource efficiency and other green experts in delivery of this important function within the organisation. It is important to note that, although the study's context was higher education institutions, this framework is designed in such a way that, with caution exercised, it can be applied to most organisations who are planning to embark on the greening journey.

#### **6.4. CHAPTER SUMMARY**

This chapter provided a summary of key findings of the study which revealed that the majority of HR Practitioners still have limited to no understanding at all of the concept 'Green HRM'. Findings also revealed that the perception of most HR Practitioners is that greening issues are not their mandate and someone else or another division should drive the greening business within the institution. Findings also revealed that there is no set policy framework on greening in the HR division as there are no green HR policies, which of course makes it difficult for HR to drive something that is not in their policies. Divisionally and institutionally there is no established green culture or culture of sustainability and the study revealed that if the top management do not support or drive the greening cause, it is very difficult for divisions to be inspired to be involved in such without top management support. A practical framework for Green HRM was also proposed with specific details of how it can be applied across the organisation with the HR Division playing a key facilitati

# **CHAPTER 7**

## **RECOMMENDATIONS AND CONCLUSION**

### **7.1. INTRODUCTION**

Majority of studies as indicated in the above chapters agree that HR is the Division that can play the most significant and central role in creating a culture of sustainability within organisations. Although there is some agreement in that regard, results in this study have indicated that there are challenges as well for Green HRM in the institutions. The fact of the matter is that there is a lot that still needs to be done to bring the HR Division on board in order for them to contribute to the realisation of green organisations.

### **7.2. RECOMMENDATIONS**

The following are recommendations guided by the content of the results received from the surveys conducted in this particular study. These recommendations also indicate principles that the HR division require to follow to ensure a sustained green culture within the institutions:

#### **7.2.1. Institutions should include Green clauses in their Vision and Mission statement and Operational strategies.**

The Vision and Mission statement of an organisation is most important as this is where it all begins. The organisation's green philosophy should be explicitly stated in the vision and mission statement and strategic plan as these documents are the foundation on which the organisation is built and they reflect the present and the future of the organisation. This is where all divisions in the organisation source their mandate from and they are the life-spring of the organisation.

#### **7.2.2. Institutions should incorporate greening guidelines in organisational Policies**

Findings in this study revealed that there are no greening policies for divisions within the institutions and the majority of HR practitioners surveyed made an appeal that policies

should be developed and instituted in order for them to take Green HRM seriously and professionally. Results showed that institutionally and divisionally there is a lack of a solid green policy framework in all three institutions that were part of this survey. Policies are the foundation of all activities within the organisation. Policies guide all activities of the institution. It is therefore recommended that institutions and all divisions, including the HR Division, within institutions should have policies that talk to greening issues. This will help to ensure that green activities are implemented as policies and have authority and power embedded in them and therefore they demand accountability from those entrusted to implement them.

### **7.2.3. Institutions should embed a learning culture and a culture of engagement**

Results of this survey have revealed that HR practitioners view employee engagement, training and awareness programmes on green issues as very important to ensure its success within organisations. The majority of the practitioners surveyed emphasised that knowledge and empowering HR practitioners with Green HR knowledge will ensure employee understanding, which will then motivate employees to be involved if they have sufficient knowledge of the concept 'Green HRM' and its processes and activities. Therefore, it is recommended that organisations willing to go green should adopt a culture of learning. A learning organisation is an organisation where continual learning is a norm and a way of life.. When this way of life is adopted in any organisation it will ensure that all stakeholders have knowledge of what green natural resource efficiency is all about. Everyone will be empowered and equipped with greening skills. We will not have HR practitioners who have no knowledge at all of what 'Green HRM' entails.. In a learning organisation employees are inspired to be creative, innovative in their thinking and to share ideas with one another at all levels without any inhibitions. In order for effective greening projects to be successful, all employees must be consulted, engaged and involved. This will allow them to display interest, enthusiasm, passion and commitment to the greening efforts. Therefore, the greening of the organisation should be everyone's responsibility and shared learning and teamwork should be encouraged in the process.

#### **7.2.4. Institutions should solicit top management commitment**

As much as it is recommended that all employees and all stakeholders should take part in the greening efforts of any organisation, one cannot dismiss the important role that management commitment plays in this regard. According to Daily and Huang; top management support is vital for the success of greening initiatives in the organisation. Top management support can affect the success of environmental management systems by promoting employee empowerment, affecting organisational culture to support changes, instituting systems to influence desired behaviour, such as rewards systems and incentives, providing training and increasing communication throughout the organisation (Daily and Huang, 2001). Top management and executive's commitment and support for green initiative will ensure success of any green environmental initiative in the organisation. Top management should assist in guiding line managers in terms of gaining full staff co-operation towards implementing environmental policies as they seek out and groom supporters and establish networks of problem-solvers willing to act to transform and change the status quo. Managers are vision implementers and they are captains of this big ship which is the organisation. If they are not committed to the greening cause they can steer the ship in the wrong direction or can possibly sink it, which is the reason why their commitment to greening issues is needed and very important to ensure full success. It is also recommended that managers model green behaviour to employees to encourage buy-in and support from all (Mandip, 2012). Management commitment will also help to assist in motivating a budget and funds that will support green initiatives, since it is mainly managers who make financial decisions in most organisations. Therefore, it is recommended that management buy-in and commit themselves to securing success in the greening efforts of an organisation.

#### **7.2.5. When drafting Green HRM Policies, the labour market context and environment of the sector and the country should be taken into consideration.**

Employment conditions in South Africa are different from those of most countries. The country has one of the highest unemployment rates. Government and higher education institutions priorities are to produce a skilled workforce and to create jobs for everyone. Greening, as much as it is important, will sometimes not be in the forefront of priorities. What job seekers are looking for in a country like South Africa are jobs. What employers are looking for are skilled employees who can perform the jobs on offer. The green profile of the company is not key to South African jobseekers as it might be the case in other

countries as stated in studies by Wehrmeyer, (1996); Stringer, (2009) cited in Jackson et al., (2011); and Grolleau, Mzoughi and Pekovic (2012). Companies in the UK and the United States, for example, that use green recruitment practices have a greater potential to attract top talent and good quality candidates who are also 'green'-conscious.

In addition to the broad recommendations given above, the following practical-oriented day-to-day recommendations are given to HR Divisions in universities and other organisations who are willing to achieve Green HRM goals and green efficiency in general:

#### **7.2.6. Operational day-to-day practical recommendations for institutions who want to be efficient in their daily activities.**

- Green initiatives should be included and stated explicitly in the HR 'people strategy and value proposition';
- Green investment must be considered in the financial planning and budgets of the institution, especially investments in new green initiatives because older green projects generated their own funds because when resources such as energy, water, paper etc. are saved through these projects, utility bill costs and other expenditure cost are also reduced;.
- Green HR Projects should be incorporated into the annual operational plan and budget of the division, with human and financial resources set aside to carry out such projects and accountability expected from delegated incumbents.;
- Online filing software should be installed for HR and all other divisions on campuses in order to get rid of paper filing which was seen by the researcher in all the HR offices visited during data collection for this study. Piles and piles of paper files filled many HR offices, took a lot of space, invited a lot of dust, paper moths and mice. This is an unacceptable sight at this stage in the 21<sup>st</sup> century where technology is so advanced and there are plenty of online filing software packages and systems universities can source and employ;
- Green Audit – using the services of energy efficiency experts and environmental experts and consultants to design resource efficiency plans organizations can save resources by simple practical actions such as installing solar panels, LED energy

efficient light bulbs, energy efficient water heaters and timers and buying energy efficient appliances such eco-friendly air-conditioners and other appliances;

- It is recommended that institutions should put in place plans and policies to ensure that paper use is either restricted or eliminated. This will reduce the consumption of paper, reduce consumption of ink, minimise paper-related actions of printing and photocopying. Save money, save space for filing, save resources and save time;
- Adopt Green HRM processes from recruitment stage to exit stage of an employee in order to achieve competitive advantage especially in the corporate world;
- Recruit employees who have, if possible, a passion for green issues to ensure their commitment to green initiatives once they are inside the organisation as part of Green HRM;
- Institutions should recruit using online recruitment portals. Candidates should send job applications online, interview panels should be provided with a softcopy of interview documents, Telephonic and Skype interviews, especially for candidates who are not required for highly critical and strategic positions, should be conducted with candidates who are further away from the place where interviews are taking place as part of Green HRM;
- There should be a unit within HRM that specialises in driving eco-initiatives within the institution. Its skills component should include a head of the unit or ‘Sustainability Co-ordinator’, HR experts who will assist with culture change, learning and transformation programmes and environmental management experts who will advise and drive the implementation of eco-projects and initiatives to be embarked on;
- New recruits should be given an electronic information/on-boarding pack using USB devices during induction or on-boarding as part of Green HRM;
- Every employee’s key performance area should have one or two KPA’s that will require them to be involved in greening efforts within the organisation as part of Green HRM. Such job descriptions are also referred to as ‘Green job descriptions’;
- Incentives, linked to performance management should be given to those employees who deliver greening initiatives as a motivator. This should be included in Green HRM policies;
- Institutions should provide resources, training and incentives to all those involved in green initiatives as part of Green HRM;

- The organisation and the HR Division, to be specific, should not only provide policy and financial support for greening issues. Moral support goes a long way in achieving a green organisation.
- Institutions should have green infrastructure and artefacts across the institution such as: green buildings, green offices, recycling stations, parks, nature reserves etc. (e.g. UKZN has nature reserves) and more. These artefacts are important as they send a message to all stakeholders that the organisation is willing to go green and is seriously committed to green initiatives.
- The HR Division should be the campaigners of green offices as research has proven that green office spaces lead to a healthy and productive workforce and this also falls under a Green HRM mandate.
- It is recommended that the procurement/supply chain departments in the institutions should purchase Green efficient technology, e.g. cars, printers, computers, photocopiers etc. from suppliers who are eco-conscious in their production processes.
- It is recommended that institutions should embed Green Culture in the organisation through events such as awareness campaign events, sports days, health and safety awareness days, arbour day and any relevant event that people enjoy as it is one of the smooth and easier ways to pass on the green living message. Green culture should not only be embedded through formal methods such as policies etc. using other informal events and methods as mentioned here will ensure that green culture becomes a lifestyle of the organisation not only a formal activity, Green HRM has a huge role to play here;
- It is recommended that employees should be encouraged to switch off lights, computers, printers, copiers, air conditioners, boilers and other energy using devices and equipment at the end of the day when going home to save energy and costs thereof. This must be an established office culture;
- It is recommended that employees should be encouraged to open their office curtains and blinds during the day and work with natural sunlight, to avoid switching on electric lights when sunlight is available to provide natural light and to save energy costs;
- Partnership with stakeholders from other sectors is recommended and important, for sharing information, resources and for benchmarking purposes;



- It is recommended that organisations should encourage employees to work from home on days when it is not necessary for them to come to the office. This should be stated in Green HRM policies;
- It is recommended that organisations should encourage car-pooling/car-sharing when a group of employees is travelling to the same destination or even coming to work on a daily basis;
- It is recommended that each campus should have a day-care centre, half-subsidised by the institution to ensure that employees do not travel to different areas and spend time on the road dropping off and picking up their kids from other day-care centres;
- It is recommended that organisations should encourage employees from different branches or campuses to make use of technological facilities such as Skype and video-conferencing when holding meetings to avoid travelling (e.g. UKZN and DUT with campuses in Durban and Pietermaritzburg and UNIZULU with Ongoye and Richards Bay Campuses);
- It is recommended that organisations should encourage employees and students in case of universities to make use of emailing facilities when sending documents to one another and that employees should be encouraged to read documents from their computers instead of printing hardcopies;
- It is recommended that Academics should make use of online services to share learning material with students rather than printing hardcopies of course material;
- Lastly monitoring and evaluation of progresses with regard to green efficiency in the organisation should be done at regular intervals through conducting energy, water and paper use audits and environmental surveys to determine people's level of understanding and commitment to this initiative;
- Above all, sharing of information is also one of the best principles to employ for success. Institutions should benchmark themselves against each other, share information with one another, for example; if one institution has the best 'green' performance management system in place and others are struggling in this area, they must have information-sharing sessions where they can share and collaborate with one another to ensure that 'green' and sustainable institutions and campuses are realised; and

- Finally, to achieve green organisations and green campuses, it is recommended that HR in general and institutions of higher learning in particular should preach and practice the universal slogan of the three R's – Reduce, Reuse and Recycle.
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### **7.3. LIMITATIONS OF THE STUDY**

The area of Green HRM has not been extensively researched in an African context including in South Africa. As a result, there is limited published literature in the area of Green HRM in South Africa and there is paucity of information and knowledge in this area in the country. This became a challenge for the researcher to trace a wealth of in-depth information from HR Experts and Practitioners. This was dealt with by utilising the wealth of information found in international academic journals, practitioner experiences and books in the area. As much as this was a challenge, it was an opportunity for the researcher to break the ground for Africa and South Africa on Green HRM research. Lastly, the study was restricted to higher education institutions in KwaZulu-Natal. Ideally, the Green HRM landscape should have been studied in all sectors and in the whole of South Africa, However, due to time and budgetary constraints, this was not feasible. Therefore, the findings of this study cannot be generalised to all sectors in South Africa, if generalised that should be done with caution and with due consideration of a broad spectrum of factors that are unique to each sector.

### **7.4. IMPLICATIONS FOR INSTITUTIONS ASPIRING TO GO GREEN**

“Green is not a destination it is a journey” ([humancapitalreview.org](http://humancapitalreview.org)). Institutions willing to go green and to achieve the ‘Green Campus’ or ‘Green Institution’ status need to understand that greening is a journey, a journey that is not on a straight and smooth highway, but one that has some twists and turns, highs and lows and changes paths and directions from time to time. This as a result of the fast paced world we live in, with the constant changes in environmental factors such as climate, technology, economy, socio-political factors and others. All these factors do have a direct and indirect influence on how natural resources are used and consumed in our society and specifically even in the organisations that we work for. It is also vital for organisations to understand that going green is not a shallow exercise of just recycling here and there or of having one green awareness campaign per year. Greening goes deeper than that, it is holistic in nature and it involves a total overhaul of how

things are done in the organisation. Greening requires a strategic commitment from the top echelons of the organisations to the bottom levels of the same. It requires a change in culture; change in the psychological thinking of the organisation and all in it, with a change in attitudes, perceptions and behaviour. Green is not only the physical, tangible changes we have to make to save the planet, but it is also a state of mind ((humancapitalreview.org). Greening requires commitment from the heart, financial commitment, mental commitment and physical commitment. Organisations embarking on the greening journey, will need focus, patience, resilience and commitment to achieve the results and reap the great rewards of going green.

## **7.5. CONCLUSION**

This investigation has focused on probing the role and contribution of the HR Division in the bigger movement of curbing ecological degradation and of using natural resources efficiently to ensure green and sustainable organisations. It is evident that the HR Division is still lagging behind in this movement especially on the implementation front. There is still a lot that needs to be done with regard to education, awareness, ensuring buy-in and commitment of managers and employees to the change of perceptions and attitudes of HR Practitioners and all employees at large towards green initiatives.

Chapter One provided an overview of the entire study while Chapter Two focused on the review of literature. Chapter Three provided details on the research methodology to be followed in the study. Chapter Four presented results from the qualitative study, the analysis of results and discussion. Chapter Five presented results from the quantitative study, the analysis of results and discussion. Chapter Six presented an outline of major findings from the study as well as a proposed practical framework to be used in the HR divisions towards the efforts of greening organisations. Chapter Seven provided recommendations and directions for future research.

The future of Green HRM relies on the buy-in and commitment of HR Practitioners to the course of action. The HR Division is strategically placed to influence the entire organisation to change its culture and to transform and adopt efficiency in its daily operations. It is now no longer time for talk, but practical actions and implementation of Green HRM principles is what is needed from now on for a greener future for the present and future generations.

## **7.6. DIRECTIONS FOR FUTURE RESEARCH**

How do we instil passion for greening initiatives in HR Practitioners? More research needs to be undertaken towards what methods can be used to get practical action and implementation of Green HRM principles in organisations. Studies are needed on how to get buy-in and commitment to green initiatives from all employees. Methods to spread awareness and education on greening for all employees will add value. Future studies could also examine Green HRM among all sectors in South Africa, with a view to undertaking a comparative analysis among sectors, provinces and even amongst other African countries and developing countries.

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## **9. ANNEXURES**

- a) Covering letter accompanying questionnaire and interview schedule and information consent.
- b) Questionnaire and Interview schedule
- c) Ethical Clearance from University of KwaZulu-Natal
- d) Letter confirming proofreading and editing of thesis
- e) Comprehensive Statistical Tables for Cross-tabulation statistics, Descriptive and Inferential Statistics, Statistical Results per Institution.

## **ANNEXURE A: COVERING LETTER AND INFORMATION CONSENT**

**School of Management, Information Technology and Governance (UKZN)**

### **Information Sheet and Consent to Participate in Research – Questionnaires**

Date: 10/05/2016

Dear Respondent

My name is Vuyokazi Mtembu from University of KwaZulu-Natal, my email address is: mtembuv@ukzn.ac.za. Telephone no: 031-260 8192. You are being invited to consider participating in a study that involves research on the topic: *Green Human-Resource Management towards sustainable organizations: A case of higher education institutions*. The aim and purpose of this research is to investigate the role of human resource division in organisations when it comes to issues of green management and sustainability. You are kindly requested to fill in a questionnaire which will take you about +- 15 minutes to complete depending on each individual.

There are no potential risks involved in the study. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number: HSS/0401/016D). In the event of any problems or concerns/questions you may contact the researcher at: mtembuv@ukzn.ac.za/ 031-260 8192/ 0727681719 or 031 -260 8690 (Supervisor) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows: Tel: 27 31 2604557- Fax: 27 31 2604609, Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za). Your participation in the study is voluntary and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. There will be no monetary gain from participating in the study. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study. All data, both electronic and hard copy, will be securely stored during the study and archived for 5 years. After that time, all data will be destroyed. If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the numbers listed above.

Sincerely



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Vuyokazi Mtembu (Ms.) (Researcher)

**School of Management, Information Technology and Governance (UKZN)**

**Information Sheet and Consent to Participate in Research – Interviews**

Date: 10/05/2016

Greetings,

My name is Vuyokazi Mtembu from University of KwaZulu-Natal, my email address is: mtembuv@ukzn.ac.za, Telephone no: 031-260 8192. You are being invited to consider participating in a study that involves research on the topic: *Green Human Resource Management towards sustainable organizations: A case of higher education institutions* The aim and purpose of this research is to investigate the role of human resource division policies and practices in organisations when it comes to issues of green management and sustainability. It is hoped that the study will contribute towards finding solutions and strategies to minimize inefficient use of natural resources in organisations where we work, from the perspective of human resource division thereby contributing to the global action to save our natural environment. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number: HSS/0401/016D).

In the event of any problems or concerns/questions you may contact the researcher at: mtembuv@ukzn.ac.za/ 031-260 8192/ 0727681719 or 031 -260 8690 (Dr Hoque: Supervisor) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows: Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001, Durban 4000, KwaZulu-Natal, SOUTH AFRICA, Tel: 27 31 2604557- Fax: 27 31 2604609, Email: [HSSREC@ukzn.ac.za](mailto:HSSREC@ukzn.ac.za). Your participation in the study is voluntary and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. There will be no monetary gain from participating in the study. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study.

All data, both electronic and hard copy, will be securely stored during the study and archived for 5 years. After that time, all data will be destroyed. If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the numbers listed above.

Sincerely



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Vuyokazi Mtembu (Ms.) (Researcher)

## ANNEXURE: B: QUESTIONNAIRES AND INTERVIEW SCHEDULE

### GREEN HUMAN RESOURCE MANAGEMENT – QUESTIONNAIRE

#### A. DERMOGRAPHICS

Please mark with an (X) in the box applicable to you

##### 1. AGE

1	20 -30 years	
2	31-40 years	
3	41 – 50 years	
4	51 -60 years	
5	61+ years	

##### 2. GENDER

1	Male	
2	Female	

##### 3. POSITION

1	Top Management	
2	Middle Management	
3	Operational level	

##### 4. TENURE (No. of years' experience in HR)

1	1 - 5 years	
2	6- 10 years	
3	11- 20 years	
4	21- 30 years	
5	31+ years	

**INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH EACH OF THE FOLLOWING STATEMENTS BY MARKING A CROSS (X) IN THE APPROPRIATE BOX USING THE SCALE BELOW:**

Strongly Disagree (SD) (1)

Disagree (D) (2)

Uncertain (U) (3)

Agree (A) (4)

Strongly Agree (SA) (5)

**B. HUMAN RESOURCE POLICIES, STRATEGIES AND ACTIVITIES**

No	Items	1 SD	2 D	3 U	4 A	5 SA
1.	I am aware of the term 'green human resource management' (Green HRM).					
2.	In the HR Division, some of our policies do talk to green and sustainability issues.					
3.	The university has an environmental policy.					
4.	The university's strategic plan does talk about greening our campuses.					
5.	When recruiting, we use paperless processes such as online internet advertising.					
6.	When advertising vacant positions, we try to attract green-conscious and environmentally aware candidates by mentioning green issues in our job adverts.					
7.	When recruiting, we instruct candidates to email their applications using our online application system.					
No	Items	1 SD	2 D	3 U	4 A	5 SA

8.	When recruiting, we always or sometimes conduct interviews via telephone, Skype or video conferencing for candidates from remote locations.					
9.	During on-boarding, new recruits are informed about green and the environmental sustainability philosophy of the institution.					
10.	The performance-management system we use is electronic.					
11.	Employees and their line managers enter into contracts and record performance scores on the electronic performance management system.					
12.	We have employees whose performance contracts include key performance areas (KPA's) that assess them on how efficiently they use resources at their disposal.					
13.	We reward and provide incentives to employees who are involved in green/ eco-initiative projects within the institution.					
14.	We provide training workshops for employees on how to use university resources such as cars, water, paper and energy efficiently.					
15.	Sometimes, when training, we use online training or video-conferencing systems to cut costs and travelling.					
16.	The University has a committee of employees whose responsibility it is to champion green initiatives within the institution.					
17.	There is a Sustainability Co-ordinator employed by the institution to lead the university's green and sustainability initiatives					
<b>No</b>	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
		<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>



18.	The HR Division gives support and feedback to employees involved in green and sustainability initiatives within our campuses.					
19.	There are potential benefits for the institution that embarks on green HRM practices.					
20.	There are potential challenges for the institution that embarks on green HRM practices					
21.	The HR Division has the capacity to help institutions/ campuses to save natural resources and to become 'green'.					
22.	The HR Division can influence employees to involve themselves in green initiatives within campuses.					
23.	The HR Division has too much work within their scope, therefore 'green issues' should not be part of their functions.					

### C. CHANGE, CULTURE AND LEARNING

No	Item	1 SD	2 D	3 U	4 A	5 SA
1.	As the HR Division we motivate staff to use lifts (car-pooling) when coming to and from work.					
2.	As the HR Division we encourage staff to work from home when there is no need to come to the office on a particular day.					
3.	As the HR Division we encourage staff to recycle and reuse resources such as paper.					
4.	As the HR Division we encourage staff to switch off lights and office equipment such as photocopiers and computers in the afternoon when leaving the office.					
No	Items	1 SD	2 D	3 U	4 A	5 SA

5.	As HR dDvision, we are involved in environmental awareness days and campaigns such as planting trees on Arbour day and other campus environmental events.					
6.	There is a day-care centre in our campus/ institution that caters for our employees kids.					
7.	I have witnessed a good change in employee attitudes and behaviour towards saving resources.					
8.	I have observed some form of 'resistance' from employees to involve themselves in greening projects.					
9.	Some employees do not see the importance of saving natural resources hence they do not care about green initiatives.					
10.	Green infrastructure such as 'green' buildings and 'green offices' are important to enhance productivity and health of staff.					
11.	There is a notable effort that the HR Division in my institution has put into strategies and activities to green our campus/institution.					
12.	There is a notable effort that my institution has put into strategies and activities to green our campus/ institution.					

*END*

*Thank you for taking time to fill in this questionnaire, your responses are valuable to the study*

## GREEN HUMAN RESOURCE - INTERVIEW SCHEDULE

### Policy and strategy

1. What is your understanding of the concept 'Green Human Resource Management'?

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2. What do your institution's policies such as environmental policy and Human Resource Division policies and strategic plan say regarding saving resources and greening efforts within the institution? Please explain.

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3. Please explain any greening projects/ efforts the Human Resource Division in your institution is involved in currently. (divisional)

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4. Please mention any greening programmes or projects you are aware of that your institution has adopted? (institutional)

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### HR activities

**Please explain and give examples of how green practices are applied in the following HR activities in your institution :**

5. **Recruitment** (E.g. online applications, tele or video interviews etc.)

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6. **Staff Training and development programmes** (E.g. workshops, conducting or supporting environmental awareness days such as 'Arbour day', encouraging staff to reuse and recycle resources such as paper etc.)

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7. **Performance Management** (E.g. using paperless/ electronic performance management systems, electronic filing etc.)

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8. **Compensation Management** (E.g. providing incentives to employees who recycle, and those who champion projects for environmental conservation)

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9. **Employee Engagement** (E.g. having and supporting environmental committees or forums, sustainability co-ordinators and awareness drives on 'save water, paper, energy' etc.)

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**HR Roles**

**How is the Human Resource Division applying green management practices in the following HR roles within your institution: Please explain.**

10. As Strategic Partners (aligning HR greening strategy with institution's strategy)

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11. As Administrative Experts (encouraging administrative efficiency, saving paper, cars etc.)

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12. As Change Agents (managing transformation and culture change – embedding green awareness in the behaviour of employees)

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13. As Employee Champions (encouraging a culture of environmental awareness resource efficiency and ‘green’ behaviour internally among all employees and externally, in society)

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**Culture, Learning and Change**

14. Please explain any **cultural, change and learning programmes** you can remember that your institution has adopted to encourage employees to adopt green practices? (E.g. planting trees on Arbour Day, switching off lights every afternoon, recycling or reuse culture etc.)

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15. Please explain if there has been **resistance** and other challenges towards adoption of green practices within your institution and what you think has caused this?

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16. If not much has been done regarding green HRM in your institution, what do you think are the reasons for that?

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17. What do you think are the **benefits** of adopting green HRM practices within the institution?

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18. What do you think will be the **challenges** for HR division in assisting the institution to go 'green'?

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<b>19. This is for demographic purposes (Please answer all questions below)</b>	
Name of the institution	
Participant Occupation (Position Title)	
How many years in your position?	
Age	
Gender	
Race	

Date:

Thank you very much for your participation.

## ANNEXURE C: ETHICAL CLEARANCE



21 April 2016

Ms Muzibazi Ntombikayise Mbemba (209511439)  
School of Management, IT & Governance  
Westville Campus

Dear Ms Mbemba,

Protocol reference number: HSS/0401/0160

Project title: Green Human Resource Management towards sustainable organizations: A case of KwaZulu-Natal higher education institutions

### Full Approval – Expedited Approval

With regards to your application received on 18 April 2016. The documents submitted have been accepted by the Humanities & Social Sciences Research Ethics Committee and FULL APPROVAL for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenzuka Singh (Chair)

/ms

Cc Supervisor: Dr Muhammad Hoque and Dr Rosemary Sibanda  
Cc Academic Leader Research: Professor Brian McArthur  
Cc School Administrator: Ms Angela Pearce

Humanities & Social Sciences Research Ethics Committee  
Dr Shenzuka Singh (Chair)

Westville Campus, Govan Mbeki Building

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Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)

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100 YEARS OF ACADEMIC EXCELLENCE

Pinetown Campus    Edgewood    Howard College    Medical School    Pietermaritzburg    Westville

**ANNEXURE D:**

ASOKA ENGLISH LANGUAGE EDITING CC  
CC 2011/065055/23

CELL NO.: 0836507817

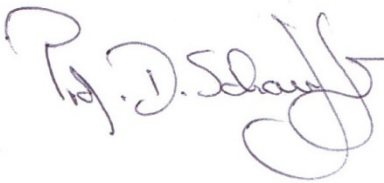


**DECLARATION OF ENGLISH LANGUAGE EDITING**

This is to certify that I have English Language edited the thesis

***Green Human-Resource Management towards sustainable organizations: A case of KwaZulu-Natal higher education institutions.***

Candidate: Mtembu VN



**SATI member number: 1001872**

**DISCLAIMER**

Whilst the English language editor has used electronic track changes to facilitate corrections and has inserted comments and queries in a right-hand column, the responsibility for effecting changes in the final, submitted document, remains the responsibility of the author in consultation with the supervisor.

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Director: Prof. Dennis Schaffer, M.A.(Leeds), PhD, KwaZulu (Natal), TEFL(London), TITC Business English, Emeritus  
Professor UKZN. Univ. Cambridge Accreditation: IGCSE Drama. Research Fellow, Durban University of Technology.



## ANNEXURE E: STATISTICAL TABLES

### DEMOGRAPHIC DETAILS: ALL RESPONDENTS:

**Table 1: Respondents Age**

Age					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	20-30years	11	20.8	20.8	20.8
	31-40years	20	37.7	37.7	58.5
	41-50years	17	32.1	32.1	90.6
	51-60years	5	9.4	9.4	100.0
	Total	53	100.0	100.0	

**Table 2: Respondents Position levels**

Position					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Middle Management	6	11.3	11.3	11.3
	Operational Level	47	88.7	88.7	100.0
	Total	53	100.0	100.0	

**Table 3: Respondents Tenure (No. of years' experience in HR)**

Tenure					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	1-5years	14	26.4	26.4	26.4
	6-10years	12	22.6	22.6	49.1
	11-20years	19	35.8	35.8	84.9
	21-30years	7	13.2	13.2	98.1
	More than 30years	1	1.9	1.9	100.0
	Total	53	100.0	100.0	

**GREEN HRM, STRATEGIES, POLICIES AND ACTIVITIES: ALL INSTITUTIONS**

**Table 4: Awareness and understanding of the Concept ‘Green HRM’**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	7	13.2	13.2	13.2
	Disagree	4	7.5	7.5	20.8
	Uncertain	10	18.9	18.9	39.6
	Agree	24	45.3	45.3	84.9
	Strongly Agree	8	15.1	15.1	100.0
	Total	53	100.0	100.0	

**Table 5: Green HRM Policies**

<b>Green Policies</b>					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	9	17.0	17.3	17.3
	Disagree	11	20.8	21.2	38.5
	Uncertain	13	24.5	25.0	63.5
	Agree	17	32.1	32.7	96.2
	Strongly Agree	2	3.8	3.8	100.0
	Total	52	98.1	100.0	
Missing	System	1	1.9		
Total		53	100.0		

**Table 6: Institution’s Environmental Policy**

<b>University's environmental policy</b>					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.9	5.9
	Disagree	6	11.3	11.8	17.6
	Uncertain	31	58.5	60.8	78.4
	Agree	8	15.1	15.7	94.1

	Strongly Agree	3	5.7	5.9	100.0
	Total	51	96.2	100.0	
Missing	System	2	3.8		
Total		53	100.0		

**Table 7: Green clause/s in University's Strategic Plan**

<b>Green clause in University's strategic plan</b>					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.9	5.9
	Disagree	7	13.2	13.7	19.6
	Uncertain	28	52.8	54.9	74.5
	Agree	10	18.9	19.6	94.1
	Strongly Agree	3	5.7	5.9	100.0
	Total	51	96.2	100.0	
Missing	System	2	3.8		
Total		53	100.0		

**Table 8: Use of electronic job application system**

<b>Use of electronic job application system</b>					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	7.5	7.5	7.5
	Disagree	7	13.2	13.2	20.8
	Uncertain	5	9.4	9.4	30.2
	Agree	18	34.0	34.0	64.2
	Strongly Agree	19	35.8	35.8	100.0
	Total	53	100.0	100.0	

**Table 9: Use of online interview system**

Use of online interview system					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	6	11.3	11.3	11.3
	Uncertain	5	9.4	9.4	20.8
	Agree	20	37.7	37.7	58.5
	Strongly Agree	22	41.5	41.5	100.0
	Total	53	100.0	100.0	

**Table 10: Use of electronic performance management system**

Use of electronic performance management system					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.8	5.8
	Disagree	6	11.3	11.5	17.3
	Uncertain	8	15.1	15.4	32.7
	Agree	14	26.4	26.9	59.6
	Strongly Agree	21	39.6	40.4	100.0
	Total	52	98.1	100.0	
Missing	System	1	1.9		
Total		53	100.0		

**Table 11: Inclusion of Green KPA's in Job Descriptions**

Green KPA's					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	6	11.3	11.3	11.3
	Disagree	11	20.8	20.8	32.1
	Uncertain	15	28.3	28.3	60.4
	Agree	14	26.4	26.4	86.8
	Strongly Agree	7	13.2	13.2	100.0
	Total	53	100.0	100.0	

**Table 12: Rewards and incentives for Green Champions**

Rewards and incentives					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	15	28.3	28.3	28.3
	Disagree	19	35.8	35.8	64.2
	Uncertain	15	28.3	28.3	92.5
	Agree	4	7.5	7.5	100.0
	Total	53	100.0	100.0	

**Table 13: Training workshops on Greening the organization**

Training workshops					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	14	26.4	26.4	26.4
	Disagree	19	35.8	35.8	62.3
	Uncertain	16	30.2	30.2	92.5
	Agree	3	5.7	5.7	98.1
	Strongly Agree	1	1.9	1.9	100.0
	Total	53	100.0	100.0	

**Table 14: Providing Support and Feedback to Green Champions**

Support and feedback					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	10	18.9	18.9	18.9
	Disagree	20	37.7	37.7	56.6
	Uncertain	19	35.8	35.8	92.5
	Agree	4	7.5	7.5	100.0
	Total	53	100.0	100.0	

## HR DIVISION, ROLES, INFLUENCE AND CAPACITY TOWARDS GREENING

**Table 15: Greening the Institution: HR division Capacity**

HR Division capacity					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.7	5.7
	Disagree	7	13.2	13.2	18.9
	Uncertain	12	22.6	22.6	41.5
	Agree	18	34.0	34.0	75.5
	Strongly Agree	13	24.5	24.5	100.0
	Total	53	100.0	100.0	

**Table 16: Greening the Institution: HR Division Influence**

HR Division influence					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	1.9	1.9	1.9
	Disagree	3	5.7	5.8	7.7
	Uncertain	7	13.2	13.5	21.2
	Agree	27	50.9	51.9	73.1
	Strongly Agree	14	26.4	26.9	100.0
	Total	52	98.1	100.0	
Missing	System	1	1.9		
Total		53	100.0		

**Table 17: Greening the Institution: Motivation to Staff by HR**

HR Division motivation					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	14	26.4	26.4	26.4
	Disagree	22	41.5	41.5	67.9
	Uncertain	13	24.5	24.5	92.5
	Agree	3	5.7	5.7	98.1
	Strongly Agree	1	1.9	1.9	100.0
	Total	53	100.0	100.0	

## GREEN HRM: BENEFITS AND CHALLENGES FOR GREENING IN THE INSTITUTIONS

**Table 18: Benefits for Institutions employing Green HRM activities**

Institutional benefits					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.7	5.7
	Disagree	6	11.3	11.3	17.0
	Uncertain	18	34.0	34.0	50.9
	Agree	17	32.1	32.1	83.0
	Strongly Agree	9	17.0	17.0	100.0
	Total	53	100.0	100.0	

**Table 19: Challenges for Institutions employing Green HRM activities**

Institutional challenges					
		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	5.7	5.7	5.7
	Disagree	5	9.4	9.4	15.1
	Uncertain	29	54.7	54.7	69.8
	Agree	16	30.2	30.2	100.0
	Total	53	100.0	100.0	

### MEASURES OF CENTRAL TENDENCY TABLES

**Table 20: Statistics, Awareness, Policies, Strategy and Activities**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Aware of green HRM	53	0	3.42	4.00	4	1.232
Green policies in HR Division	52	1	2.85	3.00	4	1.178
University's environmental policy	51	2	3.04	3.00	3	.871
University's strategic plan	51	2	3.06	3.00	3	.904
Green recruiting practices	53	0	3.26	4.00	4	1.347
Attracting 'green', aware candidates	53	0	2.11	2.00	2	.891

Electronic application submissions	53	0	3.77	4.00	5	1.281
Electronic interviews	53	0	4.09	4.00	5	.986
Institutional philosophy information	53	0	2.49	3.00	3	.891
Electronic performance management system	52	1	3.85	4.00	5	1.243
Scores on electronic platform	53	0	3.81	4.00	5	1.331
KPA assessment	53	0	3.09	3.00	3	1.213
Rewards and incentives	53	0	2.15	2.00	2	.928
Training workshops	53	0	2.21	2.00	2	.968
Online training	53	0	2.85	3.00	3	1.150



**Table 21: Green HRM: Benefits and Challenges**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Institutional benefits	53	0	3.43	3.00	3	1.083
Institutional challenges	53	0	3.09	3.00	3	.791
HR Division capacity	53	0	3.58	4.00	4	1.167
HR Division influence	52	1	3.96	4.00	4	.907
HR Division functions	52	1	2.42	2.00	2	1.177

**Table 22: Statistics, Change, Culture and Learning**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
HR Division motivation	53	0	2.15	2.00	2	.949
Work from home	53	0	1.57	1.00	1	.772
Recycling and reuse	53	0	3.04	3.00	4	1.285
Save electricity	53	0	3.47	4.00	4	1.353
Environmental campaigns	53	0	2.26	2.00	2	1.112
Institution day-care centre	53	0	2.51	2.00	1	1.382
Employee attitude and behaviour changes	53	0	2.87	3.00	3	.962
Employee resistance	52	1	2.94	3.00	3	.777
Importance of saving	53	0	3.11	3.00	4	.934
Importance of green infrastructure	53	0	4.09	4.00	4	.838

**Table 23: Statistics, HR and Institutional Efforts**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
HR Division strategic efforts	53	0	2.38	2.00	3	.985
Institutional strategic efforts	52	1	2.67	3.00	3	1.024

## STATISTICAL RESULTS PER INSTITUTIONS: DESCRIPTIVE STATISTICS

### DUT (Durban University of Technology)

**TABLE 24: DUT: AGE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	20-30years	2	16.7	16.7	16.7
	31-40years	5	41.7	41.7	58.3
	41-50years	4	33.3	33.3	91.7
	51-60years	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 25: DUT: GENDER**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Male	4	33.3	33.3	33.3
	Female	8	66.7	66.7	100.0
	Total	12	100.0	100.0	

**TABLE 26: DUT: POSITION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Middle Management	1	8.3	8.3	8.3
	Operational Level	11	91.7	91.7	100.0
	Total	12	100.0	100.0	

**TABLE 27: DUT: TENURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	1-5years	1	8.3	8.3	8.3
	6-10years	4	33.3	33.3	41.7
	11-20years	5	41.7	41.7	83.3
	21-30years	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

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**TABLE 28: DUT: AWARE OF GREEN HRM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	3	25.0	25.0	25.0
	Agree	7	58.3	58.3	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 29: DUT: GREEN POLICIES IN HR DIVISION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	2	16.7	16.7	16.7
	Uncertain	1	8.3	8.3	25.0
	Agree	7	58.3	58.3	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 30: DUT:UNIVERSITY'S ENVIRONMENTAL POLICY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	25.0	27.3	27.3
	Uncertain	3	25.0	27.3	54.5
	Agree	5	41.7	45.5	100.0
	Total	11	91.7	100.0	
Missing	System	1	8.3		
Total		12	100.0		

**TABLE 31: DUT: UNIVERSITY'S STRATEGIC PLAN**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	8.3	9.1	9.1
	Uncertain	3	25.0	27.3	36.4
	Agree	5	41.7	45.5	81.8
	Strongly Agree	2	16.7	18.2	100.0
	Total	11	91.7	100.0	

**TABLE 32: DUT:GREEN RECRUITING PRACTICES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	25.0	25.0	25.0
	Disagree	3	25.0	25.0	50.0
	Uncertain	1	8.3	8.3	58.3
	Agree	3	25.0	25.0	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 33: DUT: ONLINE APPLICATION SUBMISSIONS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	5	41.7	41.7	50.0
	Uncertain	2	16.7	16.7	66.7
	Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 34: ONLINE INTERVIEWS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	25.0	25.0	25.0
	Uncertain	1	8.3	8.3	33.3
	Agree	4	33.3	33.3	66.7
	Strongly Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 35: DUT: ONLINE PERFORMANCE MANAGEMENT SYSTEM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	9.1	9.1
	Disagree	5	41.7	45.5	54.5
	Uncertain	4	33.3	36.4	90.9
	Agree	1	8.3	9.1	100.0
	Total	11	91.7	100.0	
Missing	System	1	8.3		
Total		12	100.0		

**TABLE 36: DUT: ONLINE PM SCORES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	6	50.0	50.0	66.7
	Uncertain	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 37: DUT: GREEN KPA ASSESSMENT**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	5	41.7	41.7	58.3
	Uncertain	4	33.3	33.3	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 38: DUT: REWARDS AND INCENTIVES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	6	50.0	50.0	66.7
	Uncertain	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 39: DUT: TRAINING WORKSHOPS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	5	41.7	41.7	58.3
	Uncertain	4	33.3	33.3	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 40: DUT: ONLINE TRAINING**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	4	33.3	33.3	50.0
	Uncertain	6	50.0	50.0	100.0
	Total	12	100.0	100.0	

**TABLE 41: DUT: UNIVERSITY'S GREEN COMMITTEE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	4	33.3	33.3	41.7
	Uncertain	6	50.0	50.0	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 42: DUT:UNIVERSITY'S SUSTAINABILITY COORDINATOR**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	4	33.3	33.3	41.7
	Uncertain	6	50.0	50.0	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 43: DUT: SUPPORT AND FEEDBACK**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	7	58.3	58.3	58.3
	Uncertain	4	33.3	33.3	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 44: DUT:INSTITUTIONAL BENEFITS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	25.0	25.0	25.0
	Uncertain	4	33.3	33.3	58.3
	Agree	4	33.3	33.3	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 45: DUT:INSTITUTIONAL CHALLENGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	25.0	25.0	25.0
	Uncertain	4	33.3	33.3	58.3
	Agree	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

**TABLE 46: DUT: HR DIVISION CAPACITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	8.3	8.3	8.3
	Uncertain	3	25.0	25.0	33.3
	Agree	4	33.3	33.3	66.7
	Strongly Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 47: DUT: HR DIVISION INFLUENCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	8.3	9.1	9.1
	Uncertain	1	8.3	9.1	18.2
	Agree	6	50.0	54.5	72.7
	Strongly Agree	3	25.0	27.3	100.0
	Total	11	91.7	100.0	
Missing	System	1	8.3		
Total		12	100.0		

**TABLE 48: DUT: HR DIVISION MOTIVATION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	3	25.0	25.0	41.7
	Uncertain	6	50.0	50.0	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 49: DUT: WORK FROM HOME**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	5	41.7	41.7	41.7
	Disagree	5	41.7	41.7	83.3
	Uncertain	1	8.3	8.3	91.7
	Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 50: DUT: RECYCLING AND REUSE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	1	8.3	8.3	25.0
	Uncertain	2	16.7	16.7	41.7
	Agree	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

**TABLE 51: DUT: SAVE ELECTRICITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	8.3	8.3	8.3
	Agree	5	41.7	41.7	50.0
	Strongly Agree	6	50.0	50.0	100.0
	Total	12	100.0	100.0	



**TABLE 52: DUT: ENVIRONMENTAL CAMPAIGNS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	6	50.0	50.0	58.3
	Uncertain	1	8.3	8.3	66.7
	Agree	2	16.7	16.7	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 53: DUT: INSTITUTION DAY CARE CENTRE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	25.0	25.0	25.0
	Disagree	5	41.7	41.7	66.7
	Uncertain	2	16.7	16.7	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 54: DUT: EMPLOYEE ATTITUDE AND BEHAVIOUR CHANGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	25.0	25.0	25.0
	Uncertain	3	25.0	25.0	50.0
	Agree	5	41.7	41.7	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 55: DUT: EMPLOYEE RESISTANCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	4	33.3	33.3	33.3
	Uncertain	4	33.3	33.3	66.7
	Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 56: DUT: IMPORTANCE OF SAVING**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	2	16.7	16.7	33.3
	Uncertain	1	8.3	8.3	41.7
	Agree	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

**TABLE 57: DUT: IMPORTANCE OF GREEN INFRASTRUCTURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	2	16.7	16.7	16.7
	Uncertain	1	8.3	8.3	25.0
	Agree	7	58.3	58.3	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

**TABLE 58: DUT: HR DIVISION STRATEGIC EFFORTS**

		Frequency	Percent	Valid Percent	Cumulative Per cent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	2	16.7	16.7	33.3
	Uncertain	4	33.3	33.3	66.7
	Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

**TABLE 59: DUT: INSTITUTIONAL STRATEGIC EFFORTS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	2	16.7	16.7	25.0
	Uncertain	3	25.0	25.0	50.0
	Agree	5	41.7	41.7	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

**TABLE 60: FREQUENCY DISTRIBUTION: DUT**

<b>Statistics</b>						
	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Green recruiting practices	12	0	2.83	2.50	1 <sup>a</sup>	1.528
Attracting green aware candidates	12	0	2.33	2.00	2	.778
Electronic application submissions	12	0	2.75	2.50	2	1.055
Electronic interviews	12	0	3.75	4.00	4 <sup>a</sup>	1.215
Institutional philosophy information	12	0	2.58	2.50	2	.669
Electronic performance management system	11	1	2.45	2.00	2	.820
Scores on electronic platform	12	0	2.17	2.00	2	.718
KPA assessment	12	0	2.42	2.00	2	1.084
Rewards and incentives	12	0	2.17	2.00	2	.718
Training workshops	12	0	2.33	2.00	2	.888
Online training	12	0	2.33	2.50	3	.778
University's green committee	12	0	2.58	3.00	3	.793
University's sustainability coordinator	12	0	2.58	3.00	3	.793
Support and feedback	12	0	2.50	2.00	2	.674
Institutional benefits	12	0	3.25	3.00	3 <sup>a</sup>	.965
Institutional challenges	12	0	3.17	3.00	4	.835
HR Division capacity	12	0	3.92	4.00	4 <sup>a</sup>	.996
HR Division influence	11	1	4.00	4.00	4	.894
HR Division efforts	12	0	2.83	3.00	3a	1.115
Institutional efforts	12	0	3.25	3.50	4	1.138

a. Multiple modes exist. The smallest value is shown

**Table 61: ANOVA: DUT**

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.388	1.306		2.593	.049
	University's strategic plan	.122	.1	.122	.284	.607
	Green policies in HR Division	.085	.233	.122	.363	.726
	University's environmental policy	-.244	.269	-.304	-.908	.391
	Institutional benefits	.290	.350	.383	.829	.445
	Institutional challenges	-.203	.461	-.228	-.441	.678
	HR Division capacity	-.956	.543	-1.365	-1.761	.139
	HR Division influence	.920	.772	1.174	1.191	.287
	HR Division functions	.171	.332	.203	.517	.627

a. Dependent Variable: Aware of green HRM

## UKZN

**TABLE 62: UKZN: AGE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	20-30years	6	17.6	17.6	17.6
	31-40years	13	38.2	38.2	55.9
	41-50years	11	32.4	32.4	88.2
	51-60years	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

**TABLE 63: UKZN: GENDER**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Male	10	29.4	29.4	29.4
	Female	24	70.6	70.6	100.0
	Total	34	100.0	100.0	

**TABLE 64: UKZN: POSITION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Middle Management	5	14.7	14.7	14.7
	Operational Level	29	85.3	85.3	100.0
	Total	34	100.0	100.0	

**TABLE 65: UKZN: TENURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	1-5years	10	29.4	29.4	29.4
	6-10years	8	23.5	23.5	52.9
	11-20years	11	32.4	32.4	85.3
	21-30years	4	11.8	11.8	97.1
	More than 30years	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 66: UKZN: AWARE OF GREEN HRM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	6	17.6	17.6	17.6
	Disagree	4	11.8	11.8	29.4
	Uncertain	7	20.6	20.6	50.0
	Agree	14	41.2	41.2	91.2
	Strongly Agree	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

**TABLE 67: UKZN: GREEN POLICIES IN HR DIVISION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	8	23.5	24.2	24.2
	Disagree	8	23.5	24.2	48.5
	Uncertain	12	35.3	36.4	84.8
	Agree	5	14.7	15.2	100.0
	Total	33	97.1	100.0	
Missing	System	1	2.9		
Total		34	100.0		

**TABLE 68: UKZN: UNIVERSITY'S ENVIRONMENTAL POLICY**

		frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	8.8	9.1	9.1
	Disagree	3	8.8	9.1	18.2
	Uncertain	24	70.6	72.7	90.9
	Agree	3	8.8	9.1	100.0
	Total	33	97.1	100.0	
Missing	System	1	2.9		
Total		34	100.0		

**TABLE 69: UKZN: UNIVERSITY'S STRATEGIC PLAN**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	8.8	9.1	9.1
	Disagree	5	14.7	15.2	24.2
	Uncertain	22	64.7	66.7	90.9
	Agree	3	8.8	9.1	100.0
	Total	33	97.1	100.0	
Missing	System	1	2.9		
Total		34	100.0		

**TABLE 70: UKZN GREEN RECRUITING PRACTICES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	5	14.7	14.7	14.7
	Disagree	7	20.6	20.6	35.3
	Uncertain	2	5.9	5.9	41.2
	Agree	17	50.0	50.0	91.2
	Strongly Agree	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

**TABLE 71: UKZN: ELECTRONIC APPLICATION SUBMISSIONS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	8.8	8.8	8.8
	Disagree	2	5.9	5.9	14.7
	Uncertain	3	8.8	8.8	23.5
	Agree	12	35.3	35.3	58.8
	Strongly Agree	14	41.2	41.2	100.0
	Total	34	100.0	100.0	

**TABLE 72: UKZN: ONLINE INTERVIEWS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	3	8.8	8.8	8.8
	Uncertain	4	11.8	11.8	20.6
	Agree	12	35.3	35.3	55.9
	Strongly Agree	15	44.1	44.1	100.0
	Total	34	100.0	100.0	

**TABLE 73: UKZN: ONLINE PERFORMANCE MANAGEMENT SYSTEM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	1	2.9	2.9	2.9
	Agree	12	35.3	35.3	38.2
	Strongly Agree	21	61.8	61.8	100.0
	Total	34	100.0	100.0	

**TABLE 74: UKZN: PM SCORES ONLINE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Agree	11	32.4	32.4	32.4
	Strongly Agree	23	67.6	67.6	100.0
	Total	34	100.0	100.0	

**TABLE 75: UKZN: KPA ASSESSMENT**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	2.9	2.9	2.9
	Disagree	5	14.7	14.7	17.6
	Uncertain	10	29.4	29.4	47.1
	Agree	12	35.3	35.3	82.4
	Strongly Agree	6	17.6	17.6	100.0
	Total	34	100.0	100.0	



**TABLE 76: UKZN REWARDS AND INCENTIVES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	10	29.4	29.4	29.4
	Disagree	11	32.4	32.4	61.8
	Uncertain	11	32.4	32.4	94.1
	Agree	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

**TABLE 77: UKZN: TRAINING WORKSHOPS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	8	23.5	23.5	23.5
	Disagree	13	38.2	38.2	61.8
	Uncertain	12	35.3	35.3	97.1
	Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 78: UKZN ONLINE TRAINING**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	11.8	11.8	11.8
	Disagree	7	20.6	20.6	32.4
	Uncertain	8	23.5	23.5	55.9
	Agree	13	38.2	38.2	94.1
	Strongly Agree	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

**TABLE 79: UKZN UNIVERSITY'S GREEN COMMITTEE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	6	17.6	17.6	17.6
	Disagree	4	11.8	11.8	29.4
	Uncertain	20	58.8	58.8	88.2
	Agree	3	8.8	8.8	97.1
	Strongly Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 80: UKZN: UNIVERSITY'S SUSTAINABILITY  
COORDINATOR**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	8	23.5	23.5	23.5
	Disagree	2	5.9	5.9	29.4
	Uncertain	21	61.8	61.8	91.2
	Agree	2	5.9	5.9	97.1
	Strongly Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 81: UKZN SUPPORT AND FEEDBACK**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	8	23.5	23.5	23.5
	Disagree	12	35.3	35.3	58.8
	Uncertain	12	35.3	35.3	94.1
	Agree	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

**TABLE 82: UKZN: INSTITUTIONAL BENEFITS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	5.9	5.9	5.9
	Disagree	3	8.8	8.8	14.7
	Uncertain	12	35.3	35.3	50.0
	Agree	10	29.4	29.4	79.4
	Strongly Agree	7	20.6	20.6	100.0
	Total	34	100.0	100.0	

**TABLE 83: UKZN: INSTITUTIONAL CHALLENGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	5.9	5.9	5.9
	Disagree	2	5.9	5.9	11.8
	Uncertain	23	67.6	67.6	79.4
	Agree	7	20.6	20.6	100.0
	Total	34	100.0	100.0	

**TABLE 84: UKZN: HR DIVISION CAPACITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	8.8	8.8	8.8
	Disagree	6	17.6	17.6	26.5
	Uncertain	7	20.6	20.6	47.1
	Agree	14	41.2	41.2	88.2
	Strongly Agree	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

**TABLE 85: UKZN: HR DIVISION INFLUENCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	2.9	2.9	2.9
	Disagree	2	5.9	5.9	8.8
	Uncertain	5	14.7	14.7	23.5
	Agree	20	58.8	58.8	82.4
	Strongly Agree	6	17.6	17.6	100.0
	Total	34	100.0	100.0	

**TABLE 86: UKZN: HR DIVISION MOTIVATION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	11	32.4	32.4	32.4
	Disagree	16	47.1	47.1	79.4
	Uncertain	5	14.7	14.7	94.1
	Agree	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

**TABLE 87: UKZN: WORK FROM HOME**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	21	61.8	61.8	61.8
	Disagree	11	32.4	32.4	94.1
	Uncertain	1	2.9	2.9	97.1
	Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 88: UKZN RECYCLING AND REUSE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	6	17.6	17.6	17.6
	Disagree	7	20.6	20.6	38.2
	Uncertain	7	20.6	20.6	58.8
	Agree	13	38.2	38.2	97.1
	Strongly Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 89: UKZN: SAVE ELECTRICITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	11.8	11.8	11.8
	Disagree	10	29.4	29.4	41.2
	Uncertain	5	14.7	14.7	55.9
	Agree	10	29.4	29.4	85.3
	Strongly Agree	5	14.7	14.7	100.0
	Total	34	100.0	100.0	

**TABLE 90: UKZN: ENVIRONMENTAL CAMPAIGNS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	12	35.3	35.3	35.3
	Disagree	12	35.3	35.3	70.6
	Uncertain	8	23.5	23.5	94.1
	Agree	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

**TABLE 91: UKZN: INSTITUTION DAY CARE CENTRE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	12	35.3	35.3	35.3
	Disagree	4	11.8	11.8	47.1
	Uncertain	6	17.6	17.6	64.7
	Agree	9	26.5	26.5	91.2
	Strongly Agree	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

**TABLE 92: UKZN EMPLOYEE ATTITUDE AND BEHAVIOUR CHANGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	11.8	11.8	11.8
	Disagree	11	32.4	32.4	44.1
	Uncertain	13	38.2	38.2	82.4
	Agree	6	17.6	17.6	100.0
	Total	34	100.0	100.0	

**TABLE 93: UKZN EMPLOYEE RESISTANCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	5	14.7	15.2	15.2
	Uncertain	23	67.6	69.7	84.8
	Agree	3	8.8	9.1	93.9
	Strongly Agree	2	5.9	6.1	100.0
	Total	33	97.1	100.0	
Missing	System	1	2.9		
Total		34	100.0		

**TABLE 94: UKZN Importance of saving**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	5	14.7	14.7	14.7
	Uncertain	17	50.0	50.0	64.7
	Agree	11	32.4	32.4	97.1
	Strongly Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 95: UKZN: IMPORTANCE OF GREEN INFRASTRUCTURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	7	20.6	20.6	20.6
	Agree	12	35.3	35.3	55.9
	Strongly Agree	15	44.1	44.1	100.0
	Total	34	100.0	100.0	

**TABLE 96: UKZN: HR DIVISION STRATEGIC EFFORTS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	8	23.5	23.5	23.5
	Disagree	12	35.3	35.3	58.8
	Uncertain	13	38.2	38.2	97.1
	Agree	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

**TABLE 97: UKZN: INSTITUTIONAL STRATEGIC EFFORTS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	6	17.6	18.2	18.2
	Disagree	7	20.6	21.2	39.4
	Uncertain	17	50.0	51.5	90.9
	Agree	3	8.8	9.1	100.0
	Total	33	97.1	100.0	
Missing	System	1	2.9		
Total		34	100.0		

**Table 98: Frequency distribution: UKZN**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Green recruiting practices	34	0	3.18	4.00	4	1.290
Attracting green aware candidates	34	0	1.97	2.00	2	.834
Electronic application submissions	34	0	3.94	4.00	5	1.254
Electronic interviews	34	0	4.15	4.00	5	.958
Institutional philosophy information	34	0	2.38	3.00	3	.922
Electronic performance management system	34	0	4.59	5.00	5	.557
Scores on electronic platform	34	0	4.68	5.00	5	.475
KPA assessment	34	0	3.50	4.00	4	1.052
Rewards and incentives	34	0	2.15	2.00	2 <sup>a</sup>	.925
Training workshops	34	0	2.18	2.00	2	.834
Online training	34	0	3.06	3.00	4	1.153
University's green committee	34	0	2.68	3.00	3	.976
University's sustainability coordinator	34	0	2.59	3.00	3	1.019
Support and feedback	34	0	2.24	2.00	2 <sup>a</sup>	.890
Institutional benefits	34	0	3.50	3.50	3	1.108
Institutional challenges	34	0	3.03	3.00	3	.717
HR Division capacity	34	0	3.29	4.00	4	1.169
HR Division influence	34	0	3.82	4.00	4	.904
HR Division efforts	34	0	2.21	2.00	3	.845
Institutional efforts	33	1	2.52	3.00	3	.906

a. Multiple modes exist. The smallest value is shown

**TABLE 99: UKZN: ANOVA**

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.014	2.841		2.117	.048
	Green recruiting practices	-.168	.271	-.170	-.620	.543
	Attracting green aware candidates	-.145	.422	-.095	-.345	.734
	Electronic application submissions	-.174	.251	-.172	-.694	.496
	Electronic interviews	-.303	.363	-.228	-.836	.413
	Institutional philosophy information	-.042	.493	-.030	-.085	.933
	Electronic performance management system	-.083	1.224	-.036	-.068	.947
	Scores on electronic platform	.060	1.299	.022	.046	.964
	KPA assessment	-.299	.277	-.247	-1.080	.294
	Rewards and incentives	.439	.502	.319	.875	.393
	Training workshops	.252	.566	.165	.444	.662
	Online training	.134	.352	.122	.381	.707
	University's green committee	-.196	.877	-.151	-.224	.825
	University's sustainability coordinator	.404	.701	.323	.576	.571
	Support and feedback	-.583	.557	-.407	-1.047	.308
	Institutional benefits	-.287	.210	-.249	-1.369	.182
	Institutional challenges	-.292	.311	-.165	-.939	.356
	HR Division capacity	.057	.259	.052	.220	.827
	HR Division influence	.620	.383	.434	1.621	.117

a. Dependent Variable: Aware of green HRM



## UNIZULU

**TABLE 100: UNIZULU: AGE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	20-30years	3	42.9	42.9	42.9
	31-40years	2	28.6	28.6	71.4
	41-50years	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 101: UNIZULU: GENDER**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Male	1	14.3	14.3	14.3
	Female	6	85.7	85.7	100.0
	Total	7	100.0	100.0	

**TABLE 102: UNIZULU: POSITION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Operational Level	7	100.0	100.0	100.0

**TABLE 103: UNIZULU: TENURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	1-5years	3	42.9	42.9	42.9
	11-20years	3	42.9	42.9	85.7
	21-30years	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 104: UNIZULU: AWARE OF GREEN HRM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Agree	3	42.9	42.9	57.1
	Strongly Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 105: UNIZULU: GREEN POLICIES IN HR DIVISION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Disagree	1	14.3	14.3	28.6
	Agree	5	71.4	71.4	100.0
	Total	7	100.0	100.0	

**TABLE 106: UNIZULU: UNIVERSITY'S ENVIRONMENTAL POLICY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	4	57.1	57.1	57.1
	Strongly Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 107: UNIZULU: UNIVERSITY'S STRATEGIC PLAN**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	14.3	14.3	14.3
	Uncertain	3	42.9	42.9	57.1
	Agree	2	28.6	28.6	85.7
	Strongly Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 108: UNIZULU: GREEN RECRUITING PRACTICES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Agree	4	57.1	57.1	57.1
	Strongly Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 109: UNIZULU: ONLINE APPLICATION SUBMISSIONS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Agree	2	28.6	28.6	28.6
	Strongly Agree	5	71.4	71.4	100.0
	Total	7	100.0	100.0	

**TABLE 110: UNIZULU: ELECTRONIC INTERVIEWS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Agree	4	57.1	57.1	57.1
	Strongly Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 111: UNIZULU: ONLINE PERFORMANCE MANAGEMENT SYSTEM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	3	42.9	42.9	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 112: UNIZULU: SCORES ON ELECTRONIC PLATFORM**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	3	42.9	42.9	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 113: UNIZULU: KPA ASSESSMENT**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	42.9	42.9	42.9
	Disagree	1	14.3	14.3	57.1
	Uncertain	1	14.3	14.3	71.4
	Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 114: UNIZULU: REWARDS AND INCENTIVES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	42.9	42.9	42.9
	Disagree	2	28.6	28.6	71.4
	Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 115: UNIZULU: TRAINING WORKSHOPS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	57.1	57.1	57.1
	Disagree	1	14.3	14.3	71.4
	Agree	1	14.3	14.3	85.7
	Strongly Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 116: UNIZULU: ONLINE TRAINING**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	2	28.6	28.6	71.4
	Agree	1	14.3	14.3	85.7
	Strongly Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 117: UNIZULU UNIVERSITY'S GREEN COMMITTEE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	57.1	57.1	57.1
	Uncertain	2	28.6	28.6	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 118: UNIZULU: UNIVERSITY'S SUSTAINABILITY COORDINATOR**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	57.1	57.1	57.1
	Uncertain	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 119: UNIZULU: SUPPORT AND FEEDBACK**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	3	42.9	42.9	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 120: UNIZULU: INSTITUTIONAL BENEFITS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Uncertain	2	28.6	28.6	42.9
	Agree	3	42.9	42.9	85.7
	Strongly Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 121: UNIZULU: INSTITUTIONAL CHALLENGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Uncertain	2	28.6	28.6	42.9
	Agree	4	57.1	57.1	100.0
	Total	7	100.0	100.0	

**TABLE 122: UNIZULU: HR DIVISION CAPACITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	2	28.6	28.6	28.6
	Strongly Agree	5	71.4	71.4	100.0
	Total	7	100.0	100.0	

**TABLE 123: UNIZULU: HR DIVISION INFLUENCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	1	14.3	14.3	14.3
	Agree	1	14.3	14.3	28.6
	Strongly Agree	5	71.4	71.4	100.0
	Total	7	100.0	100.0	

**TABLE 124: UNIZULU: HR DIVISION MOTIVATION**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Disagree	3	42.9	42.9	57.1
	Uncertain	2	28.6	28.6	85.7
	Strongly Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 125: UNIZULU: WORK FROM HOME**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	4	57.1	57.1	57.1
	Disagree	2	28.6	28.6	85.7
	Uncertain	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 126: UNIZULU: Recycling and reuse**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Agree	2	28.6	28.6	57.1
	Strongly Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 127: UNIZULU: SAVE ELECTRICITY**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Uncertain	1	14.3	14.3	28.6
	Agree	1	14.3	14.3	42.9
	Strongly Agree	4	57.1	57.1	100.0
	Total	7	100.0	100.0	

**TABLE 128: UNIZULU: ENVIRONMENTAL CAMPAIGNS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	2	28.6	28.6	71.4
	Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 129: UNIZULU: INSTITUTION DAY CARE CENTRE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	3	42.9	42.9	42.9
	Disagree	1	14.3	14.3	57.1
	Uncertain	2	28.6	28.6	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 130: UNIZULU: EMPLOYEE ATTITUDE AND BEHAVIOUR CHANGES**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Disagree	1	14.3	14.3	14.3
	Uncertain	3	42.9	42.9	57.1
	Agree	3	42.9	42.9	100.0
	Total	7	100.0	100.0	



**TABLE 131: UNIZULU: EMPLOYEE RESISTANCE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Disagree	3	42.9	42.9	57.1
	Uncertain	3	42.9	42.9	100.0
	Total	7	100.0	100.0	

**TABLE 132: UNIZULU: IMPORTANCE OF SAVING**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	1	14.3	14.3	14.3
	Disagree	3	42.9	42.9	57.1
	Uncertain	1	14.3	14.3	71.4
	Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 133: UNIZULU: IMPORTANCE OF GREEN INFRASTRUCTURE**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Uncertain	2	28.6	28.6	28.6
	Agree	3	42.9	42.9	71.4
	Strongly Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 134: UNIZULU: HR DIVISION STRATEGIC EFFORTS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	2	28.6	28.6	57.1
	Uncertain	1	14.3	14.3	71.4
	Agree	2	28.6	28.6	100.0
	Total	7	100.0	100.0	

**TABLE 135: UNIZULU: INSTITUTIONAL STRATEGIC EFFORTS**

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	2	28.6	28.6	28.6
	Disagree	1	14.3	14.3	42.9
	Uncertain	3	42.9	42.9	85.7
	Agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

**TABLE 136: FREQUENCY DISTRIBUTION: UNIZULU**

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
Green recruiting practices	7	0	4.43	4.00	4	.535
Attracting green aware candidates	7	0	2.43	2.00	1 <sup>a</sup>	1.272
Electronic application submissions	7	0	4.71	5.00	5	.488
Electronic interviews	7	0	4.43	4.00	4	.535
Institutional philosophy information	7	0	2.86	3.00	3	1.069
Electronic performance management system	7	0	2.43	3.00	3	1.134
Scores on electronic platform	7	0	2.43	3.00	3	1.134
KPA assessment	7	0	2.29	2.00	1	1.380
Rewards and incentives	7	0	2.14	2.00	1	1.345
Training workshops	7	0	2.14	1.00	1	1.676
Online training	7	0	2.71	3.00	1 <sup>a</sup>	1.496
University's green committee	7	0	2.00	1.00	1	1.291
University's sustainability coordinator	7	0	1.86	1.00	1	1.069
Support and feedback	7	0	2.43	3.00	3	1.134
Institutional benefits	7	0	3.43	4.00	4	1.272
Institutional challenges	7	0	3.29	4.00	4	1.113
HR Division capacity	7	0	4.43	5.00	5	.976
HR Division influence	7	0	4.57	5.00	5	.787
HR Division efforts	7	0	2.43	2.00	1 <sup>a</sup>	1.272
Institutional efforts	7	0	2.43	3.00	3	1.134

a. Multiple modes exist. The smallest value is shown

**TABLE 137: ANOVA: UNIZULU**

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.750	4.569		.164	.896
	University's strategic plan	.350	.629	.242	.557	.602
	Green policies in HR Division	.852	.491	.755	1.734	.158
	University's environmental policy	-.241	.576	-.182	-.418	.698
	Institutional benefits	-3.500	.866	-3.149	-4.041	.154
	Institutional challenges	3.167	1.155	2.492	2.742	.223
	HR Division capacity	.417	.354	.288	1.179	.448
	HR Division influence	.500	1.000	.278	.500	.705
	HR Division functions	.500	.866	.278	.577	.667

a. Dependent Variable: Aware of green HRM