

**GREEN HUMAN RESOURCE MANAGEMENT
PRACTICES AND PERFORMANCE OF
DEVOLVED HEALTHCARE SERVICES IN
KENYA**

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**Green Human Resource Management Practices and Performance of
Devolved Healthcare Services in Kenya**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

I dedicate this thesis work to my dear wife Lydia Nthambi and my children Justus Maingi, Victoria Mwangi and Shem Omasire.

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ACRONYMS AND ABBREVIATIONS

AMO	Abilities, Motivation, and Opportunities
CPSB	County Public Service Board
EM	Environmental Management
EMS	Environmental Management System
FBO	Faith based Organization in Health Sector
GHRM	Green Human Resource Management
GPE	Green performance Evaluation
GER	Green Employee Resourcing
GOSH	Green occupational Safety and Health
GT	Green training
HR	Human Resource
HRH	Human Resources for Health
HRM	Human Resource Management
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KHSIP	Kenya Health Sector Strategic and Investment Plan
MOH	Ministry of Health
NACOST	National Council for Science and Technology
OSHA	Occupational Safety and Health Act
PPE	Personal Protective Equipment
SHRM	Strategic Human Resource Management
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

DEFINITION OF OPERATIONAL TERMS

Green Human Resource Management practice is defined as the application of HRM policies and practices by management to attain sustainable utilization of organization resources while promoting environmental sustainability which also boosts employee motivation and satisfaction (Mampra, 2013).

Management style is the pattern of relationship that a manager exhibits as s/he directs and coordinates the activities of others to achieve organizational goals (Ayub, 2014). Management style can influence attainment of an organization mission, allocation of resources, and implementation of eco-friendly changes that are necessary for an organization to enhance performance and gain competitive advantage.

Devolved Healthcare services mean any services provided by a health care professional to meet the health needs of the population, in accordance with established policies (The Kenya Health Act, 2017). For this study, devolved Healthcare service is assessed through devolved or decentralized Level Five hospitals.

Performance of devolved healthcare services refers to efficiently and effectively utilizing available resources to provide sustainable healthcare services at the local or regional level, following the decentralization of healthcare governance. It is measured by the number of patients attended to; level of patient satisfaction and amount of revenue collected to support this service.

Green Employee Resourcing refers to the process of attracting and selecting prospective employees with ability, knowledge, skills and behaviours that identify that prospective employee with environmental management system (Shoeb & Tahir, 2015). GER will be measured using items on

green recruitment, green selection and green criteria on 5-point likert scale.

Green training is a practice or process of acquiring environmental-management related skills, knowledge, abilities and attitudes that can enhance organization performance and environmental sustainability (Abdulameer & Ibrahim, 2025).

Green occupational safety and health is a multi-disciplinary approach targeting the protection and promotion of employee health through the development and promotion of healthy and safe work environments; enhancement of physical, mental and social well-being of employees; and enabling the employees to live socially and economically productive lives that contribute to sustainable development (WHO, 2012).

Green performance evaluation is a process of evaluating the performance of an employee in terms of objectives and targets indicated in the job description and linked with the environmental performance and audit of the organization (Mehta & Chugan, 2015).

Green recruitment is the process of locating and encouraging potential applicants with environmental management knowledge and ability to apply for existing or anticipated job positions (Walker et al., 2011).

Organization Performance is the extent to which an organization achieves its vision, mission, and goals (Avena et al, 2017). It is the result of both the performance of individuals and the performance of the organization as a whole.

ABSTRACT

A properly performing devolved healthcare service is important for ensuring adequate access to quality and affordable healthcare delivered through efficient and sustainable use of limited resources. However, performance of devolved healthcare services in Kenya has continued to experience both HR performance and systemic challenges such as staff shortages, low motivation, inadequate skill-sets for sustainable healthcare practices and inefficiencies in service delivery. Green human resource management practices have emerged as an important strategy in fostering sustainability performance across various sectors. Level five hospitals in Kenya are increasingly expected by regulatory framework to implement environmentally sustainable practices as they balance economic and social considerations in a highly competitive industry. The achievement of hospital performance goals in an eco-friendly environment is usually determined by the effectiveness of its green HRM practices. This study aimed at determining the effect of green human resource management practices on performance of devolved healthcare services in Kenya. The specific objectives of the study were to determine the effect of: green employee resourcing, green training, green occupational safety and health and green performance evaluation on performance of devolved healthcare services in Kenya. The study also determined the moderating effect of management style on the relationship between GHRM practices and performance of devolved healthcare services. A mixed-methods research design was used whereby the researchers combined the elements of quantitative and qualitative approaches. The study targeted 5,960 employees working in 12 Level Five Hospitals in Kenya. This study applied a multi-stage random sampling which refers to dividing the population into units or smaller and smaller groups and selecting the sample. In the first stage, simple random sampling was used to select four of the 12 Level Five Hospitals with an accessible population of 1310. In the second stage, purposive sampling was used to select a sample of 131 respondents representing 10 % of the accessible population. Data collection tools were questionnaire, interview and document analysis. Descriptive statistical analysis was done using frequencies, percentages, means and standard deviation. Qualitative data was analysed using content analysis and inferential statistics was done using correlation and regression analysis. Hypotheses were tested using one-way ANOVA test and f-test, while t-test was conducted to test the significance of explanatory variables on the dependent variable. The findings revealed that green employee resourcing, green training and green occupational safety and health had a strong and positive relationship with performance of devolved healthcare services. Green performance evaluation had a moderate positive relationship with performance of devolved healthcare services. It was concluded that GHRM practices individually and collectively had a statistically significant positive effect on performance of devolved healthcare services in Kenya. Further, the findings revealed that management style had a statistically significant moderating effect on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya. The study recommended that hospital managers and policy makers should develop and apply strong green HRM policies and practices to enhance performance of devolved healthcare services and sustainability.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The 2030 Agenda of United Nations Sustainable Development Goals adopted by member states in 2015 puts emphasis on the significance of solving problems facing countries currently in a sustainable manner to safeguard the needs of future generations (United Nations Environment Program, 2022). The importance of GHRM practices has grown from global trends by the United Nations Environment Program advocating for a transition to a green economy and the International Labour Organization's push for expanded job opportunities in green jobs, that is, jobs that benefit the environment and workers (Aburahma *et al.*, 2020). Climate change and the preservation of natural ecosystems should be given priority as nations address their current problems such as health, education, poverty, and inequality. According to Ren *et al* (2018), Green human resource management is an important mechanism that can be used to proactively address environmental issues of organizations.

The origin of Green Human Resource Management is traced back to the 1987 Brundtland Commission held in Rio de Janeiro, Brazil, which addressed urgent global threats such as climate change and environmental decay. These discussions centered on the principle of sustainable development, emphasizing the need to satisfy contemporary requirements without depleting the natural resources necessary for the survival of future generations. An organization's transition to environmental consciousness is fundamentally dependent on its staff, who serve as the ultimate determinants of the initiative's success (Wehrmeyer, 2017). Achieving sustainable industrial progress is only possible when every individual in the organization contributes through their own energy, dedication, and professional performance. Traditional Human resource management is a strategic and coherent approach to the management of people with skills, knowledge and ability who work in an

organization to contribute individually and or in a group to achieve the organization's objectives (Amstrong, 2019).

Green HRM refers to the use of human resource management practices to encourage employees to support environmental goals within an organization. It focuses on motivating workers to adopt eco-friendly behaviors that help promote environmental sustainability. This approach involves implementing policies, systems, and practices that guide employees to act in ways that protect the environment, benefiting individuals, society, the natural ecosystem, and the organization itself (Suharti & Sugiarto, 2020). In the words of Opatha and Arulrajah (2014), green HRM 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. Green HRM is the application of HRM policies and practices by management to attain sustainable utilization of organization resources while promoting environmental sustainability which also boosts employee motivation and satisfaction for organization performance. The main aim of green HRM is to transform ordinary employees into green employees to achieve organizational goals while at the same time contributing significantly towards environmental sustainability. The growth of the economy and the environment, as well as the rapid advancement of technology, have created a volatile market (Sharifa & Mohamed, 2019). Organizations are now required to manage and use their resources sustainably. An organization's commitment to saving the environment is an indicator of its environmental performance and this performance is affected by the ability of the organization to control pollution, discharge of lesser waste to the environment, implementation of recycling and reuse practices (Gupta, 2018).

These countries generally do poorly economically for several reasons, including slow-moving political reforms, weak financial markets, a predominance of underperforming public sectors, and severe trade barriers. Equally, a general lack of governmental stability in these nations has resulted in conflict, social unrest, and waves of migration (United Nations, 2020). Globalization can be seen as the interconnectivity of countries or large geographic units for economic and sustainable development of organizations. For

organizations to maintain their competitiveness and meet their goals, long-term investment in human resources is important. Global interconnection has been accelerated by information and communication, movement of employees across boundaries, and interdependence among countries on wealth and natural resources. The development of Green HRM is not only the awareness of environmental concerns like saving energy and waste reduction, but it also includes the degree of improvement in the economic and social well-being of the individuals and organizations, such as work-life balance and enhanced profits respectively. Green HRM is considered an important source of organizational competitive advantage and sustainability.

Performance management refers to a process that is systematic in which organization management assigns required green goals to individuals and teams and puts up strategies to assess progress and assist employees and teams in achieving such goals (Mwita, 2019). The performance of devolved healthcare services is usually evaluated through various metrics such as patient outcomes, accessibility, quality of care, patient satisfaction, and efficiency (WHO, 2017; Muchomba & Karanja, 2015). By focusing on these key metrics, healthcare institutions can ensure they are delivering high-quality, efficient, and sustainable healthcare services to their communities. Green HR is a very important tool that can be used to drive long-term organizational performance (Jabbour & Renwick, 2019; Guerri, 2015; Jabbour, 2013); and to attain sustainable utilization of resources (Opatha & Arulrajah, 2014). Therefore, an organization having strong HRM will have better organizational performance because its Human Resource functions are linked to its environmental strategies.

According to Carmona-Moreno *et al.* (2012), organizations that apply high levels of green human resource practices benefit from cost advantages and differentiation. Organizations that adopt green human resource practices can have a positive effect on environmental performance (Obeidat *et al.*, 2018, Yusoff *et al.*, 2018); financial performance (Zaid, Jaaron & Bon, 2018); and social performance (Zaid, Jaaron & Bon, 2018). Adoption of green HRM practices by employees can enhance eco-friendly behaviour among employees (Saed *et al.*, 2018; Kim *et al.*, 2019); create organizational commitment (Kim *et al.*, 2019)

and improves employee performance (Ragas *et al.*, 2017). The application of green HRM may indirectly influence the reduction of employee turnover intentions through a motivational psychological and social process.

Atmojo *et al.* (2020) conducted a study on telemedicine, cost-effectiveness, and patients' satisfaction and found that telemedicine utilization in the departments of pediatrics, intensive care unit, radiology, and dermatology rooms lowered costs of health by 56% and reduced patients' cost of travel to hospital by 94%. Further, the study concluded that telemedicine generates cost savings for patients and the hospital and enhances the satisfaction of patients (Atmojo *et al.*, 2020). Telemedicine services reduce the frequency of visits by doctors to the hospital leading to savings on the cost of travel, increased convenience, and reduced exposure to infection, for example, COVID-19.

The change of roles and responsibilities in the health sector in Kenya is referred to as the devolution of healthcare services whose main goal is to enhance access to services and equity in resource allocation, improve efficiency and accountability thereby improving health service delivery to the majority of Kenyans (Kenyan Healthcare Sector, 2016). Devolution of healthcare services in Kenya aimed to enhance accessibility, efficiency, and responsiveness in healthcare delivery; however, the sector continues to face significant performance challenges such as staff shortages, inadequate skillsets, and inefficiencies in service delivery (Barasa *et al.*, 2017; Tsofa *et al.*, 2017; Zeng *et al.*, 2022).

Management style is the pattern of relationship that a manager exhibits as s/he directs and coordinates the activities of others to achieve organizational goals (Ayub, 2014). Management style can influence the strength or direction of an effect and is used to boost precision, make generalizations and explain inconsistent findings of previous studies. It can further influence the moderating variable attainment of an organization's mission, allocation of resources, and implementation of eco-friendly changes that are necessary for an organization to enhance performance and gain competitive advantage. Top management style usually influences the effective formulation and implementation of health policies and practices that will affect an organization in achieving goals and

objectives. According to Momena *et al* (2013), leadership as an HR practice should be supportive and participative. Top managers' commitment enables organizations to implement and enforce green practices and policies to realize the organization's goals and objectives. This Top management enforcement ensures that employees are aware of green practices and are inclined to adopt them in their daily operations, in pursuit of achieving the goals of the organization. It clarifies the strength or direction of an effect and is used to enhance theoretical precision, test generalizability across groups, and explain inconsistent past findings.

1.1.1 Global Perspectives on Green Human Resource Management Practices and Performance

Literature from organizational management indicates that green human resources is a very important tool to drive long-term organizational performance and survival (Jabbour & Renwick, 2019; Guerci, 2015; Jabbour, 2013). According to the United Nations Environment Programme (UNEP, 2008), green jobs refer to employment across sectors like agriculture, manufacturing, research and development, administration, and services that significantly support the protection or improvement of the environment. These roles typically involve efforts such as conserving ecosystems and biodiversity, enhancing efficiency in energy, water, and material use, advancing the shift toward a low-carbon economy, and cutting down or completely preventing waste and pollution.

According to Nilashi *et al.* (2019), the hospitality industry was found to consume large amounts of natural resources that also lead to the production of large amounts of pollutants and medical waste. Although the tremendous growth of the hospitality industry has led to economic growth globally and in particular Malaysian economy, it has also resulted in several environmental problems including environmental degradation because hotels tend to consume more energy, and water for heating, cooling, and lighting (Abdou *et al.*, 2020). Zainal and Nasurdin (2011), explain that the effect of HRM practices on the performance of an organization largely depends on the extent to which those practices influence the

skills, abilities, and motivation of the employees. The effect of these practices on employees' skills and abilities is portrayed in recruitment, selection, and training.

Green GHRM practices are necessary in Level Five Hospitals because they could protect the natural environment, maintain the natural environment, reduce environmental pollution, and create gardens and places (Opatha & Arulrajah, 2014). Keeping natural resources in their original shape and protecting them from loss is what Opatha and Arulrajah (2014) called the protection of the natural environment. Further, maintaining the natural environment implies conserving which means utilization of natural resources in a manner that cannot negatively affect their use by future generations; creating gardens and places means putting up parks with trees and plants and lawns around; and finally reducing air and water pollution. Employees who possess these features are described as green and can be called protectionist, non-pollutant, conservationist, and creator employees (Bechtel et al., 2012).

Mishra (2017) opines that GHRM is about systems and policies that utilize the resources of an organization in a friendly manner for the benefit of individuals, the community, and the natural environment. Human resource policies do empower human capital to significantly contribute to the implementation of green practices and strategies at the place of work. Bhutto and Aurazeb (2016) argue that there is a significant effect of green HRM variables on firm performance. Renwick in Miraj (2018) states the following factors that affect green training: giving information on environmental management; conducting training needs assessment related to friendly environmental issues; provision training on how space of work is environmentally friendly; and providing training to employees regarding the management of the environment, employee safety, efficient use of energy and recycling. Organizations that show concern for resolving environmental issues usually engage their employees in utilizing limited resources in a manner that reduces operational costs and enhances environmental performance. Eco-friendly employees normally protect the environment from hazards and indicate their commitment towards the employer (Gilal et al., 2019).

Mandip (2012) contends that green training program covers a wide range of environmental issues that when addressed lead to organizational competitive advantage. Green training refers to a system of activities that enable employees to acquire knowledge, skills, and awareness of environmental concerns of the organization and implement certain green practices that are linked with HR practices to enable the organization to attain sustainable competitive advantage. According to Halawi and Zaraket (2018), green HR actions help organizations to go green as they engage in growth opportunities with some elements of environmental management that result in low operational costs and reduced carbon footprint. Companies should engage employees in greening by offering them green rewards such as nature-friendly office benefits and carbon credit offsets; provision of free bicycles and pollution-free cars to employees as means of transport to and from work. In addition, the organization's green business should include continuous recycling, increased use of water dispensers instead of plastic bottled water, reusable grocery and reusable lunch bags, and reusable cups in the offices.

Tang *et al* (2018) opine that GHRM can enhance the green skills of workers by recruiting individuals who have an awareness of environmental protection; providing green training to improve environmentally friendly skills; and motivation for engaging in green initiatives and activities through the establishment of a fair green performance management system. Human resource management practices are important pillars in building and maintaining a good employee relations climate, ultimately resulting in improved quality of services and increased overall performance of an organization. Gupta (2018) opines that organizations all over the world are inclined toward reduction in environmental degradation based on its functioning; literature has also suggested a significant role of GHRM practices in achieving this objective. GHRM has the ability to inculcate mindfulness among its current workforce and also encourage new recruits towards ecological improvement and well-being.

A study by Tareq and Rosima (2015) revealed a positive relationship between green recruitment, green training, and learning on the firm's performance. Green HRM practices refer to the definite green HRM processes, programs, and systems implemented in

business organizations to reduce negative environmental effects and enhance the sustainable environmental performance of the organization. It is that part of HRM that aims to achieve the organization's environmental goals and eventually make a significant contribution to organizational performance and environmental sustainability. According to Zainal and Nasuridin (2011), the impact of GHRM practices on organizational performance depends on how GHRM practices affect an employee's skills, abilities, motivation, and organizational structure.

Green recruitment and selection and green training may indicate the impact of GHRM practices on employee skills, abilities, and knowledge. Organizations usually attract employees through sophisticated methods and procedures created to select the best potential employee. After selection, an employee is usually provided with detailed green orientation training to gain advanced knowledge, skills, and the ability to perform a job while being sensitive to the environment. Green HRM refers to organizational policies that promote sustainable use of resources as a practice towards environmental sustainability (Ren *et al.*, 2017). Green HRM refers to the use of HRM policies, practices, and philosophies to promote sustainable use of organization resources, while preventing negative change arising from environmental concerns. Green HRM is the application of organization policies, practices, and systems that make employees of the organization eco-friendly for the benefit of the employee, the business, the community, natural environment (Mehta & Chugan, 2015).

Some studies (Marhatta & Adhikari, 2013; Paillé, 2014)) found a positively significant relationship between HRM practices and organizational performance and sustainability particularly when HRM practices are linked to environmental issues. Sriram and Suba (2018) explained that ecological human resource management practices promote corporate benefits and enable the organization to get away from natural damage. Arulrajah *et al* (2016), opine that employee green performance includes efficient use of input resources by employees when performing their day-to-day functions, the application of innovative environmental initiatives, and the employee contribution to company environmental management initiatives. Opatha and Arulrajah (2015) argue that green

performance can be achieved by ensuring green processes in HRM practices from selection of green employees to compensation of green employees, so that organizational green performance can be delivered. The GHRM scholars opine that the decisions and behavior of human resource executives reflect green HRM practices and organizational sustainability performance.

According to Renwick *et al*, (2013), aligning employees with the company's corporate social responsibility and environment strategy requires the development of strong policies in green recruitment, green performance evaluation, green employee training and development, green employee relations, and green compensation. Green HRM practices are more powerful tools in making organizations and their operations green. The green performance, green behaviours, green attitude, and green competencies of human resources can be shaped and reshaped through the adaptation of green HRM practices.

Recently, many scholars have directed their attention toward the relationship between human resources and environmental management because of the important role green HRM practices play in attaining organizational development. The main purpose of linking HR management with environmental management is to help organizations engage in environmental performance by improving employees' commitment to environmental protection and conservation (Schuler & Jackson, 2014; Renwick, 2013).

Rani and Mishra (2014) opine that green HR efforts over time should focus on increasing competency within processes, reducing and eliminating environmental degradation, and restoring HR products, tools, and procedures that lead to greater efficiency and lower costs. The greening results include teleconferencing and virtual meetings which reduce the need to travel and cut down on carbon emissions; electronic filing and documentation which means moving to digital records reduces paper usage; ride-sharing and recycling; job sharing; telecommuting and flexible work schedules that allow employees to work from home and reduce the environmental impact of commuting; online training that encompasses educating employees about sustainable practices and how they contribute to

the organization's goals; and developing more energy-efficient office spaces that lower energy consumption (Rani & Mishra, 2014).

In GHRM, different HRM practices such as recruitment, selection, training, reward, and performance appraisal are used to assist firms in hiring and retaining employees that understand and promote green behaviour (Mathapati, 2013). Green HR practices result in different outcomes such as improved employee morale, increased employee loyalty, increased employee retention, increased workforce productivity, stronger public image, and gained competitive advantage (Saba, 2012). This is because green HRM involves undertaking environment-friendly HR initiatives to promote corporate sustainability and increase employee commitment, engagement, and retention which, in turn, help organizations to improve performance and minimize carbon footprints. Some of the green HRM practices that employees can engage in would be car-sharing, telecommuting, job-sharing recycling, electronic filing, and electronic interviews. Efficiency created by Green HRM can lower firm operational costs and enable industry professionals to realize their corporate social responsibilities in a better manner.

1.1.2 Regional Perspective on Green Human Resource Management Practices and Performance

Catherine (2016) found that effective employment practices can help organizations attract and retain high-quality employees. Investing in employees can lead to long-term benefits. The corporate sector is gradually shifting towards a sustainability-oriented approach, including green recruitment and selection practices. In implementing eco-friendly initiatives, HR expert has a major role in getting the support of employees by involving them in decision-making and actions that influence their jobs (Ren et al, 2018). One way of involving employees is by forming environmental teams comprising environmentally oriented employees (Mandip, 2012). Therefore, Green Human Resource Management (GHRM) has gotten special attention in contemporary research because of organizational concerns about sustainable development and awareness about environmental management. Afaneh *et al* (2023) found a positive significant effect of sustainable job

design and sustainable reward on corporate performance and environmental strategy. Further, it was found that environmental strategy mediated the relationship between sustainable job design, sustainable reward, and environmental strategy.

Oyedokun (2019) recommended that the Nigerian manufacturing industry should prioritize environmentally friendly business operations over stakeholders' wealth maximization. Arulrajah *et al* (2015) explained that green HRM practices are important programs, processes, and techniques that should be applied in the organization to advance positive environmental impact. Proper Green HRM practices can help employees to create the right attitude toward greening and hence maintain sustainable environmental-related innovative behaviours. Vuyokazi (2019) stated that there was a moderate knowledge and understanding of green HRM activities and a moderate application of green HRM principles at higher education institutions in KwaZulu-Natal. Further, there was no green HRM policy framework to guide green activities, even though the findings revealed a strong correlation between knowledge of green HRM activities and its implementation within higher education institutions.

Hossari and Elfahli (2023) alluded that that GHRM was still young among Moroccan ISO 14001 Certified Companies and only a few studies have been done amidst many challenges. Another study by Sobaih (2019) posits that Egyptian hotels do not apply GHRM practices because of the barriers facing the management and employees in the implementation process. Some of the GHRM practices that were considered in this study are: green job analysis and design, green recruitment and selection, green training and development, green induction, green discipline, green reward, and green employee relations.

Guerci *et al* (2016) explained that the amount and quality of green information provided on the website of an organization regarding green recruitment practices play a major role in attracting qualified job applicants. The information about jobs and relevant conditions of employment provided on the organization website usually reduces ambiguity about the employer and jobs available to the job applicants. Hameed *et al.* (2020) opined that green

safety and health is very important in promoting the safety and health of employees while at the same time providing a green environment that has less stress and reduced harmful effects. Greening hospitals is a strategy for reducing the impact of high temperatures and humidity. Heat or high temperatures can disrupt and compromise healthcare services as it reduces working productivity and increases the risk of accidents. It is difficult to complete work in hot weather because its effects on employees include profuse sweating, fatigue, dehydration, heat exhaustion, nausea, and other health problems. Heat can also be associated with hazardous air pollution which affects the health of employees (World Health Organization, 2024).

Halawi and Zraket (2018) recommend the inclusion of green targets and goals in the areas that are important in the performance management system of an organization. In order to accomplish green results, green goals and targets should be set for managers as well and such targets and goals should be included in their performance appraisals. Green performance appraisal covers topics such as environmental incidents, environmental responsibilities, and the communication of environmental policies. When employees are concerned about conserving the environment, they are more likely to support the organization's efforts toward environmental management initiatives. Sharaf and Khalil (2021) argue that organizations are putting in efforts to improve sustainability through effective employee safety and health policies, which can also encompass environmental issues.

1.1.3 Local Perspectives on Green Human Resource Management Practices and Performance

Devolved healthcare services of Level Five Hospitals in Kenya have an obligation to ensure sustainable use of resources particularly water, electricity, and paper in order to reduce operational costs while at the same time being conscious of environmental sustainability through the application of green human resource management policies and practices. Greening employees can conserve resources provide environmentally friendly

products and operations; can manage and implement corporate environmental programs effectively.

Mwita (2019) opines that GHRM is about making use of employees to achieve organizational goals while ensuring that deliberate efforts are made for the employees to contribute towards environmental protection and conservation by engaging in human activities at work that will not affect the natural ecosystem negatively. Green HRM offers several advantages to different organizations most of which are associated with business performance such as attracting more customers, corporate social responsibility through compliance with legal and ethical standards, and environmental sustainability such as a clean and safe environment.

Shah (2019) explained that a lot of effort is required to reduce occupational stress and sickness and initiate activities that protect the environment and livelihoods of communities. Green occupational safety and health practices tend to reduce harmful consequences in order to avoid health concerns and improve the well-being of employees. Green occupational safety and health are, therefore, important in improving client satisfaction, firm image, and sustainable performance. The managers in devolved healthcare services should carry out suitable and sufficient risk assessments for the safety and health of members of staff and clients. The employees on the other hand, should report to the supervisor in a prescribed manner any accidents, injuries, or near misses that arise in the work place and if urgent action is required, the situation must be reported and information forwarded to the appropriate department as soon as possible (OSHA, 2017).

Kenya Vision 2030 aspires for the nation to achieve a clean, secure, and sustainable environment. The healthcare sector in Kenya is making significant contributions to environmental sustainability. Key initiatives in this sector include the use of renewable energy sources such as solar and wind power, and energy efficiency which reduces carbon emissions and lowers operational costs. Additionally, healthcare facilities in the sector are investing in buildings and infrastructure that are carbon-zero-emission and making the transition towards sustainable travel and transport. Green Human Resource Management

practices have also been adopted by some Kenyan organizations including healthcare facilities. For instance, according to Owino and Kwasira (2016), these organizations have implemented automation services that allow employees to access their pay slips remotely, apply for jobs online, and use an e-learning portal for training materials. According to the Kenyan Healthcare Sector (2016), the shortage of health workers and employee turnover pose great opportunities for solutions contributing to effective capacity building. Curriculum development, training content, problem-based learning, and e-learning are examples of much needed expertise to strengthen human resources for health.

In addition, hospital management skills are increasingly viewed as a separate discipline that needs to be invested in. Most health workers are employed in the private sector, in which the competition for doctors drives the costs of healthcare. Health care challenges are improving the capacity of training, and efficiency of health workers, and reducing the so-called brain-drain where trained health workers look for better opportunities in the private sector and foreign countries. Kuria and Mose (2019) posit that green recruitment and selection, green human resource performance management, green training and development, and green pay and reward have a significant and positive relationship with the organizational effectiveness of universities in Kenya. The study concluded that recruitment and selection should be based on those employees with green skills and that pay and rewards should be used to motivate eco-friendly employees. Mandago (2019) opines that green human resource management practices (green recruitment and selection, green training and development, green reward, and green performance management) had a positive and significant influence on environmental sustainability in service-based state corporations in Kenya. The study recommended that state corporations should adopt green HRM initiatives that can enhance environmental sustainability.

According to Ngeno (2014), upgrading employees' skills and knowledge puts them in a better position to produce high-quality products and services most cost-effectively, they adapted to change and it increased their contribution to their work through product or process innovation. Employees were prepared for increased responsibilities and saw value in training as it helped them progress in their careers and enhanced their capacity for

continuous improvement. Healthcare organizations interested in environmental responsibility should go beyond the green construction of buildings into green operations and service delivery. Such green operations should include eliminating harmful chemicals and products in maintenance and cleaning, medical procedures, and patient care. Significant examples include the use of non-latex gloves and the elimination of mercury thermometers from the workplace.

1.1.4 Devolved Healthcare Services

In 2010, the revised Kenya Constitution devolved the responsibility of public health service delivery for primary and secondary health services to the 47 counties. In 2013, after the elections, the new Constitution of 2010 came into force and this changed the roles and responsibilities of national government to county governments. The change of roles and responsibilities in the health sector is referred to as the devolution of healthcare services whose main goal is to enhance access to services and equity in resource allocation, improve efficiency and accountability thereby improving health service delivery to the majority of Kenyans (Kenyan Healthcare Sector, 2016). Following the devolution of healthcare services in 2013, healthcare facilities experienced both performance and persistent systemic challenges such as staff shortages, low motivation, inadequate skillsets for sustainable healthcare practices and inefficiencies in service delivery (Barasa et al., 2017; Tsofa et al., 2017)

The Health Act of 2017 provides for the technical classification of healthcare service delivery as: level 1 which consists of community health services; level 2 comprises of dispensary or clinic health facilities; level 3 which consists of health centers; level 4 which consists of primary or county hospitals; Level Five which comprises of secondary care (county referral) hospitals and finally level 6 which comprises of tertiary (national referral) hospitals. This study focused on Level Five Hospitals which are also regarded as county referral hospitals whose mandate is to provide devolved healthcare services. Most of these Level Five Hospitals were former provincial hospitals and some upgraded district hospitals that were meant to serve as regional referral hospitals. The national government

and county governments have allocated proportionately more resources (Ministry of Health, 2017) to health to enable these hospitals to provide better-devolved healthcare services and serve as referral centers for specialized healthcare service delivery. Kenyan Healthcare Sector (2016) reported that the devolved healthcare services were meant to bring more ownership and decision power to the local level.

Devolved healthcare services should integrate green initiatives into their human resources for health (HRH) management for improved environmental sustainability and healthcare performance. The Kenya health sector can be divided into three subsectors: first, the public sector, which includes all government health facilities (hospitals, clinics, health centers, and dispensaries), medical schools, and the public pharmaceutical supply chain called KEMSA; second, the non-commercial private sector, which includes the Faith Based Organization (FBO) and Non-Governmental Organization (NGO), which include mission health facilities (hospitals, clinics, and dispensaries), medical schools and MEDS; the Faith-Based pharmaceutical supply agency; and third, the private commercial sector which includes healthcare facilities, medical distributors and suppliers, pharmaceutical manufacturers, health financing, that is, health insurance, ICT in health, health management advisory and training institutions (Kenyan Healthcare Sector, 2016).

1.2 Statement of the Problem

A properly performing devolved healthcare service is important for ensuring adequate access to quality and affordable healthcare delivered through efficient and sustainable use of limited resources (Zeng et al., 2022). However, from 2014 to 2019 reveals persistent performance gaps in devolved healthcare services in Kenya. Despite increased institutional live birth coverage, the quality of care remained a concern, with a median technical efficiency score of only 84% by 2018; over 57% of counties saw a decline in efficiency (Moses, et al., 2021). Critical failures included a 32% mean availability of essential medicines in 2014 and approximately 50% of performance issues being linked to poor budget absorption, which negatively affected commodity procurement (Ministry of Health, 2019). These structural weaknesses were compounded by health workers' strike

in 2017 and political crises, causing maternal mortality spikes in counties like Nairobi and Vihiga. Amidst growing global environmental pressures (Aburahma et al., 2020), Human Resource Management function has an important role for integrating green practices into organizational culture thereby enhancing performance (Arulrajah et al., 2015; Kim et al., 2019). However, past GHRM research has overlooked the healthcare sector, focusing instead on other industries (Mwita, 2019; Sharifa & Mohammed, 2019; Mandago, 2018; Kuria, 2019; Langat, 2017). Thus, this study focuses on the effect of GHRM practices on performance of devolved healthcare services in Kenya.

Despite efforts to enhance efficiency through devolution, Kenya's devolved healthcare services continue to struggle with staffing shortages and operational delays caused by traditional, paper-intensive recruitment and selection processes (Barasa et al., 2017; Langat & Kwasira, 2016; Zeng et al., 2022). While global literature indicates that green employee resourcing can improve institutional sustainability and attract talent with eco-friendly competencies, its application within Kenya's devolved health services remains under-researched (Mwita & Kinemo, 2018; Opatha & Arulrajah, 2014; Kiplangat et al., 2022). Despite advancements in healthcare access since devolution, Kenyan counties encounter persistent hurdles in service efficiency, resource optimization, and waste management (Barasa et al., 2017). These challenges are intensified by a reliance on paper-based training that prioritizes general clinical skills over vital green competencies (Otieno et al., 2022; Dadzie et al., 2022). While global evidence suggests that green training (GT) fosters environmental sustainability and enhances organizational performance (Huma et al., 2017; Tang et al., 2018; Jabbour, 2015), there remains a significant empirical gap regarding the effect of GT on the performance of devolved healthcare services in Kenya, which this study seeks to address.

In Kenya, healthcare Occupational Safety and Health has historically relied on reactive compliance and basic hazard mitigation, such as PPE distribution, rather than proactive, long-term strategies (Takala et al., 2019). This limited scope fails to address broader sustainability needs, leaving devolved healthcare services struggling with performance hurdles related to waste management and suboptimal working environments. Globally,

the rise of Green Occupational Safety and Health (GOSH) has successfully merged environmental stewardship with workplace safety through initiatives like waste reduction, air quality control, and sustainable infrastructure, which collectively boost both employee well-being and institutional efficiency (Shah, 2019; WHO, 2017). Despite these international trends, there is a significant lack of empirical research regarding the effect of GOSH on performance of devolved healthcare services in Kenya, a gap that this research aims to bridge.

Green performance evaluation is widely acknowledged for promoting sustainable organizational performance (Longoni et al., 2018; Malik et al., 2021; Arulrajah et al., 2015). However, Kenya's healthcare services face performance challenges due to manual evaluation processes that focus primarily on clinical targets rather than green indicators. Despite the potential benefits of integrating green metrics for both environmental responsibility and overall performance (Zeng et al., 2022; Leal Filho et al., 2024; Jabbour et al., 2019; Malik et al., 2021), there is lack of empirical evidence linking green performance evaluation to performance of devolved healthcare services in Kenya.

Management style acts either as catalyst or a barrier on the relationship between joint Green Human Resource Management practices and the performance of Kenya's devolved healthcare services. While various management styles, such as bureaucratic, participative, and autocratic, are known to affect performance in diverse ways (Sofi & Devanadhen, 2015; Mohammad et al., 2017), their specific role in moderating the relationship between GHRM practices and performance of devolved healthcare services remains under-researched. By addressing this empirical gap, the study offers important insights on the type of management style to apply in designing and implementing robust green HRM policies and practices that enhance the overall efficiency devolved healthcare services in Kenya.

1.3 Objectives of the Study

This study was guided by the following general and specific objectives.

1.3.1 General Objective

The general objective of this study was to assess the effect of green human resource management practices on the performance of devolved healthcare services in Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific objectives:

1. To determine effect of green employee resourcing on performance of devolved healthcare services in Kenya.
2. To evaluate effect of green training on performance of devolved healthcare services in Kenya.
3. To examine effect of green occupational safety and health on performance of devolved healthcare services in Kenya.
4. To investigate effect of green performance evaluation on performance of devolved healthcare services in Kenya.
5. To assess the moderating effect of management style on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya.

1.4 Research Hypotheses

The study seeks to test the following hypotheses:

- H₀₁:** Green employee resourcing has no significant effect on performance of devolved healthcare services in Kenya.
- H₀₂:** Green training has no significant effect on performance of devolved healthcare services in Kenya.

H03: Green occupational safety and health has no significant effect on performance of devolved healthcare services in Kenya.

H04: Green performance evaluation has no significant effect on performance of devolved healthcare services in Kenya.

H05: Management style has no significant moderating effect on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya.

1.5 Significance of the Study

The purpose of this study was to investigate the effect of green Human Resource Management practices on the performance of devolved healthcare services in Kenya. The major implication of this research is to assist and encourage the County Government Health management particularly administrators of Level Five Hospitals, and other healthcare stakeholders to identify, develop, align, and implement green initiatives with HRM practices to improve the performance of devolved healthcare services and enhance environmental sustainability. The study findings are important to Level Five hospital managers, scholars, employees, and other stakeholders as explained in the sections that follow.

1.5.1 Managers of Devolved Healthcare Services

The study may help county healthcare managers and leaders to know the effect of green HRM practices on the performance of devolved healthcare services and therefore develop innovative strategies to improve these practices for quality healthcare delivery and environmental sustainability. Study findings will encourage county healthcare Managers to pay attention to developing effective or strong green HRM practices that are aligned with healthcare performance and sustainability. The healthcare leaders at the county government may use the study findings to formulate strong and supportive green HRM policies that may reduce operational costs and enhance the performance of devolved healthcare services and environmental sustainability. County Healthcare managers can

also learn the need to recruit and select employees, whose values are aligned with the goals of the hospitals related to environmental conservation and protection. The hospitals may focus more on green training, green occupational health and safety, and continuous green performance appraisal of employees. These practices will motivate and retain employees who are effective in healthcare performance while at the same time being environmentally friendly.

1.5.2 Scholars

This study's results would add to the body of research knowledge about the effect of green HRM practices on the performance of devolved healthcare services in Kenya. This study provides empirical findings on green HRM practices (especially green employee resourcing, green training, green occupational safety and health, and green performance evaluation) which research scholars can use to replicate similar studies in other sectors of the economy. Future research scholars and academicians can use this study as a foundation for further research in the health sector to fill literature gaps. Relevant green HR practices and concepts in the healthcare sector can also be developed from this study which could be useful for reference.

1.5.3 Employees of Devolved Healthcare Services

The research findings may help employees of devolved healthcare services in terms of integrating their human activities with the environmental concerns that affect their performance at work. The research results may empower employees of Level Five Hospitals to voice their concerns regarding the management of the devolved healthcare services so that GHRM policy makers can make changes to improve healthcare service delivery that is environmentally responsive. The green behaviours of devolved healthcare employees will spillover to their homes as they transfer pro-environmental values and demonstrate them through their contribution and involvement in environmental conservation and protection processes at home and community.

1.5.4 Development Partners in Healthcare Services

One of the pillars of healthcare services in any country is the health workforce. Development partners in the health sector shall use the study findings as a source of information to allocate and channel their financial aid to specific areas of devolved healthcare services that are eco-friendly such as green training of employees and provision of equipment that enhance online diagnosis and treatment of patients. In addition, development partners can use the results to support agenda-four for achieving sustainable universal healthcare and climate resilience. The development partners should ensure that the tools, equipment, and drugs that they may provide to healthcare facilities are environmentally friendly in usage and disposal to minimize carbon footprints.

1.6 Scope of the Study

The study investigated the effect of Green Human Resource Management practices on the performance of devolved healthcare services in Kenya. The independent variables of this study were: green employee resourcing, green training, green occupational safety and health, and green performance evaluation; the moderating variable was management style, while, the dependent variable was: the performance of devolved healthcare services. The hospitals that were picked are: Embu Level Five hospital, Machakos Level Five hospital, Nakuru Level Five hospital, and Mama Lucy Kibaki Level Five hospital.

Level Five Hospitals were very important in the study and the nation because they are referral centers for healthcare service delivery in their counties and surrounding counties. These hospitals are significant in this study because they receive substantial financial support and specialized pieces of equipment from both national and county governments (Ministry of Health- Health Sector Budgetary Allocation and Spending, 2011). This equipment often includes advanced medical devices and technology aimed at improving the quality of healthcare services available to the community (Ministry of Health- National Health Sector Strategic Plan (NHSSP) III 2013-2018, 2014)

1.7 Limitations of the Study

This research was not free from some challenges. Some respondents were reluctant to fill out the questionnaire as they claimed to be too busy. This limitation was overcome by giving the respondents more time to fill out the questionnaire and pick it up within an agreed timeframe. Further, this challenge was dealt with by explaining to the respondents that the research targeted only those staff in management because they are the ones who implement GHRM policies and practices. The respondents who refused to fill out the questionnaire without any apparent reason were assured that the data provided was anonymous, confidential and for academic study. Some respondents in charge of the finance department of some hospitals did not provide their revenue collection estimates for the period 2014-2019. This limitation was tackled by assuring the respondents of their privacy and confidentiality of the revenue collection data they provided.

Although this assurance was given and repeatedly followed up, some Level Five Hospitals' finance departments did not provide any revenue collection data and therefore the researcher resolved to use only the available data from those hospitals that responded. Accessibility to key respondents for an interview was limited due to the nature of their busy work schedule. This forced the researcher to re-book these respondents and visit the health facility more than twice or thrice in order to interview them. It took a long time for the study to get formal authority to access the respondents because every Level Five hospital is managed differently through their county health departments. This limitation forced the researcher to extend the data collection period per Level Five Hospital. Further, to solve this challenge, the researcher kept calling the respective hospital's human resource office for feedback.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a theoretical framework, conceptual framework, and empirical review, critic of existing literature, research gap, and ends with a summary.

2.2 Theoretical Framework

This section presents theories that underpin this study. According to Bacharach (1989), a theory is a statement of relations among concepts within a set of boundary assumptions and constraints. A theory explains what a phenomenon is and how it works (Torraco, 1997). The theories used in this study are: social exchange theory; human capital theory; Ability, Motivation, and Opportunity theory; and Resource-based theory.

2.2.1 Social Exchange Theory

Social exchange theory was formulated by Blau (1964) and is based on the premise that the social interaction of human beings is an exchange of activity, tangible and intangible, and it involves rewards and costs. However, Schein (1965) developed social exchange theory as an analytical framework. The notion of a psychological contract implies that there is an unwritten set of expectations operating at all times between every member of an organization and the various managers and others in that organization. The theory is based on the assumption that employees form general perceptions about the intentions and attitudes of their management towards them in terms of policies and procedures enacted by managers of the organization. These policies and procedures that form HR practices send messages to employees that will strengthen or weaken the relationship between the employee and the organization.

According to Blau, (1964), social exchanges just like economic exchanges have some expectation of some future returns for contributions between the exchange partners although the exact nature of the returns is not known. Unlike economic exchanges, social exchanges are characterized by long-term fairness as opposed to short-term fairness. Whitener *et al* (1998) note that exchanges may involve economic benefits or utility and further argue that the latter may have a significant impact on the social dimension of the relationship such as between the organization's employees and the community members. Employees according to Armstrong (2016) may expect to be treated fairly as human beings, to be provided with work that uses their abilities, to be rewarded equitably in accordance with their relative contribution, to display competence, to have opportunities for further growth, to know what is expected of them and to be given feedback on their performance.

In this study, this theory has a relationship with green training and green employee resourcing in devolved healthcare services. This is because employees who are continuously trained are likely to be efficient and effective in discharging better healthcare services to clients which will form a social exchange for the organization's training. Hiring employees from the community around the hospital may encourage the hired employees to exhibit green behaviour in their work performance. In linking this theory to green employee resourcing to devolved healthcare services, one should note that a positive relationship between employees and hospital management that implements green activities may influence employees to speak well about their green hospital, attract patients, and be cautious of their patients' feedback, especially on matters of environmental conservation. This argument is supported by a study carried out by Boon (2008) which found the existence of a positive relationship between selective hiring and organizational citizen behaviour. If health workers were recruited from the communities where hospitals are located, there is a likelihood of improved performance from those employees as they will be encouraged to give effective services back to their community citizens on an eco-friendly and sustained basis.

Applying this theory to the objective of green performance evaluation on the performance of devolved healthcare services means that the greater the value placed on performance feedback, the greater the level of effort that will be expended in a given situation. According to Nzivo (2012), the tendency to act in a certain way depends on the strength of the expectation that the act will be followed by a certain outcome and on the attractiveness of that outcome to the individual. Bhatnagar and Aggarwal (2020) allude that social exchange theory dynamics have a strong relationship between green work climate and eco-initiatives of employees on the job. Employees who are concerned about environmental sustainability while serving their clients, for example in save energy programs, minimal and efficient water use, and creative flower offices, among others should be paid special recognition allowance. When organizations provide support for green initiatives, such as training, resources, and recognition, employees are more likely to engage in green behaviours. This support can be seen as a form of social exchange where the organization invests in its employees, and in return, employees contribute to the organization's green performance.

2.2.2 Human Capital Theory

This theory was founded by Schultz (1961) who elaborated the concept of human capital in 1981 as consisting of all human abilities, either innate or acquired, as attributes that are valuable and can be augmented by appropriate investment. Bontis *et al* (1999) defined Human capital as representing the human factor in terms of combined intelligence, skills, and expertise that give the organization its distinctive character. According to Armstrong (2013), human capital theory views people as the most valued assets of the organization and that organizations that invest in people improve their performance. The human elements of the organization are those that are capable of learning, changing, innovating, and providing the creative thrust which if properly motivated can ensure the long-term survival of the organization.

Armstrong (2016) adds that individuals generate, retain, and use knowledge and skill which is human capital, and create intellectual capital. Their knowledge is enhanced by

the interactions between them, that is, social capital, and generates the institutionalized knowledge possessed by an organization, that is, organizational capital. Some studies in the past such as Chen (2008) found that intellectual capital which refers to the total stocks of all intangible assets, knowledge, and capabilities of a firm has a positive influence on the competitive advantage of firms and this helps firms achieve excellent goals. Torrington (2008) explains that human capital signifies the combined intelligence and experience of staff as a source of competitive advantage that cannot be initiated by competitors. He specifically indicates that effective HRM practices are an organization's source of competitive advantage.

This theory has cross-cutting significance in this study because green HRM practices that include green training, green employee resourcing, and green performance evaluation do help organizations enhance performance and sustainability. Human capital theory when applied to health worker green training in devolved healthcare services; considers health workers as assets and stresses that investment by hospitals in employees will generate worthwhile returns. Hospitals, therefore, should constantly evaluate their workforce on environmental management to ensure that they have the right individuals with the right abilities and skills in the right jobs to guarantee sustained competitive advantage, especially on matters of environmental sustainability. Rawashdeh (2018) found that scholars believe that green human resource management practice is a very effective tool for developing capable green human capital for sustainable performance and green competitive advantage.

Armstrong (2016) quoting Boxall (1996) refers to this situation as one that confers 'human capital advantage'. Human capital advantage results from employing people with competitively valuable knowledge and skills, much of it tacit. Human process advantage follows from the establishment of difficult-to-imitate, highly evolved processes within the firm, such as cross-departmental cooperation and executive development. Careful and sufficient green training, green hiring, and fair green performance evaluation can enhance performance and environmental sustainability. Favourable green workplace conditions consisting of reasonable workload, garden flowers, natural ventilation, better tools of

work, and supportive supervision can improve intellectual capital, social capital, and organizational capital.

In this study, Human resources for Health are considered an important human capital in devolved healthcare services. Human Capital theory confirms that employees of devolved healthcare services can generate, retain, and use skills, knowledge, and abilities to improve organization and environmental performance. Doctors, Nurses, Clinical Officers, laboratory technicians, information technology, and in general health workers and administrators have the knowledge and skills that are needed to be developed into green because these abilities and skills add value to green-devolved healthcare services. Green healthcare service providers (hospitals) should therefore focus on attracting, selecting, retaining, and developing green human resources for health who can generate, retain, and use skills, knowledge, and abilities to generate positive environmental results for the hospitals and ecological conservation. These abilities and skills should include eco-friendly management practices, such as saving energy practices, water minimization, and paperless hospital operations that can enhance the hospital's reputation on the aspect of environmental responsibility and performance.

2.2.3 Ability, Motivation, and Opportunity theory

According to Vroom (1964), the effect of motivation on organizational performance is dependent on the level of ability of the worker, and the relationship of ability to performance is dependent on the extent of motivation of the worker. The effects of ability and motivation on performance are not additive but interactive. The data presently available on this question suggest something more closely resembling the multiplicative relationship depicted in the formula: $\text{Performance} = f(\text{Ability} \times \text{Motivation})$. Vroom (1964) therefore suggests that people need both ability and motivation to perform well and that if either ability or motivation is zero there will be no effective performance. Employees in devolved Healthcare services can be motivated to improve performance if they are encouraged to use discretionary effort; their skills are developed and provided with the opportunity to perform. AMO theory stresses that employees' abilities,

motivations, and opportunities can contribute to organizational performance; through an integrative perspective to promote firm performance.

In this study, since employee performance is also a function of ability, motivation, and opportunity, it makes sense to have a bundle of GHRM practices, green occupational safety and health, and green performance evaluation aimed at enhancing AMO. GHRM is one of the ways through which a healthcare organization can enhance the green ability of employees by recruiting those individuals with awareness of environmental protection and providing certain training programs about environmentally friendly skills, inspiring motivation among employees to engage themselves in green activities. AMO formula- $\text{Performance} = \text{Ability} + \text{Motivation} + \text{Opportunity to Participate}$ provides the basis for developing HR systems that attend to employees' interests, namely: their skill requirements, motivation, and nature of their job (Boxall & Purcell, 2003). Thus, there are several ways in which employees providing devolved healthcare services can acquire needed green skills, for example, through careful green recruitment and selection and green training.

Vroom's AMO theory is relevant in this study because it has a cross-cutting application to green training, green employee resourcing, green occupational safety, and health and green performance evaluation. This theory has three dimensions that are relevant to this study as explained hereunder. Ability-enhancing GHRM practices include selective hiring where individuals with environmental awareness are employed, and workers are provided with green skills through training in devolved healthcare. This theory asserts that green recruitment and selection refers to the selective hiring of employees based on knowledge, skills, and behaviour related to the environment. Green training gives the employees green ability, skills, and knowledge that motivate them to understand and enhance environmental protection and reduce pollution of the environment. This gives employees the opportunity to learn environmental protection skills and build an environmentally friendly organization. Motivation-enhancing GHRM practices include green performance appraisal based on green performance standards and practices (Bysted & Hansen, 2015) and providing occupational safety and health environment for work.

Green performance evaluation means a system of evaluating performance standards and practices of employees in the specific areas of implementing activities in an environmental management system, while, green occupational safety and health refers to a workplace that is free from hazards and occupational diseases that may affect employee health. Opportunity-enhancing GHRM practices can be described as green involvement, green supervision, and green employee passion all of which create a platform for employees to engage in environmental management as they deliver quality healthcare services to their clients. A supportive management style inspires and motivates employee creativity, while employee green passion is encouraged and drives employees towards performance and environmental management. AMO framework provides a structured approach for assessing GHRM efficacy to ensure that employees have the ability and are motivated to participate in eco-friendly activities (Kellner *et al.*, 2016). Some studies that have successfully used AMO theory are Pham, Tuckova, and Plan (2019), Alnajdawi, Emeagwali, and Elrhail (2017), and Mwita (2019).

2.2.4 Resource-Based Theory

The resource-based theory was formulated by Grant (1991). Resource-based theory refers to the range of resources that an organization has, including its human resources, which produces its unique character and creates a competitive advantage (Hamel & Prahalad, 1989). The key to a resource-based approach is to understand the relationships between resources, capabilities, profitability, and competitive advantage. Developing a sustained competitive advantage depends on the unique resources and capabilities that a firm brings to competition in its business environment (Armstrong, 2016). These resources include all the knowledge, experience, risk-taking propensity, judgment, and wisdom of individuals associated with a firm. The firm's resource must have four attributes to have the potential for creating sustained competitive advantage namely: the resource must be valuable, rare, imperfectly imitable, and non-substitutable.

Resource-based theory posits that the main drivers of organizational strategic performance are its resources (Salman, Ganie & Saleem, 2020). Armstrong (2013) suggested three

important components of HRM that constitute a resource for the firm. These are: the human capital pool comprising of stock of employee knowledge, skills, motivation, and behaviours; the flow of human capital through the firm; and the dynamic processes through which organizations change themselves. The significance of the resource-based view of the firm is that it highlights the importance of a human capital management approach to HRM and provides the justification for investing in people through resourcing, talent management, and training programs. The incorporation of environmental concerns into the culture of the organization may deliver environmental capabilities that competitors would find hard to imitate which would give a firm an advantage over competitors (Russo & Fouts, 1997). Ployhart (2012) states that synergy can be achieved by managing firm resources in such a way that enables a company to create positive performance and thus become a market leader.

Devolved healthcare service organizations require resources for employees who are committed to the general welfare and health of their communities and fellow employees. To achieve this, the management should pay attention to recruiting and selecting employees who have skills, knowledge, and behaviour that are shared by devolved healthcare services' environmental management culture and values (Jackson et al., 2011), This practice is called green employee resourcing. This means acquiring green employees helps organizations have resources that are the source of competitive advantage for better organizational performance. This entails how green recruitment and selection are crucial in ensuring that firms have human resources with sufficient green knowledge and skills that cannot be imitated by rival firms (Mwita & Kinemo, 2018). The implication is that acquiring green employees will enable organizations to have unique human capital that will be a source of competitive advantage for the performance of such organizations.

Conferring to the resource-based theory to this study, devolved healthcare services through Level Five Hospitals can be strategized to create value for green hospitals and produce synergy in the resources of the hospital including green human resources for improved productivity and competitive advantage over their competitors. For Level Five Hospitals to create a sustained competitive advantage over other hospitals, they should

adopt green HRM practices that emphasize environmental management issues particularly, green training, green employee resourcing, green occupational safety and health, and green performance evaluation. Investment in greening the health workers is likely to increase their value in healthcare service delivery to Level Five Hospitals enhance the performance of devolved healthcare services and improve reputation on matters of environmental management. This aligns with The Kenya Constitution 2010, which champions conservation for the benefit of both humanity and the earth, and this calls for adaptable environmental regulatory policies that can foster green attitudes across all facets of human life (Borgen Report, 2016).

2.3 Conceptual Framework

A conceptual framework is a logical structure that provides a picture of how a researcher views the relationship between the research variables in the study (Grant & Osanloo, 2014). It is a reasoned-out set of prepositions that are derived from and supported by data or evidence (Kombo & Tromp, 2006). Bogdan and Biklen (2007) opine that it is a basic structure that consists of certain abstract blocks that represent the observational, experiential, and analytical aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes.

An Independent variable is the presumed cause of the dependent variable and whenever the independent variable changes, it causes changes in the dependent variable. The dependent variable on the other hand is the presumed effect thought of as a consequence of the change in the independent variable (Kothari, 2019). According to this study, the researcher conceptualizes green human resource management dimensions as the independent variable and the performance of devolved healthcare services as the dependent variable. The researcher assumes that the identified independent variables (green training, green employee resourcing, green occupational safety and health, and green performance evaluation) have no significant effect on the dependent variable (performance of devolved healthcare services). The researcher also assumes that the moderating factor (management style) has no significant effect on the relationship

between GHRM practices and the performance of devolved healthcare services. Figure 2.1 is the conceptual framework of this study.

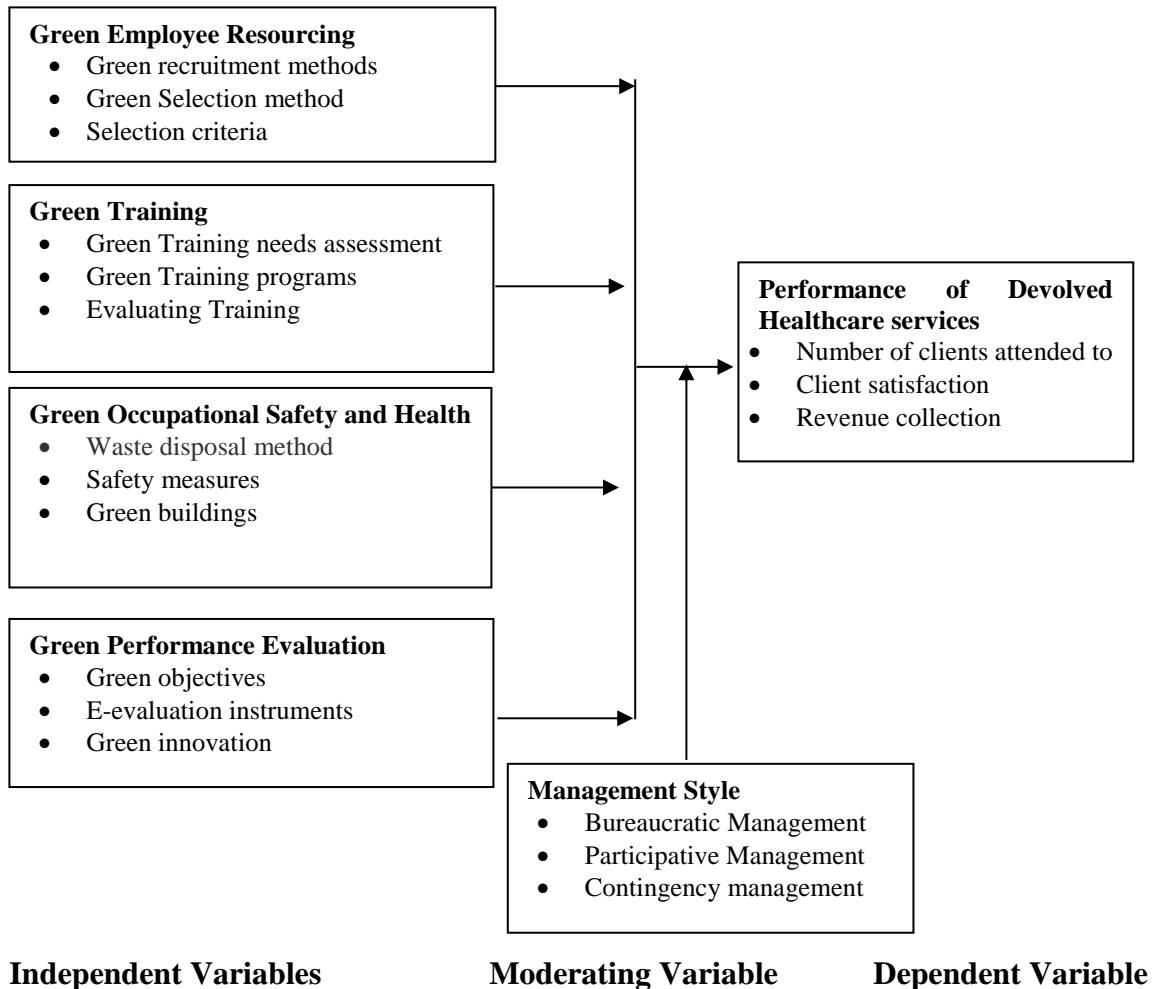


Figure 2.1: Conceptual Framework

2.3.1 Green Employee Resourcing

It is conceptualized in this study that if green employee resourcing is conducted through paperless recruitment methods for vacant jobs; applications are received through an online medium; the selection method is conducted virtually; and selection criteria is based on green awareness skills and values, then organizational performance of devolved healthcare services is likely to improve. Green employee resourcing practices are very

important components in the entry of human resources into the organization as both influence the organization's performance and sustainability. Green recruitment can be defined as the process of advertising to attract a pool of individuals with knowledge, skills, and behaviours that are related to the environmental management system (Shoeb &Tahir, 2015).

Green recruitment is an eco-friendly advertisement for job applicants where the focus is given on the importance of environmental management and making it a key element in the organization. In green recruitment, the individuals are required to have interest and passion about working for an organization that is green or environment friendly. Recruiting green candidates makes it easy for firms to attract and select induction professionals who are aware of sustainable processes and are already familiar with environmental initiatives like recycling, conservation, and creating a more sustainable world. Green recruitment includes environmental management criteria in the advertisement messages; it is usually a paper-free or online recruitment process with reduced environmental impact (Opatha, 2013).

High-quality job candidates who share environmental management values are attracted by organizations that are adopting green business practices (Shah, 2019). Successful organizations attract their prospective employees through environmental-related messages they communicate to the public. Tareq and Rosima (2015) define green recruitment as the procedure of hiring people with the knowledge and ability of environment management in an organization. Ragas et al. (2017) asserted that the process of recruitment can assist firms in producing effective performance including performance related to the environment by ensuring that newly hired staff is aware of the environmental culture of the organization and he/she can maintain the environmental values followed by the organization. Mishra (2017) suggests that green activities comprise video recruiting and the use of online and video interviews which are meant to minimize the travel requirements of job candidates. Further, the best HR practice in greening a company is the use of online applications to reduce paper usage and costs through computerized human resource information systems, and applicant tracking systems that streamline hiring

efforts. If possible, telephone or video-based interviews are conducted to minimize any travel-related environmental effects.

Priya and Kamlesh (2016) argue that in materializing the established environmental policies and practices, companies should put in place an environmentally oriented workforce. In developing environmentally- oriented workforce, companies should focus on green recruitment and the provision of required environmental protection-related awareness, education, training, and development to the current organization workforce. Adjei-Bamfo et al (2020) argue that recruitment is a process of attracting a pool of qualified job applicants at the right time to fit in the right jobs in an organization. Green recruitment is the process of locating and encouraging potential applicants with environmental management knowledge and the ability to apply for existing or anticipated job positions (Walker *et al.* 2011). The content of the information provided on the company's website concerning its environmental policies and practices plays a key role in green recruitment of the company.

To attract and retain talent efficiently and effectively is one of the ways to be greener in people management practices. The advertisements for vacant posts at the Level Five Hospitals are usually reviewed to determine which media outlet the advertisement should be published to ensure wide coverage. For cost-effectiveness, a link directing the applicants to the County website where the job vacancies and job requirements are posted should be made use of. Jabbour *et al* (2019) state that greening is the process of linking environmental management initiatives into functional dimensions of human resource management such as recruitment, selection, performance appraisal, rewards, employee involvement, job description, and job analysis among others. Multi-national companies are marketing themselves as Green HRM practitioners to attract employees who have a great knowledge and understanding of green practices and environmental sustainability issues (Bhutto & Auranzeb, 2016).

Across recruitment, deployment and patient records, devolved healthcare services in Kenya continue to rely mainly on manual, paper-based processes that lead to inefficiencies

such as long delays in recruitment, high printing and administrative costs, poor user satisfaction among clinicians and quality concerns in health information management (Nyawira et al., 2022). Armstrong (2016), states that the main methods of recruitment are internal recruitment and external recruitment such as online recruitment, agencies, job centers, consultants, and campus recruitment. According to Arulrajah *et al* (2015), companies have environmental policies that help them attract environmentally aware talent and they also brand themselves as organizations of green employers of choice. In addition, these organizations usually prepare job advertisements that express certain environmental values to attract potential employees who are green-aware.

Halawi and Zaraket (2018) argue that when recruiting, companies need the following tasks: green environmental management, role descriptions for managers and employees; green targets and goals; recruitment of candidates who are Green aware; and green employer of choice. Additionally, organization green activities should include the minimum use of stationery in the recruitment and interview process, performance appraisals, and learning and development. Green employee resourcing is the process of hiring services of prospective employees with required skills that promote the corporate environmental culture and performance of a company. Interviews should be designed in such a way that one should evaluate the applicant's qualifications with the firm's greening strategies (Rawashdeha, 2018).

Adjei-Bamfo et al (2020) opine that selection is the process of choosing the best applicant for the job and the process comprises sifting through the applications, drawing a short-list of candidates whose qualifications match closely with the job description (screening), inviting and interviewing these candidates, making selection decision based on selection criteria, conducting background check from referees, making an attractive job offer to selected candidates and inducting them into the organization. Employee Selection Method refers to the process or techniques such as interviews, assessments, background checks, and reference checks used by organizations to evaluate and choose the best candidate for a job position. The aim is to systematically evaluate candidates and determine their suitability for the role. Employee Selection Criteria refer to the specific qualifications,

skills, attributes, and experiences required for a job position. The purpose is to define the essential and desirable requirements for the job, guiding the selection process.

Additionally, Jabbour (2015) argues that during the short-listing of job candidates, the best environmentally committed applicants who have shown concern with firms' greening programs should be chosen. Razab *et al* (2015) recommended that when interviewing prospective job candidates, environmentally-related questions should be asked as an important interview criterion. Further, this study concluded that this method leads to more sustainable hiring decisions and ultimately contributes to the organization's overall environmental performance. Organizations should evaluate their job applicants during interviews to determine if they have the necessary environmental competencies needed to perform a specific job (Wehrmeyer, 2017). Managers of organizations must employ certain screening methods that ensure that only job applicants who are sensitive and committed to environmental concerns are shortlisted for interview. Armstrong (2016) stated that selection involves deciding on the degree to which the applicant's characteristics in terms of their education and training, experience, competencies, and qualifications match the job requirements. Establishing an employer brand as a green employer is an effective way to attract applicants and businesses apply advertisements to promote their environmental performance, environmental policy, and environmental image, which can help persuade people to apply for such positions. Job descriptions should be designed in a way that includes the abilities and information that candidates require along with an explanation of the environmental duties and responsibilities candidates should possess to fulfil those roles (Chaudhary, 2020).

Wehrmeyer (2017) defines green selection as the process of picking or hiring individuals who are likely to be committed and sensitive to environmental issues that have the potential for environmental sustainability. Furthermore, organizations should ensure that the green selection method is used to screen job applicants to establish if they possess the required competences for the performance of specific jobs. A green Job description should be drawn up containing specific green tasks and responsibilities; use of green information technological system; including environmental issues in the selection; assessing the job

candidate's knowledge about green branding activities of the organization; drawing a short-list of candidates who commitment to environmental issues and finally making a decision and induction. Green induction is about using technology such as Webcams to induct new employees. This is a green technology that may be used to save time, energy, and carbon emissions associated with travels to an employer's premises for an interview.

The selection criterion should be based on ranking the candidates' performance and the high-quality individual with key environmental skills required to perform a specific job and has demonstrated commitment and sensitivity to environmental issues should be considered for employment and contacted through e-mail or telephone. Green selection is a method used to identify, evaluate, and verify a job applicant's eco-friendly values and sensitivity to environment-related concerns (Masri & Jaaron, 2017). Therefore, the job applicant's overall suitability criteria for the job should be based on the candidate's green qualifications.

According to Armstrong (2016), two or more people gathered together to interview one candidate may be described as an 'interviewing panel'. Selection boards are more formal and, usually, larger interviewing panels are convened because there are a number of parties interested in the selection decision. Their only advantage is that they enable a number of different people to have a look at the applicants and compare notes on the spot. The disadvantages are that the questions tend to be unplanned and delivered at random, the prejudices of a dominating member of the board can overwhelm the judgments of the other members, and the candidates are unable to do justice to them because they are seldom allowed to expand. Selection boards tend to favour the confident and articulate candidate, but in doing so they may miss the underlying weaknesses of a superficially impressive individual. Khadijah (2015) argues that the County Public Service Board (CPSB) is responsible for the efficient recruitment of health workers. This covers the need determination, drawing of deployment plans, planning of the process, sourcing, selecting, hiring, and deployment of staff. The CPSB coordinates recruitment activities and ensures that the County Health Department achieves its objectives.

2.3.2 Green Training

Green training is conceptualized as a process that involves the impacting of eco-friendly skills, knowledge, ability, and behavior that enhance the employees' productivity and positive attitude towards the job and environment. Green training refers to educational initiatives designed to teach staff about eco-friendly workplace practices, with the aim of reducing the environmental footprint of business operations (Song et al., 2020). Global shift towards environmental sustainability in recent years has underscored the importance of GHRM practices across all sectors including healthcare services. One of the elements of this shift is green training which involves equipping employees with knowledge, skills and attitudes necessary for environmentally responsible behaviour and practices at work. In the context of Kenya's devolved healthcare services, however, the incorporation of green training remains minimal, inconsistent, and under-researched.

According to Zoogah (2018), the purpose of green training is to activate the attention of employees by imparting knowledge, and skills and creating a positive attitude in them towards environmental management. Green training comes from the wider concept of green whose purpose is to create environmental awareness alongside human resource practices which will lead to environmental sustainability. Any tailor-made green training usually educates employees on the value of proper management of the environment, trains employees on better work methods that may conserve energy, and reduce waste, and provide opportunities for employee involvement in issues of managing the environment. Some studies (Dadzie *eta al*, 2022) identify that Kenyan clinical training and human resources programs remain rooted in traditional competencies, with little integration of green skills such as waste segregation, eco-procurement, energy or water conservation practices, and broader sustainability-oriented behaviors in health facilities.

Green training is oriented toward providing green skills, knowledge, and competencies for developing health facilities through the use of methods, processes, and techniques associated with improving performance and environmental management. Mandip (2012)

opined that a green training program can give the organization a competitive advantage because it covers different environmental risks.

Employees require environmental training so that they can contribute to environmentally friendly initiatives (Mishra, 2017) and mitigate climate change (Neto et al, 2014). Daily *et al*, (2012) argue that organizations can achieve their objective of greening if they adopt green training. The customized green training program includes management of waste and recycling, enhancement of environmental knowledge about future environmental risks, safety, and energy saving in offices.

According to Arulrajah *et al* (2015), some organizations conduct specific green induction for their new employees. The information provided during induction is usually about the company's environmental management policy, HR practices, and performance standards. Sometimes, organizations do design green training programs for old employees who are then used to orient or induct new employees. Opatha (2013) adds that new employees should familiarize themselves with the greening initiatives of the organization and at the same time they should be encouraged together with existing employees to engage and participate in green interpersonal citizenship behavior. According to Rawashdeh (2018), green induction training should be designed and provided through technology such as a webcam to provide new employees with information about Environmental Management and sustainability.

Green training programs may inform the new employees of the green initiatives pursued by the organization, for example, the reduction of the emission of greenhouse gases (Mehta & Chugan, 2015). Renwick *et al*. (2016) recommended that in order to enjoy environmental protection, certain HR practices such as training on efficient recycling of energy, management of company waste, green workplace, and green job rotation should be included in the organization's training program that is designed for potential green managers. Green training assists in determining the sources and ways of utilizing available organization resources to create a peaceful and harmonious atmosphere for sustainability

performance. The new employee should be oriented on organizational policies, practices, and green values regarding environmental management and performance.

Management in devolved healthcare services can conduct training on best practices for healthcare waste minimization, generation and segregation, and eco-friendly disposal methods. Reducing, re-using and recycling should be encouraged among healthcare employees because these practices will create a cleaner and safe environment for employees and the community. Training needs assessment should be conducted to aid in designing training programs that can achieve the best desirable environmental benefits for the organization (Cherian & Jacob, 2012).

Zoogah (2018) argued that training modules should be designed and implemented to educate employees on issues of environmental management. A study conducted by Owino and Kwasira (2016) at Menengai Oil Refinery in Nakuru, found that employee green training and development programs had little effect on the sustainability of the environment. Further, the study concluded that eco-friendly training offered were not sufficient to equip employees with the necessary skills and knowledge to enhance environmental sustainability.

Green training is important in carrying out environmental management in organizations (Gupta, 2018). The provision of training about environmental sustainability is an important function of green human resource management because it helps in developing highly needed skills and knowledge among organizational employees and managers (Arulrajah *et al.*, 2015). The basic objective of green training is usually to establish a match between an employee and his job to improve knowledge, skills, and attitude towards the corporate environment thus enabling the employee to be more effective in his current job or prepare him for future tasks and assignment.

Green training and development programs aim to educate employees on the importance of environmental management. These programs teach employees energy-saving practices, waste-reduction techniques, and how to spread environmental awareness within the

organization. They also provide opportunities for employees to participate in solving environmental problems (Zoogah, 2018). Jackson *et al* (2011) opined that training that encourages waste management; recycling and supports telecommuting and flexible work schedules; and encourages short-distance business travel is very important because it enables individuals to reduce environmental pollution. The organization can also conduct seminars and workshops for employees as a strategy for creating environmental awareness and achieving good environmental performance. The devolved healthcare services should develop training programs using information communication technology to create networked care. Networked care is about a seamless exchange of health information required to increase the quality of healthcare while lowering costs and reducing the time needed for accessing health information.

A study conducted by Prasad (2013) recommended that job rotation in green assignments should be included in the career advancement plans of future talented green managers. Green training content should be designed in a way that will increase employee competencies and knowledge on matters of environmental management. The organization should develop and encourage the use of online and web-based training modules and interactive media as training tools for environment management training and for other HR functional areas. Training managers and employees should rely more on E-resources such as staff manuals and case studies, HR policies, environment protection policies, and organization policies, e-books should be online for staff rather than printed handouts. This practice will reduce paper use and hence lead to the protection of the environment.

Environmental education should also be provided to employees and managers to change their attitude and behaviour towards eco-friendly practices. For example, a study in Singapore's Fuji Xerox found that every other employee usually goes through eco-awareness training, while employees in the sales department are educated on the green aspects of the products and supplies of the company. Some organizations are also known for planning and celebrating the annual environmental day at the organizational level by organizing and executing many competitive programs that involve all employees and their

children. The celebration of organization environmental day helps to inculcate certain key eco-values among the employees and their family members as well (Aton *et al*, 2015).

Green training improves the employee's capability to understand problems regarding the environment and helps develop an efficient understanding of how work practices influence the environment (Roscoe *et al*, 2019). According to Zakaria (2012), performance of the organization is associated with the training of employees to achieve organizational objectives and goals more effectively. The capability to acquire new knowledge and attitudes can be produced among employees through training and development. Renwick *et al*, (2013) recommended certain green training practices that produce green employees. Green training programs, unlike traditional training, include the concepts of management of waste and recycling, saving energy, and employee safety measures. The purpose of a green training program is to create environmental awareness and knowledge among employees about emerging environmental issues and risks that affect the organization. A program of green training may assist employees with knowledge of the importance of environmental protection and therefore be able to effectively engage themselves in pro-environmental actions.

Environmental-related education, training, and development are key areas of green HRM without which materializing targeted environmental performance of an organization would be very difficult to attain. According to Opatha and Nawaratne (2015) some organizations mainly analyze and identify the environmental training needs of employees by conducting environmental training needs analysis of the employees. Organizations then conduct intensive and systematic education, training, and development programs for their employees to enhance good organization performance and environmental management (Opatha, 2013). Wallen *et al* (2013) opine that training is administered in two ways namely: on-the-job training method whereby employees are given training at their place of work and off-the-job training whereby employees are provided with the training away from their place of work. On-the-job training is a simple and cost-effective way of training employees. It can be done through job rotation, job enlargement, and job coaching. Off-the-job training method, on the other hand, is provided outside the organization in the

form of seminars, lectures, workshops, and conferences. Off-the-job training method is costly to an organization, but when training a large number of employees, it is cost-effective.

According to Bhutto and Auranzeb (2016), green training allows employees to use their work-related skills such as mitigation of wastage, and expertise in environmental protection and literacy in accordance with the organization's green standards. There exists a direct and significant relationship between training and development and organizational performance because these trainings develop skills and knowledge of the employee, which can then translate into achievement of organizational goals and sustainable performance. There are a number of factors that lead to the failure of environmental training programs. These factors include the unwillingness of the trainer to include issues of a green environment in the training, inefficient demand and need analysis, and lack of perceived or actual commitment to training objectives by top leadership, management, and employees. Therefore, environmental training initiatives can be improved by incorporating effective environmental learning readiness assessments among all staff. According to Jabbour (2019) environmental training is a key tool for developing human resources because as Zooger (2011) notes, it activates attention and knowledge among individuals toward concerns about the environment, creates a positive attitude, takes a proactive approach to greening activities, and building competencies in saving energy and reducing waste.

A number of studies have been done on the effect of green training on performance. Oliveira (2016) elaborated that green training is a very important factor as it helps to save energy, decrease environmental impact, improve environmental awareness among employees in the organization, and focus on a sustainable environment. Green training is important in enhancing employee green behaviour as they work towards attaining green objectives and goals. In addition, green training practices assist organizations in organizing environmentally oriented teams that develop processes that enhance organizational performance.

According to Armstrong (2016), formal approaches to management development should include: Coaching and mentoring, the use of performance management processes to provide feedback and satisfy development needs, formal internal and external training, job rotation that gives experience, taking part in project teams or task groups, and secondment to other outside the organizations. Informal approaches to management development make use of the learning experiences that managers come across during their everyday work. Managers also learn at the workplace as they face unusual problems or tasks that require solutions. Longenecker (2010), found the existence of a positive relationship between training programs and employee motivation which makes the employees more involved in their jobs and subsequently results in better individual performance and organizational productivity.

A study by Guni (2015) on the effects of off-the-job training and organizational productivity in Kenya's Christian Medical and Dental Association revealed that off-the-job training has a positive impact on organizational productivity. It is therefore evident that off-the-job training is important in improving job performance which leads to improved productivity. While determining the impact of training on employee job performance in the Ugandan Banking Sector, Amos and Natamba (2015) revealed that off-the-job training has a significant positive effect on employee performance. Taruru, Keriko, Ombui, Karanja, and Tirimba (2015) investigated the effect of coaching Programs on employee performance and the reduction of staff attrition in the BPO industry in Nairobi, Kenya. The study findings indicated that coaching increases average employee performance and helps team members identify their strengths and weaknesses. Ofobruku and Nwakoby (2015) conducted a study in Nigeria on the effect of mentoring on employees' performance in Selected Family Business in Abuja. The study found that mentorship programs had a significant positive correlation with employee performance in the organization.

2.3.3 Green Occupational Safety and Health

The study conceptualizes that green occupational safety and health through proper and eco-friendly waste disposal methods; effective green safety measures; and green buildings with eco-friendly design and construction may reduce the waste of water and energy, improve overall indoor air quality, and protect biodiversity that enhances performance of devolved healthcare services. Green buildings involve the application of clean design principles such installation of double-glazed windows, effective shading, energy- saving lighting, low-energy heating and cooling systems, and utilizing solar energy (Leal Filho et al., 2024).

According to WHO (2010), Occupational safety and health at the workplace is about promoting and protecting the health, safety, and welfare of individuals engaged in work or employment. It is a multi-disciplinary activity targeting four basic aspects namely: the protection and promotion of workers' health by preventing and controlling occupational diseases and accidents; the development and promotion of healthy and safe work, work environments, and work organizations; enhancement of physical, mental, and social well-being of workers; and enabling workers to conduct socially and economically productive lives and to contribute positively to sustainable development. Green safety and health management is about the traditional safety and health management of HRM in the organization with some more components of environmental management of an organization. This is why Renwick *et al*, (2013) suggested that organizations should ensure that new employees know and practice their environmental responsibilities, safety, and health concerns, embrace the corporate environmental culture, and adopt environmental policy and practices of the organization.

Energy consumption in Level Five Hospitals is known to be high with carbon emissions from the use of that energy; disposal of waste and transportation. Bouzid et al. (2021) noted that hospitals contribute a bigger percentage of solid and liquid effluent to the environment especially a high rate of wastewater pollutants that infect human health and the environment. World Health Organization (2017) found that the health sector was a

major contributor of pollution to the environment and emission of health risk hazards such as toxic chemicals, radioactive, and water wastes. Sustainable use of water and water quality regulations are meant to protect human health and the environment. A marked reduction of water-borne diseases and other negative impacts of wastewater pollution can be achieved if proper enforcement of water quality regulations is adhered to. Adopting energy-efficient methods and reducing medical waste generation can lead to reduced energy costs and reduced carbon footprint of Level Five healthcare providers.

Level Five Hospitals can optimize their water supply system by using water-efficient ways such as water-saving toilets or low-flow faucets. It is necessary to minimize water use, recycle wastewater, and where possible treat effluent water before disposal into the environment. Green human resource management practices in healthcare can improve the quality of services by providing employees with a safe and healthier environment. A positive work environment for employees and patients can be achieved if green buildings are designed to allow natural lighting and adequate ventilation. The concept of cleaner indoor air contributes to healthier living and working environments, reducing the risk of respiratory issues and allergies for occupants. Green human resource management practices can result in direct and indirect financial savings which translate to improved performance of healthcare facilities. Involving employees in green practices can significantly reduce environmental degradation and pollution.

Green procurement practices in healthcare can ensure that medical products are sourced and used in an eco-friendly manner. In mitigating environmental pollution, it is necessary to properly manage medical waste from healthcare facilities and integrate sustainable practices like energy efficiency, water conservation, or green building in health infrastructure design. According to Subhani (2010), many organizations acknowledge that occupational safety and health management systems usually reduce accidents and injury rates, while at the same time, it improves the organization's productivity. Ministry of Health (MoH) is committed to creating a safe work environment that promotes safety and health practices and seeks to prevent any occurrence of hazards associated with work and the work environment (MoH, 2014). Occupational Safety and Health Act (2017) provide

for the involvement of employees and stakeholders in decisions that may affect their safety and health in the work environment while managers will participate in consultation with employees on matters of safety and health following agreed procedures. Pillai and Sivathanu (2014) opined green initiatives such as recycling campaigns, paper drives, and educational programs can be driven by HR personnel because they can contribute to a cleaner environment and save time and money. Greening initiatives such as reducing, reusing, and recycling waste, as well as strict waste segregation, are inadequate in Level five hospitals in Kenya. Additionally, providing devolved healthcare services in Kenya can promote electronic access to healthcare by putting in place digital platforms to improve interaction between the patient and the clinician.

An emphasis on paperless services whereby the clinicians are encouraged to write patient notes and prescriptions using a computer system should be encouraged. Clinicians' workload, revenue collections, and expenditure, supplies, and administrative communications should be done online through the intranet. Used paper should be reused at the back to reduce clutter in office cabinets and waste, while patients are encouraged to pay for services online through M-pesa. Employees doing well in these areas of greening for a safe environment should be recognized. A clean environment is one that is characterized by reduced negative impact of human activities, such as air pollution, water pollution, soil contamination, and deforestation (WHO, 2012).

Devolved Healthcare service organizations may also employ a Health, Safety, and Environment Officer who can deal with all matters of occupational health, safety, and environmental biodiversity protection and community support activities. The main role of green occupational safety and health management is to create and sustain a green workplace. Although the management of the environment involves some costs, it leads to the improvement of the health of employees and local communities; it enhances the image of the organization as a better green employer and improves corporate citizenship (Arulrajah *et al.*, 2015). Devolved healthcare service organizations should organize cleanliness and eco-friendly waste management at the workplace and the surrounding society should be made aware of the organization's green concerns.

In general, greening is essential for organizations because it serves to minimize global warming; reduces natural disasters; minimizes pollution that can lead to health diseases and problems for humans and other creatures; and ensures the survival of man and organizations. One of the biggest concerns to the public's wellness is the prevalence of illnesses and injuries at the workplace (Konijn et al., 2018). In 2017, the International Labor Organization (ILO) released a report that stated that injuries and illnesses linked to the workplace claim the lives of more than 2.78 million employees annually. Prolonged impairments, diminished capacity to execute job responsibilities, premature retirement, healthcare costs, presenteeism, absenteeism, and fatalities are the gravest adverse effects of workplace injuries and accidents. These effects led to the loss of global gross domestic product and accounted for 1.8 percent to six percent of GDP in different nations (Caffaro *et al.*, 2018). According to Nnebue (2014), favorable working conditions for the performance of health workers is necessary for providing maternal healthcare services. This study, furthermore found that inadequacy of equipment and essential drugs combined with high workload and lack of professional retraining are frequently reported factors responsible for low motivation and poor performance of health workers providing services to pregnant women.

Devolved Healthcare service organizations can also put in place water-saving technologies such as low-flow faucets, use of hand sterilizing liquid, water dispensers rather than bottled water and train employees on water minimization and recycling techniques. This will create a team of green employees which reduces water use, minimizes pollution, and eventually this will lead to environmental protection and conservation. Green building refers to the practice of designing, constructing, operating, and removing buildings in certain ways that reduce pollution and conserve natural resources (Liu *et al.*, 2020).

Green buildings consist of eco-friendly features that can improve indoor air quality, ventilation, and lighting and, therefore, boost employee well-being. Devolved healthcare service organizations should design or redesign their buildings to have wide windows and other openings to allow employees to use natural light where possible and reduce the use

of electricity thereby reducing electricity bills and conserving energy. Green building integrates water conserving features such as rainwater harvesting systems, natural lighting, and designing landscapes with native, drought resistant plants, grass and flowers that can reduce irrigation needs and carbon footprint. Clinician consultation rooms and patient wards should be partitioned using glass and aluminium bars or car-teens instead of traditionally enclosed permanent rooms. This helps employees to breathe natural fresh air and this minimizes infection and ensures the safety and health of staff and patients.

Healthcare workers usually suffer from psychological hazards such as violence or aggression from patients, visitors, residents, staff, and clients which could take the form of physical, emotional, and/or mental abuse; Physical hazards that comprise extremes of temperatures, extremes of pressures, noise, vibration, and radiation; and Biohazards which refer to biological substances such as medical waste samples of a microorganism and virus that pose a threat to the health of a worker in health care facilities and community if not properly controlled (OSHA, 2017). Some healthcare facilities have environmental committees that help on matters of environmental protection by championing for clean and safe workplace. Employees who are innovative and have a green passion for flowering their offices should be encouraged to do so, while management embarks on flowering hospital pathways, and roads, creating and maintaining flower gardens, planting grass and trees encouraging all employees to support and protect the environment.

Waste management and environmental management initiatives should be embraced by all employees through employee greening activities. Proper waste management practices such as waste segregation at source using color-coded waste bins, reusing and recycling can reduce occupational hazards for employees and minimize the impact on the environment, while also ensuring efficient use of resources. Level Five Hospitals can also reduce waste by using reusable medical equipment, and recycling paper and plastics. Employees can use eco-friendly cleaning products and proper disposal methods of medical waste to prevent pollution, protect employees and the environment. Devolved healthcare services management can hold environmental awareness days to educate all employees on environmental management matters; to allow them to participate in

organization-wide green activities and to encourage them to practice green activities at work and home. This will ensure a safe and healthy work environment for employees and the community where the hospital is located.

2.3.4 Green Performance Evaluation

Anton (2016) describes green performance evaluation as the extent to which individuals engage in environmentally friendly actions and activities that produce outcomes concerning greening over a period of time. Green performance evaluation is a method of assessing performance based on how effectively employees are contributing to a greener environment. Research by Longoni et al. (2018) and Renwick *et al.* (2016) indicates that GPE has a positive impact on sustainability. Additionally, Malik et al. (2021) found that GPE significantly and positively affects sustainable performance. According to Ahmad (2015), green performance management comprises concerns related to environmental management. A Performance management system is normally needed to support green HR practices that should develop performance standards and measures of the environment. Owino and Kwasira (2016) stated that green Performance Management focuses on setting green goals for all employees, which helps turn environmental objectives into actionable plans.

Performance appraisal is a process of evaluating an employee's performance relative to his or her performance standards or targets. Green performance evaluation can be defined as an assessment of the performance of an employee concerning the objectives and activities of greening or environmental sustainability over a specific period of time (Arulrajah *et al.*, 2016). In developing green performance indicators, it is necessary to establish green criteria that cover such areas as environmental incidents, reduction of carbon emissions, environmental concerns, and communication regarding environmental concerns and policies. The employee green performance measurement criterion should be set in such a manner that it is in line with the objective of environmental performance of the organization (Zhang, Luo, Zhang, & Zhao, 2019).

These performance appraisals should be done through electronic instruments (paperless) and feedback given to employees electronically to minimize the cost of printing paper. Managers need to be held accountable for their environmental management (EM) performance, in addition to their broader performance goals (Renwick et al., 2013). According to Darvishmotevali and Altinay (2022), employee production green training measurement is appraised on how that employee is progressing into a greener environment. Employees are more likely to change their habits in response to certain success factors appraised through green performance evaluation. Effective green performance appraisals provide useful feedback to employees and support continuous improvements in the firm's environmental outcomes.

Effective green performance evaluation should consist of issues about green objectives and tasks that are specified in the employee green job description (Mehta & Chugan, 2015). Green performance evaluation refers to assessing and documenting employee performance-related environmental concerns and organizational performance (Jabbour, 2018). Further, the green performance assessment was found to have a significant and positive effect on sustainable performance (Malik et al, 2021). According to Arulrajah et al (2015), green performance evaluation of an employee in an organization should be conducted as part of the performance evaluation system of the entire organization. The environmental performance and audit reports should aid in developing green objectives, standards, and behaviour at all levels of the organization which in turn will serve as measurement criteria for green performance evaluation. The performance evaluation system of the organizations should include issues about the environment as well as environmental incidents and environmental responsibilities that influence the success of environmental concerns and policy implementation.

The employees who exceed their contributions towards set standards and targets should be recognized with some rewards as green talented staff (Prasad, 2013). Performance contracting of some key employees in devolved healthcare services should contain measurable components on environmental protection, maintenance of the natural environment, reduction of environmental pollution, and creation of gardens and natural

places. Green innovation refers to any initiative or form of innovation that minimizes environmental negative impact and ensures effective use of natural resources such as materials, energy, water, and land. Green innovation, for example, an employee using waste plastic containers to plant office flowers can reduce pollution and enhance fresh air circulation in offices.

Other green innovations may include the creation of green gardens around offices, and encouraging hospital employees and clients to conserve natural places. The target of green innovation is a product, procedure, process, service, or system that meets customer expectations in an eco-friendly manner. Green innovation is important as it reduces cost minimizes the generation of waste and enhances sustainable healthcare which leads to improved performance. It is the development of green products, green processes, and green management innovations that lower organizations' environmental impact and achieve eco-advantages (Huang & Li, 2017). Green products include reforms in current services in response to environmental concerns, green process which refers to updates in processes and systems of service provision or production, while green management is related to new internal management methods. Employee Green Performance appraisal system should therefore include in its measurement issues related to environmental conservation and protection. Owee *et al.* (2013) opine that to achieve green performance evaluation, it is necessary to set green targets, green goals, and green responsibilities to employees and managers. This should be supplemented with the provision of regular online feedback by managers to the employees and teams to improve their environmental performance.

Green Performance evaluation provides employees with detailed data regarding their successful role in the environmental performance of a company, and it supports the implementation of green behaviours that motivate and enhance employee motivation to suggest eco-initiatives (Guerci, Longoni & Luzzini, 2016). According to Lucas (2010), the performance evaluation scheme of employees should comprise an environmental component such as number of trees planted that provide fresh air and shade to employees. Environmental strategy should be linked more powerfully to environmental performance

through the development of performance measures and standards. Employee performance evaluations should be conducted online to minimize the use of paper in the form of appraisal or evaluation forms.

2.3.5 Management Style

Management style is the pattern of relationship that a manager exhibits as s/he directs and coordinates the activities of others to achieve organizational goals (Ayub, 2014). Management style can influence the attainment of an organization's mission, allocation of resources, and implementation of eco-friendly changes that are necessary for an organization to enhance performance and gain competitive advantage. There are many styles of management including bureaucratic, participative, laissez-faire, contingency, servant, transactional, and transformational among others. Managers usually apply a management style they find themselves comfortable with their followers or subordinates. They may also apply a certain style of management because they want to achieve organizational goals in a certain manner required by the management.

Top management style usually influences the effective formulation and implementation of health policies and practices that will affect an organization in achieving goals and objectives. An effective approach to organization sustainability will require employee compliance with formal rules and accept to voluntarily engage in green initiatives such as lowering the consumption of energy and paper and use of stairs in place of elevators (Ren *et al.*, 2018). Top managers' commitment enables organizations to implement and enforce green practices and policies to realize the organization's goals and objectives. This Top management enforcement ensures that employees are aware of green practices and are inclined to adopt them in their daily operations, in pursuit of achieving the goals of the organization. According to Momena *et al* (2013), leadership as an HR practice should be supportive and participative. Leaders should be available to the employees as and when required and should take the initiative to motivate the employees and encourage them to come up with new ideas.

In this study, management style is conceptualized as a moderating variable on the relationship between GHRM practices and the performance of devolved healthcare services. Bureaucratic, participative, and contingency management styles are considered in this study because they are assumed to yield better results in service delivery. Bureaucratic management style is where the manager expects work to be done in a pre-determined manner while following laid down policies, procedures, rules, and standards (Khan *et al*, 2015). Participative management style is when the manager involves the employees in the decision-making process and this creates motivation and satisfaction. It is appropriate where there are routine tasks and high safety risks (Amanchukwu & Ololube, 2015). In the Contingency style of management, the manager changes the approach to management depending on the situation (Erdogan & Bauer, 2015).

According to Opatha and Nawaratne (2015), some companies have recognized the importance of discipline management as a tool that can help employees to regulate themselves on matters of environmental protection initiatives and activities of the organization. These organizations have developed a precise set of rules and regulations that regulate employees or put pressure on them to inculcate environmental protection concerns that are in line with environmental policy guidelines of the organizations and the United Nations Environment Program. United Nations Environment Program (2022) was established in 1972 as a platform for raising awareness and action for the protection of the environment. In such organizations, for example, if an employee violates rules and regulations on the environment, disciplinary actions are imposed on that employee.

Renwick *et al*, (2013) opine that setting penalties for noncompliance on targets on environmental management, discipline and/or dismissal for environmental management breaches, and developing negative reinforcements in environmental management are also worthwhile practices under green management. Bureaucratic management style tends to enforce a set of behavioural and technical rules and regulations that define the scope of their authority dictate and constrain certain actions of employees. Mehta and Chugan (2015) opine that HR professionals are enabling companies to make green business in ways like encouraging employees to switch off lights when not in use, turn off the

computer monitors when not being used, keeping only minimal lights during non-working hours for safety, online sharing of training material uses print-e-mail only, if necessary, in their official e-mail signature.

Arulrajah *et al* (2015) stated that firms can succeed in their attempt to protect the environment by designing new jobs that are environmentally concerned or connecting environmental tasks into each job's duties and responsibilities that commit organizations to their environmental management concerns. Mutisya *et al.* (2019) posit that management in public hospitals should be effective to improve revenue collection. The amount of revenue collected by the hospital assists the government in determining the amount of capital expenditure required as this revenue will indicate the workload in the form of clients/attendees. The hospital with more revenue will be allocated more expenditure resources as they are perceived to be performing better. Research conducted by Mehta and Chugan, (2015) found that some of the HR-initiated green programs being implemented in some organizations included: adopting video-conferencing or internet-based applications for meetings and reducing business travel; making internal company documentation online; reducing paper usage and promoting ways for the same; offering work-from-home options to employees and opportunities for telework; and car-pooling programs.

Obiora-Okafo and Imhanrenialena (2022) found that to boost employee performance, firms need to create a comfortable office atmosphere and improve operational conditions. A well-functioning work environment equips employees to meet expectations, leading to higher performance and the achievement of organizational goals. Contingency management style takes into consideration vital situational factors. These situational factors include: the degree of structure in the task being performed, quality of leader-member relations, Leader's position power, subordinates' role clarity, group norms, information availability, acceptance of the leader's decisions, and subordinate maturity.

Management style can either accelerate the independent variable or act as an impediment to the dependent variable. Ahmad (2015) opines that e-business and e-learning have

converted ordinary offices into paperless offices. The paperless office is an office that has minimum use of paper or has eliminated the use of paper by changing all important official paper documents into automated documents and workflows. Paperless offices to a large extent reduce the consumption of paper, minimize substantially the cost of paper-related activities such as photocopying, printing, and filing, and at the same time save the time spent by employees in searching for paper-documents.

The implementation of several energy conservation initiatives aimed at reducing negative impact on the environment has led to the provision of more efficient and effective eco-friendly services in many organizations (Ogola, et al., 2023). Recycling of waste to produce new and useful products is likely to reduce the use of raw materials by employees and consequently, lead to saving energy and reducing the amount of waste thrown into the dustbins. This practice will result in a cleaner environment and circulation of fresher air in workplaces. Nowadays, some companies in Kenya including hospitals are getting more concerned about reducing negative environmental impact through employee involvement. These companies are applying several energy conservation methods such as asking their employees to turn off Personal Computers, Televisions, and office lights when leaving their offices.

Other companies are introducing the use of solar lighting and energy-saving bulbs as a way of conserving energy and reducing costs. Managerial practices are important as they shape the organizational performance, or physical spaces, composure, and conditions of the work environment. Management phenomenon is very important in providing employees with direction and psychological gratification to acquire the best services out of them (Al Khajeh, 2018). Different authors (Sofi & Devanadhen, 2015; Mohammad *et al.*, 2017) opine that various management-leadership styles such as transactional, transformational, participative, and autocratic have varying effects on organizational performance. Puni *et al.* (2018) opine that the participative management style is the procedure of sharing responsibilities in decision-making between the management and employees and it involves consulting with subordinates and evaluating their suggestions before the manager makes any decision.

A study was conducted by Anusingh and Shikah (2015) on the impact of green human resource management factors on environmental performance in manufacturing companies. Using regression analysis, the study found that variables like top management commitment, and employee training programs have a significant positive relationship to perceived environmental performance. Green HRM practices in hospitals are becoming more necessary in order: to develop green employees; create desirable relationships between the employees and the environment; and eventually reduce negative environmental impact for the current and future generations. The researcher conceptualizes that an environmentally positive management style can influence the performance of devolved healthcare services. In the current study, management style is considered a moderating factor between the independent variable (green human resource management practices) and the dependent variable (performance of devolved healthcare services).

Different management styles, such as bureaucratic, participative, and contingency, can either enhance or impede the effectiveness of GHRM practices. For instance, participative management involves employees in decision-making, fostering motivation and satisfaction, which can enhance the implementation of green initiatives. Conversely, bureaucratic management ensures strict adherence to green policies and procedures, which can also drive performance. Effective management styles support the adoption of eco-friendly practices, ensuring that employees are aware of and committed to green initiatives, ultimately leading to improved performance and sustainability in devolved healthcare services.

2.3.6 Performance of Devolved Healthcare Services

Performance management refers to a process that is systematic in which organization management assigns required green goals to individuals and teams and puts up strategies to assess progress and assist employees and teams in achieving such goals (Mwita, 2019). The performance of devolved healthcare services is usually evaluated through various metrics such as patient outcomes, accessibility, quality of care, patient satisfaction, and

efficiency (WHO, 2017; Muchomba & Karanja, 2015). By focusing on these key metrics, healthcare institutions can ensure they are delivering high-quality, efficient, and sustainable healthcare services to their communities. Green HR is a very important tool that can be used to drive long-term organizational performance (Jabbour & Renwick, 2019; Guerçi, 2015; Jabbour, 2013); and to attain sustainable utilization of resources (Opatha & Arulrajah, 2014). Therefore, an organization having strong HRM will have better organizational performance because its Human Resource functions are linked to its environmental strategies.

A properly performing devolved healthcare service is important for ensuring adequate access to healthcare delivery that is provided through efficient and sustainable use of limited resources (Zeng et al., 2022). Performance of devolved healthcare services in Kenya has faced many human resource challenges such as understaffing, with shortages of doctors, nurses, and other essential healthcare professionals.

There may be a lack of adequately trained personnel in certain areas, requiring investments in training and capacity building. Some healthcare workers leave counties with less favourable working conditions for better opportunities elsewhere, further exacerbating staffing issues. Therefore, the performance of devolved healthcare services is dependent on paperless human resource management practices (Barasa et al., 2017). In healthcare, the measurement of the number of cases or clients attended to by a clinician over a period of time will indicate an improvement in healthcare performance. Level Five Hospitals offering many different services at affordable fees are likely to attract more clients/patients and thus more revenue collection from new streams.

Devolution in Kenya aimed to enhance accessibility, efficiency, and responsiveness in healthcare delivery; however, the sector continues to face significant performance challenges such as staff shortages, inadequate skillsets for sustainable healthcare practices, and inefficiencies in service delivery (Barasa et al., 2017; Tsofa et al., 2017; Zeng et al., 2022). There is heavy reliance on manual, paper-based processes in staff recruitment and selection in healthcare in Kenya (Nyawira et al., 2022; Langat & Kwasira (2016) leading

to delay in recruitment, high printing cost, and low satisfaction. Adaptation of digital health records requires hospitals to go paperless. This eco-innovative process could increase the number of patients seen per day as it minimizes paperwork and time spent on retrieving and reading through patient notes. Client or patient satisfaction means client reaction to many aspects of their service experience and therefore, assessment of client satisfaction gives some insights into the quality of healthcare services and their long-term success. Patient satisfaction is an important measure of quality healthcare and promotion especially if the hospital leverages on compliments and deals firmly with complaints (Banda *et al.*, 2023).

The client is said to be satisfied if the general environment where healthcare service is provided is clean and safe, and the healthcare care personnel have the necessary skills to provide care that meets the client experience. Shortages of supplies, equipment, and skilled personnel can compromise the quality of healthcare services provided. Healthcare workers may experience low morale due to factors like delayed salaries, inadequate resources, and challenging working conditions, which can affect their performance. The purpose of evaluating client satisfaction over time is necessary because it indicates the level of clients' or patients' experience with the hospital's services, trust, and possibility of improving and sustaining that healthcare service through customer loyalty (Pratama, 2020).

Level Five Hospitals depend on national and county governments for financial support. These hospitals do not operate to make profits nor generate revenue that can be taxed, but to provide essential healthcare services to the citizens upon payment of some fees that supplement government budgetary allocation. The more clients the hospital receives, the more revenue is collected. The employees are, therefore, expected to provide better referral healthcare services to the citizens especially low-income earners who may not afford to access the same from private healthcare providers. Level Five Hospitals should be innovative in their processes, products, and methods applied to raise revenue from patients and clients to support their operations (Anderson, 2013). The revenue generation process should be proper and where possible automated technology should be applied in

collecting revenue and keeping accurate daily records. The green human resource practice especially in the use of automated technology in all healthcare service payments and ensuring that healthcare services are automated improves employee performance and hence revenue collection of the Level Five Hospitals. Kamut (2023) argued that a management style that is effective in hiring and placing qualified employees in the right positions; providing different healthcare services; and putting in place tight revenue collection processes, is likely to improve revenue collection and financial sustainability of the public healthcare institutions in Kenya.

Green employees usually embrace self-regulating water-saving techniques and electricity-saving techniques such as putting off lights when not in use and this approach will lead to revenue saving which can boost revenue collected for the Level Five Hospital. Muhammad, Zubair and Fawad (2021) conducted a study on the effects of Green Human Resource Management Practices on Sustainable Performance focusing on the Mediating Role of Green Climate and Green Employee Empowerment. The study used green training and development, green rewards, green recruitment and selection, and green performance evaluation on sustainable performance as study variables. A cross-sectional research design was applied to the study. The findings revealed that GHRM practices had a positive effect on sustainable performance. Further, green climate and green empowerment had a mediating influence on sustainable performance.

Employee performance is a measure of their competence and responsiveness in the performance of their duties and has a direct impact on the quality, availability, and demand for and use of health services (WHO, 2012). In order to enhance green performance, employees should be inspired, empowered, and made environmentally aware of greening to carry out green management initiatives. Green management of organizations requires employees to have technical and management skills that will help them develop and implement innovative environmental management initiatives.

According to Marhatta, and Adhikari (2013) if human resource practices are in line with environmental management activities, then business firms are likely to enjoy better

performance and environmental sustainability. Opatha and Arulrajah (2014) argue that the green performance of the organization can be achieved by ensuring green process in HRM practices from recruitment and selection of green employees to rewards of green employees. Green results consist of green innovations in environmental initiatives such as green solutions for reducing healthcare waste pollution and green outcomes such as the number of hours worked by an employee using natural light or a reduced amount of waste of inputs and attainment of performance targets related to the environment.

The healthcare sector is recognized for having a substantial ecological footprint, characterized by intensive energy use, high volumes of waste, and considerable greenhouse gas emissions (Sun et al., 2023). Green Human Resource Management (GHRM) practices have become an important strategic method for healthcare organizations seeking to improve their sustainability performance (Chowdhury et al., 2023). Green competencies and green attitudes are perceived as green employee inputs and green results are perceived as a green performance of the employee which in turn contributes to the green performance of the organization. Green HRM encourages employees to adopt green culture and understand green culture which they can practice in their private lives (Muster & Schrader, 2011). Organizational performance can be enhanced and improved by implementing green practices in human resource management in terms of green employee resourcing, green learning, and green training.

Some of the benefits of implementing GHRM include reduced cost on energy and printing paper, improved public image, reduced carbon emission, and establishment of an environmentally friendly workspace (Haridas & Sivasubramanian, 2016). Zoogah (2018) describes Green HRM as the practices and policies of HRM that are meant to encourage the use of an organization's resources in a sustainable manner and promotion of positive environmental initiatives that would boost the morale and satisfaction of employees. In other words, Green HRM tends to promote ecological usage of business resources and prevent any harmful environmental effects arising from the daily operations of the firm. Dimensions of green performance of jobs include efficient use of input resources effectively by employees when they perform their day-to-day job tasks, duties, and

responsibilities, innovative environmental initiatives of employees, and employee contribution to the environmental management initiatives of the organization.

The green performance of employees is the main factor minimizing the harmful impact on the environment of the organization. Each employee's green performance usually leads to group green performance which is referred to as organization green performance (Arulrajah *et al.*, 2016). According to Wong *et al.* (2013), environmental performance can be stated as a measure of positive results from the implementation of environmental activities that are meant to reduce negative effects of the organization's manufacturing processes and waste on the natural environment. As environmental sustainability requires behaviour change by employees and Harries and Helen (2012) recommended that all members of an organization at all levels are expected to exhibit a positive behavioral change.

A critical green human resource requirement is green behaviour (Daily *et al.*, 2009; Jackson *et al.*, 2011). An employee is said to have green behaviour if that employee engages in positive initiatives to help the organization to attain greening. Voluntary green actions that are expected from the employees of healthcare services may include: the use of natural wholesome water; use of both sides of the paper when writing, printing, or photocopying; and shutting down computers when not in use. Other actions may also include minimizing the use of artificial light when working; planting natural flowers in offices to reduce air pollution; re-using or recycling items at the office; switching off air conditioners when not so necessary to have them on; and reporting cases or incidents that may damage the environment. Green health policies and procedures of the hospital should be used to shape and direct the behaviour of employees toward reducing medical waste while improving performance.

Green performance of an employee has certain key dimensions and elements under each key dimension which include efficient use of input resources effectively by employees when they perform their day-to-day job tasks, duties, and responsibilities, innovative environmental initiatives of employees towards corporate activities of environmental

management (Arulrajah *et al.*, 2016). According to Margaretha and Saragih (2013), organizations focus on environmentally sustainable business practices by initiating a greener corporate culture which results in greater efficiency and creating an atmosphere of better employee engagement. Huma *et al* (2017) argued that green human resource management involves green actions and initiatives that result in the environmental sustainability of the organization. Green actions are associated with high efficiencies, reduced wastage, high job engagement, increased work-life balance, and increased employee performance. Cherian and Jacob (2012) opine that the greening of human resource functions by firms may generate positive performance and lead to increased productivity.

On the contrary, firms that do not pay attention to involving their employees in greening activities might be ineffective in their environmental performance (Renwick *et al.*, 2013). Therefore, in order to achieve greening, some organizations are effectively stimulating the behaviour of their employees toward the preservation of the environment (Masri & Jaaron, 2017). This study conceptualizes that, if environmental management activities such as green building, conservation of energy, paperless offices and recycling and waste disposal are linked with human resource management functions to become GHRM, then organizational performance level is likely to increase and environmental sustainability enhanced.

The performance of an organization is enhanced and improved by implementing green practices in human resource management in the form of proper green recruitment and selection, green learning, green training, and development programs (Renwick *et al.*, 2013). Organizational performance is defined as outputs or goals that the system seeks to achieve. This concept reflects the goals and the ways necessary to achieve them and the aspects of activities that seek to achieve the goals within the organization. Therefore, an organization that has got strong HRM with green initiatives should have better outcomes because its environmental strategies are in line with HR activities. This study focused on the employee performance of Level Five Hospitals as indicated by the number of patients/clients attended to, client satisfaction, and revenue collected and generated. Paillé (2014)

identified a strong and significant link between HRM practices, environmental performance, and organizational performance. Consequently, organizations with robust HRM are likely to experience improved overall performance, as their environmental strategies align with their HR activities.

Huma et al (2017) state that GHRM is a phenomenon that involves employee green activities that result in high efficiencies, low wastage, high employee engagement and commitment, improved work-life balance, and high employee performance and environmental sustainability. Some of the benefits of GHRM to the organization are: cost cutting, improved public image, minimization of carbon emission, and establishment of work space that is environmentally friendly (Haridas & Sivasubramanian, 2016). This study conducted trend analyses on the number of clients/patients who attended and the amount of revenue collected for a period of six years from 2014 to 2019, when healthcare services were devolved to the counties. The results were to indicate either an upward/downward trend of performance. The level of client satisfaction was to indicate if patients/clients were satisfied or dissatisfied with the healthcare services. The more clients/patients seek healthcare services the more they are satisfied and the more revenue the healthcare facility collects and vice versa.

Good organization performance can be evaluated on the basis of how well it complements the environment and vice versa. Organizational performance, therefore, can be viewed in terms of sustainability which means stability and growth achieved through the provision of quality goods and services with stable revenue resources; efficiency of operations; organizational legitimacy which is regarded as compliance with the law, regulations, social and environmental responsibility; and employee entitlement in terms of employee safety and health, organizational climate, employee commitment and performance. With the current spread of environmental awareness, it has become necessary for organizations to consider reducing any environmental impact through the application of green practices that embrace both technical and administrative skills of employees in the development of environmental initiatives for sustainable competitive advantage and organizational performance (Aburahma, Amuna & Aqel, 2020).

A study carried out by Cherian and Jacob (2012) opines that firms that are concerned with greening their human resource functions are more likely to be productive as opposed to those firms that are not greening their HR functions and thus these non-greening firms may lack the effectiveness for positive environmental performance (Renwick *et al.*, 2013). Masri and Jaaro (2017) add that many organizations are currently interested in effectively pressing to stimulate the behaviour of their employees towards environmental preservation. In Kenya, Omune and Nyang'au (2021) found that green human resource management practices significantly positively affected employee performance at Kenyan public universities. The Kenya Health Sector Human Resources Strategy 2014 - 2018 articulates the HRH strategic directions in line with the devolved healthcare services management and works towards supporting the goal of the Kenya Health Sector Strategic and Investment Plan (KHSIP, 2014-2018).

2.4 Empirical Review

2.4.1 Green Employee Resourcing and Performance

A study was conducted by Chuah, *et al.* (2021) to explore the impact of Green Human Resource Management on green lifestyle and job performance among employees among academic and administrative staff at University Technology MARA Puncak Alam Campus. Using a non-probability convenient sampling method, data was gathered through 100 questionnaires. The findings revealed that GHRM practices had a significant and positive impact on the job performance of workers. However, this study was limited to UiTM Puncak Alam Campus and had a relatively small sample size.

The survey distribution did not account for departmental allocation or the proportion of academic and administrative staff. This study implies that implementing GHRM practices motivates HR practitioners to enhance environmental awareness among the employees and therefore aligns the organization with the current global emphasis on sustainability. Further, it highlights the scarcity of research on GHRM in educational institutions.

Huma *et al.* (2017) conducted a study on the impact of green human resource management practices on job seekers' attraction in Pakistan. The role of employer reputation was the moderating variable. The study applied a survey design on a sample of 300 MBA students from three Southern Punjab universities. The study findings indicated that green HRM practices had a positive impact on job seekers' attraction and employers' good reputation was found to increase the positive effect of green HRM practices on job seekers' attraction. The study contributed to more knowledge about how green HRM practices can increase job seekers' attraction to the firms and improve the green reputation of such firms. The researcher further found that greening of human resource management was the new and emerging area for research scholars.

A study exploring how different organizational contexts may influence HRM outcomes and performance of employees in public health organizations in Australia was conducted by Leggat, Bartram, and Stanton (2011). The authors used a mixed-methods approach, interviewing and surveying Chief Executive Officers (CEOs), Human Resource Managers, and other Senior Managers in all public hospitals and other community health service organizations in the State of Victoria, Australia. They used 42 practices covering the different areas of HRM, such as planning, training and development, and staffing and recruitment. For performance, they used employee outcome measures, such as job satisfaction, empowerment, and staff turnover. The results indicated a positive correlation between certain aspects of HRM practices and improved healthcare delivery and patient outcomes. The researchers found the existence of a linear relationship between HRM and the perceived quality of healthcare mediated by HRM outcomes, such as psychological empowerment. They reported that public healthcare organizations in Australia generally did not have the necessary aspects of HRM in place, which could necessitate more effective implementation of the new policies.

Hameed and Mohamed (2016) investigated the influence of HRM Practices on the performance of Hospitals in India. This study used a sample of 250 nurses drawn from a population of 600 nurses. A structured questionnaire was used to collect data from four Leading hospitals in Tiruchirapalli district. The results of Partial Least Square Path

Modelling indicated that recruitment and selection, and training and development were significant predictors of organizational performance. The research concluded that when there are healthy HRM practices in Hospitals, it will result in the development of individual productivity and organizational performance in hospitals. Nyawira et al. (2022) did a study on management of human resources for health: implications for health systems sufficiency in Kenya and found that the major challenges affecting efficiency in county health systems were underfunding, staff shortages, and delay in salary payment.

Javed and Cheema (2017) investigated the impact of the adoption of green human resource management in the agricultural industry and the results indicated a positive relationship with organizational outcomes. Green resourcing of employees in the agricultural sector was found to help in conserving the environment and attaining superior performance. The research was conducted by Rawashdeha (2018) about the impact of green HRM on the environmental performance of health service organizations in Jordan. Data was collected from a sample of 87 respondents using a questionnaire. Descriptive statistical methods were applied to analyze and present data. The findings of this study revealed a moderate application of a bundle of Green HRM practices. The study found a significantly positive relationship between Green HRM practices and environmental performance. The study further found that the management of each hospital had not invested enough money in employee green training and development programs. This is because many health service organizations in Jordan have adopted cost-reduction approaches due to economic challenges affecting the country. This study has a weakness because it only considered the effect of three green HR variables on environmental performance, the sample was small and the study did not include hospital administrators as respondents. The study recommended future studies to recruit a larger sample size for proper generalization of findings.

Danilwan *et al.* (2020) carried out a case study in Indonesian healthcare sector. The title of the study was inducing organizational citizenship behaviour through the GHRM bundle and its impact on environmentally sustainable performance. The independent variables were green training and involvement, green hiring, performance management and

compensation, and green organizational citizenship as a mediating variable. It was an online survey-quantitative data collection approach with 402 respondents. The majority of the participants revealed that green performance management and compensation had a great influence on organizational citizenship behaviour and environmentally sustainable performance. Green training and involvement had a moderate effect, while green hiring had the least effect on the dependent variable. The study concluded that if healthcare service management in Indonesia made some productive and green-related strategies, then favourable outcomes would be generated with an enhanced sustainable growth rate in the sector. This study did not use interviews or mixed research to supplement online-based data collection and the study was done in the Indonesian healthcare sector, and therefore it can be generalized to other countries. The study recommended further research in other countries to cover its limitations.

Oyedokun (2019) carried out a study to investigate GHRM and its effect on a sustainable competitive edge in the Nigerian manufacturing industry. The study considered green recruitment, green training and development, green compensation, and green employee relations as independent variables of sustainable competitive edge. A descriptive research design was applied and a sample of 217 questionnaires was analyzed. The major findings indicated that all the independent variables had a positive and significant effect on a sustainable competitive edge in the Nigerian manufacturing industry. The study recommended that the Nigerian manufacturing industry should prioritize environmentally friendly business operations over stakeholders' wealth maximization.

Mwita and Kinemo (2018) investigated the role of green recruitment and selection on the performance of processing industries in Tanzania- the case of Tobacco Processors Limited. The study used purposive and random sampling techniques to pick 72 respondents drawn from 212 permanent employees. A questionnaire and interview methods were used to collect data. Descriptive statistics was used to analyze qualitative and quantitative data. The research findings indicated that organizations that practice green recruiting and selection attracted more and better job applicants than organizations that don't practice. In addition, the study found the existence of a positively linear

relationship between green recruiting, selection, and performance of firms. Based on this study's findings, one can argue that devolved Healthcare services in Kenya may attract more green job applicants if they apply greening in their employee resourcing or hiring practices.

Kiplangat, Sang, and Kingori (2022) carried out a study entitled *The Influence of green recruitment and selection on the sustainability of selected Tea Factories in Kericho highlands of Kenya*. This study used a co-relational research design targeting a population of 915 respondents working in tea factories in Kericho and a sample of 278 employees. A structured questionnaire was used to collect primary data that was analyzed using descriptive statistics and regression. The results revealed a positive significant relationship between green recruitment and selection and sustainability of tea factories. Further, the study recommended although various tea factories had adopted and implemented green HRM practices, they should embrace and practice online job applications and online interviews.

A study conducted by Amjad *et al.* (2021) on green HRM practices on organizational sustainability, through the mediating role of environmental and employee performance in Pakistani's manufacturing industries. The study collected data through a questionnaire from 165 managerial personnel. The study findings showed a significant effect of green human resource management practices (training and development, performance appraisal, and reward and compensation) on organizational sustainability. This study recommended further studies to be carried out on sustainability issues and green human resource management. Therefore, the natural environment should be protected from negative change, preserved, and conserved, and pollution of the environment should be minimized through the generation of gardens and other green-like places of work.

Haridas and Sivasubramanaian (2016) investigated the level of influence of Green HRM practices on the performance of Manufacturing Industries in Kerala, Pakistan. A questionnaire was used to collect data; while hypothesis testing was conducted using Pearson Correlation and Regression analysis. The result of the regression analysis showed

that the green practices of HRM such as green recruitment, green training, and employee involvement have a significant impact on the firm performance. This study recommended that HR managers in organizations should apply appropriate green HRM policies and practices that can result in a greater impact on firm performance and environmental sustainability.

Makhamara (2017) conducted a study on the effect of Strategic Human Resource Management Practices on the performance of employees in the health sector of Kenya. The study considered the influence of strategic recruitment and selection, strategic welfare services, strategic training, strategic employee voice, and strategic reward systems on employee performance. The study used a descriptive survey design with some elements of a cross-sectional survey research design. A sample of 146 employees from a target population of 1428 employees of four Level Five Hospitals was used. Simple random sampling was used in selecting the Level Five hospitals. The study conducted correlation and multiple regression analysis and found that the five variables under study influenced employee performance in the health sector. The researcher suggested further research be conducted to investigate other factors which influence employee performance. Based on the findings, the study recommended further research to be carried out in private hospitals to generalize the influence of SHRM practices on employee performance.

2.4.2 Green Training and Performance

A study was carried out by Huma *et al.* (2017) on the impact of Green Human Resource practices on the performance of firms in Pakistan. Specific independent variables considered in the study were green recruitment, green training, and green learning. A crossed-ended questionnaire with items on green HRM practices was used to collect data from managers of 376 firms in Pakistan. Multiple regression analysis was conducted to test the effect of green HRM variables on firm performance. The results found a significant effect of study variables on the performance of firms. Haridas and Sivasubramanian (2016) investigated the effect of Green HRM practices on the organization performance of Manufacturing Industries in Pakistan. A questionnaire was used to collect data, while

Pearson Correlation and Regression analysis were conducted to test the study hypothesis. The study results indicated that the application of Green HRM practices particularly green recruitment, green training, and green employee involvement had a significant effect on the performance of industries in Pakistan. It was concluded that that HR managers in the organizations should develop and implement appropriate green HRM policies and practices that will result in a great impact on firm performance which also leads to environmental sustainability.

Ogbu and Okwurume (2019) investigated the relationship between green human resource management and organizational sustainability of deposit money banks in Nigeria using a cross-sectional survey. Simple random sampling was used to pick ten deposit money banks and five bank managers. A total of 41 questionnaires were used for analysis. The study found that green training, green recruitment, and green human relations positively affected the organizational sustainability of deposit money banks in Nigeria.

A study was conducted in Hungary by Ayman, Farheen, and Ildiko (2021) entitled Impact of Green Human Resources Management on Green Work Engagement in Renewable Energy Departments of three big energy companies. This study focused on the independent variables; green rewards, green recruitment, green performance management, and green training. About 238 self-administered questionnaires were analyzed. The results revealed green training and green rewards significantly predicted green work engagement, while green performance management did not significantly affect green work engagement. The research study recommended that companies that require improving green work engagement among employees should implement green HRM practices, especially green rewards and green training practices. Further, the authors recommend the execution of green management practices at all levels of their companies. It is necessary, the authors recommend, to conduct further research on other factors of Green HRM practices on green work engagement and or consider introducing moderating or mediating variables in the relationship between independent and dependent variables.

Another study by Osman *et al.* (2011) investigated the relationship between HR practices and the performance of a firm in Malaysia; and found that the effectiveness of implementing HR practices in a company had a major impact on the performance of a firm. The findings also show that HR practices have an impact of nearly 50 percent on firm performance. Thang *et al.* (2010) on a study entitled Understanding of the effects of Training on Firm Performance by reviewed theory and previous empirical studies on the relationship between training and firm performance. The authors highlighted that training can have positive and significant effects on firm performance. They also highlighted that training is a valuable path to follow when an organization would like to improve its performance.

A study was carried out by Pineda-Herrero *et al.* (2011) on Evaluation of training effectiveness in the Spanish Health Sector and published in the Journal of Workplace Learning by Emerald Group Publishing Limited. The study targeted 1550 health professionals in Spain who underwent a total of 153 training programs designed to meet the needs of the professionals in the rational use of medicines. A sample of 351 professionals was used. Two questionnaires based on a five-point Likert scale were administered online to the trainees to evaluate the transfer of training. One questionnaire was administered immediately after finishing the training session and another two months later. This study found that trainees improved their professional performance through the transfer of what they had learned through training to service delivery. The trainees considered that training met their needs that they had acquired updated knowledge, and that training had a positive effect on their personal development. Support from colleagues, personal motivation, and a positive climate at the workplace were found to increase the rate of transfer in that order. Support from the organization, and implementation opportunities were also considered important.

Mpeo and Baraka (2017) investigated the effect of training on employee performance at Institutions of higher learning in Arusha, Tanzania. The study employed a questionnaire which was randomly distributed to 149 teaching and non-teaching staff and the responses were analyzed by using descriptive and inferential statistics. The study findings found that

on-the-job training such as orientation, coaching, and mentoring were positively correlated with job performance, and therefore, the study concluded that training is a key factor for improved employee performance.

Environmental training is seen as an important practice in HR because it assists the organization in implementing environmental management policies (Jabbour et al., 2013). The different kinds of training given to employees include vocational training, general and specific training. They found that satisfaction with short-term rewards and long-term prospects was far more influential in determining overall satisfaction than contentment with social relationships or work intensity. According to HRM, it is a professional skill; those non-professional managers like heads of public healthcare institutions need proper training and best practices. A firm's manpower practices must develop employee's knowledge, skills, and motivation to behave in ways that should be implemented (Dessler, 2013).

A study was conducted by Vuyokazi (2019) to determine if knowing green HRM practices influences its implementation within organizations. The study was carried out at higher education institutions in KwaZulu-Natal, South Africa. The study applied triangulated empirical design with quantitative and qualitative approaches. Quantitative data from fifty-three self-administered questionnaires was analyzed using SPSS version 24, while qualitative data collected through interviews with twenty senior human resource practitioners and managers was analyzed using the content or thematic analysis. The findings revealed a moderate knowledge and understanding of green HRM activities and a moderate application of green HRM principles. Further, there was no green HRM policy framework to guide green activities, despite the fact that the findings revealed a strong correlation between knowledge of green HRM activities and its implementation within the organizations. The study recommends that organizations that require being resource sustainable need to develop green HRM policies and conduct employee training to create awareness and improve skills that will address the challenges of climate change.

A study was conducted by Langat and Kwasira (2016) to determine the influence of GHRM practices on environmental sustainability at Kenyatta University. The findings of this study indicated that recruitment of employees in the university did not include green issues and therefore the study concluded that employees had little involvement in environmental issues. The findings further showed that the performance management system of the university did not sufficiently include environmental performance indicators. The study findings recommended that there is a need for vigorous green training through workshops and seminars the employees in order to build and nurture green behaviour among employees. Further, managers with competencies in environmental skills and abilities should be employed to work with other administrators to ensure environmental sustainability.

2.4.3 Green Occupational Safety and Health and Performance

According to WHO (2010), it is the duty and responsibility of the employer to ensure occupational safety and health of her employees against diseases and injury, because a healthy and safe work environment promotes work productivity and is a key element of worker human dignity (ILO, 2010). A study was carried out by Nangila (2015) to establish the effect of human resource functions on the performance of employees in a devolved health sector in Kenya: a case of Mbagathi District Hospital. This study adopted a descriptive research design and a stratified random sample of 180 respondents from a target population of 600 employees. Data was collected from respondents using a questionnaire. Through correlation and multiple regression analysis, the study established that the recruitment process, training, reward, and work environment had a positive effect on employee performance at Mbagathi Hospital. The study found that most studies in the health sector were done in foreign countries and the variables under the study accounted for about 70% influence on employee performance. The researcher, therefore, recommended further research on other factors that could be influencing the performance of employees in a devolved health sector in Kenya. The researcher recommended further or similar studies in the health sector that can lead to a more conclusive generalization of

the phenomenon. Green occupational safety and health refer to traditional safety and health practices that have features of environmental management.

Sharifa and Mohammed (2019) developed a conceptual framework for the impact of GHRM practices on sustainable performance in Palestinian healthcare organizations. The study applied mixed design by carrying out 14 semi-structured interviews with senior healthcare managers and distributing 69 questionnaires to managers who have been practicing green human resource management at various management levels. The study found that GHRM practices were implemented at a moderate level and this led to high sustainable performance. Further, the study revealed that green hiring and green training and involvement had the most effect on sustainable performance, while green performance management and compensation had the least influence. The study concluded that GHRM practices are emerging in less developed economies and, therefore, require more attention from healthcare sector decision-makers and stakeholders' pressure to protect and preserve the environment. Hossari and Elfahli (2023) conducted a study on Green Human Resource Management, as an Exploratory Study from Moroccan ISO 14001 Certified Companies. The study was carried out to determine the level of awareness among senior managers about green human resource management and explored the relationship between environmental concerns and human resource strategies, the importance of GHRM, and implementation challenges. In-depth semi-structured interview was used to collect data from human resource managers and directors of four ISO 14001 certified companies. Qualitative data was arranged in themes and analyzed using NVIVO12 software. The results found that GHRM was still young in Morocco and only a few studies have been done with faced many challenges. The researchers recommended further studies in other companies using a bigger sample and expanding the research into the importance of green HRM in creating green businesses.

Makokha (2013) did a study on performance challenges in the public security sector with a focus on the police in Nairobi, Kenya, and found that a conducive work environment boosts the morale of workers and hence their comfort. The work environment comprised of workload, stress management, physical environment, and support by supervisors

among other factors. The level of comfort seemed to influence police officer job satisfaction.

2.4.4 Green Performance Evaluation and Performance

Green performance appraisal is a process of evaluating the performance of an employee's activities during the process of environmental management. Performance appraisal can then be conducted on those clear green indicators and any deviations may force employees to take more pro-environmental actions (Renwick *et al.*, 2013). The green-related criteria of an employee's performance should contain a separate section with issues on greening and online feedback. The tasks a company needs to follow when going through performance evaluation include green performance standards and indicators at all departmental levels. The roles of managers in achieving green outcomes should be included in the performance appraisals in the form of green targets, and environmental responsibilities; the number of green incidents, and effective communication to all employees about environmental policy and green schemes and ensuring the establishment of organization-wide dialogue on matters of greening.

Sobaih (2019) conducted a study entitled Green Human Resource Management in Egyptian Hotels by considering the extent the hotels in Egypt adopted GHRM practices and the barriers faced during implementation. Some of the GHRM practices considered in this study were: green job analysis and design, green recruitment and selection, green training and development, green induction, green discipline, green reward, and green employee relations. A random sample of 303 hotel managers in the Red Sea Region filled self-administered questionnaire was analyzed. The results revealed that Egyptian hotels do not apply GHRM practices because of the barriers facing the management and employees in the implementation process.

A study was conducted by Yen-Ku, Tariq, Shuja, Fakhrol, Mahir, and Rudsada (2022) on the impact of Green HRM Practices on Environmental Performance in the chemical industry in Pakistan. This study was a cross-sectional online survey of 500 permanent

employees and the theories that supported this study were: social learning theory and resource-based theory. The study variables were: green compensation and reward, green training and development, green recruitment and selection, green performance management and appraisal, and finally green innovation as a mediating variable. The findings of this study showed a significant positive effect of green human resource management practices through green innovation on environmental performance. Further, results showed that each independent variable had a significant and positive impact on environmental performance. Finally, the results of the mediating variable indicated that green innovation had strong support in mediating the effect between green HRM and environmental performance. The study was conducted in a chemical industry in a developing country and was limited to the study of the mediating role of green innovation on the relationship between GHRM practices and environmental performance. The researcher recommended a comparative study of green HRM practices in developing and developed countries.

Kavitha Haldorai *et al* (2022) carried out a study on the impact of top management green commitment and green intellectual capital on hotel environmental performance with a focus on the mediating role of green human resource management in Manila, United States of America. A longitudinal online survey was used on a sample of 800 hotel employees. The results revealed that top management's green commitment and green intellectual capital had a direct impact on green human resource management and hotel environmental performance. Green training for employees develops firm human capital as a valuable, non-substitutable, rare, and difficult to imitate resource. The results further revealed that the business environment has changed due to resource constraints, technological advancements, emerging markets, environmental degradation, and environmental awareness. Green drivers such as top management green commitment and green intellectual capital cause high environmental performance.

A study was carried out by Mandago (2019) to evaluate the influence of green human resources management practices on the environmental sustainability of service-based state corporations in Kenya. The study focused on the effect of green recruitment and selection,

green training and development, green reward, and green performance management on environmental sustainability. The study applied a descriptive research design with a sample of 122 respondents who filled out self-administered questionnaires. The study found that green human resource management practices had a positive and significant influence on environmental sustainability in service-based state corporations in Kenya. The study recommended that state corporations should adopt green HRM initiatives that can enhance environmental sustainability. The study also recommended further studies to be conducted by introducing mediating or moderating factors in the relationship between independent and dependent variables.

Kenyan Healthcare Sector (2016) research found that the capacity and quality of training of health workers is a continuous concern in Kenya. Over the years there has been a gradient growth in private sector health training institutions which assists in increasing the supply of health workers, particularly in the private sector where there is a large shortage of workers being able to work up to their standards. There is a high health worker shortage which gap can be (partially) filled by providing E-Learning solutions and quality improvement courses for health workers to keep up with the latest trends in developments in the treatment of patients.

2.5 Critique of the Existing Literature Reviewed

Huma *et al.* (2017) conducted a study on the impact of green human resource management practices on job seekers' attraction in Pakistan. The study findings indicated that green HRM practices had a positive impact on job seekers' attraction and employers' good reputation was found to increase the positive effect of green HRM practices on job seekers' attraction. The researcher further found that greening of human resource management was a new and emerging area for research scholars and therefore recommended a further study in the same area based on other developing economies.

A study was carried out by Bhutto and Auranzeb (2016) on the impact of Green Human Resource practices on the performance of firms in Pakistan. Limitations of this study

include first, the use of subjective performance measures; and second, the study was based only on employee perspective of green practices and organizational performance and ignored strategic perspective. This study did not consider other green HRM practices such as green training, green performance evaluation, and green employee relations, among others. The study did not consider the influence of moderating variables on the study variables and moreover it was based on one firm performance in Pakistan so it cannot be generalized to other firms in other countries like Kenya.

Haridas and Sivasubramanian (2016) investigated the degree of effect of Green HRM practices on the organization performance of Manufacturing Industries in Pakistan. A questionnaire was used to collect data, while Pearson Correlation and Regression analysis were conducted to test the study hypothesis. The study results indicated that the application of Green HRM practices particularly green recruitment, green training together with green employee involvement had a significant effect on the performance of industries in Pakistan. The study recommended that HR managers in the organizations should develop and implement appropriate Green HRM policies that will result in a great impact on firm performance which also leads to environmental sustainability. This research, however, did not consider other green HRM practices such as green performance evaluation occupational safety and health that may affect firm performance. This research has a gap because it does not give a sampling design and sample size, and the researcher collected data using only a questionnaire.

Rawashdeha (2018) conducted a study about the impact of green HRM on the environmental performance of health service organizations in Jordan. Data was collected from a sample of 87 respondents using a questionnaire. Descriptive statistical methods were applied to analyze and present data. The findings of this study revealed a moderate application of a bundle of Green HRM practices. The sample size of 87 was inadequate for any meaningful conclusions. The study could have, also, used interviews in addition to questionnaires to collect data from hospital managers who were excluded from the study.

Naser *et al.* (2013) researched whether HRM practices can affect hospital performance in Jordan hospitals and found that HRM practices are related to hospital performance. The research further found that even though HRM practices have been considered to be significant factors in boosting the performance of an organization, most Jordanian hospitals do not practice HRM effectively in their business. The study persuaded hospital managers to consider how to enhance their capabilities in the fields of human resource and skills development in order to increase hospital performance. Future studies should look into the possible inclusion of other HRM factors, such as supervision, employee participation, job description, and pay practices, as important factors in relation to job satisfaction and hospital performance. Vermeeren *et al.* (2014) stated that there exists a link between HRM and performance in the healthcare sector. This link could be direct or indirect HR outcomes namely: employee performance, financial performance, and organizational performance. The application of more practices of HR leads to reduced employee absenteeism, greater client satisfaction, and better profit margin. This study indicated that greater job satisfaction is linked with associated with higher organizational performance and client satisfaction. This is because if employees are satisfied with their jobs, then their behaviour towards customers will improve and this will increase the desirable service experience.

2.6 Research Gaps

Haridas and Sivasubramanian (2016) investigated the effect of Green HRM practices on the organization performance of Manufacturing Industries in Pakistan. A questionnaire was used to collect data, while Pearson Correlation and Regression analysis were conducted to test the study hypothesis. The study results indicated that the application of Green HRM practices particularly green recruiting, green training together with green employee involvement had a significant effect on the performance of industries in Pakistan. The gap in this study is that it did not consider other green HRM practices such as green occupational safety and health, and green performance evaluation which this current study considered. The research did not give a sampling design and sample size,

and the study only used a questionnaire to collect data. The current study used a sample of 118 respondents and utilized interviews and questionnaires to collect data.

Huma *et al.* (2017) conducted a study on the impact of green human resource management practices on job seekers' attraction in Pakistan. The researcher found that greening of human resource management was a new and emerging area for scholars and therefore recommended a further study in the same area based on other developing economies. In response, the current study is based in a developing economy, Kenya. There was a need to consider other GHRM practices not only on job seekers' attraction but also on the organization performance of devolved healthcare services.

A study was carried out by Bhutto and Auranzeb (2016) on the impact of Green Human Resource practices on the performance of firms in Pakistan. The gaps in this research were that it did not consider other green HRM practices under the current study such as green performance evaluation and green employee safety and health on performance. The study used a questionnaire as the only data collection instrument and did not consider the influence of any moderating variable on the study variables. The current study used interviews, content analysis, and questionnaires to collect data. The current study assessed the moderating effect of management style on the relationship between the independent variable and the dependent variable. Further, this study was done on firm performance in Pakistan and it cannot be generalized to other firms in other countries nor can it be generalized to healthcare services which is the focus of this study.

The existing literature about green HRM is generally centered on the western countries and because Kenya is experiencing some economic growth and development, there is a gap in the available literature regarding green HRM practices in the devolved healthcare services. Although there is great potential in research related to Green HRM, the literature available in healthcare services is little, missing or the area is not properly researched and documented to facilitate any publications from academicians and practitioners. The gap consists of the scope of green practices, coverage, a process model, and the research agenda.

A number of studies (such as Bhutto & Auranzeb (2016); Haridas & Sivasubramanian (2016); Hameed, 2016; Mwita & Kinemo (2018); and Naser *et al.*, 2013) were conducted in the area of green HRM and organization or firm performance, but very few have investigated how green HRM practices affect the performance of devolved healthcare services which this study is focusing on. Secondly, most studies on green practices have been conducted in Western countries while little research has been conducted in Kenya, especially in the area of devolved healthcare services in Kenya.

2.7 Summary of Literature Reviewed

This study was supported by social exchange theory that investigates the relationship between the workers and the organization. The theory is based on the premise that human behaviour is an exchange of activity, tangible and intangible, particularly of rewards and costs. The human capital theory sees people as assets and that organizations that invest in people improve their performance which eventually generates positive results for the organization. The AMO theory proposes that the level of ability of the employee and the relationship of ability to performance is dependent on the motivation of the employee. The other theory that supports this study is the resource-based. The resource-based theory is based on the premise that firms can achieve competitive advantage when they manage their resources in a manner that makes them develop positive performance and become market leaders. Studies addressing the link between GHRM and organizational performance are very few (Mwita & Kinemo, 2018; Bhutto & Auranzeb (2016) while others have looked at GHRM and environmental sustainability, and yet different GHRM practices and measures do exist. In conjunction with these studies, another body of research suggested that GHRM practices have positive effects on firm performance. These studies were done in foreign countries and based on the commercial sector.

Secondly, there is a need to adopt green HRM practices in the healthcare sector to effectively strengthen employee green performance in devolved healthcare services in Kenya, while protecting and conserving environmental sustainability. Therefore, this study aims to determine the effect of GHRM practices on the performance of devolved

healthcare services in Kenya. In other words, the researcher will find out how the adoption of specific GHRM practices has affected performance initiatives in devolved healthcare services. The strength of the relationship between variables and the moderating role of management style will be significant in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents various aspects of the research methodology that the researcher applied in this study. Specifically, this chapter contains the research design, research philosophy, the target population, the sampling frame, the technique of sampling and size of the sample, data collection tools and procedure, the pilot study, and data analysis and presentation.

3.2 Research Philosophy

According to Wang (2012), research philosophy is a belief about how data about a phenomenon should be gathered, analyzed, and used. It is the continuous development of knowledge and the nature of that knowledge whereby previous theories are tested and confirmed by researchers (Sounders *et al.*, 2009). Two major research philosophies have been identified in the Western tradition of science namely: positivism and interpretivism. This study applied the positivism approach to gain a more complete understanding, using one set of data to inform the other or integrating them for deeper insights. The framework integrates quantitative and qualitative, highlighting philosophical underpinnings (positivism for quantitative, interpretivism for qualitative) and practical application, stressing the importance of matching design to objectives for valid results, often combining approaches (mixed methods) for richer insights (Mugenda & Mugenda, 2012). The principles of positivism philosophy can be summarized as: there are no differences in the logic of inquiry across sciences; the research should aim to explain and predict; research should be empirically observable via human senses; science is not the same as common sense; and Science must be value-free and it should be judged only by logic.

By utilizing both quantitative and qualitative approaches, researchers can validate findings, examine different perspectives, and address complex questions more effectively

(Creswell & Clark, 2017). Some researchers, for example, Ongoncho (2019) and Langat (2016) have used the positivism philosophy in their studies with a lot of success. As a general rule, positivism studies mostly adopt a deductive research approach, whereas an inductive research approach is usually associated with a phenomenology philosophy. Positivism viewpoint requires the researcher to concentrate on facts, whereas phenomenology concentrates on the meaning and has provision for the researcher's interest.

3.3 Research Design

Research design according to Kothari (2019) is defined as the conceptual framework that constitutes the blueprint for the collection, measurement, and analysis of data in a manner that tends to combine relevance to the purpose of research with an economy of research procedure. Kombo and Tromp (2006) define a research design as the structure of research, that is, the glue that holds all the elements in a research project together. Study design is a way to systematically solve the research problem. It is the various steps that are generally adopted by a researcher in studying a research problem along with the logic behind them.

Mixed-methods research design with a combination of qualitative and quantitative approaches was used in this study. Mugenda and Mugenda (2012), define mixed methods as a research design that integrates both qualitative and quantitative approaches within one study with an intention for a more comprehensive analysis and increased confidence in the study's results. According to Mugenda and Mugenda (2012), quantitative research uses numerical data and statistics to test hypotheses and find patterns, focusing on objectivity, while qualitative research explores in-depth understanding of phenomena through non-numerical data like words and themes, emphasizing context and meaning. Mixed methods integrate positivist-driven quantitative data with qualitative data (from interpretivism) to overcome limitations of using single method. The method was used because it allows researchers to consolidate data and seek a wider perspective of their study phenomenon (Shorten & Smith, 2017) and it also helps to overcome any weakness that may arise from using a single method in a research study (Plano & Ivankova, 2016).

3.4 Target Population

Mugenda and Mugenda (2012) describe the population as an entire group of persons, objects, and events with common observable characteristics. According to Creswell and Creswell (2023), the target population is the total group of individuals or objects that possess the specific characteristics the researcher is interested in studying and to whom the results will be applied. This study utilized a target population of 5,960 managers working in Kenya's Level Five Hospitals (Ministry of Health, 2019). The target population consisted of both male and female managers working in different departments and sections or units of Level Five Hospitals. The managers of these hospitals were targeted because they had the information required for the study and they are responsible for formulation and implementation of human resource policies and practices in their respective hospitals. Twelve hospitals are operating in major counties and are managed by county governments as Level Five Hospitals. They comprise the former provincial and some district hospitals that were elevated to become Level Five Hospitals. They serve as regional referral centers for devolved healthcare services in Kenya. These hospitals formed the unit of analysis (major entity being analyzed) in this study, while managers formed the unit of observation (subject or object from where data is obtained for research study). The list of these Level Five Hospitals is in Appendix 6.

3.5 Sampling Frame

According to Kothari and Gang (2019), a sampling frame is a list consisting of all elements of a sample of a particular population. The 12 Level Five Hospitals formed a sampling frame from which a sample of four Level Five Hospitals with an accessible population of 1310 managers who comprised of departmental heads, section and unit heads was picked. These hospitals were: Machakos Level Five Hospital with a population of 334 managers, Mama Lucy Kibaki Level Five Hospital which had 288, Embu Level Five Hospital which had 316 and Nakuru Level Five Hospital with a population of 372 managers (Ministry of Health, 2019). Level Five Hospitals were selected for this study because, since 2014 when healthcare services were devolved, the county governments have continued to allocate

more financial resources to them to enable them to improve and provide specialized healthcare services to the citizens. Level Five Hospitals were important in this study because they are required to enhance eco-friendly universal healthcare coverage to all citizens in various counties as envisioned in the Kenya constitution (2010).

Level Five Hospitals in Kenya play an important role in achieving universal healthcare, particularly emphasized in Vision 2030. The national government's initiatives aim to enhance performance of these hospitals through better medical equipment, grants, and improved budgetary allocations, ensuring they can provide comprehensive medical services and meet the healthcare demands of the population. The contributions of these hospitals will, therefore, be achieved if the county healthcare service administrators apply appropriate green HRM policies and practices as a deliberate effort to boost performance of healthcare services.

3.6 Sample Size and Sampling Technique

According to Creswell and Creswell (2023), sample size represents the total count of subjects or units involved in research, while sampling denotes the systematic approach or technique employed to select and engage these individuals from the wider population. This section explains these two concepts as follows.

3.6.1 Sample Size

According to Kothari (2019), determining an appropriate sample size involves balancing the desire for high-precision estimates against the practical realities of cost and available resources. He outlines two primary conceptual approaches namely: precision-based and Value-based approaches. Precision-based method means that the researcher first specifies the desired level of estimation precision and then calculates the sample size necessary to achieve it. Further, Value-based method usually weighs the expense of obtaining additional data against the expected value that information will add to the study. Saunders et al. (2019) observes that determination of sample size is guided by the population size

from where the sample of the study is drawn, the confidence level, the margin of error that can be allowed and the type of analyses to be conducted. Mathematical formulars can also be used to determine the sample size (Kothari, 2019). The sample size for the current study was calculated using Yamane formula (1967) which is also cited by Owino and Kwasira (2016):

$$\text{Sample Size } (n) = \frac{N}{1+N(e)^2}$$

Where: n = sample size, N = population size, and e = margin of error

$$n = \frac{1310}{1+1310(0.083)^2} = 130.679 \quad \mathbf{n = 131 \text{ respondents}}$$

Consequently, Mugenda and Mugenda (2012) recommend a sample ranging between 10-30 percent or even higher percentage of the accessible population for better representative results. Stratified sampling technique was utilized to group managers according to the hospital they belonged to. Simple random sampling technique was used to select 10% of managers from each hospital. A sample of 131 respondents representing 10% of the accessible population of 1310 managers working in four selected Level Five hospitals was used. The sample was manageable and the choice of the four hospitals was also supported by a research study conducted by Makhamara (2017) who used a sample of 146 employees from four public hospitals with a target population of 1428. Kuria and Mose (2019) also carried out a study to determine the effect of GHRM practices on the organizational effectiveness of universities in Kenya and used a sample of 120 respondents who were selected using purposive sampling from a target population of 400 employees. Table 3.1 indicates Level Five hospitals under study with their respective sample.

Table 3.1: Sample Size

Level Five Hospital	Number of Managers	Sample of Managers per Hospital
Machakos Level Five Hospital	334	33
Mama Lucy Kibaki Level Five Hospital	288	29
Embu Level Five Hospital	316	32
Nakuru Level Five Hospital	372	37
Total	1310	131

3.6.2 Sampling Technique

A sampling technique is the practical framework used to determine which elements of a population are integrated into a study's sample through various probability or non-probability approaches (Hair et al., 2024). According to Kothari (2019), there are two types of sampling technique: probability sampling which is an approach whereby every member of the target population has a known, non-zero chance of being selected. Because the sample is statistically representative, researchers can make inferences and generalize the findings back to the entire target population. The most common methods of probability sampling include simple random sampling, stratified sampling, systematic sampling, cluster sampling and multistage sampling.

Non-Probability Sampling, on the other hand, is a technique whereby sample selection is based on subjective judgment, convenience, or specific criteria rather than random chance. In this method not every member of the population has a chance of being included, and the probability of selection is unknown. Accuracy of this technique depends heavily on the researcher's skill and lack of bias, as the representative nature of the sample is not mathematically assured. It is mainly used when the goal of the study is to gain deep insights or explore a specific phenomenon rather than to make broad statistical inferences. The most common non-probability sampling methods include purposive (judgmental) sampling, convenience sampling, quota sampling, and snowball sampling (Mugenda & Mugenda, 2012).

According to Mugenda and Mugenda (2012), multistage sampling is a complex probability sampling technique where the selection of participants is carried out in two or more successive stages. The process involves drawing samples from larger groups and then further sampling from within those groups. In the first stage, simple random sampling was used to select four out of the 12 Level Five Hospitals with an accessible population of 1310 managers. All the four level five hospitals have similar characteristics to the sample population and the four were manageable for the study.

In the second stage, purposive sampling was used to select a sample of 131 managers representing 10% from each level five hospital giving a total of 1310 managers. The number of managers in Machakos Level Five Hospital was 334, Mama Lucy Kibaki Level Five Hospital was 288, Embu Level Five Hospital was 316 and Nakuru Level Five Hospital was 372. Saunders *et al* (2016) posit that the purposive sampling technique is particularly effective when researchers aim to gain insights from particular segments of a population that are believed to hold valuable information related to the research questions. Hospital managers were perceived to have valuable information because they are responsible for formulation and implementation of GHRM policies and practices. Proportionate distribution was used to get sample of 10% respondents from each hospital: Machakos Level Five Hospital was 33, Mama Lucy Kibaki Level Five Hospital was 29, Embu Level Five Hospital was 32 and Nakuru Level Five Hospital was 37. Simple random sampling was used in each hospital to pick the sampled respondents for the study. The sample size of 131 respondents was adequate as it is supported by other studies such as Kuria and Mose (2019) who used a sample of 120 respondents and Mandago (2019) who used a sample of 122 respondents.

3.7 Data Collection Instruments

A data collection instrument is a device that is used to collect data objectively and systematically for the purpose of research (Kothari, 2014). This section presents instruments for collecting primary and secondary data and also the measurement of variables.

3.7.1 Primary and Secondary Data

The most commonly used data collection instruments in social science research are: observation; interview and questionnaire (Cooper & Schindler, 2013). Cooper and Schindler (2013) recommended the application of a questionnaire in descriptive studies because self-administered questionnaires cost less than personal interviews and sometimes it is suitable where sample accessibility for interview is difficult.

The use of a questionnaire is informed by its ability to collect large amounts of data within a short time and its ability to give respondents anonymity and the freedom to express their views or opinions more objectively (Kothari, 2014). This study utilized a questionnaire and interview provided in Appendix III and Appendix V respectively to collect primary data. The interview was conducted using an interview guide provided in Appendix V to collect qualitative data from three key respondents, especially hospital administrator or human resource officer, the head of nursing services, and the head of information technology.

Secondary data was collected using document analysis. Document analysis is a systematic procedure for reviewing and interpreting printed and electronic documents. It provides a way of tracking change and growth, provides supplementary data for research, and provides a way to corroborate evidence from other data sources (Bowen, 2009). Document Analysis was conducted to collect data from various records for a period of six years (2014-2019) including records on the number of patients attended to; records on client satisfaction indices; and records on the amount of revenue collected among others.

3.8 Data Collection Procedure

Data is anything given or admitted as a fact on which a research inference is based and data collection instruments are the tools and procedures used in the measurement of variables in research (Oso & Onen, 2011). The researcher obtained permission to collect from JKUAT attached as Appendix VIII; and obtained Ethics Review Approval from the

JKUAT Institutional Scientific and Ethics Review Committee attached as Appendix IX; and a research permit from The National Commission for Science and Technology (NACOST) attached as Appendix X. The researcher further obtained written authority from respective Level Five Hospitals through their County Governments' Health Departments. The introduction letter obtained from the management of each Level Five hospital was used as an authority tool to access the respondents for informed consent provided as Appendix II and for participating in this study.

The participating sample of respondents per hospital was first of all sensitized at their respective offices, departments, and sections about the concept of green human resource management practices. The respondents were also informed about the purpose of the study. The copies of the questionnaire were thereafter issued to the respondents at their levels in management, departments, and sections. The filled questionnaires were collected by the researcher later in the same day and the remaining at various convenient intervals within one week so as to minimize misplacement or loss. A document analysis guide (Appendix IV) was used to collect secondary data from the departments of health information, public relations and communication, finance, human resources, and public health sections or departments of each of the participating hospitals. Interviews with three key Hospital Administration Team members namely: the human resource officer, head of nursing services, and information technology were conducted using the interview guide provided as Appendix V. These respondents were also sensitized individually about the concept of green HRM. The interview took about ten minutes with each of the key respondents.

3.9 Pilot Test

A pilot test on the research instruments was conducted before the main study to confirm their validity and reliability. Pilot studies are conducted to detect weaknesses in design and instrumentation and provide proxy data for the selection of probability samples (Cooper & Schindler, 2007). The pilot study on some respondents who did not participate in the final study was done at Chuka Level Five Hospital. Cooper and Schindler (2007)

propose a rule of thumb of 10% of the sample to be enough for the pilot study, Kothari (2019) recommends 1% of the study (target) population as being fit for statistical tests of instruments.

The pilot study was conducted on 13 respondents who were randomly selected from management employees of Chuka Level Five Hospital. The pilot study assisted the researcher in determining if the selected questions could measure what they were supposed to measure, if the wording was clear, and if all questions were interpreted in the same way by respondents. The research instrument was then modified based on the responses before administering it to actual respondents.

3.9.1 Reliability of Research Instruments

According to Mugenda and Mugenda (2012), the degree to which a research instrument measures and gives consistent results after repeated trials is known as reliability. To ensure the reliability of the research instrument, a pilot study was carried out by administering 10% of the questionnaire to selected respondents of Chuka Level Five Hospital who were not to participate in the actual study. The research instrument was tested to ensure accuracy and clarify on the instrument the appropriateness of the language used. The current study utilized Cronbach's Alpha formula as a measure of testing the reliability of the research instrument. The following is the Cronbach's alpha formula:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Where;

N = the number of elements, \bar{v} = Average Variances, \bar{c} = Average Covariance between element-pairs

Cronbach's Alpha formula is usually applied to measure the internal reliability of psychometric test scores for a sample of respondents from the population. Pallant (2010)

recommends that where Cronbach's Alpha Coefficient is used for a reliability test, the acceptable value should be 0.7 to 0.9. According to Mugenda and Mugenda (2012), a high coefficient of 0.7 or more implies a high degree of internal consistency or reliability of the research instrument.

3.9.2 Validity of Research Instrument

Mugenda and Mugenda (2012) argue that validity is the accuracy and meaningfulness of inferences based on the research results. Three types of validity namely: face, content, and construct validity were used. The researcher carried out a thorough review of the literature to identify the items required to measure the concepts and to ensure that the questionnaire covered all relevant dimensions.

Face validity, according to Kothari (2019), refers to the extent to which a measurement instrument, such as a questionnaire or test, appears to measure what it claims to measure, based on subjective judgment. Usually, it involves evaluating whether the items on the instrument seem to be appropriate and relevant to the construct being measured to the extent to which a test or assessment appears to measure what it is intended to measure. In addition, Saunders, Lewis, and Thornhill (2016) argue that a group of experts in the field can review the measurement tool and give feedback on how well it covers the concept being measured. Therefore, two Research supervisors from Jomo Kenyatta University of Agriculture and Technology and two health professionals from Chuka Level Five Hospital reviewed the face and content validity of the instrument and their suggestions were incorporated in adjusting the instrument.

Construct validity refers to how well one translates a concept, idea, or behaviour into an operating reality (Trochim, 2016). A construct is a theoretical idea or concept that cannot be seen directly but can be measured through a set of related behaviours or traits (Cooper & Schindler, 2013). Construct validity checks whether a measure of concept relates strongly with another measure that it should strongly correlate with, that is, it checks whether the test measures the concept that it is supposed to measure. To establish the

statistical rigor of the research instrument, construct validity and factor suitability were evaluated using the Fornell-Larcker (1981) criterion and the Kaiser-Meyer-Olkin (KMO) measure. Also construct validity was ensured through use of KMO and Bartlett's Test. According to Kothari (2019), the thumb rule for KMO values should range as; below 0.5 unacceptable, average ranges between 0.60-0.69 and above 0.70-0.90 very good.

3.10 Data Analysis and Presentation

Data analysis is the systematic process of editing, coding, classifying, and tabulating collected raw data to transform it into meaningful information. It involves using quantitative or qualitative techniques to summarize data, identify patterns, test hypotheses, and draw valid, evidence-based conclusions (Kothari, 2019). This is done to ensure accuracy and the conversion of data from raw form to reduced and classified forms that are more appropriate for analysis. In this study, the qualitative and quantitative data was organized edited, coded, and entered into a computer for analysis using Statistical Package for Social Sciences (SPSS) version 23.0. Data analysis was conducted first with diagnostic tests as provided in the following sections. Descriptive statistics was used to organize and summarize or describe key characteristics of a dataset, including central tendency (mean, median, mode, or midrange), data spread (range or standard deviation), and overall descriptions like the five-number summary (Kothari, 2014).

Inferential statistics was used to make inferences. Inferential statistics involves the mathematical and logical framework used to project or infer findings from a sample onto a broader population. In analyzing and presenting data, descriptive statistics such as frequencies and percentages were generated. Means were generated to measure central tendency and standard deviation was generated to measure dispersion from the mean (Mugenda & Mugenda, 2013). Content analysis was used to measure qualitative data (Mugenda & Mugenda, 2013). This means that qualitative data was organized and put into themes which were then analysed to generate frequencies and percentages. Inferential statistics measures such as Pearson's coefficient of Correlation were calculated to determine the strength and direction of the relationship between the independent and

dependent variables (Kothari, 2014). Pearson's coefficient of Correlation was followed with simple linear regression and multiple regression to determine the cause-effect relationship between variables, that is, Y on X to a given data (Kothari, 2014); Analysis of variance (ANOVA) was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). Finally, the decision rule regarding the hypothesis testing was made.

3.10.1 Diagnostic Tests

Diagnostic tests were carried out to ensure model applicability and to confirm that all ordinary least square (OLS) assumptions are satisfied (Kothari, 2014). To assess the effectiveness of a multivariate economic model, a diagnostic test usually involves evaluating its assumptions, fit, and reliability. According to the principles outlined by Mugenda and Mugenda (2012), these tests ensure that the model accurately represents the data and can be generalized to the larger population it aims to reflect. The diagnostic tests may include checking for normality, heteroscedasticity, homoscedasticity, multicollinearity, and autocorrelation. The tests are presented in the sections that follow.

Normality Test

A normality test is usually used to establish the normal distribution of sampled data to make accurate and reliable conclusions about the phenomenon (Kothari *et al.*, 2017). A coefficient of skewness within the range of ± 3 indicates that the data is distributed normally. When the p-values of one sample Kolmogorov's Shapiro-Wilk test scores are significant with p-values > 0.05 at a confidence interval of 95%, the variables are said to be normally distributed (Field, 2018). According to Kline (2023), normality occurs when a continuous variable's data points are arranged symmetrically around a central point, resulting in identical values for the mean, median, and mode. A histogram and a Q-Q plot were used for this purpose.

Heteroscedasticity Test

Heteroscedasticity is described as a condition in regression analysis where the variability of the error terms fluctuates at different levels of the independent variable (Mugenda & Mugenda, 2013). Heteroscedasticity was minimized by making sure that the data utilized in testing the hypothesis was approximately normal and was transformed accurately to the extent that the right functional forms of regression model were properly selected. The variables presented by the scatter plot diagram of the dependent variable will widen or narrow as the value of the independent variable increases.

Homoscedasticity Test

Homoscedasticity refers to the assumption that the dependent variable exhibits similar amounts of variance across the range of values for the independent variable around the regression line, meaning they have equal spread. If the model has a significant level of homoscedasticity the error term varies in line with the observations making the analysis inefficient (Sunders, Lewis & Thornhill, 2012). In this study, homoscedasticity was detected by the use of scatter plots.

Multi-Collinearity Test

Multi-Collinearity refers to the presence of high correlations between independent variables (Williams *et al.*, 2013). The presence of multi-collinearity makes it difficult to isolate the impact of each independent variable on the dependent variable. The tolerance of the predictors in the regression model was determined as well as the variance inflator factor (VIF). The two were used to assess multi-collinearity and any variable with a VIF higher than 5 meant the presence of multi-Collinearity. When multi-collinearity exists, it may cause problems in analysis and therefore limit research conclusions. It can be detected if t-tests of each of the slopes are not significant ($P > 0.05$), but the overall F-test for testing of all the slopes is simultaneously 0 and is significant at ($P < 0.05$). Variance Inflation Factor (VIF) is described as a metric that calculates the extent to which the precision of

regression coefficients is degraded by inter-correlations among predictor variables. Essentially, VIF quantifies the expansion of variance; a high value signifies that multicollinearity has made the estimated coefficients unstable, thereby complicating the assessment of each variable's unique contribution to the model (Hair *et al.*, 2024).

Auto-Correlation Test

An autocorrelation test serves as an important diagnostic tool to verify whether the residuals in a regression analysis are independent, ensuring that error terms are not influenced by their own prior values. This is especially significant in longitudinal or time-series data, where the absence of such independence can lead to inefficient coefficient estimates and misleadingly significant p-values (Hair *et al.*, 2024). As noted by Hair *et al.* (2024), the Durbin-Watson (d) statistic is the primary diagnostic used to evaluate autocorrelation, which describes a state where the residuals in a linear model exhibit a relationship with one another rather than remaining independent. When errors are seriously correlated, the ordinary least squares estimate become biased and therefore the use of t and f statistics becomes invalid. Autocorrelation may result in overestimated t values and that results in type 1 error. The Durbin Watson statistic was used to indicate the absence or presence of autocorrelation. As a standard guideline, autocorrelation is deemed absent when the resulting value falls within the 1.5 to 2.5 range, with a value of 2.0 representing a perfectly random distribution of error terms (Field, 2018).

Correlation Test

The correlation coefficient measures the degree or strength and direction of relationship between two or more statistical variables. The correlation coefficient ranges between negative (-1) and positive (+1). A negative coefficient reveals a negative correlation, while a positive coefficient implies a positive one. If there is a high degree of correlation between two variables, then there is a close association between those two variables. The variables have no association if the correlation coefficient is 0.00 (Creswell, 2017). The Pearson's product-moment correlation (r) is the most popular correlation

coefficient developed by Karl Pearson. This analysis requires that the variables be measured using at least an interval scale.

3.10.2 Data Analysis for Green Employee Resourcing and Performance

Descriptive statistical analysis was conducted to summarize study findings and results were presented using frequencies, percentages, mean, and standard deviation. The mean is described as the average value derived from a set of data, while standard deviation is a measure of dispersion (Kothari, 2019). Content analysis was used to analyze and interpret qualitative data (Field, 2018). Correlation analysis was conducted using Pearson's product-moment correlation coefficient (PPMC) to establish the strength and direction of the relationship (Mugenda and Mugenda, 2012). Simple linear regression was conducted to give an estimation of the mean or average value of the dependent variable and finally, hypothesis testing was conducted at a level of significance of 0.05. Therefore, the simple linear regression model for green employee resourcing and performance took the following format:

$$Y = \beta_0 + \beta_1 X_1 + e$$

Where;

Y = Performance of devolved healthcare services, β_0 = Constant, β_1 = regression coefficient, X_1 = Green Employee Resourcing and e = error term

The statistical significance of the effect of the independent variable (green employee resourcing) on the dependent variable (performance of devolved healthcare services) was hypothesized as;

H₀₁: Green employee resourcing has no significant effect on the performance of devolved healthcare services in Kenya.

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. ANOVA is a data analysis procedure that was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P- value ≤ 0.05 otherwise accept it if P is > 0.05 .

3.10.3 Data Analysis for Green Training and Performance of Devolved Healthcare Services

Descriptive statistical analysis was conducted for green training and performance to summarize the study findings and the results were presented using frequencies, percentages, means a measure of central tendency, and standard deviation as a measure of dispersion. Content analysis was used to analyze responses from qualitative data. Correlation analysis was conducted using Pearson's product-moment correlation coefficient (PPMC) to establish the strength and direction of the relationship. In this study regression analysis was conducted to give an estimation of the mean or average value of the dependent variable regarding the nature of the dependence (Kothari and Gaurav, 2014). The result obtained from this simple linear regression analysis of the model was applied to test the research hypothesis at a level of significance of 0.05.

Therefore, the simple linear regression model for green training and performance took the following format:

$$Y = \beta_0 + \beta_2 X_2 + e$$

Where;

Y = Performance of devolved healthcare Services, β_0 = Constant, β_2 = regression coefficient, X_2 = Green Training and e = error term

The study hypothesized that;

H₀2: Green training has no significant effect on the performance of devolved healthcare services in Kenya

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P- value ≤ 0.05 otherwise accept it if P is > 0.05 .

3.10.4 Data Analysis for Green Occupational Safety, Health and Performance of Devolved Healthcare Services

Descriptive statistical analysis was conducted for green occupational safety and health and performance and the results were presented using frequencies, percentages, mean, and standard deviation. Content analysis was used to analyze responses from qualitative data. Correlation analysis was conducted using Pearson's product-moment correlation coefficient (PPMC) to establish the strength and direction of the relationship. PPMC value ranges from -1.0 to +1.0, with positive or negative signs denoting the direction of association, while the bigger absolute values indicate stronger association (Mugenda & Mugenda, 2013). Simple regression analysis was conducted to determine the cause-effect relationship between the independent and dependent variables (Kothari & Gaurav, 2014). Hypothesis testing was determined using one-way ANOVA. A simple linear regression model for green Occupational Safety and Health and performance took the following format:

$$Y = \beta_0 + \beta_3 X_3 + e$$

Where;

Y = Performance of devolved healthcare Services, β_0 = Constant, β_3 = regression coefficient, X_3 = Green Occupational Safety and Health, and e = error term.

The study variable was hypothesized;

H₀₃: Green occupational safety and health has no significant effect on the performance of devolved healthcare services in Kenya

The result obtained from this simple linear regression analysis of the model was applied to test the research hypothesis at a level of significance of 0.05.

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. ANOVA is a data analysis procedure that was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P- value ≤ 0.05 otherwise accept it if P is > 0.05 .

3.10.5 Data Analysis for Green Performance Evaluation and Performance of Devolved Healthcare Services

Descriptive statistical analysis was conducted for green performance evaluation and performance to summarize study findings and the results were presented using frequencies, percentages, and standard deviation. Content analysis was used to analyze responses from qualitative data, correlation analysis was conducted using Pearson's product-moment correlation coefficient (PPMC) to establish the strength and direction of the relationship (Kothari & Gaurav, 2014); simple regression analysis was conducted to determine the cause-effect relationship between the independent and dependent variables. Hypothesis testing was determined using one-way ANOVA. The result obtained from this simple linear regression analysis of the model was applied to test the research hypothesis at level of significance of 0.05. Therefore, the simple linear regression model for green performance evaluation and performance of devolved healthcare services took the following format:

$$Y = \beta_0 + \beta_4 X_4 + e$$

Where;

Y = Performance of devolved healthcare Services, β_0 = Constant, β_4 = regression coefficient, X_4 = Green performance evaluation and e = error term

This study variable was hypothesized;

H₀₄: Green performance evaluation has no significant effect on the performance of devolved healthcare services in Kenya

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. ANOVA is a data analysis procedure that was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P - value ≤ 0.05 otherwise accept it if P is > 0.05 .

3.10.6 Data Analysis for Management Style

Descriptive statistical analysis was conducted on management style so as to summarize study findings and results were presented using frequencies, percentages, mean as a measure of central tendency, and standard deviation as a measure of dispersion (Kothari, 2024). Content analysis was used to analyse and interpret responses from qualitative data. Management style as a variable was used in this study as a moderating variable. Multiple regression analysis was conducted with the inclusion of management style to determine its interactive effect on the optimal model. Each of the management style dimensions, individually, was also included in the optimal model to determine its effect of interaction.

3.10.7 Multiple Linear Regression Analysis without the Moderating Variable

Multiple linear regression analysis was applied to establish the direction and magnitude of the relationship that exists between variables. Multiple regression analysis allows

researchers to assess how changes in the independent variables are associated with changes in the dependent variable, providing insights into the strength and direction or nature of these relationships (Mugenda & Mugenda, 2013). The multiple linear regression model of this study is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where;

Y = Performance of devolved Healthcare Services, β_0 = Constant, β = regression coefficient, X_1 = Green Employee Resourcing, X_2 = green Training, X_3 = Green occupational safety and health, X_4 = Green performance Evaluation and e = error term of the sample

The result obtained from this multiple linear regression analysis of the model was applied to test the research hypothesis at a level of significance of 0.05. Analysis of Variance (ANOVA) was conducted to test the hypothesis and thus establish whether the whole model was a significant fit of the data. ANOVA is a data analysis procedure that was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P- value ≤ 0.05 otherwise accept it if P is > 0.05 .

3.10.8 Multiple Linear Regression Analysis with Inclusion of the Moderating Variable

A moderating variable is a variable that affects the strength or direction of the relationship between an independent variable and a dependent variable (Saunders *et al*, 2019). Management style was introduced into the model as the moderating variable. The analysis was conducted to determine the level of interaction between independent variables (GHRM practices) and dependent variables (performance of devolved healthcare services). The study model with the introduction of moderating variable (Z) took the following multiple linear regression form:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_6 X_1 Z + \beta_7 X_2 Z + \beta_8 X_3 Z + \beta_9 X_4 Z + e$$

Where;

Y_i = Performance of devolved healthcare services, β_0 = Constant, β = regression coefficient, X_1 = Green employee Resourcing, X_2 = Green Training, X_3 = Green Occupational Safety and health, X_4 = Green performance Evaluation, Z = Management style, and e = error term of the sample as a result of other factors unexplained by the explanatory variables.

From this equation, the interaction effect between X and Z measured the moderation effect. The moderator variable (if found to be significant) can cause an amplifying or weakening effect between X and Y . The result obtained from the multiple linear regression analysis of the model was applied to test the research hypothesis at a level of significance of 0.05. Analysis of Variance (ANOVA) was conducted to test the hypothesis and thus establish whether the whole model was a significant fit of the data. ANOVA is a data analysis procedure that was applied to determine whether there were significant differences between two or more groups of samples at a selected probability level (Mugenda & Mugenda, 2013). In testing the hypothesis, the decision rule was to Reject the Null Hypothesis if P -value ≤ 0.05 otherwise accept it if P is > 0.05 . The study hypothesized that;

H₀₅: Management style has no significant moderating effect on the relationship between GHRM practices and performance of devolved healthcare services in Kenya.

Table 3.2: Summary of Study Variables Analyses

S/No	Objective	Hypothesis	Data Required	Analytical tools
(i)	To determine effect of green employee resourcing on performance of devolved healthcare services in Kenya.	H₀₁: Green employee resourcing has no significant effect on performance of devolved healthcare services in Kenya.	Data on green employee resourcing on performance of devolved healthcare services in Kenya	Frequencies, means, Standard Deviation, Pearson's Correlation Coeff., Simple Linear Regression analysis. $Y = \beta_0 + \beta_1 X_1 + e$ Reject Null Hypothesis if P-value ≤ 0.05 otherwise accept if P is > 0.05
(ii)	To evaluate effect of green training on performance of devolved healthcare services in Kenya.	H₀₂: Green training has no significant effect on performance of devolved healthcare services in Kenya.	Data on green training on performance of devolved healthcare services in Kenya	Frequencies, means, Standard Deviation, Pearson's Correlation Coeff., Simple Linear Regression analysis. $Y = \beta_0 + \beta_2 X_2 + e$ Reject Null Hypothesis if P-value ≤ 0.05 otherwise accept if P is > 0.05
(iii)	To examine effect of green safety and occupational health on performance of devolved healthcare services in Kenya.	H₀₃: Green occupational safety and health has no significant effect on performance of devolved healthcare services in Kenya.	Data on green occupational safety and health on performance of devolved healthcare services in Kenya	Frequencies, means, Standard Deviation, Pearson's Correlation Coeff., Simple Linear Regression analysis. $Y = \beta_0 + \beta_3 X_3 + e$ Reject Null Hypothesis if P-value ≤ 0.05 otherwise accept if P is > 0.05
(iv)	To investigate effect of green performance evaluation on performance of devolved healthcare services in Kenya	H₀₄: Green performance evaluation has no significant effect on performance of devolved healthcare services in Kenya	Data on green performance evaluation on performance of devolved healthcare services in Kenya	Frequencies, means, Standard Deviation, Pearson's Correlation Coeff., Simple Linear Regression analysis. $Y = \beta_0 + \beta_4 X_4 + e$ Reject Null Hypothesis if P-value ≤ 0.05 otherwise accept if P is > 0.05
(v)	To assess the moderating effect of management style on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya.	H₀₆: Management style has no significant moderating effect on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya.	Data on moderating effect of management style on the relationship between green human resource management practices and performance of a devolved healthcare services in Kenya.	Frequencies, means, Standard Deviation, Pearson's Correlation Coeff., Simple Linear Regression analysis $Y = \beta_0 + \beta Z + e$ Reject Null Hypothesis if P-value $\leq .05$ otherwise accept if P is > 0.05 . Multiple Linear Regression analysis $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_6 X_1 Z + \beta_7 X_2 Z + \beta_8 X_3 Z + \beta_9 X_4 Z + e$

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents study findings and discussions based on the specific study objectives namely: the effect of green employee resourcing, green training, green occupational safety and health, and green performance evaluation, on the performance of devolved healthcare services in Kenya. The chapter also presents study findings of the moderating effect of management style on the relationship between green HRM practices and the performance of devolved healthcare services in Kenya.

4.2 Response Rate

A total of 131 questionnaires were distributed to the respondents working at four Level Five Hospitals that were selected from the list of 12 Level Five Hospitals in Kenya. The results are presented in Table 4.1. The results in Table 4.1 indicate that out of 131 questionnaires distributed to the respondents, only 118 questionnaires were filled and returned, while 13 questionnaires were either spoilt or not returned due to time constraint and accessibility issues (Kothari, 2019). This finding represents a 90.1 % response rate. The response rate of 90.1% was excellent for data analysis. This is supported by Mugenda and Mugenda (2012) who state that, a response rate of 70% and above is considered to be excellent, a response rate of 60% is considered as good while, 50% is rated as adequate for data analysis. The 13 questionnaires were not returned due to time constraint and accessibility issues (Kothari, 2019S)

Table 4.1: Findings for Response Rate

Level Five Hospitals	Projected Sample Size	Actual Response	Non-Response	Response Rate
Embu Level Five Hospital	32	31	1	96.8%
Nakuru Level Five Hospital	37	30	7	81.1%
Machakos Level Five Hospital	33	32	1	97.0%
Mama Lucy Kibaki Level Five Hospital	29	25	4	86.2%
Total	131	118	13	90.1%

4.3 Pilot Study Findings

Pilot studies are conducted to detect weaknesses in design and instrumentation and provide proxy data for the selection of probability samples (Cooper & Schindler, 2007). A pilot study was conducted on 13 respondents who were picked using random numbers from management employees of Chuka Level Five Hospital. These respondents represented 10% of the sample size of 131. Chuka Level Five Hospital was excluded from the final study. The pilot study assisted the researcher in determining if the selected questions could measure what they were supposed to measure, if the wording was clear, and if all questions were interpreted in the same way by respondents.

4.3.1 Reliability Test Findings

The pilot study was undertaken to test the feasibility of the research design and ascertain the reliability of the research instrument. The linguistic aspects of the instrument were clarified, and its precision was assessed. In order to assess the instrument's reliability, Cronbach's Alpha formula was employed, with a suggested coefficient range of 0.7 to 0.9 (Mugenda & Mugenda, 2013). The findings of Cronbach's alpha coefficients of the study variables are presented in Table 4.2.

Table 4.2: Reliability Coefficients for Study Variables

Study Variable	No. of Test Item	Cronbach's alpha Coefficient
Green Employee Resourcing	7	0.890
Green Training	8	0.792
Green occupational Safety and Health	7	0.880
Green Performance Evaluation	7	0.884
Management Style	7	0.917
Performance	7	0.861

From Table 4. 2, all research variables had a Cronbach alpha value greater than 0.7, showing that they met the required reliability criterion (Sarstedt *et al.*, 2017). These results indicated that the design of questionnaire items signified high internal consistency (Hair *et al.*, 2017). All the study variables (the predictor, moderating, and criterion) were retained because they all complied with Cronbach's Alpha value of 0.7 to 0.9 (Pallant (2010)).

4.3.2 Validity Test Findings

To establish the statistical rigor of the research instrument, construct validity and factor suitability were evaluated using the Fornell-Larcker (1981) criterion and the Kaiser-Meyer-Olkin (KMO) measure. According to Kline (2013), construct validity is achieved when items measuring the same latent variable show moderate inter-correlation (convergent validity), while variables measuring different constructs display low inter-correlations (discriminant validity). As illustrated in Table 4.3, all constructs yielded Average Variance Extracted (AVE) values ranging from 0.593 to 0.788. Since these values exceed the 0.5 threshold cited by Alarcon and Sanchez (2015), convergent validity is confirmed. Furthermore, discriminant validity was established because the squared multiple correlations for each variable remained strictly lower than their respective AVEs, ensuring that each construct is a distinct and unique measure. The suitability of the data for factor extraction was further verified by the KMO index and Bartlett's Test of Sphericity. The KMO values range from 0.608 to 0.783, all surpassing the 0.60 benchmark, which indicates that the sum of partial correlations is sufficiently small relative to the sum of correlations to yield reliable factors.

Simultaneously, Bartlett’s Test produced a significance level of $p=0.000$ across all variables, rejecting the null hypothesis that the correlation matrix is an identity matrix. These results provide a statistical mandate for factor extraction, ensuring that the relationships observed in the forthcoming hypothesis testing are based on stable, non-random data structures. Consequently, the instrument demonstrates robust psychometric properties and is fit for use in the main study.

Table 4.3: Validity and Suitability Test

Construct	AVE	Squared Correlation	Multiple KMO	Bartlett’s Chi-Square (X^2)	Sign
Green employee resourcing (X_1)	0.593	0.257	0.783	72.049	0.000
Green training (X_2)	0.622	0.431	0.683	99.868	0.000
Green Occupational Safety and Health (X_3)	0.675	0.512	0.702	120.664	0.000
Green performance evaluation (X_4)	0.788	0.445	0.664	218.423	0.000
Management style (Z)	0.699	0.257	0.608	221.181	0.000
Performance of devolved healthcare (Y)	0.704	0.512	0.675	218.423	0.000

The empirical results from the validity assessment carry significant implications for the study’s primary objectives. By satisfying the Fornell-Larcker criteria, the analysis ensures that the measurement of green human resource practices is both precise and targeted. The high AVE values, particularly for Green Performance Evaluation (X_4), suggest that the survey items are highly effective at capturing the underlying reality of how healthcare services measure performance. This technical accuracy is important for the study's objective of determining how these specific GHRM practices contribute to performance of devolved healthcare services (Y). Furthermore, the confirmation of discriminant

validity ensures that the moderating influence of Management Style (Z) can be isolated and analyzed without statistical noise from the other variables. Because the squared multiple correlations remained below the AVEs, the study concludes that any observed effect of management style on the relationship between independent variables and performance of devolved healthcare services is unique. Finally, the significant Bartlett's Test and adequate KMO levels validate the structural integrity of the model.

4.4 Demographic Characteristics of the Respondents

The respondents were asked to indicate the name of the hospital and their demographic data because it was necessary to ensure a fair distribution and equal representation of respondents' views regarding study objectives. The study obtained respondents' data on their hospital, gender, management category, age, level of education, and length of service, which are analyzed and presented as follows.

4.4.1 Findings for Name of the Hospital

To aid the study on the source of the questionnaires filled out, the respondents were requested to indicate the name of the hospital they work. The findings are presented in Table 4.4.

Table 4.4: Findings for Name of the Hospital

Name of Level Five Hospital	Respondents	Percentage
Machakos Level Five Hospital	32	27.12
Mama Lucy Kibaki Level Five Hospital	25	21.19
Embu Level Five Hospital	31	26.27
Nakuru Level Five Hospital	30	25.42
Total	118	100.00

From Table 4.4, respondents 27.12 % were from Machakos Level Five Hospital, 21.19% were from Mama Lucy Kibaki Level Five Hospital, 26.27% were from Embu Level Five Hospital, while respondents 25.42% were from Nakuru Level Five Hospital. The result reveals a diverse representation from four Level Five Hospitals. Further, the hospitals

were Level Five hospitals indicating that they serve as county healthcare centers that provide specialized healthcare services and they also act as referral health points for lower-level health facilities in Kenya. This finding is consistent with the technical classification of healthcare service delivery (The Health Act, 2017). Level Five hospitals offer a higher level of quality of care as they are more equipped with better healthcare infrastructure and specialist healthcare professionals.

4.4.2 Gender of the Respondents

The respondents who participated in this study were requested to indicate their gender. The gender of respondents was important in this study because it could influence the choices made regarding green human resource management practices and the performance of devolved healthcare services in Kenya. The study findings are presented in Table 4.5.

Table 4.5: Findings for Gender of Respondents

Gender	Frequency	Percent
Male	55	46.6
Female	63	53.4
Total	118	100.0

According to the findings presented in Table 4.5, the proportion of male respondents was 46.6%, whereas the proportion of female respondents was 53.4%. The results reveal that most of the respondents working in devolved healthcare services in Kenya are females. This finding displayed an acceptable gender balance as it met the minimum gender rule that provides that 1/3 of the employees should consist of either gender (The Constitution of Kenya, 2010). This finding concurs with a study conducted by Maina (2019) which reported 52.6% and 47.4% female and male respondents respectively. Further, this finding aligns with a study conducted by Boniol *et al.* (2019), which revealed that women constitute 70% of the workforce in the health and social care sector globally.

4.4.3 Category of Respondents in Management

The category of respondents in management who participated in this study was analyzed according to the levels of management they occupied in the Level Five hospital they served. These levels of management were designated as top-level, middle-level, and bottom-level. The summary of findings is presented in Table 4.6.

Table 4.6: Findings for Category of Respondents in Management

Level of Management	Machakos Level Five Hospital	Mama Lucy Kibaki Level Five Hospital	Embu Level Five Hospital	Nakuru Level Five Hospital	Total per level of management	Percentage Response per Level
Top-level	4	3	3	4	14	11.9
Middle-level	17	13	18	16	64	54.2
Bottom-level	11	9	10	10	40	33.9
Total	32	25	31	30	118	100

The findings in Table 4.6 reveal that most participants held positions in Middle-Level Management, accounting for 54.2% of the total respondents. This was followed by Bottom-Level Management, which constituted 33.9% of the participants, while Top-Level Management comprised 11.9% of the respondents. Middle-level managers with their human relations skills typically serve as a vital link between top- and bottom-level management. They also play a pivotal role in implementing policies and practices to ensure the achievement of the objectives of Level Five hospitals. Further, this study's findings suggest heterogeneous and adequate representation across various management levels, thereby enhancing the objectivity of the results. The choice of respondents is supported by Rawashdeh (2018) who noted that managers are considered to have the necessary skills and good knowledge about eco-friendly initiatives and activities and understand employee reactions to GHRM. Managers are in charge of monitoring and improving employee productivity and commitment to environmentally friendly activities.

4.4.4 Age of the Respondents

The respondents were requested to indicate their age in years based on the age groups provided. The age of the respondents was perceived to affect the level of performance and the choices made by different age groups regarding green human resource management practices on the performance of devolved healthcare services. Age The results obtained are presented in Table 4.7.

Table 4.7: Findings for Age of the Respondents

Age in Years	Frequency	Percent
21 – 30	31	26.3
31 – 40	32	27.1
41 – 50	30	25.4
51 – 60	24	20.3
Above 61 years	1	.8
Total	118	100.0

The results presented in Table 4.7 reveal that the majority of the respondents were between the age of 31-40 years at 27.1%, indicating that the workforce is mainly composed of middle-aged respondents with high levels of energy for productivity. This was followed by ages 21-30 years at 26.3%, suggesting a representation of young respondents who may bring fresh ideas and a willingness to innovate. Those in the age bracket of 41-50 years were 25.4%, representing individuals with a substantial amount of experience and expertise necessary for the stability and reliability of healthcare services. The respondents in the age bracket 51-60 years were 20.3%, indicating respondents nearing retirement, but still have valuable experience and knowledge that can be leveraged. The respondents with the age of 61 years and above were lowest at 0.8%, implying that Level Five Hospitals should vigorously engage in succession planning to replace retired employees and prepare for the succession of aging employees.

Overall, the age distribution of respondents was well balanced implying the presence of a diverse workforce in age who could share knowledge and experience about green HRM practices on the performance of devolved healthcare services. Further, this finding implies

that recruitment efforts might focus on maintaining this balance, ensuring a steady influx of young talent while retaining experienced staff to guide and mentor them. The findings on the age of respondents were also presented in Figure 4.1 illustrating further the variations and frequencies of the various age groups of the respondents.

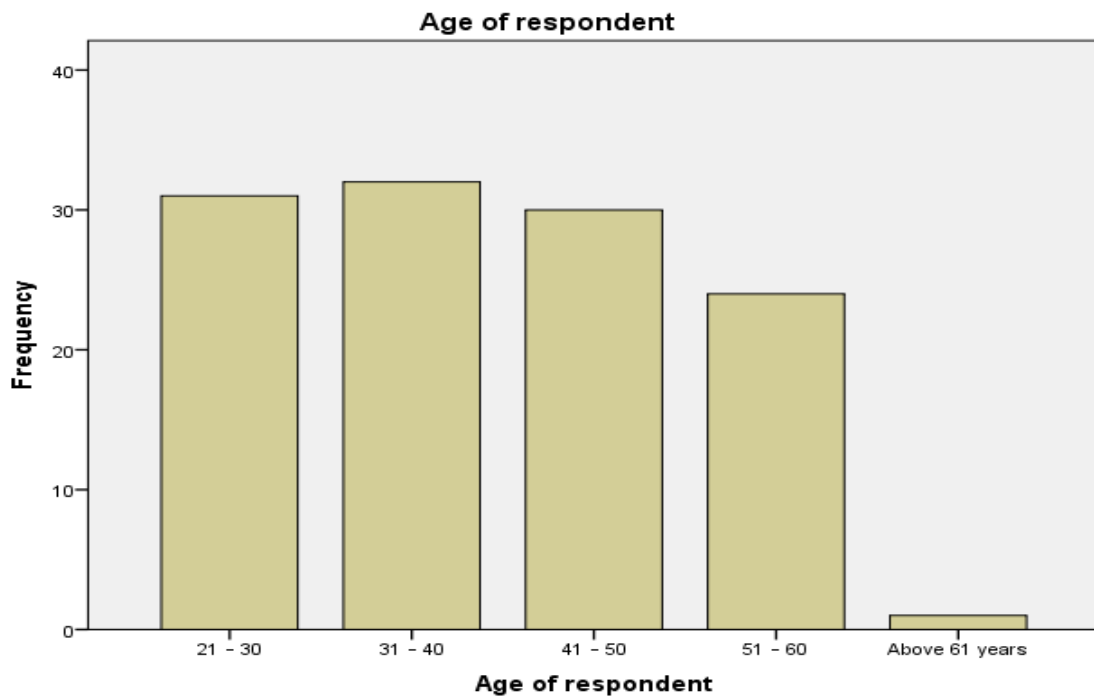


Figure 4.1: Findings for Age of Respondents

4.4.5 Highest Level of Education of Respondents

In order to obtain accurate and relevant responses, the respondents were asked to indicate their highest level of education. The level of education is important as it influences the level of management skills. The findings are presented in Table 4.8.

Table 4.8: Findings for Level of Education of Respondents

Level of Education	Frequency	Percent
Certificate	3	2.5
Diploma	66	55.9
Degree	37	31.4
Masters	12	10.2
Total	118	100.0

Based on the findings presented in Table 4.8, it can be observed that the majority of the respondents, accounting for 55.9%, possessed Diplomas certificates. The results imply that devolved healthcare services rely more on diploma holders but there is an increasing absorption of employees with higher qualifications. This was followed by employees with Degree certificates, comprising 31.4% of the sample. This finding implies that a substantial proportion of respondents have obtained higher education which could contribute to enhanced skills, knowledge, and competencies within the healthcare services. These skills, knowledge, and competencies are important because they influence employee performance and level of decision-making. This result is aligned with a study by Owino and Kwasira (2016), who noted that the level of education plays a significant role in the development of managerial skills.

A smaller proportion of respondents held Masters Degrees, representing 10.2% of the participants. These respondents comprising 10% can bring specialized knowledge and expertise to their roles, potentially driving innovation and improvements in the performance of healthcare services. These findings imply that Healthcare facilities may need to provide tailored training programs to cater to the varying education levels, ensuring all employees are equipped with the necessary skills and knowledge to perform effectively. This finding is in-congruent with Opatha (2015) who suggests that organizations conduct intensive and systematic education, training, and development programs for their employees to enhance good organizational performance and environmental management. Lastly, employees with Certificates constituted the smallest portion, with only 2.5% of the respondents falling into this category.

4.4.6 Length of Service of Respondents

The respondents were asked to indicate the length of service in their respective Level Five Hospitals. This was necessary to ascertain the number of years the respondents had worked to gain experience and the ability to navigate complex issues at work. The findings are presented in Table 4.9.

Table 4.9: Findings for Length of Service of Respondents

Length of service	Frequency	Percent
0 -5 years	35	29.7
6 – 10 years	21	17.8
11 – 15 years	18	15.3
16 – 20 years	8	6.8
Above 21 years	36	30.5
Total	118	100.0

Most of the respondents have served for above 21 years at 30.5%, followed closely by those who have served for 0-5 years at 29.7%, 6-10 years at 17.8%, 11-15 years at 15.3%, and lastly 16-20 years at 6.8%.

The findings imply that the majority of the respondents had served in their respective Level Five Hospitals for more than 21 years indicating that the hospitals have a high level of employee retention. This finding implies that the employees have the necessary experience and skills to deliver healthcare services and embrace eco-friendly practices.

From the results in Table 4.9, the majority of the respondents, 70.3% had worked in their respective hospitals for over six years. This implies that respondents had a considerable amount of experience, valuable skills, and institutional knowledge about the healthcare system, and this could be beneficial for improving and maintaining quality eco-friendly healthcare services. The years of service distribution further suggest that the majority of the respondents were working in the health facilities before healthcare services were devolved in 2013, and were absorbed by the county governments when they took over the health sector functions. This transition of the employees indicates their adaptability and

resilience which is a good sign of high employee retention within Level Five hospitals. This retention of the employees is also important in ensuring that the hospitals do not experience any major disruptions in the delivery of healthcare services during the transition period. Further illustrations are explained in Figure 4.2.

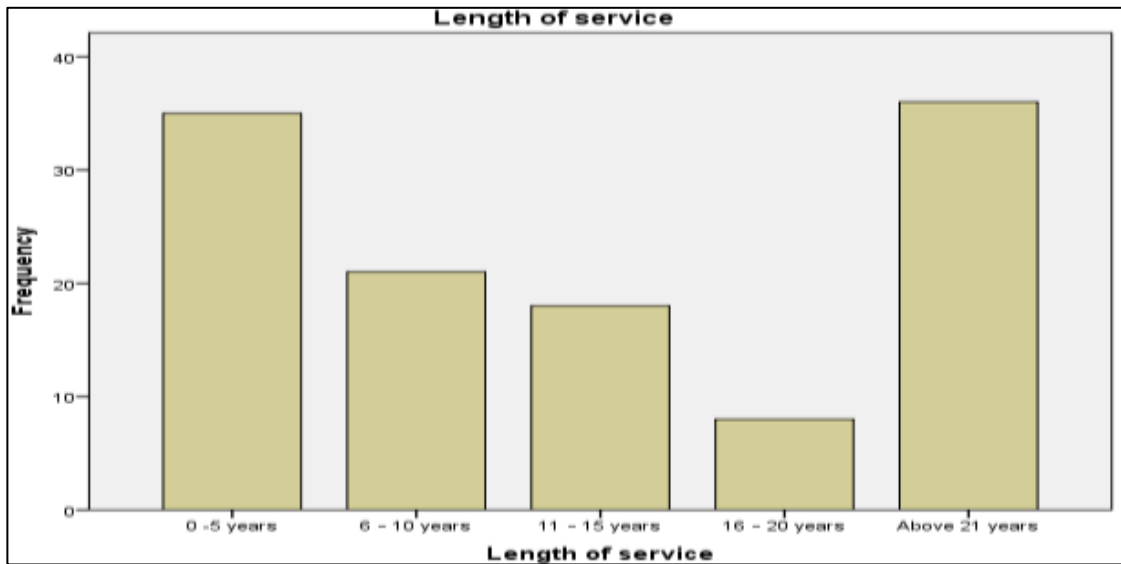


Figure 4.2: Findings for Length of Service of Respondents

4.4.7 Respondent's Department

The respondents were requested to indicate the department they were working. By indicating the departments, the study confirmed that the respondents were managers in charge of departments, sections or units in their hospitals. The data obtained was analyzed and presented in Table 4.10.

Table 4.10: Findings for Respondent's Department

Department	Respondents per Department	Percent (%)
Public Health	7	5.9
Information Technology	3	2.5
Health Information (Medical Records)	11	9.3
Physiotherapy	5	4.2
Orthopaedic	7	5.9
Bio-medical Engineering	7	5.9
Laboratory	13	11.0
Pharmacy	4	3.4
X-Ray (Medical Imaging)	6	5.1
Dental	3	2.5
Social Work	2	1.7
Occupational Therapy	1	.85
Nursing	27	22.9
Infection Control	3	2.5
Finance/Accounts	2	1.7
Procurement	4	3.4
NHIF	1	.85
Palliative (Cancer)	1	.85
Human Resource Management	1	.85
Clinical	7	5.9
Laundry	1	.85
Nutrition	1	.85
Catering	1	.85
Total Respondents	118	100

The results in Table 4.10 reveal that the majority of the respondents, 22.9% were from the nursing department. The finding implies that Level Five hospitals have more nurse employees most of whom are managers of departments, sections, or units. This result suggests the important role nurses play in clinical leadership and performance of devolved healthcare services. Further, given the managerial roles the majority of the nurses carry out, there may be a need for continuous leadership training and professional development programs to equip them with the skills necessary for effective management. Table 4.10 shows that 11.0% of the respondents were from the laboratory department. The respondents working in the laboratory provided important data regarding the management and disposal of hazardous substances or waste. The laboratory is usually known to

contribute a bigger percentage of solid and liquid effluent to the environment, especially wastewater pollutants that infect human health and the environment. This finding agrees with Bouzid et al. (2021) who noted that hospitals produce high rates of different wastewater pollution. Departments and sections with the lowest number of participants in the study representing 0.85% were occupational therapy, National Hospital Insurance Fund, Palliative (Cancer), Human Resource Management, Clinical, Laundry, Nutrition, and Catering. The findings imply that the sections had very few employees.

4.5 Findings for Diagnostic Tests

According to the principles outlined by Mugenda and Mugenda (2012), these tests ensure that the model accurately represents the data and can be generalized to the larger population it aims to reflect. The diagnostic procedures may include checking for normality, heteroscedasticity, homoscedasticity, and multi-collinearity. The test findings are presented in the following sub-sections.

4.5.1 Test of Sampling Adequacy

A Kaiser-Meyer-Olkin (KMO) measure, which ranges from 0 to 1, was used to determine if the sample was appropriate for data analysis (Field, 2018). The KMO statistic ranges from 0 to 1, where higher values indicate that the correlations between items are sufficiently strong for factor analysis to be effective (Kothari, 2014). Pallant (2011) explains that a KMO value of 0.6 is commonly considered the minimum acceptable level of sampling adequacy, with higher values indicating increasingly better sampling adequacy for conducting factor analysis. The findings are shown in Table 4.11.

Table 4.11: Findings for Kaiser-Meyer-Olkin (KMO) Test

Variables	KMO Tests Statistics	Recommendation
Green Employee resourcing	.882	Accepted
Green Training	.832	Accepted
Green Occupational safety and Health	.921	Accepted
Green Performance Evaluation	.908	Accepted
Management Style	.972	Accepted
Performance of devolved healthcare services	.892	Accepted

According to Table 4.11, all KMO test statistics exceeded the threshold value of 0.6. Gujarati (2012) explains that the Kaiser-Meyer-Olkin (KMO) statistic ranges from 0 to 1, with a value above 0.6 considered acceptable. Therefore, the sample used in the study was sufficient and indicative of the broader study population.

4.5.2 Normality Test Findings

A normality test is usually used to establish the normal distribution of sampled data to make accurate and reliable conclusions about the phenomenon. Normality is the assumption that the scores on a continuous variable are normally distributed about the mean, (Kothari et al., 2017). To test the normal distribution of the data set, analytical and graphical tests were necessary. Analytical tests used were the Kolmogorov- Smirnov Test and the Shapiro-Wilk Test.

When the p-values of one sample Shapiro-Wilk Statistic scores are significant with p-values > 0.05 at a confidence interval of 95%, the variables are said to be normally distributed (Field, 2018). The results of the analysed data are displayed in Table 4.12.

Table 4.12: Findings for Normality Test

Variable	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Green Employee resourcing	0.583	118	0.231	0.451	118	0.568
Green Training	0.253	118	0.173	0.672	118	0.358
Green Occupational safety and Health	0.285	118	0.572	0.368	118	0.643
Green Performance Evaluation	0.249	118	0.142	0.616	118	0.175
Management Style	0.346	118	0.715	0.776	118	0.775
Performance of devolved healthcare services	0.447	118	0.616	0.857	118	0.356

The null hypothesis that the data set is not normally distributed is rejected if the p-value is greater than 0.05. The results in Table 4.12 indicate the distribution of green human resource management practices and the performance of devolved healthcare services in Kenya. Specifically, Green Employee resourcing (p-value 0.568>0.05), Green Training (p-value 0.358>0.05), Green Occupational Safety and Health (p-value 0.643>0.05), Green Performance Evaluation (p-value 0.175>0.05), Management Style (p-value 0.775>0.05), and Performance of devolved healthcare services (p-value 0.356>0.05) showed no significant deviation from normal distribution as all p-values were higher than 0.05. From Table 4.12, the Kolmogorov-Smirnov Test was conducted, and the significance results: 0.231, 0.173, 0.572, 0.142, 0.715, and 0.616 were all greater than 0.05 displaying normal distribution. It was concluded that the study analysis established that the sample data adhered to a normal distribution.

The histogram was used as one of the graphical methods to determine if a normal distribution of data was assumed. The histogram test of normal distribution for dependent variable items was conducted as displayed in Figure 4.3. This finding is supported by Kaaria (2019) who found that Shapiro-Wilk results for all independent variables were normally distributed.

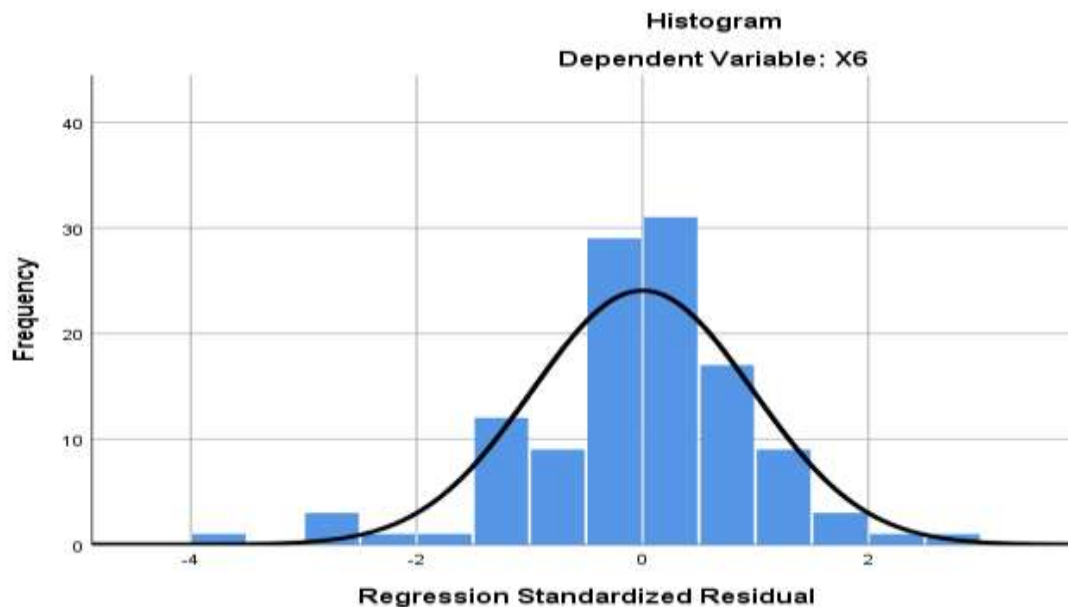


Figure 4.3: Histogram of Dependent Variable

Plotting the curve on histogram data, the result in Figure 4.3 showed the corresponding result of the normal distribution curve. This indicates that the data set for the dependent variable was normally distributed as more data is concentrated around the normal mean of zero. This finding aligns with Lindgren (2020) who found similar statistical characteristics suggesting that data reflected the properties of normality.

4.5.3 Heteroscedasticity Test Findings

Homoscedasticity refers to the assumption of constant residual variance, while heteroscedasticity is when the variance is not constant. According to Tabachnick, Fidell, and Ullman (2013), heteroscedasticity occurs when the variance of the error term is different among values of independent variables. For the best linear unbiased estimator, it is necessary to fulfil the assumption of homoscedasticity or non-heteroscedasticity. The results are presented in Table 4.13.

Table 4.13: Findings for Heteroscedasticity Test

	LM	Sig.	Conclusions
BP	3.998	0.779	Fail to reject H ₀

The findings as displayed in Table 4.13 indicate the absence of heteroscedasticity since the Levene test values were insignificant (p-value 0.779>0.05) therefore, the hypothesis was accepted and concluded that the variance of the dependent variable was homogeneous. This finding agrees with Gastwirth and Miao (2009) who emphasize that ensuring the homogeneity of variances is crucial for the validity of many statistical tests and models, as it affects the accuracy of the results and conclusions drawn from the data.

4.5.4 Multi-Collinearity Test Findings

Multi-Collinearity refers to the presence of high correlations between independent variables (Williams *et al.*, 2013). The presence of multi-collinearity makes it difficult to isolate the impact of each independent variable on the dependent variable. It can be detected if t-tests of each of the slopes are not significant (P> 0.05), but the overall F-test for testing of all the slopes is simultaneously 0 and is significant at (P< 0.05). Table 4.14 displays the results of the multi-collinearity test.

Table 4.14: Findings for Multi-Collinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
X1	.438	2.283
X2	.348	2.874
X3	.293	3.413
X4	.477	2.096

When the sample coefficient is far from the actual population parameter, it can cause small t-statistics and conclude that there is no linear relationship between the independent variables affected and the dependent variable (Cooper & Schindler, 2011). Additionally,

multi-collinearity can increase the standard errors of the β coefficients, making it difficult to assess the individual importance of a predictor.

The tolerance of the predictors in the regression model was determined as well as the variance inflator factor (VIF). The VIF higher than 5 indicates the presence of multi-Collinearity. Therefore, relying on the variance inflation factor (VIF) quantifies how much the variance is inflated and the variances of the estimated coefficients are considered inflated with the existence of multi-collinearity. From the study findings in Table 4.14, all the VIFs for the variables were below five and above 0.2 implying the absence of significant multi-collinearity (Williams *et al.*, 2013). This aligns with Field (2018) who posits that a variance inflation factor value above 10 indicates a significant presence of multicollinearity.

4.5.5 Findings for Autocorrelation

Autocorrelation occurs when regression errors are correlated across observations (Mugenda & Mugenda, 2013), which can lead to inefficiency in the least squares estimates and incorrect standard errors for the regression coefficients. This, in turn, affects the t-statistics and the overall statistical inference. The Durbin Watson statistic was used to test the absence or presence of autocorrelation as shown in Table 4.15.

Table 4.15: Autocorrelation Test Findings

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.802 ^a	.644	.631	.56473	1.328

As a rule of thumb, autocorrelation is not considered to be present when Durbin Watson statistic takes values between 0 and 4 (Mugenda & Mugenda, 2013). Values closer to 4 imply negative autocorrelation, while values closer to 0 indicate positive autocorrelation. When errors are seriously correlated, the Ordinary Least Squares (OLS) estimates become biased and therefore the use of t and f statistics becomes no longer valid. Autocorrelation may result in overestimated t values and that results in type 1 error. The study finding

showed the absence of autocorrelation since the Durbin-Watson value was 1.328 which is within the acceptable range.

4.5.6 Overall Correlation Analysis Findings for GHRM Practices and Performance of Devolved Healthcare Services

The correlation coefficient measures the degree and direction of relationship between two or more statistical variables (Mugenda & Mugenda, 2013). The correlation coefficient ranges between negative (-1) and positive (+1). A negative coefficient reveals a negative correlation, while a positive coefficient implies a positive one. If there is a high degree of correlation between two variables, then there is a close association between those two variables. The variables have no association if the correlation coefficient is 0.00 (Creswell, 2017). A Pearson's correlation two-tailed test was run on SPSS version 22.0 to determine the strength and direction of the relationship between green human resource management practices (independent variables), management style (moderating variable) and performance of devolved healthcare services (dependent variable) in Kenya. The overall correlation analysis matrix is presented in Table 4.15.

Table 4.15: Overall Correlation Analysis Matrix

		X ₁	X ₂	X ₃	X ₄	Z	Y
X ₁	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	118					
X ₂	Pearson Correlation	.666**	1				
	Sig. (2-tailed)	.000					
	N	118	118				
X ₃	Pearson Correlation	.694**	.790**	1			
	Sig. (2-tailed)	.000	.000				
	N	118	118	118			
X ₄	Pearson Correlation	.644**	.605**	.681**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	118	118	118	118		
Z	Pearson Correlation	.693**	.702**	.819**	.676**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	118	118	118	118	118	

		X₁	X₂	X₃	X₄	Z	Y
Y	Pearson Correlation	.733 ^{**}	.686 ^{**}	.731 ^{**}	.605 ^{**}	.724 ^{**}	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	118	118	118	118	118	118

X₁= Green Employee Sourcing, X₂= Green Training, X₃= Green Occupational safety and Health, X₄= Green Performance Evaluation, Z= Moderating variable management style, and Y= Performance of devolved healthcare services

4.6 Findings for Green Employee Resourcing and Performance

The first objective was to determine the effect of green employee resourcing on performance of devolved healthcare services in Kenya. The findings for green employee resourcing on the performance of devolved healthcare services are presented beginning with descriptive Statistical findings, Correlation Analysis Findings, Simple Linear Regression Findings, and finally analysis of variance findings (ANOVA).

4.6.1 Descriptive Statistical Findings for Green Employee Resourcing

Green employee resourcing is a process of attracting and selecting environmentally aware employees. It is an important practice of green HRM as it affects the extent the hospital can attract and select qualified employees who provide eco-friendly healthcare services. To achieve this objective, the respondents were requested to provide their honest opinion on the following employee resourcing statements based on a scale of: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The mean (M) and standard deviation (Sd) are also presented. The findings are presented in Table 4.16.

Table 4.16: Descriptive Statistical Findings for Green Employee Resourcing

GER Statements	1	2	3	4	5	M	Sd
This hospital adheres to the policy which guides public service employee resourcing activities	0%	1.7%	11.9%	46.6%	39.8%	4.25	0.73
Advertisement for job openings is mostly posted on hospital website with some element of greening.	0.9%	2.5%	13.6%	39.8%	43.2%	4.22	0.84
Applications are usually invited for interview through e-mail and online application forms to reduce paper usage and cost.	1.7%	3.4%	17.8%	32.5%	44.6%	4.15	0.95
This hospital practices online-video interviews which enhances performance.	11%	13.6%	11.9%	33.9%	29.7%	3.58	1.34
An environmental awareness criterion is included in employee selection procedure of the hospital.	0.8%	6.8%	17.8%	38.1%	36.4%	4.03	0.94
Employees who have contributed towards environmental management are usually selected to fill vacancies.	0.7%	5.2%	12.7%	34.7%	46.6%	4.21	0.91
Green employee resourcing has an effect on performance of this hospital	1.7%	3.4%	11%	45.8%	38.1%	4.15	0.87

The findings in Table 4.16 revealed that the Level Five Hospitals adhere to the policy which guides public service employee resourcing activities as the majority of the respondents 86.4% (M=4.25, Sd=0.73) agreed with the statement. This implies that County Public Service Board members and managers are properly oriented on public service policy on employment because it enables them to have the ability to project healthcare service green values and determine which job applicant has the needed qualifications to work and has environmental knowledge compatible with that of the healthcare service values. This finding is aligned with that of Priya and Kamlesh (2016)

who found that in materializing the established environmental policies and practices, companies should put in place an environmentally-oriented workforce. Of other respondents, 11.9% were undecided, while the remaining 1.7% disagreed. The respondents who were undecided or disagreed imply that they were not familiar with the policy of the Public Service Board regarding employee resourcing practice.

Regarding the opinions on whether hospitals advertised job openings on hospital websites with some element of greening, the majority of the respondents 83.8% ($M=4.22$, $Sd=0.84$) agreed with the statement. This finding implies that when Level Five Hospitals use their websites to advertise job vacancies, as it saves time and resources for staffing employees (recruiters) and in turn increases their job satisfaction for increased performance. Further, advertising jobs or vacancies online with green information attracts a wider pool of environmentally-conscious candidates who align with the hospital's green goals, while it also leads to reduced costs of printing paper. This practice protects and conserves the work environment for the sustained performance of employees. This finding concurs with that of Guerci *et al* (2016) who found that the amount and quality of green information provided on the website of an organization regarding green recruitment practices play a major role in attracting qualified job applicants. Of other respondents, 13.6% were undecided, while 3.4% disagreed with the statement. Respondents who disagreed or remained undecided were either unaware or had not properly interacted with the hospital website.

The majority of respondents 77.4% ($M=4.15$, $Sd=0.95$) agreed that job applications at the Level Five hospitals are invited through emails, and other online forms thus reducing paperwork. This finding implies that when prospective employees prepare their Job application documents and apply through online mediums to the recruiting department or prospective employer. Therefore, time and resources are saved, the cost of printing paper and travel is reduced and this boosts employee morale who apply for promotions through online mediums. The findings agree with Mishra (2017) who stated that the best HR practice in greening a company is the use of online applications to reduce paper usage and costs through computerized human resource information systems, and applicant tracking

systems that streamline hiring efforts. Of other respondents, 17.8% were undecided, and 5.1% disagreed with the statement either because their applications were not received through emails or they were unaware.

According to the study findings, the majority of the respondents 63.6% (M=3.58, Sd=1.34) agreed that hospitals improve their performance by conducting online video interviews. This finding suggests that conducting online video interviews saves time and resources, leading to more efficient hiring processes. This allows HR teams to focus more on selecting the best-fit candidates, potentially improving overall employee performance. This indicates that Level Five hospitals adopting eco-friendly and cost-saving processes particularly the use of technology in the employee resourcing process can reduce environmental pollution thus protecting the employee's health. Additionally, the adoption of digital technology in recruitment and selection reduces paperwork and other natural resources when advertising job vacancies on hospital websites, receiving online applications, interviewing candidates through webcams, checking references, releasing job offer letters, and drawing up contract of employment letters online. This study finding concurs with Ragas *et al* (2017) who asserted that the process of recruitment can assist firms in producing effective performance including performance related to the environment. Further, these results agreed with the findings of Mishra (2017) who suggested that green activities which comprise online recruiting and the use of online and video interviews were meant to reduce paper usage and minimize the travel requirements of job candidates. Of other respondents, 11.9% were undecided, and 24.6% disagreed implying a lack of knowledge and interaction with the current recruiting and selection methods.

Additionally, the majority of the respondents 74.5% (M=4.03, Sd=0.94) agreed that hospitals do include environmental awareness as a criterion in their employee selection process. This result implies that a new employee who has environmental management knowledge and commitment exhibits green behaviour that supports the sustainable use of resources for organizational performance. This finding is supported by Masri and Jaaron (2017) who alluded that a job applicant's overall suitability criteria for the job should be

based on the candidate's green qualifications. The finding, also, agrees with that of Tang *et al* (2018) who opine that GHRM can enhance the green skills of workers by recruiting individuals who have an awareness of environmental protection and motivation to engage in green initiatives and activities. Another, 17.8% were undecided, and 7.6% disagreed. This finding of a small segment of undecided and disagreed respondents implies that they were either unsure or sceptical about the statement, which could be addressed through targeted initiatives to increase awareness and engagement. This study's findings, however, contrast with a study conducted by Langat and Kwasira (2016) who found that recruitment of employees at Kenyatta University did not include green issues and, therefore, the employees had little involvement in environmental issues.

Further, the majority of the respondents, 81.3% ($M=4.21$, $Sd=0.91$), agreed with the statement that hospitals filled job vacancies in devolved healthcare by hiring employees who contributed to environmental management. This result implies that acquiring green employees will help organizations have more human resources that are the source of competitive advantage for better organizational performance as noted by resource-based theory. This is further supported by Mwita and Kinemo (2018) who opine that green employee resourcing is crucial in ensuring that firms have human resources with sufficient green knowledge and skills that cannot be imitated by rival firms. Other respondents, 12.7% were undecided, and 5.9% disagreed, with the statement. This finding of a small segment of undecided and disagreed respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

Finally, the majority of the respondents, 83.9% ($M=4.15$, $Sd=0.87$), agreed with the statement that green employee resourcing affects employee performance at the Level Five hospital. This finding reveals that attracting and hiring a qualified employee who is aware of the environmental culture of the hospital and placing that employee in the right job maintains environmental values and increases the employee's performance including performance related to the environment (Tareq & Rosima, 2015). These results align with a study by Huma *et al.* (2017) who found that green HRM practices had a positive influence on job

seekers' attraction and employer good reputation. Each employee's green performance usually leads to group green performance which is referred to as organization green performance (Arulrajah *et al.*, 2016). This result aligns with Mwita and Kinemo (2018) who found the existence of a positively linear relationship between green recruiting, selection, and performance of firms. This finding is in line with Sharifa and Mohammed (2019) whose study revealed that green hiring and green training and involvement had the most effect on sustainable performance. Further, this study result concurs with Okeyo and Ragui (2017) who noted that effective execution of green recruitment strategies and development can help companies improve their environmental reputation, reinforce their key abilities, and attain greater efficiency, resulting in long-term organizational sustainability. This implies that Level Five Hospitals should vigorously use green employee resourcing for enhanced performance. Other respondents, 11% were undecided, and 5.1% disagreed, with the statement. This category of employees who were undecided or disagreed implies that they were not aware of the phenomenon under study.

Respondents were also asked to suggest possible ways in which green employee resourcing practices can be improved in devolved healthcare services. A total of thirty-five (35) respondents made suggestions that were arranged in themes, analyzed, and presented in Table 4.17.

Table 4.17: Suggestions for Improvement of Green Employee Resourcing Practice

Responses	Frequency	Percentage
Make green awareness information mandatory in job advertisements, interviews, and selection not only for clinicians but also for administrative employees.	17	48.6
Level Five hospital should buy eco-friendly electronic equipment that save energy and expand intranet to reduce paper use in service provision.	12	34.3
Management to embrace online job applications and video interviews through zoom and webinar.	6	17.1
Total	35	100.0

The findings in Table 4.17 show that the majority of the respondents, 48.6% suggested the need to emphasize environmental awareness information in job advertisements, interviews, and selection not just for clinicians but also for administrative employees. This finding implies that all employees should be subjected to knowledge on green employee resourcing for effective performance of healthcare services. This finding concurs with Ragas et al. (2017) who asserted that the process of recruitment can assist firms in producing effective performance including performance related to the environment by ensuring that newly hired staff is aware of the environmental culture of the organization and he/she can maintain the environmental values followed by the organization. Other 34.3% reported the need to buy eco-friendly electronic equipment that saves energy and expand online service connectivity within the hospital to reduce paper use and improve the quality of service, while 17.1% suggested the provision of more awareness among staff and management to embrace online job applications and interviews through zoom and webinar. The results imply that devolved healthcare should fully embrace green employee resourcing because it is paperless, saves employee time, reduces the cost of travel, and minimizes interruption to those who work in the hospital thus enhancing performance.

The current study also used document analysis to record the number of green recruitments, the number of employees selected online and the number of employees promoted due to their green activities for the past six years. The findings showed that Level Five Hospitals usually advertise job openings on their websites and partly in print media. While there was no evidence of any employee being selected through online interviews or promoted because of championing green activities, devolved healthcare services in Kenya are practicing green employee resourcing by ensuring that hospitals reduce printing paper and associated costs involved in employee resourcing.

The study further interviewed three key respondents from each hospital regarding green employee resourcing. Respondents were asked to explain if the hospital during its recruitment process includes information about its environmental concerns, for example, the hospital is environmentally responsible. All 12 respondents said that their hospitals do

not include information about their environmental concerns in the advertisement for vacancies. This finding implies that the absence of environmental information in job advertisements could affect the hospitals' reputation and the hospitals may also miss opportunities to align with regulatory requirements or industry standards that emphasize sustainability and environmental reporting. The respondents, however, argued that because hospitals are known to generate a lot of healthcare waste (Bouzid et al., 2021; World Health Organization, 2017) to the environment, the management has put in place a healthcare management system that promotes the health of employees and communities.

Twelve respondents were required to confirm if the hospital management interviewed job candidates on questions connected with a safe and healthy environment. Respondents said that only candidates for clinical employment are asked questions related to a safe and healthy environment in a health facility. The results revealed that although the Level Five Hospitals do not include information about their environmental concerns in their recruitment programs; they believe that they have a responsibility to protect their staff and the environment through effective eco-friendly employee resourcing practices.

4.6.2 Correlation Analysis Findings for Green Employee Resourcing and Performance

The correlation coefficient measures the degree and direction of the relationship between two or more statistical variables (Kothari, 2019). The correlation coefficient ranges between negative (-1) and positive (+1). A negative coefficient reveals a negative correlation, while a positive coefficient implies a positive one. If there is a high degree of correlation between two variables, then there is a close association between those two variables. The variables have no association if the correlation coefficient is 0.00 (Creswell, 2017). Pearson's product-moment correlation (r) is the most popular correlation coefficient developed by Karl Pearson. This analysis requires that the variables be measured using at least an interval scale (Kothari, 2019). A Pearson's correlation two-tailed test was run on SPSS version 22.0 to determine the strength and direction of the relationship between green employee resourcing practices (independent variable) and the

performance of devolved healthcare services in Kenya (dependent variable). The findings are presented in Table 4.18.

Table 4.18: Correlation Findings for Green Employee Resourcing and Performance

		Performance	
Performance		1	
GER	Pearson Correlation	0.733**	1
	Sig. (2-tailed)	0.000	
	N	118	

** Correlation is significant at the 0.01 level (2-tailed).

From the findings in Table 4.18, green employee resourcing has a statistically significant positive and strong relationship with the performance of devolved healthcare services in Kenya ($r = 0.733$, $n = 118$, $p = 0.000 < 0.05$). The correlation coefficient of 0.733 connotes a strong positive relationship between green employee resourcing and the performance of devolved healthcare services. This means that as green employee resourcing increases, the performance of devolved healthcare services also tends to improve significantly. The findings are consistent with Catherine (2016) who emphasized that electronic-recruiting saves energy in mailing, filing, and general paperwork tasks. Further, the result implies that pollution associated with the process of making, delivering, and recycling paper products is also reduced when management embraces e-resourcing for workers. This study finding is in alignment with that of Mwita and Kinemo (2018) who found the existence of a positively linear relationship between green recruiting, selection, and performance of firms. Also, the findings agreed with that of Kuria and Mose (2019), who found a statistically significant positive relationship between green recruitment and the organizational effectiveness of universities. Further, Kiplangat *et al* (2022) found a significant positive relationship between recruitment, selection and sustainability of tea factories in Kenya.

In addition, Okeyo and Ragui (2017) noted that effective development and execution of green recruitment strategies can help companies improve their environmental reputation, reinforce their key abilities, and attain greater efficiency, resulting in long-term

organizational sustainability. The study findings are aligned with AMO theory since green recruitment will attract individuals who have the needed skills and abilities that motivate them to engage in green initiatives and activities.

4.6.3 Simple Linear Regression Analysis Findings for Green Employee Resourcing and Performance

According to a study by Omondi (2018), there is empirical evidence to support the use of regression analysis as a statistical tool in data analysis. The analysis focused on the dependent variable, and therefore, a simple linear regression model for green employee resourcing and performance took the following format:

$$Y = \beta_0 + \beta_1 X_1 + e$$

The statistical significance of the effect of the independent variable (green employee resourcing) on the dependent variable (performance of devolved healthcare services) was analyzed and presented in Table 4.19.

Table 4.19: Simple Linear Regression Findings for Green Employee Resourcing and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733 ^a	.538	.534	.63486

a. Predictors: (Constant), green employee resourcing

According to the results in Table 4.19, green employee resourcing accounts for 53.8% ($R^2 = .538$) of the variance in the performance of devolved healthcare services. The finding implies that green employee resourcing has a statistically significant effect on performance of devolved healthcare services. These findings align with those of Bhutto and Auranzeb (2016), Sriram and Suba (2018), and Javed and Cheema (2017), all of which identified a positive relationship between green recruitment, selection and organizational performance. However, the model does not include other green human resource management practices, explaining the remaining 46.2% variance.

Table 4.20: Regression Coefficients for Green Employee Resourcing and Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.134	.301		2.114	.004
	X ₁	.843	.086	.733	11.615	.000

a. Dependent Variable: Performance of Devolved Healthcare Services in Kenya

The regression coefficients, as shown in Table 4.20, revealed a positive statistically significant relationship between green employee resourcing and the performance of devolved healthcare services, as supported by a beta coefficient of $\beta = 0.843$ and a $p = 0.000 < 0.05$. Therefore;

$$Y = 0.134 + 0.843X_1 \dots\dots\dots (eq. 1)$$

The results imply that a unit increase in green employee resourcing (X₁), other factors held constant will increase the performance of devolved healthcare services in Kenya by 0.843 units. Further, in support of the findings, $t_{cal} = 11.615 > t_{critical} = 1.96$ at a 95 percent confidence level, the null hypothesis (H₀₁) was rejected, and the alternative hypothesis was accepted.

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. From the findings in Table 4.21, the study compared means using one-way ANOVA.

Table 4.21: One-Way ANOVA for Green Employee Resourcing

		Sum of Squares	Df	Mean Square	F	Sig.
X ₁	Between Groups	37.758	26	1.452	7.618	.000
	Within Groups	17.348	91	.191		

X₁ = Green Employee Resourcing

The findings displayed a significant difference in the means of different study variables; thus, green employee resourcing showed a statistically significant effect on the

performance of devolved healthcare services $F \{(26, 91) = 7.618, p = 0.000\}$. This means that GER practice significantly influenced the performance of devolved healthcare services in Kenya. The null hypothesis (H_{01}) was, therefore, rejected and the alternative hypothesis was accepted. Thus;

Thus; H₁: Green employee resourcing has a statistically significant effect on the performance of devolved healthcare services in Kenya.

4.7 Findings for Green Training and Performance

The second objective was to evaluate the effect of green training on the performance of devolved healthcare services in Kenya. The findings for green training on the performance of devolved healthcare services are presented beginning with descriptive Statistical findings, Correlation Analysis Findings, Simple Linear Regression Findings, and finally analysis of variance findings (ANOVA).

4.7.1 Descriptive Statistical Findings for Green Training

Green training is important to employees because it helps to impart continuous eco-friendly skills, knowledge, ability, and attitude that influence the performance of devolved healthcare services. Therefore, to achieve the second objective of the study, the respondents were requested to provide their honest opinion on the following green training statements on a scale of: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The results were analyzed and presented in Table 4.22 together with mean (M) and standard deviation (Sd).

Table 4.22: Descriptive Statistical Findings for Green Training

GT Statements	1	2	3	4	5	M	Sd
All Level Five Hospital staff training programs are based on green training needs assessment.	0.8%	1.7%	11%	52.5%	33.9%	4.17	0.72
Green training programs includes management of healthcare waste, safety and energy saving in offices.	0.9%	1.6%	7.8%	57.5%	32.2%	4.19	0.71
This Level Five Hospital embraces use of online and web-based training modules for improved healthcare services.	2.5%	1.5%	14.6%	52.5%	28.8%	4.03	0.87
Green Innovation (e.g. use of tele-medicine) is encouraged among clinicians in the hospital	1.5%	6.2%	13.7%	48.8%	30.8%	3.98	0.92
New employees are inducted using online-modules and given soft copies about hospital services.	1.7%	5.9%	10%	49.2%	33.2%	4.04	0.90
Managers of devolved healthcare services encourage electronic information-sharing about clean and safe work environment and performance standards	3.5%	8.7%	12.4%	44.9%	30.5%	3.97	0.99
Evaluating training is conducted in this hospital to determine if employees have acquired eco-friendly skills, knowledge or attitudes that enhance their performance.	0%	3.4%	9.3%	49.2%	38.1%	4.22	0.75
Green training in devolved healthcare services has a significant influence on healthcare performance.	0.8%	5.1%	9.3%	57.6%	27.1%	4.05	0.80

From the study findings in Table 4.22, majority of the respondents 86.4% (M=4.17, Sd=0.72) agreed with the statement that all Level Five hospital staff training programs are based on green training needs assessment. The high level of agreement (mean score of 4.17 and standard deviation of 0.72) indicates a strong consensus among the respondents

about the importance and implementation of green training in the hospital staff training programs. This finding implies that the targeted training programs, based on green training needs assessments, contribute to improved employee performance by equipping employees with the knowledge and skills required to implement sustainable practices in their day-to-day operations. The current study agrees with one conducted by Opatha and Nawaratne (2015) which concluded that some organizations mainly analyze and identify employee-environmental training needs by conducting environmental training needs analysis. Consistent with Opatha (2013), organizations essentially conduct intensive and systematic education, training, and development programs for their employees to enhance good organizational performance and environmental management. Further, the results revealed that 11.1% of the respondents were undecided, while 2.5% disagreed with the statement that all Level Five hospital staff training programs are based on green training needs assessment. This finding can imply that this small percentage of respondents were not aware of the existence of training needs assessment in the hospital.

On the statement that green training programs include management of healthcare waste, safety, and energy saving in offices, the majority of the respondents 89.7% ($M=4.19$, $Sd=0.71$) agreed to this statement. This finding indicates a very strong consensus among respondents that green training programs in Level Five hospitals encompass important areas such as healthcare waste management, safety, and energy saving in offices. This high level of agreement implies that the hospitals are effectively communicating and implementing these green initiatives. The mean ($M=4.19$) indicates that, on average, respondents rated their agreement very high, standard deviation ($Sd=0.71$) shows that there is relatively low variability in responses, indicating a consistent agreement among respondents. This result is consistent with that of Daily *et al.*, (2012) who found that organizations can achieve their objective of greening if they adopt customized green training program that includes management of waste and recycling, enhancement of environmental knowledge about future environmental risks, safety, and energy saving in offices. The result is further supported by that of Prasad (2013) who recommended that

green training content should be designed in a way that will increase employee competencies and knowledge on matters of environmental management.

This finding is supported by resource-based theory because, through green training, employees gain unique skills in the provision of their healthcare services. Other respondents 7.6% were undecided, while the remaining 0.92.5% disagreed with the statement. This finding of a small segment of undecided and disagreed respondents implies that they were either unsure or sceptical about the statement.

On rating the statement that Level Five hospital embraces the use of online and web-based training modules for improved healthcare services, the majority of the respondents, 81.3% (M=4.03, Sd=0.87) agreed with the statement. This finding implies that Level Five hospitals are making significant efforts to incorporate online and web-based training modules into their training programs, which have positive implications for the quality and efficiency of healthcare services provided. The mean (M=4.03) indicates that respondents rated their agreement quite high, standard deviation (Sd=0.87) shows some relatively moderate variability in responses, indicating a consistent agreement among respondents. Further, the results imply that the green training programs are leveraging digital platforms to improve healthcare services which in turn leads to client satisfaction. This result also reflects management's commitment to green training methods and making them more accessible and efficient for employees. This study's finding concurs with Prasad (2013) who concluded that organizations should develop and encourage the use of online and web-based training modules and interactive media as training tools for environment management. Of other respondents, 14.6% were undecided, while the remaining 4.1% disagreed with the statement. This finding of a small segment of respondents implies that they either lacked clarity or were sceptical about the adoption of online and web-based training in Level Five hospitals.

On the statement that green Innovation (for example, the use of telemedicine) is encouraged among clinicians in the hospital, the majority of the respondents 79.6% (M=3.98, Sd=0.92) agreed that the hospital encourages green innovation including the use

of telemedicine among clinicians. Telemedicine and mobile applications allow patients to access healthcare services remotely, overcoming geographical barriers. This finding suggests that Level Five hospitals are making significant efforts to encourage green innovation among their clinicians, which has positive implications for both the performance of healthcare service delivery and environmental sustainability. The mean ($M=3.98$) indicates that, on average, respondents rated their agreement quite high, and the standard deviation ($Sd=0.92$) shows that there is some relatively moderate variability in responses, displaying a consistent agreement among respondents. Consequently, this finding implies that the hospitals are not only focused on traditional healthcare practices but are also integrating innovative and sustainable technologies like telemedicine.

Telemedicine and mobile applications allow patients to access healthcare services remotely, thereby overcoming geographical barriers. This reflects a commitment to modernizing healthcare delivery and thus increased performance, while also considering environmental effects. This finding agrees with that of Kruse *et al.* (2017) who found that telehealth provided satisfaction to patients in many ways: improved outcomes, preferred modality, ease of use, low cost, improved communication, and reduced travel time. Of other respondents, 12.7% were undecided, while 7.6% disagreed with the statement. This finding of a small segment of undecided and disagreed respondents suggests that there may be a lack of awareness or understanding regarding the adoption of green innovation. This highlights the need for improved communication about the benefits of green innovation.

On rating the statement that new employees are inducted using online modules and given soft copies of hospital services, the majority of the respondents, 82.4% ($M=4.04$, $Sd=0.9$) agreed with the statement. This finding indicates that Level Five hospitals are making significant efforts to incorporate online modules and digital resources into their induction programs, which is likely to have positive implications for the efficiency and effectiveness of the employee onboarding process. The mean ($M=4.04$) implies that, on average, respondents rated their agreement quite high, while the standard deviation ($Sd=0.9$) indicates that there is some relatively moderate variability in responses, implying a

consistent agreement among respondents. A further implication of the finding is that the Provision of online modules and soft copies implies that the induction programs are leveraging digital platforms to provide new employees with necessary information about hospital services and environmental responsibility. This approach, suggests a significant reduction in the cost of printing paper and improved access to HR services by employees through their staff portal. This finding is aligned with Hosain (2016) who suggests that training managers should prioritize online course materials and case studies over printed handouts, books, and brochures to minimize paper usage. This shift provides an excellent opportunity for e-learning platforms to play a significant role in training and development programs. Further, this study concurs with Rawashdeh (2018), who posits that green induction training should be designed in a way that provides new employees with information regarding the Environmental Management System, sustainable development strategies and commitments, and green goals of the organization. Of the remaining respondents, 10% were undecided and 7.6% disagreed with the statement. This finding of a small segment of (undecided and disagreed respondents) imply that they are either unsure or sceptical about the statement, which could be addressed through targeted initiatives to increase awareness.

The study sought to find out if the Managers of devolved healthcare services encourage electronic information-sharing about clean and safe work environment and performance standards, majority 74.9% ($M=3.97$, $Sd=0.99$) agreed with this statement. The implication of this high level of agreement suggests that the managers are effectively encouraging the use of digital platforms to share important health information and performance standards in addition to maintaining a clean and safe work environment. The mean ($M=3.97$) indicates that, on average, respondents rated their agreement quite high, while the standard deviation ($Sd=0.99$) shows a consistent agreement among respondents. This finding is consistent with Rawashdeh (2018), who stated that green induction training should be designed and provided through technology such as webcams to provide new employees with information about Environmental Management and sustainability. Other respondents 12.4% were undecided, while 12.2% disagreed with the statement. The result of undecided

responses implies a lack of clarity about electronic information-sharing practices, while the result of disagreed responses implies skepticism about the effectiveness of electronic information-sharing.

Finally, the majority of the respondents 87.3% (M=4.22, Sd=0.75) agreed that evaluating training is conducted in Level Five Hospital to determine if employees have acquired eco-friendly skills, knowledge, or attitudes that enhance their performance. This finding suggests that Level Five hospitals are making significant efforts to evaluate their training programs to ensure that employees are equipped with eco-friendly skills and knowledge, which have positive implications for their performance and the hospital's sustainability goals. Additionally, evaluating employee training, implies that the hospitals are committed and focused on continuous improvement and environmental responsibility. This finding aligns with that of Pineda-Herrero *et al.*, (2011) who found that trainees improved their professional performance through the transfer of what they had learned to service delivery. Of other respondents, 9.3% were undecided, while the rest of the respondents 3.4% disagreed with the statement. This finding of a small segment of undecided and disagreed respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

The majority of the respondents 84.7% (M=4.05, Sd=0.80) agreed with the statements regarding green training programs and performance of devolved healthcare services. This implies that the training programs focused on eco-friendly practices are not only enhancing environmental sustainability but also improving the employee morale and overall performance of healthcare services, leading to higher patient satisfaction scores. Investing in green training can lead to long-term benefits, such as cost savings from reduced energy consumption and reduced waste, improved health outcomes from a cleaner environment, and compliance with regulatory requirements. This result suggests that employees who are continuously trained, develop the right knowledge and proactive attitude towards environmental issues while discharging their healthcare services. This study agrees with Rawashdeh (2018) who alluded that scholars believe that green human

resource management practice is a very effective tool for developing capable green human capital for sustainable performance and competitive advantage. Further, this study finding fills the gap recommended by Langat and Kwasira (2016) that there is a need for vigorous green training through workshops and seminars of the employees to build and nurture green behaviour among employees. Other respondents representing, 9.4% were undecided, and the rest 5.9% disagreed with the statement. This finding of a small segment of undecided respondents suggests that there is some uncertainty about the influence of green training on performance, while those who disagreed indicate a minority who were sceptical about the influence of green training on performance. This could be addressed through targeted initiatives to increase awareness.

In addition to the above, respondents were asked to suggest possible ways in which green training practices can be improved in devolved healthcare services. In answering this question, the 38 responses were arranged in themes, analyzed using Content analysis, and displayed in frequencies and percentages in Table 4.23.

Table 4.23: Suggestions for Improvement of Green Training Practice

Responses	Frequency	Percentage
The Level Five hospital should develop strong policy on green initiatives and fully embrace e-learning and digital training in continuous medical education	35	54.7
Level Five hospitals should involve staff and train talent for championing environmental issues and reward that talent	21	32.8
Employees without information technology skills should be trained and the hospital should improve information technology infrastructure.	8	12.5
Total	64	100.0

The results presented in Table 4.23, the majority of the respondents representing 54.7% suggested that Level Five Hospitals should develop strong policies on green initiatives and fully embrace e-learning modules and digital training in continuous medical education. This result implies that digital learning offers significant cost and time savings for employees who would otherwise commute to work. This not only reduces indoor air

pollution but also helps prevent the spread of diseases like COVID-19. This finding agrees with Langat and Kwasira (2016) who recommended that there is a need for vigorous green training through workshops and seminars for the employees to build and nurture green behaviour among employees. Other respondents, 32.8% suggested that Level Five Hospitals should involve staff in green initiatives and train talent for championing environmental protection, and such talent should be rewarded. Another 12.5% suggested that employees without information technology skills should be trained and where possible the Level Five Hospitals should improve information technology infrastructure. This implies that induction of new employees and continuous medical education should be conducted through paperless methods, such as PowerPoint presentations, teleconferencing, zoom/webinars, and materials for this training distributed to the new employees through hospital website portals. Management meetings should be conducted online to prevent inconveniences emanating from environmental anxieties.

Document analysis was conducted by checking and recording the number of green training needs assessments conducted during the period under study. Most hospitals did not provide evidence or file on green training needs assessment, but they practiced green training as a mandatory requirement in every week while others conducted it every month under a program called Continuous Medical Education (CME). The training committee and Infection Control Committee/ occupational safety, health, and environment committee should ensure that employees are trained on different eco-waste management methods for controlling infection by following safe and protective work practices, such as proper use of personal protective equipment, healthcare waste segregation by using color-coded bins and waste disposal methods that are environment friendly.

In checking and recording the types of training programs provided, this study found that all hospitals provided green induction programs. The study's finding indicates a strong commitment to environmental sustainability across these healthcare facilities. Green induction training ensures that new employees are educated about the organization's environmental policies and practices from the outset. This foundational training helps to instil a culture of environmental responsibility and awareness among staff, which can lead

to more consistent and effective implementation of green practices throughout the organization. By prioritizing green induction, these hospitals are taking proactive steps to promote sustainability and enhance their overall environmental performance. The finding is consistent with Yong et al (2019) who argue that green induction reorients new employees on the organization's mission, environmental management policies and practices, and green values. On-the-job instruction training included energy-saving methods (such as putting off lights when not in use, switching off computers and certain machines when not in use), and better methods of utilizing water. Soft copies of training modules are also provided on the hospital website for reference and detailed information.

Three key respondents from each of the four Level Five Hospitals were interviewed on certain issues related to green training and they gave the following information. All the respondents were asked to explain the extent to which their hospitals encouraged e-training and e-learning and all of them stated that a large number of employees are connected to the hospital intranet and are enrolled on e-learning platforms to access e-learning materials and modules. Employees also attend and participate in online training through webcam or zoom as part of their continuous medical education. The respondents were asked to explain if the hospital provides an online (paperless) induction program with the inclusion of information regarding the environmental culture of the hospital. All the 12 respondents explained that green induction is provided to new employees using a digital platform and soft copies of HR policies and practices are issued to them. The new employee is also advised to enrol in the hospital's online staff portal to access HR services online. The employee is further inducted into the green culture of the hospital and how to offer hospital services through digital platforms.

In answering the question of how paperless induction affects employee performance, the nine respondents said that employees were able to access human resource management services online quickly and efficiently. Further, this saves time and it enables employees to concentrate on meeting their performance targets of serving hospital clients instead of moving from office to office seeking such services. Secondly, employees were able to serve more clients as they used digital platforms to retrieve client's health information and

clients were restricted to using online payment methods. The other three respondents were undecided or sceptical about how online induction affected employee performance.

4.7.2 Correlation Analysis Finding for Green Training and Performance

Correlation analysis was conducted to determine the strength and direction of the relationship between green training and the performance of devolved healthcare services. From the findings in Table 4.23, the correlation analysis results revealed a strong and positive relationship between green training and the performance of devolved healthcare services in Kenya. The correlation was statistically significant positive and strong ($r = 0.686$, $n = 118$, $p = 0.000 < 0.05$). This means that as green training initiatives increase, so do the levels of performance of devolved healthcare services. This strong correlation provides evidence for policymakers to advocate and invest in green training programs within the Level Five Hospitals. These green training initiatives could include sustainable practices, energy-efficient procedures, and waste reduction strategies. The statistical significance ($p = 0.000$, which is less than 0.05) confirms that this correlation is not due to random chance. This finding suggests that the development and integration of green training in medical and healthcare education could be emphasized, ensuring that future healthcare professionals are well-equipped with sustainable practices.

Table 4.24: Correlation for Green Training and Performance

Performance		Performance1	
GT	Pearson Correlation	0.686**	1
	Sig. (2-tailed)	0.000	
	N	118	

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation results aligned with that of Adriana *et al.* (2021) who found that green training had a statistically significant positive relationship with employee green behaviour in an organization. The study findings also agreed with the findings of Kuria and Mose (2019), who found that green training was significantly and positively related to the organizational effectiveness of universities in Kenya. According to Mwita (2019), the use

of eco-friendly methods and techniques in green training and development can impact employees with the necessary skills and knowledge on how to minimize pollution and protect the environment at places of work. Therefore, providing green training to employees is a way to enhance the human capital of an organization, which is a valuable and rare resource that cannot easily be imitated (Haldorai *et al.*, 2022).

4.7.3 Simple Linear Regression Analysis Findings for Green Training and Performance

A regression analysis was undertaken to evaluate the effect of green training on the performance of devolved healthcare services in Kenya. According to a study by Omondi (2018), there is empirical evidence to support the use of regression analysis as a statistical tool in data analysis. The analysis focused on the dependent variable, and therefore, a simple linear regression model for green training and performance of devolved healthcare services took the following format:

$$Y = \beta_0 + \beta_2 X_2 + e$$

The statistical significance of the effect of green training (independent variable) on the performance of devolved healthcare services (dependent variable) was analyzed and presented in Table 4.25.

Table 4.25: Simple Linear Regression Findings for Green Training and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.686 ^a	.471	.466	.67932

a. Predictors: (Constant), Green Training

From the findings in Table 4.25, green training had an R squared of 0.471 which implies that 47.1% variations in the performance of devolved healthcare services are explained by green training. This finding implies that green training has a statistically significant effect on the performance of devolved healthcare services. This result is consistent with previous research by Bhutto and Auranzeb (2016), who found that green training and development

significantly influenced organizational performance. The remaining 52.9% variations in the performance of devolved healthcare services could be explained by other green human resource management practices that were not included in the model. Additionally, trained healthcare professionals may experience increased job satisfaction and morale to contribute to the performance of devolved healthcare services and environmental sustainability. The adoption of green training could lead to a healthier environment, indirectly contributing to better public health outcomes by reducing pollution and promoting sustainable practices.

Table 4.26: Regression Coefficients for Green Training and Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.816	.261		3.125	.002
	X ₂	.788	.078	.686	10.156	.000

a. Dependent Variable: performance of devolved healthcare services in Kenya

From the regression coefficients shown in Table 4.26, the findings revealed that there was a positive statistically significant relationship between green training and performance of devolved healthcare services as supported by a beta coefficient of $\beta = 0.788$ and a $p = 0.000 < 0.05$. Thus;

$$Y = 0.816 + 0.788X_2 \dots\dots\dots (eq. 2)$$

The results imply that a unit increase in green training, while other factors are held constant will increase the performance of devolved healthcare services in Kenya by 0.788 units. Further in support of the findings, $t_{cal} = 10.156 > t_{critical} = 1.96$ at a 95 percent confidence level, the null hypothesis (H_0) was rejected, and the alternative hypothesis was accepted. The results, however, are not aligned with those of Owino and Kwasira (2016) who found that employee green training and development programs indicated little effect on the sustainability of the environment. The results further agreed with that of Mandago (2019) who found that training and development practices had a significant

positive influence on the environmental sustainability of service-based state corporations in Kenya.

Analysis of Variance (ANOVA) was conducted to test the study hypothesis and thus establish whether the model was a significant fit for the data. From findings in Table 4.26, the study compared means using one-way ANOVA and found significant differences in the means of different study variables; hence green training revealed a significant effect on the performance of devolved healthcare services $F \{(26, 91) = 7.650, p = 0.000\}$.

This implies that GT practice significantly affected the performance of devolved healthcare services in Kenya. The null hypothesis (H_{02}) was, therefore, rejected and the alternative hypothesis was accepted. Thus;

H₂: Green training has a statistically significant positive effect on the performance of devolved healthcare services in Kenya.

Table 4.27: One-Way ANOVA for Green Training

		Sum of Squares	Df	Mean Square	F	Sig.
X ₂	Between Groups	52.531	26	2.020	7.650	.000
	Within Groups	24.035	91	.264		

X₂ = Green Training

4.8 Findings for Green Occupational Safety, Health, and Performance

The third objective of the study was to examine the effect of green occupational safety and health on the performance of devolved healthcare services in Kenya. The findings for green occupational safety and health (GOSH) on the performance of devolved healthcare services are presented in this section starting with descriptive Statistical findings, Correlation Analysis Findings, Simple Linear Regression Findings, and finally analysis of variance findings (ANOVA).

4.8.1 Descriptive Statistical Findings for Green Occupational Safety and Health

Green occupational safety and health in devolved healthcare services is an important component of traditional HRM practices. It affects the level at which the hospital can provide employee safety and health to improve performance while being sensitive to the environment. The respondents were requested to provide their honest opinion on the following GOSH statements based on the scale of: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The results were analyzed and presented in the form of percentages in Table 4.27. The mean (M) was reported as a measure of central tendency and standard deviation (Sd) was reported as a measure of variability from the average or mean (dispersion).

Table 4.28: Descriptive Statistical Findings for Green Occupational Safety and Health

GOSH Statements	1	2	3	4	5	M	Sd
Green occupational safety and health management system reduce accidents and injuries and boost hospital performance.	1.8%	1.5%	10.2%	54.2%	32.2%	4.14	0.77
Paperless offices are encouraged in the hospital to create a clean and safe work environment.	1.2%	3.5%	11.7%	45.4%	38.2%	4.18	0.81
Eco-friendly disposal methods such as waste minimization, segregation, and recycling are encouraged among healthcare employees.	0%	3.4%	15.3%	36.4%	44.9%	4.23	0.83
The employees are provided with eco-friendly safety gadgets (e.g., gloves) to enhance performance.	0%	1.8%	9.2%	48.3%	40.7%	4.28	0.70
Green occupational safety and health audits are conducted to ensure safe work environment.	0.6%	1.7%	12.7%	42.6%	42.4%	4.26	0.74
Hospital buildings are spacious with ventilation and natural lighting to save energy and reduce infection.	0%	1.8%	12.5%	43.5%	42.2%	4.19	0.71
Green Occupational safety and health greatly affect the performance of devolved healthcare services.	0.8%	1.6%	14.3%	51.4%	31.9%	4.12	0.74

From Table 4.28 findings, the majority of the respondents 86.4% with a mean (M) of 4.14, and a standard deviation (Sd) of 0.77 agreed that green occupational safety and health management systems reduce accidents and injuries and boost hospital performance. This result of strong agreement indicates that implementing GOSH practices can significantly

reduce workplace accidents and injuries, enhancing overall safety in healthcare facilities. Further, this finding implies that with fewer accidents and injuries, hospitals can operate more efficiently, leading to better performance and potentially higher patient satisfaction. This study finding is consistent with a study conducted by Chaudhary (2020) which revealed that green occupational safety and health significantly influence employee behaviour and hence may reduce accidents and injuries and boost organizational performance. Respondents representing 3.3% disagreed with this statement, while 10.3 % remained undecided. The employees who disagreed or remained undecided with the statement show that they were either unaware of the OSH management system or had not interacted with it.

The majority of the respondents, 83.6% with a mean of 4.18 and Sd of 0.81 agreed that Level Five Hospitals encourage paperless offices to create a clean and safe work environment. A paperless office promotes efficient use of resources such as minimizing paper use and creates a more organized and efficient workspace. This finding implies that paperless offices reduce the cost of printing paper and free up funds for purchase of better medical equipment which have positive implications on patient care and financial performance. Additionally, through paperless offices, patients are encouraged to pay for services through M-pesa and electronic money transfer (visa card) which minimizes fraud, leads to an increase in revenue collection, and reduces operational costs. Further, digital records are easier to secure and backup than physical documents. Adopting paperless initiatives demonstrates a commitment to innovation and modernization. This finding concurs with that of Ahmad (2015) who opined that e-business and e-learning have converted ordinary offices into paperless offices which reduces the consumption of paper and minimizes the cost of paper-related activities. Those respondents who disagreed and remained undecided about this statement were 4.7% and 11.7% respectively. This finding of a small segment of undecided and disagreed respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

The data shows that a significant majority, 81.3% (M= 4.23, Sd = 0.83) agreed with the statement that healthcare employees are encouraged to adopt eco-friendly disposal methods such as waste minimization, segregation, and recycling. This finding suggests that proper waste management practices can enhance the operational efficiency of devolved healthcare services. The result indicates that the healthcare employees are well informed about healthcare waste disposal methods as contained in Kenya's OSH Act (2007). Safe and eco-friendly waste disposal methods protect public health by reducing exposure to hazardous materials and ensuring a safer environment for both employees and patients. Eco-friendly disposal methods can lead to significant cost savings. By minimizing waste, segregating materials properly, and recycling, healthcare facilities can reduce their waste management expenses. Respondents representing 15.3% remained undecided, and the remaining 3.4% of respondents disagreed with the statement suggesting their lack of awareness regarding the statement.

A significant majority of the respondents representing 89% with M of 4.28 and Sd of 0.70 agreed with the statement that employees are provided with eco-friendly safety gadgets (e.g., gloves) to enhance performance. This strong agreement among respondents indicates that using eco-friendly safety gadgets ensures that employees are protected while discharging their duties thereby reducing workplace injuries and illnesses. This result agrees with that of Subhani (2010) who alluded that occupational safety and health management systems may reduce accidents and injuries and boost organizational performance. The provision of eco-friendly safety gadgets indicates compliance with regulatory and sector standards and also demonstrates the hospitals' commitment to the well-being of employees and the environment. Additionally, providing eco-friendly safety gadgets can improve employee morale and satisfaction, as workers feel their health and environmental concerns are being addressed. Respondents representing 9.2% were undecided, while the remaining 1.8% disagreed with the statement. This small segment of respondents who remained undecided or disagreed may imply that they were sceptical about the statement.

The respondents were further asked to rate the statement that green occupational safety and health audits are conducted to ensure a safe work environment. A significant majority (85%) of respondents agreed with the statement. A Mean of 4.26 on 5-point and Sd of 0.74 indicate a strong agreement among respondents regarding the importance and effectiveness of green audits in promoting a safe workplace. The results revealed that conducting GOSH audits help to maintain high workplace safety standards and ensures that potential hazards are identified and mitigated. This may enhance employee well-being, increase commitment to safety practices, protect the environment and enhance employee performance. By identifying and addressing safety and health issues promptly, these audits can help to improve operational efficiency and, therefore, help prevent accidents and injuries. Additionally, the result indicates that regular audits help hospitals to comply with sector regulations and standards. This finding is consistent with a study by Carson *et al.* (2020) which found that environmental audit is a regulatory requirement for compliance. Those who remained undecided were 12.7%, while those who disagreed with the statement were 2.3%. This finding of a small segment of undecided and disagreed respondents implies that they are either unsure or sceptical about the statement.

The findings revealed that spacious hospital buildings with ventilation and natural lighting save energy and reduce infection as supported by respondents, 85.7% with M of 4.19 and Sd of 0.71. This result shows that a large majority agreed with this statement. This finding suggests that adequate ventilation is important as it reduces the concentration of airborne pathogens and has antibacterial effects, thus contributing to a safer environment for both employees and patients. The implication of this finding is that use of spacious buildings will conserve energy and enhance employee well-being and safety which boost employee morale and productivity. This means that a well-ventilated and naturally lit workspace improves employee mood, reduces fatigue, and increases productivity. This finding agrees with that of Wargoeki *et al.* (2000) who stated that green buildings with good indoor air quality improve the health and well-being of an employee which in turn enhances productivity. Employees representing 12.5% were undecided, while 1.8% disagreed with the statement. The employees who were undecided or disagreed imply that they were either ignorant or

unaware of the meaning of green buildings and how they can boost health and safety of employees and patients.

Finally, regarding the findings on the effect of occupational safety and health on the performance of devolved healthcare services, 81.3% of respondents ($M = 4.12$ and $Sd = 0.74$) agreed with the statement. This finding of the study implies that integrating GOSH practices are important for improving the performance of devolved healthcare services. This means that implementation of GOSH management practices prevent accidents and incidents that disrupt healthcare operations leading to enhanced employee satisfaction, retention, and increased productivity. The findings of this study are consistent with that of Hameed *et al.* (2020) who concluded that green safety and health are very important in promoting the safety and health of employees while at the same time providing a green environment that has less stress and reduced harmful effects. Further, Shah (2019) explained that a lot of effort is required to reduce occupational stress and sickness and initiate activities that protect the environment and livelihoods of communities. Of other respondents, 14.3% were undecided, while 2.4% disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement regarding the effect of GOSH on performance.

The respondents were further asked to suggest possible ways in which green occupational safety and health practices can be improved to enhance the performance of devolved healthcare services. Forty-three responses were received, arranged in themes, analyzed using Content analysis, and presented in frequencies and percentages as shown in Table 4.29.

Table 4.29: Suggestions for Improvement of Green Occupational Safety and Health Practice

Responses	F	%
Devolved healthcare services should continue to embrace paperless offices	23	53.5
There is a need to design office and consultation spaces in accordance with eco-friendly building regulations to enhance employee's safety and health	13	30.2
There is a need for Hospitals to supply adequate personal protective equipment (PPEs)	7	16.3
Total	43	100.0

The findings in Table 4.29, show majority 53.5% indicated that devolved healthcare services should continue to embrace paperless offices to reduce paper use and minimize the cost of printing paper. The finding suggests that GHRM practices can lead to cost savings through resource optimization, reduced energy consumption, and eco-friendly procurement. These measures enhance operational efficiency while maintaining high-quality patient care. Use of digital technology, employees use less time in locating reports and other associated information that are in paper form which leads to reduced pollution of the environment with waste paper. The finding is in agreement with that of Ahmad (2015) who found that e-business and e-learning had converted ordinary offices into paperless offices which reduces the consumption of paper and minimizes the cost of paper-related activities.

Other respondents 30.2% suggested that hospitals should design office and consultation spaces in accordance with eco-friendly building regulations to reduce overcrowding that causes risk of injury to the health of the employees. This suggests that spacious offices usually reduce overcrowding, promote fresh air circulation, and minimize infection which means that employees should be in good health to provide continuous healthcare services. It also indicates that providing spacious, well-designed work areas may significantly enhance the well-being and productivity of healthcare employees. Further, properly designed consultation spaces can also improve patient care, while reduced overcrowding leads to better patient flow and experience, and less stress among employees leading to

higher job satisfaction. Finally, respondents representing 16.3% suggested the need for hospitals to supply adequate personal protective equipment. Employees who are provided with adequate protective gear feel safe and committed to discharge their healthcare services on regular basis.

The study sought to check and record the types of safety measures implemented in the period between 2014 and 2019. The study found that Level Five Hospitals provided protective personal equipment, such as gloves, dust coats, and environmentally friendly shoes. The provision of personal protective gear to employees minimizes infection and spread of disease while ensuring employee safety and health. Further, it was found that Emergency safety and warning signs were displayed at entry or exit points to guide employees to safety; fire extinguishers were installed at strategic points with clearly designated fire assembly points. These signs play an important role in guiding employees during emergencies, swiftly directing employees to exits, fire-fighting equipment, and assembly points for safe evacuation and maintaining a safe environment. This finding is aligned with a study conducted by Jelimo (2018) who alluded that some green practices of occupational health and safety for example fire prevention and employee protective gear had a positive significant relationship with the productivity of employees. The provision of standard operating procedures (SOPS) was evident in all work areas to aid work processes that are safe and eco-friendly. The study also sought to check and record the number of available Annual Environmental Audit reports for the past six years (2014-2019). An environmental audit is a regulatory requirement for compliance (Carson et al., 2020) that shows managers the ways to improve environmental sustainability and indicates which work processes positively influence performance and which work-related risks need to be addressed.

Recent studies also indicate that environmental auditing can serve as a catalyst for eco-innovation business practices and enhance competitive advantage in a dynamic marketplace (Carson et al., 2020). The past study conducted by Rani and Mishra (2014) supports this study because green HR efforts over time should focus on increasing competency within processes, and reducing and eliminating environmental degradation.

It was found that most devolved healthcare services had not conducted any annual environmental audit for the period under study, but they have health environmental policy statements committing the hospital employees towards continuous environmental protection and conservation as they discharge their healthcare services.

The study also checked and recorded types of eco-friendly healthcare waste disposal methods for the period 2014-2019. From the records availed by the hospitals' public health officers, it was noted that the devolved healthcare services have trained their employees to use waste segregation bins to separate different types of waste to maintain a safe and clean work environment. When healthcare waste is properly managed, the work environment is free from pollution and this boosts employee morale to work. This finding is supported by a study by Mwita (2019), that the use of eco-friendly methods and techniques in training and development can impact employees with the necessary skills and knowledge on how to minimize pollution and protect the environment at places of work. Incineration method is used to destroy biological waste and cemetery for disposal of unclaimed bodies; waste food is given to pig farmers; garbage is deposited at the dumpsite; wastewater is released to sewer ponds for treatment and reuse; plastic chairs and empty cans are sold for re-use or recycling; and in some cases, a burning method is used for cloth- and paper-related waste. This result concurs with Pillai and Sivathanu (2014) who alluded that green initiatives such as recycling campaigns, paper drives, and educational programs can be driven by HR personnel because they can contribute to a cleaner environment and save time and money. It was further noted that whenever these methods are used, environmental protection and conservation are taken into consideration. In recording types of disciplinary actions imposed on employees for non-compliance to GOSH activities for the past six years (2014-2019), the study found that any disciplinary matter related to non-compliance to GOSH was handled under the general disciplinary procedure of the hospitals. The study interviewed managers and the findings are indicated in the section that follows. Respondents were requested to explain how GOSH affects the performance of devolved healthcare services.

From the study findings, all twelve managers indicated that a clean and safe workplace should be provided to both employees and customers. The provision of a clean and safe workplace enhances the protection of employees against risks arising out of or connected with their activities and this makes them perform well. The findings are aligned with that of the World Health Organization (2012) which found that protection and promotion of workers' health by preventing and controlling occupational diseases and accidents; development and promotion of healthy and safe work, work environments, and work organizations enable workers to conduct socially and economically productive lives and hence contribute positively to sustainable development. This result is further supported by Hameed *et al.* (2020) who opined that green safety and health are very important in promoting the safety and health of employees while at the same time providing a green environment that has less stress and reduced harmful effects.

The managers were asked to explain if the hospitals had a committee that specifically deals with the daily health issues of employees and their safety at work. All the 12 managers indicated that each Level Five Hospital has an established Infection Prevention and Control Committee that deals with daily safety, health, and welfare issues that affect employees and other persons lawfully present at workplaces. This finding indicates that the hospitals are compliant with the Occupational Safety, Health and Welfare Act (2017) of Kenya. Sharaf and Khalil (2021) support this idea of compliance by arguing that organizations are putting in efforts to improve sustainability through effective employee safety and health policies, which can also encompass environmental issues.

To ensure environmental sustainability, all 12 managers responded that they manage their staff by allocating specific duties and providing induction training on healthcare waste management, as well as infection prevention and control. Green occupational safety and health practices tend to reduce harmful consequences in order to avoid health concerns and improve the well-being of employees for increased performance. Therefore, green induction to new staff and continuous awareness tend to give employees the ability, motivation, and opportunity (AMO) to manage waste properly and hence protect and conserve the environment as they also deliver healthcare services. In the same vein, Shah

(2019) explained that a lot of effort is required to reduce occupational stress and sickness and initiate activities that protect the environment and livelihoods of communities.

The managers were asked to explain if they used paperless offices and the extent to which that practice affected the performance of devolved healthcare services. Nine out of 12 managers explained that most of their operations and offices were paperless, while three argued that their offices were partly paperless and partly not. This indicates a strong adoption of digital practices in most areas of healthcare services, while some areas still rely on traditional paper-based methods. The majority who have adopted paperless systems can experience efficiency in operations. This means that digital record-keeping and communication streamlines healthcare workflows, reduces administrative burdens, and speed up processes. Paperless offices save the time spent on searching paper documents and lead to improved speed of service delivery and reduced fraud of finance.

Reduced printing paper leads to reduced waste paper to the environment and protection of trees that provide shade and produce paper and it also leads to cost savings which translates into increased revenues for the hospital. This finding is supported by Ahmad (2015) who found that e-business and e-learning had changed ordinary offices into paperless offices which to a large extent reduces the consumption of paper and minimizes substantially the cost of paper-related activities. Additionally, digital records are more easily accessed and updated, reducing errors associated with manual entry. Streamlined processes for appointments, billing, and prescriptions lead to faster service delivery. Seamless data sharing between healthcare providers improves communication and collaboration, reduced reliance on paper and manual processes can lead to cost reductions in the long run. The shift towards paperless operations is likely to positively impact the performance of devolved healthcare services by improving efficiency, reducing costs, and enhancing sustainability. However, addressing the challenges faced by those still partially reliant on paper-based methods will be crucial for maximizing these benefits.

4.8.2 Correlation Analysis Findings for Green Occupational Safety, Health and Performance

Correlation analysis was conducted to determine the strength and direction of the relationship between GOSH and the performance of devolved healthcare services. Pearson’s product-moment correlation coefficient (PPMC) formula was applied to conduct correlation analysis which shows the strength and direction of the relationship between independent variables (Mugenda & Mugenda, 2013). The correlation test results in Table 4.29 indicated a significant strong and positive relationship between green occupational safety, health, and the performance of devolved healthcare services in Kenya. This relationship was statistically significant strong and positive ($r = 0.731$, $n = 118$, $p = 0.000 < 0.05$).

Table 4.30: Correlation for Green Occupational Safety, Health, and Performance

Performance		Performance1	
GOSH	Pearson Correlation	0.731**	1
	Sig. (2-tailed)	0.000	
	N	118	

** . Correlation is significant at the 0.01 level (2-tailed).

The results in Table 4.30, show that GOSH positively and strongly influences the performance of devolved healthcare services. Continuous training of healthcare employees in green occupational safety and health practices leads to better healthcare service delivery, hence creating a safer and healthier work environment. This finding is aligned with a study by Chaudhary (2020) who revealed that green occupational safety and health significantly influence employee behaviour and satisfaction and Subhani (2010) who alluded that green occupational safety and health management systems may reduce accidents and injuries and boost organizational performance.

4.8.3 Simple Linear Regression Analysis Finding for Green Occupational Safety, Health and Performance

Simple linear regression analysis was conducted to determine the effect of green occupational safety and health on the performance of devolved healthcare services in Kenya. According to a study by Omondi (2018), there is empirical evidence to support the use of regression analysis as a statistical tool in data analysis. The analysis focused on the dependent variable, and therefore, a simple linear regression model for green Occupational Safety and Health and performance of devolved healthcare services took the following format:

$$Y = \beta_0 + \beta_3 X_3 + e$$

The statistical significance of the effect of green occupational safety and health (independent variable) on the performance of devolved healthcare services (dependent variable) was analyzed and presented in Table 4.31.

Table 4.31: Simple Linear Regression Findings for GOSH and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 ^a	.534	.530	.63741

a. Predictors: (Constant), Green occupational safety and health

From the findings in Table 4.31, green occupational safety and health had R² of 0.534 which implies that 53.4% variations in the performance of devolved healthcare services are explained by green occupational safety and health. The implication is that by focusing on enhancing green occupational safety and health measures, healthcare services can achieve notable improvements in their performance. This includes better patient care, increased efficiency, and reduced environmental impact.

Additionally, integrating green occupational safety and health practices contributes to the sustainability of healthcare services by reducing environmental effects and promoting employee satisfaction and productivity. The findings revealed that GOSH had a

significant effect on the performance of devolved healthcare services $F \{(26, 91) = 6.540, p = 0.000\}$. The study found that green occupational safety and health had $P=0.000$ which was less than 0.05 level of significance. This implies that GOSH practice significantly influenced the performance of devolved healthcare services in Kenya. The null hypothesis (H_{03}) was rejected and the alternative hypothesis was accepted.

Thus; **H₃**: Green occupational safety and health has a statistically significant effect on the performance of devolved healthcare services in Kenya.

Table 4.33: One-Way ANOVA for GOSH

		Sum of Squares	Df	Mean Square	F	Sig.
X ₃	Between Groups	47.324	26	1.820	6.540	.000
	Within Groups	25.325	91	.278		

X₃ = Green Occupational Safety and Health

4.9 Findings for Green Performance Evaluation and Performance

The fourth objective of the study was to investigate the effect of green performance evaluation on the performance of devolved healthcare services in Kenya. The findings for green performance evaluation and performance of devolved healthcare services in Kenya are analyzed and presented in the following sections starting with descriptive Statistical findings, Correlation Analysis Findings, Simple Linear Regression Findings, and finally analysis of variance findings (ANOVA).

4.9.1 Descriptive Statistical Findings for Green Performance Evaluation

Green performance evaluation in devolved healthcare services is an important component of GHRM practices because it evaluates an employee's performance relative to set targets/standards. Green performance evaluation requires the establishment of standards regarding the adoption of environmental management activities that influence employee performance in Level Five hospitals. Because this study was investigating the effect of green performance evaluation on the performance of devolved healthcare services, the

respondents were requested to provide their honest opinion on the following statements based on a scale of: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The mean (M) and standard deviation (Sd) findings are also presented. The results are presented in Table 4.34

Table 4.34: Descriptive Statistical Findings for Green Performance Evaluation

GPE Statements	1	2	3	4	5	M	Sd
The hospital has put in place green objectives for each employee about environmental issues in the hospital	3.4%	1.7%	9.3%	55.1%	30.5%	4.08	0.88
Employees who participate in environmental management initiatives while providing healthcare services are recognized.	1.7%	3.5%	13.6%	51.7%	29.5%	4.07	0.83
Green performance appraisal targets usually encourage employees to improve performance.	1.5%	8.6%	11%	43.2%	35.6%	4.02	1.01
Electronic-evaluation tool is used in appraising performance of employees in healthcare services.	2.5%	3.4%	9.3%	49.2%	35.6%	4.12	0.90
Performance appraisal tool has measurable elements on performance and environmental protection.	5.9%	4.2%	12.7%	44.1%	33.1%	3.94	1.08
Green Performance evaluation uncovers green innovation that improves healthcare performance.	4.2%	0.8%	9.3%	47.5%	38.1%	4.14	0.94
Green performance evaluation reports directly affect performance of devolved healthcare services.	6.8%	0.9%	7.5%	50%	34.7%	4.05	1.04

From the study findings in Table 4.34, the majority of the respondents, 85.6% (M=4.08, Sd=0.88) agreed that the hospital has put in place green objectives for each employee about environmental issues in the hospital. This finding suggests that Level Five hospitals

are making significant efforts to implement green objectives for their employees, which may have positive effects on their overall performance and environmental sustainability. This implies that the hospitals are committed to sustainability by setting clear performance and environmental goals for each employee. This indicates that employees who work towards green objectives can help optimize resource use, reduce waste, and improve overall operational efficiency. This can lead to cost savings and a more sustainable workplace. Establishing green objectives for each employee ensures that environmental considerations are integrated into daily operations and inspires employees to adopt eco-friendly practices both at work and in their personal lives. Consistent with Renwick *et al.*, (2013), performance appraisal should be conducted on those clear green indicators and any deviations may force employees to take more pro-environmental actions. Other respondents representing 9.3% remained undecided and the remaining 5.1% disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement.

On whether the employees who participate in environmental management initiatives while providing healthcare services are recognized, the majority of the respondents, 81.2% (M=4.07, Sd=0.83) agreed with the statement. This result implies that Level Five hospitals are making significant efforts to recognize and reward employees who participate in environmental management initiatives, which have positive implications for both employee morale and the hospital's sustainability goals. This implies that when employees participate in environmental management initiatives and comply with appropriate standard operating procedures on the disposal of healthcare waste, they reduce environmental pollution and boost the health of the employees. Recognition of Environmental Initiatives by employees implies that the hospitals are committed to encouraging and acknowledging eco-friendly practices among their staff. Recognizing employees' efforts can improve job satisfaction and morale, leading to higher retention rates. Employees who feel appreciated are more likely to propose new ideas, stay with the organization, and perform at their best. This study's findings concur with that of Prasad (2013) who recommended that employees who exceed their contributions towards set

standards and targets should be recognized with some rewards as green talented staff. Of other respondents, 13.6% were undecided, and the remaining 5.2% agreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement.

The majority of the respondents 78.8% ($M=4.02$, $Sd=1.01$) agreed with the statement that green performance appraisal targets usually encourage employees to improve performance. This finding suggests that when employees are motivated by green targets, they are likely to perform better. This can lead to improved operational efficiency, higher quality of service, and better outcomes for Level Five hospitals. Green performance appraisal targets act as a motivational tool, encouraging employees to improve their performance by aligning their goals with environmental sustainability objectives. This finding indicates that employees work better and increase performance when they are given green targets, for example, clinical doctors would see more patients using digital platforms to clock in patients compared to manual systems. The standard deviation ($Sd=1.01$) shows high dispersion from the mean. The results are aligned with Halawi and Zraket (2018) who found that the inclusion of green targets and goals for managers in areas like environmental incidents, environmental responsibilities, and communication of environmental policies is important in the performance of the management system of an organization. In addition, this outcome is supported by a resource-based view because if employees are given targets, then they can be used effectively to meet the organization's goals and gain a competitive advantage. Of the other respondents, 11% were undecided, and the remaining 10.1% of the respondents disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

A significant majority of respondents, 84.8% ($M=4.12$, $Sd=0.90$) agreed with the statement that an electronic evaluation tool is used in appraising the performance of employees in healthcare services. The finding shows that a significant majority agree that an electronic evaluation tool is used for appraising the performance of employees in

devolved healthcare services. This high level of agreement suggests that these tools are well-recognized and appreciated by the staff. The mean ($M=4.12$) indicates strong agreement on the rating scale of 1 to 5, while the standard deviation ($Sd=0.90$) shows that there is some variability in responses, but it is relatively moderate, indicating a consistent agreement among respondents. The use of electronic-evaluation Tools implies that the hospitals are leveraging digital tools to appraise employee performance. This result is consistent with Delery and Roumpi (2017) who suggest that implementing electronic Human Resources Management in performance management has allowed organizations to deliver feedback more regularly, boost employee engagement and accountability, include peers in the feedback process, and improve the social aspects of performance feedback.

In addition, this finding suggests that the hospitals are making significant efforts to use electronic evaluation tools in appraising employee performance, which may have a positive effect on both the accuracy of performance assessments and the overall efficiency of the appraisal process. Other respondents representing 9.3% were undecided and the rest of the respondents, 5.9% disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement.

The study results revealed that the performance appraisal tool has measurable elements on employee performance and environmental protection as agreed by a majority of the respondents, 77.2% ($M=3.94$, $Sd=1.08$). This finding suggests that the performance appraisal tool used in the hospital is comprehensive and includes important elements related to both performance and environmental protection, which is likely to have positive consequences for both employee performance and the hospital's sustainability goals.

This finding is consistent with Jabbour (2018), who states that green performance evaluation refers to assessing and documenting employee performance-related environmental concerns and organizational performance. The mean ($M=3.94$) indicates that respondents rated their agreement quite high. The standard deviation ($Sd=1.08$) shows

relatively moderate variability in responses but indicates a consistent agreement among respondents. In contrast to this finding, Langat and Kwasira (2016) found that the performance management system of the university did not sufficiently include environmental performance indicators. Other respondents, 12.7% were neutral and the remaining 10.1% disagreed with the statement. This finding of a small segment of undecided and disagreed respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness.

The majority of the respondents, 85.6% ($M=4.14$, $Sd=0.94$) agreed that green performance evaluation uncovers green innovation that improves healthcare performance. The implication of this finding is that performance evaluation encourages employees to participate in green initiatives as they perform, adhere to sustainable practices, and innovate to reduce environmental impact. In line with social exchange theory, employees who perceive that their organization is committed to environmental sustainability are more likely to reciprocate with behaviours that support these goals. This finding is consistent with a study conducted by Opatha and Arulrajah (2014) who averred that green results consist of green innovations in environmental initiatives for example green solutions for reducing waste and pollution, and green outcomes such as number of hours worked by an employee using natural light or reduced amount of waste of inputs and attainment of performance targets related to the environment. Of the other respondents, 9.3% were undecided and the remaining, 5.0% of the respondents disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unaware or simply sceptical about the statement.

Finally, the majority of the respondents, 84.7% ($M=4.05$) agreed with the statement that green performance evaluation reports directly affect the performance of devolved healthcare services. This implies that the hospitals are using performance evaluation reports focused on eco-friendly practices to drive improvements in healthcare services. It reflects a commitment to integrating environmental sustainability into performance evaluations, which can enhance the overall improvements in healthcare service delivery.

The mean (M=4.05) indicates that, on average the respondents' agreement was rated quite high. The standard deviation (Sd=0.90) indicates a moderate but consistent agreement among respondents regarding the statement. This result is consistent with Owee *et al.* (2013) who opine that to achieve green performance evaluation, it is necessary to set green targets, green goals, and green responsibilities to employees and managers. Respondents, 7.5% were undecided on the statement that green performance evaluation reports directly affect the performance of devolved healthcare services, while the remaining 7.7% of the respondents disagreed with the statement.

Further, the respondents were required to state the ways that green performance evaluation practices can be improved to enhance the performance of devolved healthcare services. A total of 78 employees responded and their responses were arranged in themes, analyzed using Content analysis, and presented in Table 4.34. Only the three most mentioned suggestions were rated.

Table 4.35: Suggestions for Improvement of Green Performance Evaluation Practice

Responses	Frequency	Percentage
There is need to embrace and conduct paperless (on-line) performance appraisals	25	41.7
There is need for inclusion of individual measurable green objectives and targets in performance appraisal system.	19	31.7
Level Five Hospitals should reward employees who excel in performance and environmental management	16	26.6
Total	60	100.0

From Table 4.35, it was noted that although environmental protection and conservation are emphasized in Level Five Hospitals, the majority of respondents representing 41.7% suggested the need to further embrace and conduct paperless (online) performance appraisals. The finding indicates a recognition of the benefits of further digitization in the appraisal process, supporting both environmental and operational efficiency goals within Level Five Hospitals. This finding agrees with Ahmad (2015) who opined that e-business converts ordinary offices into Paperless offices by changing all important official paper documents into automated documents and workflows. Respondents, 31.7% proposed that

Level Five Hospitals should reward employees who excel in performance and environmental management. The implication is that recognizing outstanding performance in both operational and environmental areas can help create a culture of excellence, which inspires others to follow suit, leading to continuous improvement and high-quality service delivery. This result agrees with that of Kuria and Mose (2019) who found that green pay and reward had a significant and positive relationship with the organizational effectiveness of universities in Kenya. The other respondents, 26.6% of the respondents suggested the need for the inclusion of individual measurable green objectives and targets in the performance appraisal system.

The findings from other questionnaire items on green performance evaluation indicated that most Level Five Hospitals do conduct green evaluation, but to the contrary, the suggestions made by these respondents show that green performance evaluation has not been fully embraced. From the interview conducted with key informants, it was also found that most Level Five Hospitals rely on a manual performance appraisal system. This performance appraisal, it was noted, is conducted when employees are expecting a pay rise. Document analysis was used for recording the number of E-evaluations conducted over the past six years (2014-2019). The results found no evidence of e-evaluations conducted for the period under study.

An interview was carried out with 12 respondents from Level Five Hospitals regarding employee performance evaluations and the results are as follows. On answering the question of whether the hospital carried out electronic performance evaluations, 7 managers said that e-performance evaluations are done, while 5 said that hospitals usually conduct manual performance evaluations annually. In explaining whether employee performance evaluations affected hospital performance, all the 12 managers argued that it affects hospital performance especially when it is used for merit increments in salaries and promotion of employees who have met their performance targets.

4.9.2 Correlation Analysis Findings for Green Performance Evaluation and Performance

Pearson’s product-moment correlation coefficient (PPMC) formula was applied to conduct correlation analysis. Correlation analysis shows the strength and direction of the relationship between independent variables (Mugenda & Mugenda, 2013). The findings in Table 4.36 revealed a statistically positive but moderately significant relationship between green performance evaluation and the performance of devolved healthcare services in Kenya ($r = .605$, $n = 118$, $p = 0.000 < 0.05$). This moderate relationship signifies incremental performance improvements and that apart from green performance evaluation, other factors contribute to the performance of devolved healthcare services.

Table 4.36: Correlation Analysis Findings for GPE and Performance

Performance		Performance 1	
GT	Pearson Correlation	0.605**	1
	Sig. (2-tailed)	0.000	
	N	118	

** . Correlation is significant at the 0.01 level (2-tailed)

This finding implies that when performance evaluation is linked with green goals and tasks that are clearly specified in the employee role profile, the performance of healthcare services improves. The significant relationship indicates that policymakers and healthcare managers should integrate and implement green performance evaluation metrics as part of their performance management system. Further, incorporating green metrics into performance evaluations can motivate employees to engage in and prioritize sustainable practices. This study concurs with the research of Nury *et al.* (2018) which found that the Green Performance appraisal affects organizational performance. The results also agreed with that of Brefo-Manuh (2017), which noted performance appraisal system had a positive effect on organizational efficiency in public and private sector organizations, and that utilizing a green performance appraisal system enhances employee performance, aids in providing training, and boosts motivation.

4.9.3 Simple Linear Regression Analysis for Green Performance Evaluation and Performance

A regression analysis was carried out to investigate the effect of green performance evaluation on the performance of devolved healthcare services in Kenya. According to a study by Omondi (2018), there is empirical evidence to support the use of regression analysis as a statistical tool in data analysis. The analysis focused on the dependent variable, and therefore, a simple linear regression model for green performance evaluation and performance of devolved healthcare services in Kenya took the following format:

$$Y = \beta_0 + \beta_4 X_4 + e$$

The statistical significance of the effect of green performance evaluation (independent variable) on the performance of devolved healthcare services (dependent variable) is presented in Table 4.37.

Table 4.37: Simple Linear Regression Findings for GPE and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605 ^a	.366	.360	.74356

a. Predictors: (Constant), green performance evaluation

From the findings in Table 4.37, green performance evaluation had an R squared of 0.366 which implies that 36.6% variations in the performance of devolved healthcare services are explained by green performance evaluation. This finding indicates that green performance evaluation is a significant factor in influencing the performance of devolved healthcare services. This result provides evidence-based support for policies that encourage the adoption of green performance evaluation practices. The remaining unexplained 63.4% variations in the performance of devolved healthcare services could be explained by other green human resource management practices that were not included in the model.

Table 4.39: One Way ANOVA for Green Performance Evaluation

		Sum of Squares	Df	Mean Square	F	Sig.
X ₄	Between Groups	31.011	26	1.193	5.771	.000
	Within Groups	18.809	91	.207		

X₄ = Green Performance Evaluation

The study found that green performance evaluation had a P-value (P=0.000) which was less than 0.05 level of significance (Table 4.39). This implies that GPE practice significantly influenced the performance of devolved healthcare services in Kenya. The null hypothesis (H₀₄) was; therefore, rejected and the alternative hypothesis was accepted:

Thus; **H₄**: Green performance evaluation has a significant effect on the performance of devolved healthcare services in Kenya.

4.10 Multiple Regression Analysis Findings without the Moderating Variable

According to Creswell and Clark (2018), the multiple regression model is a statistical approach for determining the relationship between certain independent variables and dependent variables. In the realm of cutting-edge academic research or market-driven studies, R² values for endogenous latent variables can be interpreted as follows: 0.75 is considered strong, 0.50 is seen as moderate, and 0.25 is viewed as weak (Chicco, Warrens, & Jurman, 2021). A multiple regression analysis was carried out to investigate the overall (joint) effect of GHRM practices on the performance of devolved healthcare services. The study's main objective was to test hypotheses about how the independent variables jointly would affect the dependent variable (performance of devolved healthcare services in Kenya).

Thus, the model; $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$ (eq.5)

The statistical significance of the joint effect of independent variables (GHRM practices) without the moderating variable on the dependent variable (performance of devolved healthcare services) was analyzed and results were presented in Table 4.39.

Table 4.40: Model Summary without Moderating Variable

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802 ^a	.644	.631	.56473	.644	51.025	4	113	.000

The findings in Table 4.40 revealed that GHRM practices had a joint correlation coefficient of $r = 0.802$, implying a statistically strong and positive relationship between GHRM practices jointly and the performance of devolved healthcare services in Kenya. The results also indicated that GHRM practices had R^2 of 0.644, which implies that 64.4% of variations in the performance of devolved healthcare services in Kenya can be explained by GHRM practices under study. The findings imply that other human resource management practices could explain the remaining 35.6% of the performance of devolved healthcare services in Kenya.

Table 4.41: Multiple Regression Coefficients of GHRM Practices and Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.330	.299		-1.105	.271
	GER (X ₁)	.516	.115	.381	4.487	.000
	GT (X ₂)	.183	.109	.160	1.675	.003
	GOSH (X ₃)	.355	.122	.301	2.903	.001
	GPE (X ₄)	.085	.118	.058	.715	.003

a. Dependent variable: Performance of Devolved Healthcare Services in Kenya

Y = Performance of devolved Healthcare Services, β_0 = Constant, β = regression coefficient, X_1 = Green Employee Resourcing, X_2 = green Training, X_3 = Green occupational safety and health, X_4 = Green performance Evaluation and e = error term of the sample

The findings in Table 4.41 reveal that the intercept (-330), is the expected value of Y when all the independent variables X_1 , X_2 , X_3 , and X_4 are zero. In this case, Y would be -330. Green employee resourcing practice (0.516) implies that for each one-unit increase in X_1 , Y increases by 0.516, holding all other variables constant; green training practice (0.183)

implies that for each one-unit increase in X_2 , Y increases by 0.183, holding all other variables constant; green occupational safety and health practice (0.355) implies that for each one-unit increase in X_3 , Y increases by 0.355, holding all other variables constant and finally, green performance evaluation practice (0.085) implies that for each one-unit increase in X_4 , Y increases by 0.085, holding all other variables constant. From the coefficients, the following model was developed:

$$Y = -330 + .516X_1 + .183X_2 + .355X_3 + .085X_4 + e \dots \dots \dots \text{(eq.6)}$$

The beta coefficients in the regression model indicate that all the tested variables had a positive association with the performance of devolved healthcare services. The results indicate that green employee resourcing has significant positive effect on the performance of devolved healthcare services, with a coefficient of 0.516. Green occupational safety and health practice has an effect on the performance of devolved healthcare services, with a coefficient of 0.355. Green training and green performance evaluation have a smaller positive effect on the performance of devolved healthcare services, with coefficients of 0.183 and 0.085, respectively. At $t_{critical} = 1.96$ with a 95 percent confidence level, green employee resourcing with a t-value of 4.487 was the most significant, followed by green occupational safety and health practice with a t-value of 2.903, followed by green training with a t-value of 1.675 and finally green performance evaluation with t-value of 0.715.

Table 4.42: ANOVA^a Model Summary

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	65.091	4	16.273	51.025	.000b
Residual	36.038	113	.319		
Total	101.129	117			

Table 4.42 presents an analysis of variance (ANOVA) results. The findings indicate that the model was statistically significant, P-value of 0.000 was significant at a 95% confidence level. The result is further supported by a large F statistic of 51.025 which

implies that GHRM practices are a good predictor of performance of devolved healthcare services. In other words, green employee resourcing, green training, green occupational safety and health, and green performance evaluation combined have a significant effect on the performance of devolved healthcare services in Kenya.

4.11 Statistical Findings for Management Style

Management style is important as it could influence the level at which green HRM practices and policies could be implemented and sustained in healthcare services. The objective of the study was to assess the moderating effect of management style on the relationship between GHRM practices and performance of devolved healthcare services in Kenya. Before determining the moderating effect of this variable, the study conducted the descriptive statistical analysis and the findings are presented in the following section.

4.11.1 Descriptive Statistical Findings for Management Style

Management style in devolved healthcare services is an important component that indirectly affects and moderates the relationship between green HR practices and performance. A management style that is involved in environmental management and gives supportive supervision for green activities usually leads to improved performance. To assess the influence of management style and performance of devolved healthcare services, the respondents were requested to indicate their honest opinion on the following statements based on the scale of: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The mean (M) and standard deviation (Sd) were also presented. The results were analyzed and presented in Table 4.43.

Table 4.43: Descriptive Statistical Findings for Management Style

Management Style Statements	1	2	3	4	5	M	Sd
My workload is adequate to enhance performance.	2.5%	0.8%	7.6%	55.9%	33.1%	4.16	0.81
The hospital management relies on set rules, policies and procedures to enhance performance of devolved healthcare services.	2.5%	3.5%	13.7%	46.6%	35.6%	4.10	0.90
Management supports green initiatives because it enhances performance of healthcare services.	3.4%	1.7%	16.1%	41.5%	37.3%	4.08	0.95
Management applies participative management style that enables employees to participate in green decision making.	0.8%	2.6%	11%	50%	35.6%	4.16	0.82
Bureaucratic management is embraced to improve environmental protection and worker-performance.	0%	2.5%	15.3%	42.4%	39.8%	4.19	0.79
There is adequate mechanism for supervision for implementation of performance management cycle.	1.7%	3.4%	9.2%	42.4%	41.4%	4.20	0.88
Management style can negatively affect performance in a devolved healthcare service.	2.5%	1.7%	9.3%	50.8%	35.6%	4.15	0.85

The findings in Table 4.43 reveal that 89.0% (M = 4.16, Sd = 0.81) of respondents agreed that their workload was adequate in enhancing performance. This indicates that most respondents consistently perceived their workload as adequate in achieving high levels of productivity and employee satisfaction. Further, employees who feel that their workload is adequate experience reduced stress and burnout, and consequently exhibit higher levels of motivation, engagement, and commitment to better healthcare service delivery. This study finding is supported by Nnebue (2014) who found that inadequacy of equipment and essential drugs combined with high workload and lack of professional retraining are frequently reported factors responsible for low motivation and poor performance of health

workers providing services to pregnant women. Other respondents 7.6% remained undecided, and the remaining 3.3% disagreed with the statement. This small segment of the respondents who remained undecided or disagreed implied that they were unsure of the statement.

On the statement that hospital management relies on set rules, policies, and procedures to enhance the performance of devolved healthcare services, the majority of the respondents, 82.2% ($M = 4.10$, $Sd = 0.90$), agreed with the statement. This result indicates that employees perceive reliance on laid down rules, policies, and procedures as a systematic approach to managing and improving healthcare performance. This can be particularly important in a healthcare setting where standardization and adherence to protocols are vital for patient safety and quality of care. Further, it highlights the need for proper guidelines to support effective healthcare service delivery and organizational performance. This result is consistent with Khan *et al* (2015) who called this bureaucratic management style whereby work is done in a pre-determined manner while following laid down policies, procedures, rules, and standards. The study finding concurs with Ren *et al.* (2018) who stated that an effective approach to organization sustainability requires employee compliance with formal rules and acceptance to voluntarily engage in green initiatives such as lowering consumption of energy and paper and use of stairs in place of elevators. Other respondents, 13.7% were undecided, and the remaining 6.0% disagreed with the statement implying that they were sceptical.

The majority of the respondents, 78.8% ($M = 4.08$, $Sd = 0.95$), agreed that management supports green initiatives because they enhance the performance of healthcare services. This suggests that when management demonstrates a desire for green initiatives such as flower gardens, grass fields, and clean rooms with a circulation of fresh air, employees tend to follow the behaviour of managers. This result underscores the importance of management support for green initiatives in enhancing employee satisfaction and commitment to the performance of devolved healthcare services. This finding agrees with Opatha and Arulrajah (2014) who stated that GHRM could protect the natural environment, maintain the natural environment, reduce environmental pollution, and

create gardens and places. Of the other respondents, 16.1% were undecided, while the remaining 5.1% of the respondents disagreed with the statement. This small segment of respondents who disagreed or remained undecided implies that they are not aware of any management support towards green initiatives.

Most respondents, 85.6% ($M = 4.16$, $Sd = 0.82$) agreed that the hospital applies a participative management style that enables employees to participate in green decision-making. This finding suggests that employee participation and involvement in the decision-making process especially on issues related to their work enhance employee satisfaction and engagement which boosts performance. This finding is consistent with Amanchukwu and Ololube (2015) who stated that the participative management style is when the manager involves the employees in the decision-making process and this creates motivation and satisfaction. Of other respondents, 11% were undecided, and the remaining 3.4% disagreed with the statement. The undecided respondents and those who disagreed imply that they have never attended any management meeting or are not properly involved.

Most of the respondents, 82.2% ($M = 4.19$, $Sd = 0.79$), agreed with the statement that bureaucratic management is embraced to improve employee performance and environmental protection. This finding indicates that bureaucratic management is embraced among healthcare employees because it enhances quality standards, reduces conflict, and enhances employee performance. This strong agreement suggests that by setting clear expectations and standards, management ensures that employees are more focused, motivated, and productive. Additionally, bureaucratic management may support initiatives geared towards environmental protection especially if authority is well distributed in the organization. This means that by enforcing environmental sustainability policies and procedures, healthcare service organizations ensure compliance with sector regulations and legal requirements. This result is consistent with a study Opatha and Nawaratne (2015) who stated that some companies have recognized the importance of bureaucratic management as a tool that can help employees to regulate themselves on matters of environmental protection initiatives and activities of the organization. Further,

Renwick *et al.*, (2013) opine that setting penalties for noncompliance on targets on environmental management, discipline and/or dismissal for environmental management breaches, and developing negative reinforcements in environmental management are worthwhile practices to consider in green discipline management. Of the other respondents, 15.3% remained undecided, and the remaining 2.5% disagreed with the statement on bureaucratic management.

On the statement as to whether there is an adequate supervision mechanism in place for the successful execution of the performance management cycle in the hospital setup, the majority of the respondents, 83.8% ($M = 4.20$, $Sd = 0.88$), agreed to the statement. This finding suggests that most employees positively perceive that supervision mechanisms are effective and important in executing the performance management cycle within the hospital. Adequate supervision ensures consistency in healthcare delivery because employees receive the necessary guidance and support to achieve their performance goals. This finding implies that proper supervision mechanisms can lead to more efficient use of resources, faster service delivery, and improved patient care. Proper supervision mechanisms play a key role in employee training because managers can identify employee training needs and set strategies to develop the skills for improved performance and job satisfaction. Of the remaining respondents, 9.2% were undecided, while 5.1% disagreed with the statement.

Finally, the majority of the respondents, 86.4% ($M = 4.15$, $Sd = 0.85$), agreed that the effect of management style on performance within a devolved healthcare service could be counterproductive. This finding suggests that there is a need to reevaluate the effectiveness of current management practices and make necessary adjustments to avoid counterproductive effects on performance. It may be important for managers to adopt a more tailored management style that is sensitive to the needs and dynamics of each department or section. A Supportive and effective management style can improve job satisfaction, reduce stress, and enhance healthcare performance. Of other respondents, 9.3% were undecided, and 4.2% disagreed with the statement. This finding from a small

segment of the respondents (who disagreed and remained undecided) indicates that they were sceptical or had not interacted much with the management employees.

Further, the respondents were requested to suggest possible ways in which management style can be improved in the hospital to enhance the performance of devolved healthcare services. A total of 34 employees stated their responses which were arranged in themes, analyzed using Content analysis, and displayed in Table 4.44. Only the three most mentioned suggestions were rated.

Table 4.44: Suggestions for Improvement of Management Style (Moderating Variable)

Responses	Frequency	Percentage
There is need for more employee involvement and participation in decision making about green initiatives and activities.	20	58.8
Management should integrate messages of green initiatives into standard operating procedures and embrace online communication such as email and WhatsApp.	11	32.4
Management should increase supervisory support in terms of supply of adequate medical and non-medical commodities	3	8.8
Total	34	100.0

The results in Table 4.44 show that the majority of respondents, 58.8% proposed the need for employee involvement and participation in decision-making. This outcome reveals that engaging employees in decision-making can enhance organizational performance because employees who are involved in the process are more likely to take ownership of the outcomes and work collaboratively towards achieving common goals. Additionally, employee involvement encourages innovation and creative problem-solving. Diverse perspectives can lead to the development of new ideas and solutions that may not have been considered by management alone. Thirty-two percent of the respondents suggested that the management of Level Five Hospitals should carry out regular staff satisfaction surveys. This indicates that when employees see that their feedback is valued and acted upon, it can significantly boost morale and job satisfaction. This can lead to higher productivity and better overall performance. Other 8.8% of respondents suggested the

need for more supervisory support in terms of an adequate supply of medical and non-medical commodities.

Three Key respondents from each of the four hospitals under study were interviewed regarding the effect of management style on the performance of devolved healthcare services and their responses are indicated here below. In answering the question regarding how management style affects the performance of devolved healthcare services, five respondents said that both the hospital management team and the county Department of Health provide supervisory support with an emphasis on the sustainable use of resources. Other seven respondents argued that Hospital management teams usually hold virtual and sometimes physical meetings once every week to discuss issues affecting the performance of employees and daily operations. These findings are consistent with Momena *et al* (2013) who opine that leadership as an HR practice should be supportive and participative, and should take initiative to motivate the employees. Further, all the 12 respondents said that management conducts management rounds (management by walking around) to ensure compliance with standard operating procedures, including observance of the green values of the hospital.

The respondents were requested to explain briefly how the hospital integrates environmental issues with HR practices, and in response all 12 said that this is done through the computerization of hospital services; Provision of eco-friendly personal protective equipment; training of employees on healthcare waste management and disposal; appointment of infection-prevention and control committee; emphasis on a clean and safe environment; and provision of training related to safety and health of employees and other people at the workplace. This finding is supported by Daily *et al.*, (2012) who found that organizations achieve their objective of greening when they adopt customized green training program that includes management of waste and recycling and enhancement of environmental knowledge. Employee awareness and involvement activities are encouraged, for example, putting off lights when not in use; minimizing the use of water; displaying warning signs not to step on grass or cut flowers and trees; and the hospital is no smoking zone message. Consistent with this finding, Mehta and Chugan

(2015) noted that HR professionals enable companies to make green business and attain effective performance in ways like encouraging employees to switch off lights when not in use, turn off the computer monitors when not being used, and keeping only minimal lights during non-working hours for safety.

Three respondents from one hospital argued that their hospital managers and employees participated in the annual World Environment Day. During World Environment Day, managers and employees participate in different activities including tree planting, picking litter, and general clean-up activities around the hospital. This practice helps emphasize the need for a cleaner and safer environment free from epidemics that affect employees and clients of the hospital. Outbreak of an Epidemic affects the health of employees and hence failure to deliver essential healthcare services. This finding agrees with the United Nations Environment Program (2022) which was established in 1972 as a platform for raising awareness and action for protection of the environment.

4.12 Multiple Regression Analysis Findings with the Moderating Variable-Management Style

Multiple regression analysis was carried out to investigate the overall effect of GHRM practices on the performance of devolved healthcare services when the moderating variable (management style) is introduced into the model. According to Field (2018), moderating effect is modeled by creating interaction term ($X*Z$) by multiplying each independent variable (X) with the moderating variable (Z). A hierarchical regression analysis was conducted in three steps; firstly, by regressing the performance of devolved healthcare services (Y_i) on GHRM practices (X) and the results were presented early as multiple regression models; step two including the moderating variable- management style (Z) in the model as another predictor variable, and thirdly by adding the interaction term to the regression model. The study tested the model with and without the interaction term to check the change in R and R^2 . The interaction term is significant, when it indicates that management style moderates or affects the strength or direction of the relationship between GHRM and performance of devolved healthcare services. The model thus;

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_6 X_1 Z + \beta_7 X_2 Z + \beta_8 X_3 Z + \beta_9 X_4 Z + e \dots \dots \dots \text{ (eq.7)}$$

Where: Y_i is the dependent variable; X_1 , X_2 , X_3 , and X_4 are the independent variables; Z is the moderating variable; β_0 is the intercept; β_1 , β_2 , β_3 , β_4 , β_5 , β_6 , β_7 , β_8 , β_9 are the coefficients; e is the error term.

The statistical significance of management style (moderating variable) on the relationship between GHRM practices (independent variables) and the performance of devolved healthcare services in Kenya (dependent variable) was analyzed and presented in Table 4.45.

Table 4.45: Model Summary with Moderating Variable- Management Style

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802 ^a	.644	.631	.56473	.644	51.025	4	113	.000
2	.826 ^b	.682	.656	.54526	.039	2.642	5	108	.002

Y_i = Performance of devolved Healthcare Services, β_0 = Constant, β = regression co-efficient, X_1 = Green Employee Resourcing, X_2 = green Training, X_3 = Green occupational safety and health, X_4 = Green performance Evaluation and e = error term of the sample

The study findings presented in Table 4.45 indicate that management style has a moderating effect on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya. The results revealed that when a moderator (management style) is introduced, there is a significant positive and strong relationship between joint independent variables and dependent variable *visa viz* $r = 0.826$ with a moderator compared with $r = 0.802$ without a moderator.

The implication of introducing the moderating variable into the model resulted in an R^2 value of 0.682, which implies a strong significant effect. Essentially it means that 68.2% of the variation in the performance of devolved healthcare services in Kenya can be explained by the inclusion of this variable. This high percentage indicates a strong relationship between the moderating variable and the performance outcomes, suggesting

that the moderating variable plays a crucial role in enhancing the effectiveness of devolved healthcare services. It underscores the importance of considering this factor in policy-making and implementation to drive substantial improvements in healthcare delivery. Further, it shows that the optimal model increased from $R^2 = 0.644$ to $R^2 = 0.682$, displaying an increase of 3.8% because of the management style's moderating effect. The results revealed that there is a statistically significant change in adjusted R square (0.039) when a moderator is introduced. The significant change in F change (2.642) with $P = 0.002 < 0.05$ implies that the moderating variable had a statistically significant influence on green human resources management practices under study and the performance of devolved healthcare services in Kenya. The H_{05} was therefore rejected and the alternative hypothesis was accepted. An alternative hypothesis was thus;

Thus; H_{05} : Management style has a significant moderating effect on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya.

Table 4.46: Multiple Regression Coefficient Results (Combined Effect)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.074	.672		1.600	.013
	X ₁	.142	.343	.105	.415	.009
	X ₂	.260	.298	.226	.873	.005
	X ₃	.487	.327	.413	1.489	.039
	X ₄	.703	.392	.483	1.795	.043
	Z	.271	.089	1.123	3.034	.002
	X ₁ *Z	.143	.058	.054	2.466	.040
	X ₂ *Z	.150	.069	.850	2.174	.004
	X ₃ *Z	.129	.063	.598	2.048	.003
	X ₄ *Z	.135	.065	1.194	2.077	.004

Y_i = Performance, X_1 = Green Employee Resourcing, X_2 = green Training, X_3 = Green occupational safety and health, X_4 = Green performance Evaluation and Z = Management Style- moderating variable

The findings in Table 4.46 show the intercept (1.074) which indicates the expected value of Y when all the independent variables and the moderator Z are zero. The results indicate

that Z positively influences X on Yi, thus; X_1 (0.142) means that for each one-unit increase in X_1 , Yi increases by 0.142, holding all other variables constant; X_2 (0.260) implies that for each one-unit increase in X_2 , Yi increases by 0.260, holding all other variables constant; X_3 (0.487) implies that for each one-unit increase of X_3 , Yi increases by 0.487, holding all other variables constant; X_4 (0.703) means that for each one-unit increase in X_4 , Yi increases by 0.703, and lastly, Z (0.271) show that for each one-unit increase of Z, Yi increases by 0.271, holding all other variables constant.

Finally, the findings in Table 4.46 indicate the interaction effects of the moderating variable- management style. The results show that the coefficient for X_1*Z is 0.143. This implies that the relationship between X_1 and the dependent variable is moderated by Z. When management style increases by 1 unit, the effect of green employee resourcing on the performance of devolved healthcare services in Kenya by 0.143 units. Since the coefficient is positive, it suggests that management style increases the effect of green employee resourcing on the performance of devolved healthcare services.

The findings also revealed that the coefficient for X_2*Z is 0.150. This also indicates that the relationship between green training and the dependent variable is moderated by Z. When management style increases by 1 unit, the effect of green training on the performance of devolved healthcare services in Kenya increases by 0.150 units. Similar to X_1*Z , this positive coefficient suggests that management style enhances the effect of Green Training on the dependent variable. Further, the findings revealed that the coefficient for X_3*Z is 0.129. This indicates that the relationship between X_3 and the dependent variable is moderated by Z. When management style increases by 1 unit, the effect of green occupational safety and health on the performance of devolved healthcare services increases by 0.129 units. The positive coefficient suggests that management style enhances the effect of green occupational safety and health on the performance of devolved healthcare services in Kenyan counties.

Finally, the coefficient for X_4*Z is 0.135. This indicates that the relationship between X_4 and the dependent variable is moderated by Z. When management style increases by 1

unit, the effect of green performance evaluation on the performance of devolved healthcare services increases by 0.135 units. This positive coefficient suggests that management style enhances the effect of green performance evaluation on the performance of devolved healthcare services in Kenya.

In conclusion, the moderating variable (Z) has a significant positive effect on the dependent variable (Yi). The interaction terms (X₁*Z, X₂*Z, X₃*Z, X₄*Z) are all significant, indicating that the relationships between X₁, X₂, X₃, X₄ and Yi are significantly and positively moderated by Z. The optimal multiple regression model when moderating variable is introduced is as follows;

$$Y_i = 1.074 + 0.142X_1 + 0.260X_2 + 0.487X_3 + 0.703X_4 + 0.271Z + 0.143X_1Z + 0.150X_2Z + 0.129X_3Z + 0.135X_4Z$$

An optimal model for the current study was derived from the regression coefficients of the overall moderated study model. From the overall model, it was observed that green employee resourcing had more effect on the performance of devolved healthcare services compared to the other variables.

Table 4.47: ANOVA^a Model Summary after Moderation

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	69.019	9	7.669	25.794	.000 ^c
	Residual	32.110	108	.297		
	Total	101.129	117			

Y_i= Performance of devolved Healthcare Services, β₀= Constant, β= regression co-efficient, X₁= Green Employee Resourcing, X₂ = green Training, X₃= Green occupational safety and health, X₄ = Green performance Evaluation and Z= Management Style- moderating variable

The findings presented in Table 4.47 reveal that the overall effect of Z after moderation was statistically significant as shown by the p=0.000<0.05.

The study also conducted analyses to determine the moderating effect of individual indicators of management style in the relationship between each independent variable and

the performance of devolved healthcare services. The results are presented in the following sections.

4.12.1 Regression Analysis Findings for Moderating Bureaucratic Management Style

A multiple regression analysis was carried out to investigate how bureaucratic style sub-variable moderated the relationship between GHRM practices and the performance of devolved healthcare services. The study's main objective was to determine the extent the independent variables jointly would affect the dependent variable when the bureaucratic style of management is introduced into the model. The findings are presented in Table 4.48.

Table 4.48: Model Summary Moderated by Bureaucratic Management Style

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802 ^a	.644	.631	.56473	.644	51.025	4	113	.000
2	.807 ^b	.650	.635	.56180	.007	2.182	1	112	.001

a. Predictors: (Constant), X₁, X₂, X₃, and X₄

b. Predictors: (Constant), X₁, X₂, X₃, and X₄, GHRM-Bureaucratic style

Table 4.48 indicates that the addition of a bureaucratic management style to the model significantly improved the model fit, with an increase in R² from .644 to .650 (R² change = .007, F (1, 112) = 2.182, p = .001). This suggests that the bureaucratic management style has a small but significant moderating effect on the relationship between the independent variables (green human resource management practices) and the performance of devolved healthcare services in Kenya.

Table 4.49: Regression Coefficient Results Moderated by Bureaucratic Management Style

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.330	.299		-1.105	.271
	X ₁	.516	.115	.381	4.487	.000
	X ₂	.183	.109	.160	1.675	.097
	X ₃	.355	.122	.301	2.903	.004
	X ₄	.085	.118	.058	.715	.476
2	(Constant)	-.915	.495		-1.848	.067
	X ₁	.570	.120	.421	4.746	.000
	X ₂	.208	.110	.181	1.886	.062
	X ₃	.426	.131	.361	3.256	.001
	X ₄	.179	.134	.123	1.335	.005
	GHRM Bureaucratic	0.956	.000	.183	1.998	.002

a. Dependent Variable: Y= performance of devolved healthcare services

Table 4.49 presents the regression coefficients for the model moderated by Bureaucratic Management Style. The key findings are: X₁ ($\beta = .421$, $p < .001$), X₃ ($\beta = .361$, $p = .001$), and GHRM-Bureaucratic style ($\beta = .183$, $p = .002$) all have statistically significant effects on performance. Additionally, X₂ ($\beta = .181$, $p = .062$) is marginally significant, and X₄ ($\beta = .123$, $p = .005$) also shows a significant effect when the bureaucratic style moderator is included.

Thus, the bureaucratic management style significantly enhances the influence of specific predictors on performance, with X₁ representing a key green human resource management practice affecting the performance of devolved healthcare services in Kenya.

4.12.2 Regression Analysis Findings for Moderating Participative Management Style

A multiple regression analysis was conducted to investigate how the participative style of management sub-variable moderated the relationship between GHRM practices and the performance of devolved healthcare services. The main objective was to determine the extent to which the independent variables would affect the dependent variable when

participative style of management is introduced as a moderator in the model. The findings are presented in Table 4.50

Table 4.50: Model Summary Moderated by Participative Management Style

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.802 ^a	.644	.631	.56473	.644	51.025	4	113	.000
2	.803 ^b	.645	.629	.56606	.001	.468	1	112	.005

a. Predictors: (Constant), X₁, X₂, X₃, and X₄

b. Predictors: (Constant), X₁, X₂, X₃, and X₄, GHR- Participative style

Table 4.50 shows that the participative management style also significantly moderated the relationship between the green human resource management practices and the performance of devolved healthcare services in Kenya, though the change in R² is much smaller (.001 increase from .644 to .645, F (1, 112) = .468, p = .005). This suggests that the participative management style has a smaller but still significant moderating influence on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya.

Table 4.51: Regression Coefficient Findings Moderated by Participative Management Style

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.330	.299		-1.105	.271
	X ₁	.516	.115	.381	4.487	.000
	X ₂	.183	.109	.160	1.675	.007
	X ₃	.355	.122	.301	2.903	.004
	X ₄	.185	.118	.058	.715	.006
2	(Constant)	-.628	.528		-1.189	.237
	X ₁	.549	.125	.405	4.391	.000
	X ₂	.202	.113	.176	1.788	.006
	X ₃	.397	.137	.336	2.899	.003
	X ₄	.114	.126	.078	.903	.007
	GHRM-Participative	.118	.000	.093	.984	.005

a. Dependent Variable: Y_i

Table 4.51 reports the regression coefficients for the model moderated by participative management style: X_1 ($\beta = .405, p < .001$) and X_3 ($\beta = .336, p = .003$) remain statistically significant, and GHRM-Participative ($\beta = .093, p = .005$) is also significant. X_2 ($\beta = .176, p = .006$) and X_4 ($\beta = .078, p = .007$) show modest significance, but the participative style's effect is less noticeable than the bureaucratic style.

4.12.3 Regression Analysis Findings for Moderating Contingency Management Style

A multiple regression analysis was conducted to investigate how the contingency style of management sub-variable moderated the relationship between GHRM practices and the performance of devolved healthcare services. The main objective was to determine the extent to which the independent variables would affect the dependent variable when moderating variable -contingency style of management is introduced in the model. The findings are presented in Table 4.52.

Table 4.52: Model Summary Moderated by Contingency Management Style

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.801 ^a	.642	.641	.56473	.644	51.025	4	113	.000
2	.805 ^b	.648	.649	.56593	.002	.521	1	112	.0002

a. Predictors: (Constant), X_1 , X_2 , X_3 , and X_4

b. Predictors: (Constant), X_1 , X_2 , X_3 , and X_4 GHRM- Contingency style

Table 4.52 indicates that the contingency management style also has a small but significant moderating effect on the model (R^2 change = .002, $F(1, 112) = .521, p = .0002$). However, the increase in R^2 is minimal, suggesting that its moderating influence is weaker compared to the bureaucratic and participative styles in influencing the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya.

Table 4.53: Regression Coefficient Results Moderated by Contingency Management Style

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.330	.299		-1.105	.271
	X ₁	.516	.115	.381	4.487	.000
	X ₂	.183	.109	.160	1.675	.097
	X ₃	.355	.122	.301	2.903	.004
	X ₄	.085	.118	.058	.715	.476
2	(Constant)	-.622	.503		-1.237	.219
	X ₁	.544	.122	.402	4.468	.000
	X ₂	.201	.112	.175	1.788	.006
	X ₃	.394	.134	.334	2.945	.004
	X ₄	.122	.129	.084	.941	.348
	GHRM-Contingency	.012	.000	-.092	.722	.472

a. Dependent Variable: Yi

From Table 4.53, the regression coefficients moderated by contingency management style show: that X₁ ($\beta = .402$, $p < .001$) and X₃ ($\beta = .334$, $p = .004$) remain significant, while GHRM- Contingency ($\beta = -.092$, $p = .472$) is not significant, indicating that the contingency style does not have a strong moderating effect. X₂ ($\beta = .175$, $p = .006$) and X₄ ($\beta = .084$, $p = .348$) also show a weak significant influence on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya.

Based on the statistical analysis, bureaucratic management style has the strongest moderating effect on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya. This is evidenced by the significant increase in R² and the meaningful influence of the Bureaucratic style on several predictors (especially green training and green performance evaluation) in the regression model. While participative management style also demonstrates some moderating influence, its effect is relatively weaker, while contingency management style, although statistically significant in model fit, does not appear to strongly moderate the

relationship, especially when considering the lack of significance for the GHRM-Contingency variable. Thus, the bureaucratic management style is the most influential in moderating the effect of green human resource management practices on the performance of devolved healthcare services in Kenya.

4.13 Findings for Performance of Devolved Healthcare Services in Kenya

The performance of devolved healthcare services is important because it enables a hospital to achieve its desired objectives and enhances environmental sustainability. This section, therefore, requested the respondents to provide their honest opinion on the statements based on the following scale: 1- Strongly Disagree (SD); 2- Disagree (D); 3- Undecided (UD); 4- Agree (A); and 5- Strongly Agree (SA). The results were analyzed and presented in Table 4.54. The mean (M) and standard deviation (Sd) were applied to describe central tendency and dispersion respectively.

Table 4.54: Performance of Devolved Healthcare Services

Performance of Healthcare services	1	2	3	4	5	M	Sd
The number of patients attended to has increased for the past six years.	2.5%	1.7%	9.3%	51.7%	34.7%	4.14	0.85
The eco-friendly processes developed by the hospital reduce the consumption of energy.	4.2%	3.4%	6.8%	54.2%	31.4%	4.05	0.95
Hospital clients are satisfied with the provision of eco-friendly healthcare services.	2.5%	0%	11.9%	46.6%	39%	4.19	0.84
The hospital encourages use of electronic payment system (for example, M-pesa) for healthcare services as it improves client satisfaction.	1.7%	4.2%	15.3%	45.8%	33.4%	4.03	0.90
Management supports use of eco-friendly Electronic-resources and web materials.	0%	0.8%	9.3%	50%	39.8%	4.29	0.67
Revenue collection in this hospital has increased for the past six years.	0.8%	5.1%	16.1%	44.9%	33.1%	4.04	0.88
The green operations developed by the hospital effectively reduce the emission of hazardous substances.	3.4%	1.7%	7.6%	47.5%	39.8%	4.19	0.91

The findings in Table 4.54 show that the majority of respondents, 86.4% ($M = 4.14$, $Sd = 0.85$), agreed with the statement that the hospital had seen an increase in the number of patients receiving treatment over the past six years. This suggests that the hospital's efforts in digitization may have played a crucial role in this growth. Digitization in healthcare can lead to improved patient management, streamlined processes, and enhanced access to medical records and services. The increase in patient numbers could be attributed to the hospital's adoption of digital tools and technologies, which likely made it easier for patients to access care, schedule appointments, and receive timely treatments. Additionally, digitization can improve the efficiency of healthcare delivery, reduce waiting times, and enhance overall patient satisfaction, contributing to the observed increase in patient treatment numbers as an indicator of performance.

The result agreed with that of Omune and Nyang'au (2021) who found that green human resource management practices significantly positively affected employee performance at Kenyan public universities. The remaining 9.3% were undecided, while 4.2% disagreed with the statement. The employees who disagreed or remained undecided imply they are not aware of increased patient numbers or lack access to information.

On whether the hospital has implemented eco-friendly processes that decrease energy consumption, the majority of the respondents, 85.6% ($M=4.05$, $Sd=0.95$) agreed with the statement. This result shows that a significant majority believe that the Level Five Hospitals are effectively implementing eco-friendly processes to reduce negative environmental effects such as energy consumption and align healthcare institutions with global sustainability goals. This high level of agreement suggests that these initiatives are well-recognized and appreciated by the staff. The results of the mean indicate that respondents rated their agreement quite high. The standard deviation ($Sd=0.95$) shows some moderate variability in responses, indicating a consistent agreement among respondents. Further, eco-friendly processes imply that hospitals are proactively committed to sustainability and operational efficiency by adopting practices that reduce energy consumption such as putting off electricity light and electronic equipment when not in use.

A recent study that supports this finding is that of Ren *et al* (2018) who argued that an effective approach to organization sustainability requires employee compliance to formal rules and accept to voluntarily engage in green initiatives such as lowering the consumption of energy and paper and use of stairs in place of elevators. Of other respondents, 6.8% were undecided, and 7.6% of the respondents disagreed with the statement. This finding suggests that while there is a strong belief in the implementation of eco-friendly processes, there is still a small segment of the population that is either unsure or sceptical, which could be addressed through targeted initiatives to increase awareness and engagement.

Hospital clients are satisfied with the provision of eco-friendly healthcare services according to 85.6% (M=4.19, Sd=0.84) of the respondents who agreed with the statement. This implies that the hospitals are successfully implementing eco-friendly practices that are appreciated by their clients. This finding suggests that Level Five hospitals are making significant efforts to provide eco-friendly healthcare services, which is likely to have positive implications for both client satisfaction and environmental sustainability. This finding agrees with that of Kruse *et al.* (2017) who found that telehealth provided satisfaction to patients through improved outcomes, preferred modality, ease of use, low cost, improved communication, and reduced travel time. The other respondents 1.9% of the respondents were undecided, while the remaining 2.5% disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

The majority of respondents 79.2% agreed with the statement that the hospital encourages the use of electronic payment systems (for example, M-pesa) for healthcare services as it improves client satisfaction. This finding suggests that the hospital is making significant efforts to encourage the use of electronic payment systems, which is likely to have positive implications for both client satisfaction and revenue collection. Additionally, this implies that the hospital is leveraging digital payment platforms like M-Pesa to improve client satisfaction and revenue collection. This reflects management's commitment to

modernizing payment methods, making transactions more convenient and efficient for clients, while improving employee performance. This finding is consistent with that of Mwita (2019) who posits that organizations that are able and willing to practice GHRM are likely to attract more clients and comply with ethical and legal requirements. Respondents, 15.3% were undecided, while 5.9% of the respondents disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement

Further, the majority of the respondents 89.8% ($M=4.29$, $Sd=0.67$) agreed that the hospital management strongly encourages the use of online or electronic resources that are environmentally friendly. This means that employees efficiently access their HRM services online through their portals and hospital websites. This reduces the cost of printing paper and minimizes carbon emissions. This finding concurs with that of Ahmad (2015) who opined that e-business and e-learning have converted ordinary offices into Paperless offices that have minimum use of paper or have eliminated the use of paper by changing all important official paper documents into automated documents and workflows. Of other respondents 9.3% were undecided, and the remaining 0.8% of the respondents disagreed with the statement. This finding of a small segment of (undecided and disagreed) respondents implies that they are either unsure or sceptical about the statement and this could be addressed through targeted initiatives to increase awareness and engagement.

As per 78% ($M=4.04$, $Sd=0.88$) of the respondents, the hospital's revenue has consistently increased for the last six years due to its implementation of green performance initiatives. This finding implies that the use of electronic payment systems lowers fraud and improves efficiency which at the same time increases revenue collection. This result was supported by Mutisya et al. (2019) who alluded that management in public hospitals should be effective to improve revenue collection. The hospital with more revenue will be allocated more expenditure resources as they are perceived to be performing better. Other respondents 16.1% were undecided suggesting a lack of awareness or insufficient

information about the eco-friendly processes being implemented, 5.9% of the respondents disagreed with the statement.

Finally, the majority of the respondents 87.3% ($M=4.19$, $Sd=0.91$) agreed that the hospital has implemented environmentally friendly practices that efficiently minimize the release of harmful substances. This finding implies that environmentally friendly practices usually lead to more efficient use of resources, such as energy and water, and can result in cost savings for the hospital, and improved operational efficiency. Further, when employees see that their hospital is taking meaningful steps toward sustainability, it boosts employee morale and engagement. This suggests that environmentally friendly practices ensure that employees are safe and in good health to consistently provide healthcare services. This finding is supported by Hameed *et al.* (2020) who opined that green safety and health is very important in promoting the safety and health of employees while at the same time providing a green environment that has less stress and reduced harmful effects. Green occupational safety and health practices tend to reduce harmful consequences in order to avoid health concerns and improve the well-being of employees (WHO, 2012). Other respondents 7.6% were undecided, and 5.1% of the respondents disagreed with the statement. The study finding implies that the standard deviation value is closely dispersed around the mean.

In addition to the above, respondents were asked to suggest possible ways in which performance can be improved in devolved healthcare services. In making their suggestions, 47 responses were recorded, arranged in themes, analyzed using Content analysis, and presented in Table 4.55.

Table 4.55: Suggestions for Improvement of Performance of Devolved Healthcare Services

Responses	Frequency	Percentage
Implement evidence-based customer and employee satisfaction survey	26	55.3
There is need to enhance set of rules and procedures about green environment and increase the number of health professionals.	9	19.2
Install computers in all service centers and provide backup in case of power outage	12	25.5
Total	47	100.00

The findings in Table 4.55, the majority representing 55.3% proposed the implementation of an evidence-based customer and employee satisfaction survey. The finding implies that employees in devolved healthcare services can perform better if an evidence-based customer and employee satisfaction survey is carried out. This finding is supported by a past study carried out by Al-Abri (2014) who recommended that healthcare managers should efficiently allocate resources that improve service delivery and enhance patient satisfaction. 19.2% suggested the need to enhance a set of rules and procedures for a green environment to increase the number of health professionals, and 25.5% suggested the Installation of computers in all service centers and providing backup in case of a power outage. These results agree with findings from interviews of key informants who argued that the hospitals do not conduct customer satisfaction surveys but rely on complaints/compliments books to assess the areas to improve and those that the hospital has excelled in.

Further, document analysis conducted on the current study found no records of client satisfaction indices for the past six years, but the hospitals largely depend on compliment/complaint books to assess customer requirements. There was, however, clear evidence in the compliment/ complaint book on particular actions the hospitals' managements have taken regarding complaints or compliments from their customers. A document analysis guide was used in this study to check and collect secondary data from records about the performance of devolved healthcare services in Kenya. The study collected secondary data

from the Health Information Department to analyze the trend of the number of patients attended for the past six years (2014-2019). The Level Five Hospitals provided the data which was combined per year, analyzed, and displayed in Table 4.56 and Figure 4.4

Table 4.56: Number of Patients Attended (2014-2019)

Name of Level Five Hospital	2014	2015	2016	2017	2018	2019
Embu Level Five Hospital	132,263	146,053	156,049	114,362	151,252	203,912
Machakos Level Five Hospital	187,419	228,000	220,489	124,666	162,331	270,028
Mama Lucy Kibaki Level Five Hospital	160,061	185,068	274,150	166,309	303,613	298,575
Nakuru Level Five Hospital	282,750	289,524	324,304	232,986	336,275	362,052
Total Patient numbers	762,493	848,645	974,992	638,323	953,471	1,134,567

Source: (Health Information Department, 2022)

Descriptive statistics in Table 4.56 and Figure 4.4 show that patient numbers increased from 762,493 in 2014 to 1,134,567 in 2019, apart from the year 2017 when the number of patients dropped to 638,323. Further inquiry indicated that in 2017, there was a countrywide strike of healthcare employees for six months which led to the decline in the number of patients seeking devolved healthcare services.

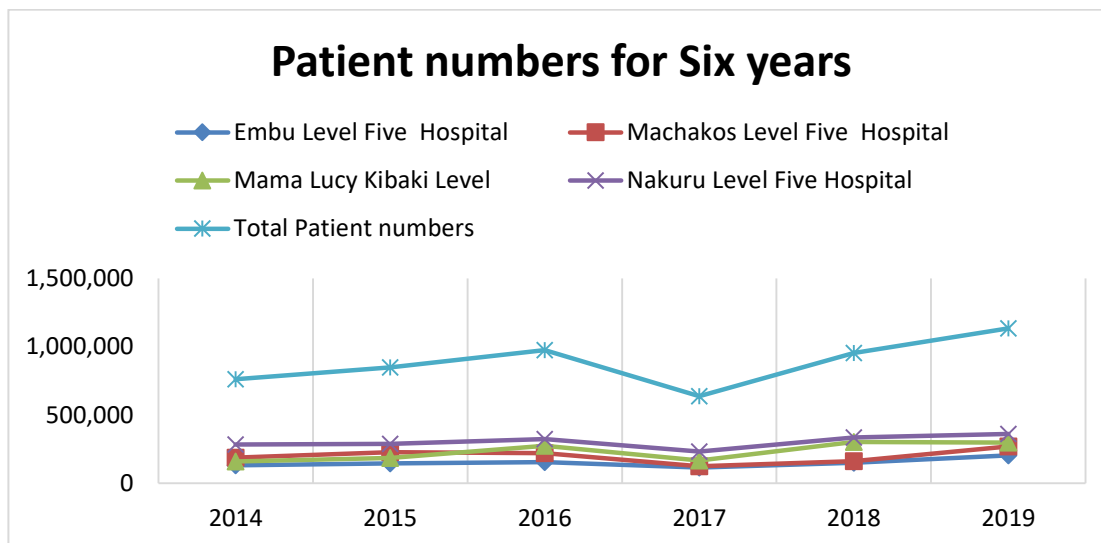


Figure 4.4: Number of Patients Attended (2014-2019)

The implication is that the performance of devolved healthcare services largely depends on employees offering their services in an eco-friendly environment. Because most Level Five Hospitals have gone paperless, especially inpatient registration, capturing the health information of the patient and sharing that information online among healthcare workers at different service areas within the hospital, has improved devolved healthcare services. Online services through health management information systems reduce the cost of printing paper and improve the performance of health information employees because they do not waste time recording, storing, retrieving, and moving physical files from one service area to another. These findings are supported by a study conducted by Marhatta and Adhikari (2013) which found that if human resource practices are in line with environmental management activities, then business firms are likely to enjoy better performance and environmental sustainability.

A document analysis guide was further used to record the amount of revenue collected for the past six years. Revenue was regarded as a powerful indicator of the performance of devolved healthcare services for the past six years (2014-2019). The study targeted to collect data on the amount of revenue collected by the finance department of each Level Five hospital, to get the total revenue collected by the four Level Five Hospitals per year

for the past six years. Two Level Five Hospitals responded, while the other two declined. The data collected was analyzed and presented in Table 4.57 and Figure 4.5.

Table 4.57: Revenue Collected (2014-2019)

Name of Level Five Hospital	2014 Ksh'M'	2015 Ksh 'M'	2016 Ksh 'M'	2017 Ksh 'M'	2018 Ksh 'M'	2019 Ksh 'M'
Embu Level Five Hospital	00	00	00	00	00	00
Machakos Level Five Hospital	00	00	00	00	00	00
Mama Lucy Kibaki Level Five Hospital	00	8.7	90.3	46.2	102.9	122.6
Nakuru Level Five Hospital	156.4	202.5	262.7	284.6	524.0	404.3
Total Revenue Collected	156.4	211.2	353.0	330.8	626.9	526.9

Source: Finance Department, 2022

The results in Table 4.57 and Figure 4.5 show that the amount of revenue collected for the period under study increased from Ksh. 156.4M in 2014 to Ksh 526.9M in 2019, apart from the year 2017 when the amount of revenue collected dropped to Ksh. 330.8M.

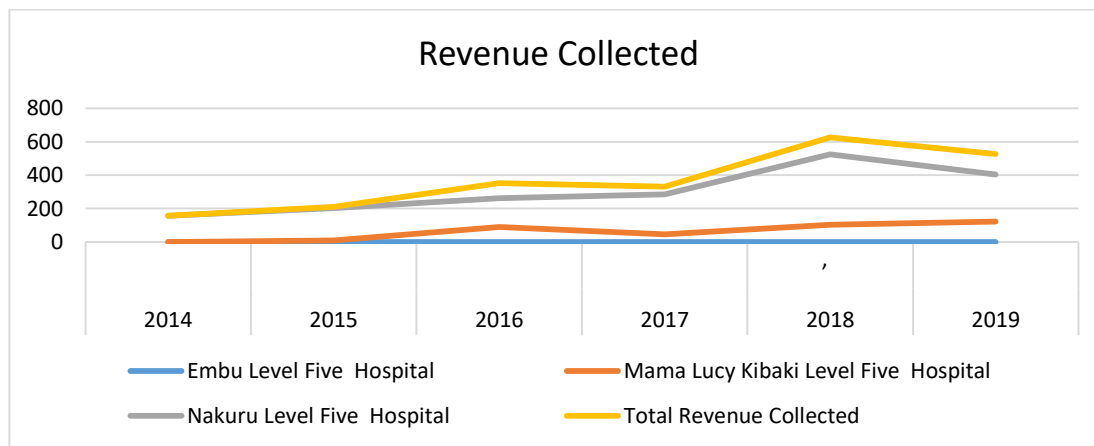


Figure 4.5: Revenue Collected (2014-2019)

Further inquiry indicated that in 2017, there was a countrywide strike of employees in the healthcare services sector which led to a decline in the amount of revenue collected. These findings correspond to a decline in the number of clients attended to during the same period. The study found that when employees in the finance department work online in an eco-friendly environment, therefore the amount of revenue collected increases.

Major top respondents at Level Five Hospitals were interviewed regarding the performance of devolved healthcare services and their responses were recorded. Twelve respondents were asked to explain how e-business affects the performance level of devolved healthcare services and all 12 explained that hospitals have embraced E-business and customers are encouraged to pay for services through M-pesa and electronic money transfer. The respondents argued that this had improved the speed of service delivery, reduced fraud, and improved accountability of revenue collected. Electronic business transactions in hospitals save time for the employee to retrieve information for example patient records, and save printing paper for example in the use of NHIF biometric machines by employees to verify customer details.

This finding is aligned with that of Ahmad (2015) who found that e-business and e-learning have converted ordinary offices into Paperless offices that have minimum use of paper or have eliminated the use of paper by changing all important official paper documents into automated documents and workflows. Nine out of 12 respondents argued that Teleconferencing and telecommuting among senior managers is encouraged, while telemedicine is practiced in the sharing of medical information, for example, CT scans, in Level Five Hospitals. This implies that services are offered quickly and efficiently and this improves revenue collected from the devolved healthcare service in Kenya.

Table 4.58: Hypotheses Testing Results Summary

Hypothesis	P-value	Decision Rule Reject Null Hypothesis if P- value ≤ 0.05 otherwise accept if P is > 0.05
H₀₁: Green employee resourcing has no significant effect on performance of devolved healthcare services in Kenya.	P=0.000	H₀₁ Rejected and alternative hypothesis accepted.
H₀₂: Green training has no significant effect on performance of devolved healthcare services in Kenya.	P=0.000	H₀₂ Rejected and alternative hypothesis accepted.
H₀₃: Green occupational safety and health has no significant effect on performance of devolved healthcare services in Kenya.	P=0.000	H₀₃ Rejected and alternative hypothesis accepted.
H₀₄: Green performance evaluation has no significant effect on performance of devolved healthcare services in Kenya.	P=0.000	H₀₄ Rejected and alternative hypothesis accepted.
H₀₅: Management style has no significant moderating effect on the relationship between green human resource practices and performance of devolved healthcare services in Kenya.	P=0.000	H₀₅ Rejected and alternative hypothesis accepted.

Table 4.58 shows that the p-values were all less than the statistical significance level ($p < 0.05$). All the study hypotheses were rejected as the predictor variables (Green Employee resourcing, Green Training, Green Occupational Safety and Health, Green Performance Evaluation, and Moderating variable- management style) were statistically significant with the performance of devolved healthcare services in Kenya.

After rejecting the null hypotheses, the following alternative hypotheses were accepted:

H_{a1}: Green employee resourcing has a statistically significant effect on the performance of devolved healthcare services in Kenya.

Ha2: Green training has a statistically significant effect on the performance of devolved healthcare services in Kenya.

Ha3: Green occupational safety and health has a statistically significant effect on the performance of devolved healthcare services in Kenya.

Ha4: Green performance evaluation has a statistically significant effect on the performance of devolved healthcare services in Kenya.

Ha5: Management style has a statistically significant moderating effect on the relationship between green human resource practices and the performance of devolved healthcare services in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of findings based on the objectives of the study, conclusions, recommendations, and suggestions for further study.

5.2 Summary of Findings

The effect of green human resource management practices on the performance of devolved healthcare services in Kenya was the main objective of this study. The summary of findings according to study objectives is presented in the sections that follow.

5.2.1 Green Employee Resourcing and Performance of Devolved Healthcare Services

The first objective of the study was to determine the effect of green employee resourcing on the performance of devolved healthcare services in Kenya. Descriptive statistical findings revealed that the majority of the respondents agreed with all the statements about green employee resourcing practice and the performance of devolved healthcare services in Kenya. Pearson's correlation coefficient revealed green employee resourcing has a statistically significant positive and strong relationship with the performance of devolved healthcare services in Kenya. Linear regression findings indicated that green employee resourcing had a statistically significant positive but moderate effect on the performance of devolved healthcare services. In testing the hypothesis, the null hypothesis was rejected and the alternative hypothesis was accepted, that is, green employee resourcing has a statistically significant effect on the performance of devolved healthcare services in Kenya. The results revealed that green recruitment methods guided by public service policy on employee resourcing activities; advertisement for job openings on hospital websites with some element of greening; applications invited through online media like email; and conducting online video interviews can lead to a more motivated staff,

efficient, and environmentally-conscious workforce, ultimately enhancing employee performance.

Green employee resourcing can lead to increased efficiency and cost savings while alignment with environmental goals can enhance employees' performance as they actively contribute to achieving sustainability targets. Further, the results imply that including environmental awareness criteria in employee selection and selecting an employee who has contributed towards the green goals of the hospital would positively affect the performance of healthcare services as this will enhance sustainable use of resources.

5.2.2 Green Training and Performance of Devolved Healthcare Services

In evaluating the effect of green training on the performance of devolved healthcare services in Kenya, descriptive statistics findings showed that the majority of the respondents agreed with the statements regarding green training and the performance of devolved healthcare services. Pearson's Correlation coefficient findings revealed that green training had a positive and strong statistical linear relationship with the performance of devolved healthcare services in Kenya. Further, Linear regression results showed that green training had a statistically significant positive effect on the performance of devolved healthcare services. In testing the hypothesis, the null hypothesis was rejected and the alternative hypothesis was accepted, that is, green training has a statistically significant effect on the performance of devolved healthcare services. The findings suggest that green training in Level Five Hospitals is systematically integrated into their operations, ensuring employees develop eco-friendly skills, knowledge, and attitudes. The adoption of online and web-based modules indicates a shift toward technology-driven learning, reducing paper use and supporting sustainable practices. Encouraging green innovation among clinicians highlights the hospital's commitment to environmental responsibility in healthcare. Moreover, the practice of inducting new employees digitally, alongside electronic information-sharing, enhances efficiency while minimizing environmental impact. These findings imply that structured green training programs can significantly

contribute to sustainability efforts in healthcare institutions, fostering a culture of environmental consciousness and performance excellence.

5.2.3 Green Occupational Safety, Health, and Performance of Devolved Healthcare Services

The third objective was to examine the effect of Green Occupational safety and health on the performance of devolved healthcare services in Kenya. Descriptive findings revealed that the majority of the respondents agreed with the statements regarding green occupational safety, health and the performance of devolved healthcare services.

The Pearson's correlation coefficient results indicated a statistically strong and positive relationship between green occupational safety and health and the performance of devolved healthcare services in Kenya. Linear regression test results showed that GOSH had a statistically significant positive influence on the performance of devolved healthcare services. In testing the hypothesis, the null hypothesis was rejected and the alternative hypothesis was accepted, that is, green occupational safety and health have a statistically significant effect on the performance of devolved healthcare services in Kenya. The study found that devolved healthcare services improve when hospitals continuously use occupational safety and health management practices that reduce accidents and injuries; utilize paperless offices to create a clean and safe work environment; apply eco-friendly healthcare waste disposal methods (such as waste minimization, segregation, and recycling); used eco-friendly safety gadgets and conducted regular safety and health audits. Further, the study found that plants and green spaces, for example, in hospitals can help improve indoor air quality and help hospitalized patients heal faster and this in turn energizes the clinical staff towards increased productivity.

5.2.4 Green Performance Evaluation and Performance of Devolved Healthcare Services

The objective was to investigate the effect of green performance evaluation on the performance of devolved healthcare services in Kenya. Descriptive statistical findings revealed that the majority of the respondents agreed with the statements regarding green performance evaluation and the performance of devolved healthcare services in Kenya. Pearson's correlation coefficient results revealed that green performance evaluation had a statistically significant positive but moderate relationship with the performance of devolved healthcare services in Kenya. Linear regression test findings revealed that green performance evaluation had a statistically significant positive effect on the performance of devolved healthcare services. In testing the hypothesis, the null hypothesis was rejected and the alternative hypothesis was accepted, that is, green performance evaluation has a statistically significant effect on the performance of devolved healthcare services in Kenya. The study found that the hospitals have put in place objectives for each employee regarding environmental issues; employees who participate in environmental management initiatives while providing healthcare services are recognized; green performance appraisal targets usually encourage employees to improve performance. The study results revealed that the performance appraisal tool has measurable elements on performance and environmental protection; and that an electronic-evaluation tool is used in appraising the performance of employees. It was further found that green performance evaluation uncovers green innovation that improves healthcare performance.

5.2.5 The Moderating Effect of Management Style on the Relationship between GHRM Practices and Performance of Devolved Healthcare Services

In assessing the moderating effect of management style on the relationship between GHRM practices and the performance of devolved healthcare services, the results revealed that when a moderator (management style) is introduced, there is a significant positive and strong relationship between joint independent variables and dependent variable. This suggests that the moderating variable plays a crucial role in enhancing the effectiveness

of devolved healthcare services. It underscores the importance of considering this factor in policy-making and implementation to drive substantial improvements in healthcare delivery. The results also revealed that there is a statistically significant change in adjusted R square when a moderator is introduced. The significant change in F change implied that the moderating variable had a statistically strong positive significant influence on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya. By considering the foregoing findings, the null hypothesis of management style was rejected and the alternative hypothesis accepted, that is, Management style has a significant moderating effect on the relationship between green human resource management practices and the performance of devolved healthcare services in Kenya.

5.2.6 Performance of Devolved Healthcare Services

Descriptive findings of this variable revealed that the majority of the respondents agreed with the study items regarding the performance of healthcare services. Specifically, the hospitals had experienced an increase in the number of patients receiving treatment over the past six years; it was also found that the Level Five Hospitals have implemented eco-friendly processes that decreased energy consumption and lowered operational costs; Hospital clients were satisfied with the provision of eco-friendly healthcare services; the hospital encourages use of electronic payment system (for example, M-pesa) for healthcare services because it improves client satisfaction and revenue collection. The results found that the hospital management strongly encourages the use of electronic resources and web materials that are environmentally friendly and that the hospitals' revenue had consistently increased for the last six years due to their application of green performance initiatives. Further, results revealed that the hospitals have implemented environmentally friendly practices that conserve the environment and boost performance of devolved healthcare services.

5.3 Conclusions

It can be concluded from hypothesis (H_{01}) that green employee resourcing practice had a statistically positive significant effect on the performance of devolved healthcare services in Kenya. It can also be concluded that GER has a positive and strong linear relationship with the performance of devolved healthcare services. The application of green recruitment methods guided by public service policy on employee resourcing activities; advertisement for job vacancies on hospitals' websites; online applications for job openings; conducting online video interviews and applying green selection criteria can reduce operational costs such as printing paper and improve performance of devolved healthcare services. Further, the results revealed that including environmental awareness criteria in employee selection and selecting an employee who has contributed towards the green goals of the hospital would positively affect the performance of healthcare services as this will enhance sustainable use of resources.

In evaluating the effect of green training on the performance of devolved healthcare services in Kenya, it can be concluded that green training has a statistically positive significant effect on the performance of devolved healthcare services in Kenya. It can also be concluded that there is a strong positive relationship between green training and the performance of devolved healthcare services. The study confirms that Level Five Hospitals actively integrate green training strategies into their workforce development. The findings reinforce that a needs-based approach to green training ensures relevance and effectiveness. By incorporating web-based training, digital induction processes, and green innovation, hospitals demonstrate a commitment to sustainable healthcare practices. These results highlight the importance of continuous evaluation to ensure employees retain eco-friendly competencies that enhance performance. Ultimately, the findings affirm that structured green training initiatives play a vital role in fostering environmentally responsible and high-performing hospital staff.

The study indicates a strong positive relationship between green occupational safety and health practices and the performance of devolved healthcare services, underscoring the

importance of integrating environmental considerations into occupational safety and health management. Descriptive findings revealed that the majority of the respondents agreed with all items regarding green occupational safety and health greatly. The study concluded GOSH had a statistically positive significant effect on the performance of devolved healthcare services. Hospitals that continuously implement GOSH management practices, such as reducing accidents and injuries, creating paperless and clean work environments, applying eco-friendly healthcare waste disposal methods, and using eco-friendly safety gadgets, experience notable improvements in employee performance. Regular safety and health audits further ensure that these practices are effectively maintained and continually improved. Linear regression test results showed a statistically strong positive influence on the performance of devolved healthcare services.

From descriptive statistical findings, it can be concluded that the majority of respondents agreed with all the statements about green performance evaluation variable. It be concluded that GPE has a positive strong linear relationship with the performance of devolved healthcare services. From regression analysis and hypothesis testing, it was concluded that GPE has significant effect on performance and, therefore, the null hypothesis was rejected and the alternative hypothesis which states that green performance evaluation has a statistically significant effect on the performance of devolved healthcare services in Kenya was accepted. The study concluded that the hospitals have put in place clear objectives for each employee regarding environmental issues, ensuring that those who actively participate in environmental management initiatives are duly recognized. This recognition not only encourages employees to engage in green practices but also boosts their overall performance. The incorporation of green performance appraisal targets serves as a motivational tool, driving employees to achieve higher levels of efficiency and effectiveness in their roles. Moreover, the performance appraisal tools used are designed to include measurable elements that assess both employee performance and environmental protection. The use of an electronic evaluation tool further streamlines the appraisal process, making it more efficient and complete.

The moderating effect of management style on the relationship between GHRM practices and performance of devolved healthcare services, results revealed a statistically significant positive relationship. The joint effect of the independent variables together with the moderator showed multiple regression result higher than that without the moderating variable. The results also revealed that there is a statistically significant change in adjusted R square when a moderator is introduced. Bureaucratic management style had the strongest moderating effect on the relationship between green human resource management practices and performance of devolved healthcare services in Kenya. This is evidenced by the significant increase in R^2 and the meaningful influence of the Bureaucratic style on several predictors (especially green training and green performance evaluation) in the regression model.

While participative management style also demonstrates some moderating influence, its effect is relatively weaker, while contingency management style, although statistically significant in model fit, does not appear to strongly moderate the relationship, especially when considering the lack of significance for the GHRM-Contingency variable. Thus, bureaucratic management style is the most influential in moderating the effect of green human resource management practices on performance of devolved healthcare services in Kenya. The study found that employee workload was adequate to enhance performance; the hospital management relies on set rules, policies and procedures to enhance performance of devolved healthcare services; that the management supports green initiatives because it enhances performance of healthcare services and the hospital uses a participative management style to in order to involve staff in decision-making. Bureaucratic management is embraced to improve environmental protection and worker-performance, and that there is an adequate supervision mechanism in place for the successful execution of the performance management cycle in the hospital. Further, it was concluded that management style significantly moderated the relationship between green human resource management practices (independent variables) and the performance of devolved healthcare services in Kenya (dependent variable).

5.4 Recommendations of the Study

The following recommendations are proposed to boost the performance of devolved healthcare services at Level Five Hospitals through green human resource management practices. The study findings that could be important to Level Five hospital managers, employees, County health department and ministry of health at the national government, scholars and development partners as explained in the sections that follow.

5.4.1 Managers and Administrators of Devolved Healthcare Services

The study recommends that senior managers of the Level Five hospital should develop strong policy on green initiatives and fully embrace e-learning and digital training in continuous medical education. They should continuously conduct comprehensive green training needs assessments to ensure that training programs are aligned with the specific eco-friendly skills, knowledge, and attitudes required by employees. The hospitals' human resource managers should encourage the adoption and expansion of online and web-based training modules, which not only save resources but also allow for flexible learning schedules. The human resource managers of these hospitals should foster a culture of green innovation among clinicians and other healthcare employees. Further, they should create digital platforms for sharing ideas and best healthcare practices with those practices related to environmental sustainability, and recognize and reward innovative contributions. The human resource managers should ensure that all new employees receive thorough induction on the hospital's green policies and practices through online modules and electronic resources. This will help inculcate a strong employee performance and environmental ethic from the outset. Develop robust health information systems for electronic health information sharing and performance standards, while keeping clean and safe work environments. This will facilitate continuous learning for performance and adherence to green practices. Human resource managers should implement regular evaluations of green training programs to assess their effectiveness in imparting eco-friendly skills knowledge, and attitudes to employees to excel in their roles. Use feedback

from employees to refine and improve training initiatives. Level Five hospitals should involve staff and train talent for championing environmental issues and reward that talent.

Hospital HR managers and administrators should consistently implement robust occupational safety and health management practices aimed at reducing accidents and injuries. This not only ensures a safer work environment but also boosts employee productivity and morale. Healthcare administrators and hospital managers should encourage the adoption of paperless offices to foster a clean and organized work environment. This practice not only reduces waste but also enhances efficiency and contributes to environmental sustainability. The Occupational Safety and Health Committee or infection prevention and control committee should implement regular safety and health audits to identify potential hazards and areas for improvement. These audits are essential for maintaining high standards of safety and health within the hospital environment. The county health administrators and hospital managers should integrate green spaces and plants within hospital premises to improve indoor air quality for employees and create a more healing environment. The presence of green workspaces can accelerate patient recovery and energize clinical staff, leading to increased productivity. By adopting these recommendations, healthcare institutions can create a safer, more efficient, and environmentally-conscious workplace, ultimately leading to improved performance of devolved healthcare services.

Hospital managers with the help of HR managers should include individual measurable green objectives and targets in performance appraisal system. Ensure these objectives are regularly reviewed, updated, and aligned with the hospital's performance and sustainability goals. Human resource managers should develop and integrate green performance appraisal targets that specifically encourage employees to improve both their job performance and their environmental practices. These metrics should be clear, measurable, and directly linked to the hospital's overall sustainability strategy. Ensure that the performance appraisal tools used have measurable elements that assess both employee performance and environmental protection. This dual focus will help maintain a balance between operational efficiency and sustainability. Line managers with the help of human

resource managers should continue using electronic-evaluation tools for appraising employee performance. These tools not only streamline the evaluation process but also reduce paper usage, contributing to the hospital's green initiatives.

Hospitals' Chief executive officers through Human resource managers should foster a culture of continuous improvement by regularly evaluating the effectiveness of GPE practices. HR managers should gather feedback from employees and make necessary adjustments to enhance the appraisal system and achieve better sustainability outcomes and performance of devolved healthcare services. Chief executive officers should emphasize on the importance of management styles in performance of devolved healthcare services. The line managers should be encouraged to apply bureaucratic management practices strategically to improve environmental protection and worker performance. This includes implementing structured processes and clear hierarchies to ensure accountability and compliance with environmental standards. Strengthen supervision mechanisms to ensure the successful execution of the performance management cycle. The managers should apply a participative management style to involve staff in decision-making processes. This approach fosters a sense of ownership and engagement among employees, leading to improved performance and innovative solutions.

5.4.2 Employees of Devolved healthcare Services

The research findings recommends that employees of devolved healthcare services should embrace and integrate their human activities with the environmental concerns that affect their performance at work. It is recommended that employees should adopt green employee resourcing practices including job search from hospital website, embracing online applications, and learning on how to be interviewed through online video. The Level Five hospitals' employees should adopt and embrace online and web-based training modules, which not only save resources for the hospital but also allow for flexible learning schedules. The employees should develop a culture of green innovation amongst themselves and utilize digital platforms for sharing information and knowledge on current

and emerging healthcare issues with those related to environmental conservation and protection. There is a need to design office and consultation spaces in accordance with eco-friendly building regulations to enhance employee's safety and health.

Employees should support the management in implementing robust green occupational safety and health management practices aimed at reducing accidents and injuries. This not only ensures a safer work environment but also boosts employee productivity and morale. Employees should embrace the adoption of paperless offices to foster a clean and organized work environment. This practice not only reduces waste but also enhances efficiency and contributes to environmental sustainability. Employees who are provided with eco-friendly safety gadgets should use them prudently to ensure their protection and promote sustainability. The hospital employees should also apply eco-friendly healthcare waste disposal methods, such as waste minimization, segregation, and recycling. These practices help in managing waste effectively thereby reducing environmental impact and boosting employee motivation.

Each employee of Level Five Hospitals should continuously aim to achieve performance targets and environmental objectives. They can raise their voice regarding regular review of their objectives, update, and alignment with the hospital's performance and sustainability goals. Employees should feel specifically encouraged to improve both their job performance and their environmental practices. The green behaviours of devolved healthcare employees will spill over to their homes as they transfer pro-environmental values and demonstrate them through their contribution and involvement in environmental conservation and protection processes at home and community.

5.4.3 County Government- Department of Health

The County Public Service Board and county health departments should vigorously implement green employee resourcing practices including advertising job openings on hospital websites, embracing online applications, conducting online video interviews, and applying green selection criteria. Green awareness criteria should be integrated into

employee resourcing activities, ensuring that all staff understand and are committed to the hospital's environmental goals. The County Department of Health with the assistance of hospital HR managers should establish strong and recognizable Green Human Resource Management (GHRM) policies and practices. These policies should focus on attracting, motivating, and retaining green employees who can perform and are aligned with the hospital's sustainability objectives.

The County Department of health and hospital management should provide employees with eco-friendly safety gadgets to ensure their protection while also improving operational efficiency and promoting sustainability. Level Five hospital should buy eco-friendly electronic equipment that save energy and expand intranet to reduce paper use in service provision. The county department of health with the help of a human resource managers should establish a recognition program that acknowledges and rewards employees who meet their performance targets and actively participate in environmental management initiatives. Clear and strong GHRM policies will help position the level five hospitals as leaders in healthcare performance and environmental stewardship, further enhancing their appeal to both current and potential employees. By adopting these recommendations, county government through Level Five Hospitals can create a workforce that is not only skilled and innovative but also deeply committed to environmental sustainability, ultimately leading to improved performance of healthcare services.

This study underscores the importance of management style in performance of devolved healthcare services and, therefore, the County Department of Health should ensure that hospital management strictly follows established rules, policies, and procedures to enhance performance. Clear guidelines and consistent enforcement create a stable and efficient work environment. Managers should actively support and promote green initiatives within the hospital, while at the same time recognizing and rewarding departments and individuals who contribute to excellent delivery of healthcare service and environmental sustainability. County department of health should also ensure provision

of effective supervision that can identify areas for improvement, provide timely feedback, and support employees in achieving their performance goals.

5.4.4 Development Partners in Health Sector

Development partners in the health sector shall use the study findings as a source of information to allocate and channel their financial aid to specific areas of devolved healthcare services that are eco-friendly such as green training of employees and provision of equipment that enhance use of digital platform for patient diagnosis and treatment. In addition, development partners can use the results to give their financial support towards sustainable universal healthcare and climate resilience. The development partners should ensure that the tools, equipment, and commodities that they may provide to healthcare facilities are environmentally friendly in usage and disposal to minimize carbon footprints.

5.4.5 Academic and Research Scholars

This study's results recommend further study on GHRM practices that add literature to the body of research knowledge about the effect of green HRM practices on the performance of devolved healthcare services. The scholars can use the empirical findings of this study to replicate similar studies in other sectors of the economy. It is recommended that this study can serve as a foundation for further research in the health sector to fill literature gaps. Relevant green HR practices and concepts in the healthcare sector can also be developed from this study which could be useful for reference.

5.4.6 Recommendation for Policy Makers

Drawing from the study's conclusions, the following policy recommendations are proposed to enhance the performance of devolved healthcare services through effective Green Human Resource Management (GHRM) practices: Level five hospitals should formulate strong policies that mandate green recruitment practices across healthcare service institutions. This includes making green awareness information mandatory in job advertisements, interviews, and selection not only for clinicians but also for administrative

employees. Create policies that require regular green training programs for all healthcare employees. These programs should focus on eco-friendly practices, green innovation, and continuous learning to enhance employee performance and environmental sustainability. Integrate green performance evaluation criteria into the overall performance appraisal system to enable employees set their own objectives and targets. There is need for inclusion of individual measurable green objectives and targets in performance appraisal system. Policies should ensure that employees are assessed based on their contributions to environmental sustainability, with clear and measurable targets. There is need to embrace and conduct paperless (on-line) performance appraisals that includes individual measurable green objectives and targets. Develop policies that mandate the use of eco-friendly safety gear and regular green safety and health audits. These policies should promote practices that reduce accidents, improve indoor air quality, and foster a safer work environment.

Formulate policies that encourage a balance between participative and bureaucratic management styles. This approach involves staff in decision-making processes while ensuring structured and accountable environmental protection practices. Establish strong policies that strengthen supervision mechanisms to ensure the successful implementation of GHRM practices. These policies should include regular monitoring, feedback, and support systems to enhance employee performance and adherence to environmental standards. By adopting these policy recommendations, healthcare institutions can create a sustainable and efficient workforce, ultimately leading to improved performance of devolved healthcare services.

5.5 Suggestions for Further Study

This study was based on Level Five Hospitals in Kenya and therefore, future research should consider other levels of hospitals in the health sector or replicate the study and include the healthcare employees. Only four GHRM practices (green employee resourcing, green training, green occupational safety and health, and green performance evaluation) were considered in the current study, it is therefore necessary to consider other

green human resource management practices in future studies to take care of the 35.6% unexplained variations in the study model. In addition, a different moderating variable can be introduced into the same study to determine its influence. A study can be done to investigate the challenges faced by healthcare institutions in implementing green HRM policies and practices. Further a comparative analysis of GHRM practices and organizational performance in level five hospitals can be conducted. Further study can be done on sustainable competitive advantage in hospitals through the application of GHRM practices. There is a need for more research to be conducted in GHRM to provide more evidence-based outcomes that will enhance the necessity for vigorous application of this concept in modern healthcare service organizations. By pursuing these areas of research, scholars can contribute to a more comprehensive understanding of the interplay between green HRM practices and the performance of devolved healthcare services, ultimately driving both sustainability and efficiency in the sector.

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APPENDICES

Appendix I: Data Collection Request Letter

FROM:

NELSON MOMANYI BOGONKO
PO BOX 7023-00300,
NAIROBI.

Nelson.momanyi@jkuat.ac.ke

Date: 03.03.2020

TO:

THE CHIEF EXECUTIVE OFFICER/ MEDICAL SUPERINTENDENT
_____ LEVEL FIVE HOSPITAL,

THROUGH:

THE COUNTY DEPARTMENT OF HEALTH SERVICES

Dear Sir/Madam,

**RE: REQUEST TO COLLECT RESEARCH DATA ON EFFECT OF GREEN
HUMAN RESOURCE MANAGEMENT PRACTICES ON PERFORMANCE OF
DEVOLVED HEALTHCARE SERVICES IN KENYA**

I am a student at Jomo Kenyatta University of Agriculture and Technology requesting your able office to allow me collect data on the above subject. Kindly find the attached copy of authority letter from the university, Institutional Ethics Review approval, Research permit from National Commission on Science and Technology (NACOSTI/P/21/12958) and data collection tools to be used.

Thank you.

Yours faithfully,

Nelson Momanyi

Tel: 0720 921 270

Appendix II: Informed Consent Form

Study Title: Effect of green human resource management practices on performance of devolved healthcare services in Kenya.

Principal Investigator: Nelson Momanyi Bogonko (Admin no. HD412-C004-1613/2015), is a student of Jomo Kenyatta University of Agriculture and Technology, in the School of Business and Entrepreneurship (SOBE) of the College of Human Resource Development (COHRED).

Purpose of the Study: To investigate the effect of green human resource management practices on performance of devolved healthcare services in Kenya. The study focused on systematically selected Level Five Hospitals in Kenya.

Study Procedure: The study uses a self-administered questionnaire to collect data from departmental heads, and their employees. You are not required to indicate your name on the questionnaire but only certain demographic characteristics, level of management and department/unit. You will then rate the questionnaire items on a five-point Likert-scale and suggest what can be done by the hospital to enhance study variable. The researcher shall also use document analysis guide to collect data from specified documents for purpose of analysing the trend and making inferences. Personal interview of at least three senior officers shall also be used to get support data for the study.

Benefits: There is no direct benefit to you as a respondent, but it is hoped that the findings of the study will help the hospital managers and Health policy makers to embrace green HRM practices as strategy towards improved healthcare performance and environmental protection.

Risks: There are no foreseeable risks, but you will be free to decline to answer any or all the questions in the research and you may terminate your participation at any time.

Confidentiality: Your responses to this study will be anonymous and every effort will be made by the researcher to preserve your confidentiality by doing the following:

- a) Assigning code names/numbers for participants that will be used on all research notes and documents.
- b) Keeping notes, interview transcriptions, and any other identifying participant information in a locked file cabinet in the personal possession of the researcher.

Voluntary Participation: Your participation in this study is voluntary. If you decide to take part in this study, you are required to sign this consent form. After you sign the consent form, you are still free to withdraw at any time without giving reason. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

Consent: I have read and understood the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I once I am given a copy of this consent form and I voluntarily agree to take part in this study.

Participant's Signature _____

Investigator's Signature _____

Appendix III: Questionnaire

Please spare a few moments from your busy schedule to fill this questionnaire with accurate information. The information you provide in this questionnaire will be for academic research and not for commercial purposes. It will also be handled as confidential. The research title is the effect of **green human resource management practices on performance of devolved healthcare services in Kenya.**

SECTION A: RESPONDENT'S CHARACTERISTICS

1. Name of the Hospital _____
2. Gender of the Respondent (Tick where applicable)
 - Male
 - Female
3. Designation of the respondent in management (Tick where applicable)
 - Top-level
 - Middle-level
 - Bottom-level
4. Age of respondent (Tick where applicable)
 - 21 – 30
 - 31 – 40
 - 41 – 50
 - 51 – 60
 - Above 61 years
5. Highest level of education (Tick where applicable)
 - Certificate
 - Diploma
 - Degree
 - Masters
 - PhD
 - Other (specify) _____
6. Length of service (Tick where applicable)
 - 0 -5 years
 - 6 – 10 years
 - 11 – 15 years
 - 16 – 20 years
 - Above 21 years
7. Position held (Specify) _____ Department _____

SECTION B: GREEN EMPLOYEE RESOURCING. In a Level Five hospital, this is a process of attracting and selecting environmentally aware employees. It is an important

component of green human resource management (GHRM) practices because it affects the extent the hospital is able to attract and select qualified employees who will provide eco-friendly quality healthcare services to clients. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/ disagreement (**Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree**).

	Green Employee Resourcing	SD=1	D=2	UD=3	A=4	SA=5
1	This hospital adheres to the policy which guides public service employee resourcing activities					
2	Advertisement for job openings is mostly posted on hospital website with some element of greening.					
3	Applications are usually invited through online mediums like e-mail and online application forms to reduce paper usage and cost.					
4	This hospital practices online-video interviews which enhances performance.					
5	An environmental awareness criterion is included in employee selection procedure of the hospital.					
6	Employees who have contributed towards environmental management are usually selected to fill jobs in devolved healthcare services.					
7	Green employee resourcing has an effect on performance of this hospital					

8. Suggest possible ways in which green employee resourcing practice can be improved in devolved healthcare services.

SECTION C: GREEN TRAINING

Green training is important to employees because it helps to impart continuous eco-friendly skills, knowledge, ability and attitude that influence service delivery and performance of the hospital. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/disagreement (**Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree**).

	Green Training	SD=1	D=2	UD=3	A=4	SA=5
1	All Level Five Hospital staff training programs are based on green training needs assessment.					
2	Green training programs includes management of healthcare waste, safety and energy saving in offices.					
3	This Level Five Hospital embraces use of online and web-based training modules for improved healthcare services.					
4	Green Innovation (e.g. use of tele-medicine) is encouraged among clinicians in the hospital					
5	New employees are inducted using online-modules and given soft copies about hospital services.					
6	Managers of devolved healthcare services encourage electronic information-sharing about clean and safe work environment and performance standards					
7	Evaluating training is conducted in this hospital to determine if employees have acquired eco-friendly skills, knowledge or attitudes that enhance their performance.					
8	Green training in devolved healthcare services has a significant influence on healthcare performance.					

9. Suggest possible ways in which green training practice can be improved in devolved healthcare services.

SECTION D: GREEN OCCUPATIONAL SAFETY AND HEALTH

Green occupational safety and health in devolved healthcare services is a critical component of traditional HRM practices. This is because it affects the level at which the hospital is able to protect employee safety and health to improve performance, while being sensitive to the environment. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/disagreement (**Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree**).

	Green occupational safety and health	SD=1	D=2	UD=3	A=4	SA=5
1	Green occupational safety and health management system usually reduces accidents and injury rates, while at the same time it improves the organization performance.					
2	Paperless offices are encouraged in the hospital to create clean and safe work environment.					
3	Eco-friendly disposal methods such as waste minimization, generation, segregation, re-use and recycling are encouraged among healthcare employees to create healthy and safe environment.					
4	The employees are provided with eco-friendly safety gadgets (e.g. gloves) to enhance performance.					
5	Green employee occupational safety and health audits are done regularly to ensure safe work environment.					
6	The hospital buildings are spacious with ventilation and natural lighting to save energy and reduce infection.					

7	Green Occupational safety and health to a large extent affects the performance of devolved healthcare services					
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8. In what ways can green employee occupational safety and health practice be improved to enhance performance of devolved healthcare services?

SECTION E: GREEN PERFORMANCE EVALUATION

Green performance evaluation in devolved healthcare services is a critical component of GHRM practices. Green performance evaluation requires putting in place standards for the entire hospital regarding environmental management activities that influence hospital performance. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/ disagreement (Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree).

	Green performance Evaluation	SD=1	D=2	UD=3	A=4	SA=5
1	The hospital has put in place green objectives for each employee about environmental issues in the hospital					
2	Employees who participate in environmental management initiatives while providing healthcare services are recognized.					
3	Green performance appraisal targets usually encourage employees to improve performance.					
4	Electronic-evaluation tool is used in appraising performance of employees in healthcare services.					
5	Performance appraisal tool has measurable elements on performance and environmental protection.					

6	Green Performance evaluation uncovers green innovation that improves healthcare performance.					
7	Green performance evaluation reports directly affect performance of devolved healthcare services.					

8. Suggest possible ways in which green performance evaluation practice can be improved in devolved healthcare services.

SECTION F: MANAGEMENT STYLE

Management style in devolved healthcare services is an important component that directly or indirectly moderates the relationship between green HR practices and performance. Management style that is involved in environmental management and gives supportive supervision for green activities usually leads to improved performance. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/ disagreement (**Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree**).

	Management Style	SD=1	D=2	UD=3	A=4	SA=5
1	My workload is adequate to enhance performance.					
2	The hospital management relies on set rules, policies and procedures to enhance performance of devolved healthcare services.					
3	Management supports green initiatives because it enhances performance of healthcare services.					
4	Management applies participative management style that enables employees to participate in green decision making.					

5	Bureaucratic management is embraced to improve environmental protection and worker-performance.					
6	There is adequate mechanism for supervision for implementation of performance management cycle.					
7	Management style can negatively affect performance of devolved healthcare services.					

8. Suggest possible ways in which management style can be improved in this hospital to enhance performance

SECTION G: PERFORMANCE OF DEVOLVED HEALTHCARE SERVICES

Performance in a devolved healthcare services is critical because it enables a hospital to achieve its desired objectives and it enhances environmental performance. Therefore, you are requested to provide an honest opinion by marking X or tick on each of the following statements showing your level of agreement/ disagreement (**Where SD= Strongly Disagree, D=Disagree, UD=Undecided, A=Agree, SA=Strongly Agree**).

	Performance of devolved Healthcare services	SD=1	D=2	UD=3	A=4	SA=5
1	The number of patients attended to has increased for the past six years.					
2	The eco-friendly processes developed by the hospital reduces consumption of energy.					
3	Hospital clients are satisfied with the provision of eco-friendly healthcare services.					
4	The hospital encourages use of electronic payment system (e.g. M-pesa) for healthcare services because it improves client satisfaction and revenue collection.					
5	Management supports use of eco-friendly Electronic-resources.					
5	Revenue generation in this hospital has increased for the past six years					
6	The green operations developed by the hospital effectively reduces the emission of hazardous substances.					

7	Green human resources management practices have increased Performance of devolved healthcare services.					
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8. Suggest possible ways in which performance can be improved in devolved healthcare services.

Thank you for your co-operation and participation.

Appendix IV: Document analysis Guide

This tool will be used for collection of data on effect of **green human resource management practices on performance of devolved healthcare services in Kenya.**

This tool will be used to collect relevant secondary from the hospital's Health information records, HR records and Finance records by checking and recording that information concerning the following items.

Name of the Hospital _____

No.	Variable/ Indicator	Item	Source of Data	2019	2018	2017	2016	2015	2014
1	Number of patients attended to	To record the number of patients attended to for the last six years	Health information- Patient registration records						
2	Level of client Satisfaction	To record client satisfaction indices for the last six years	PR/ Communication Dept. (Compliment book, satisfaction indices file).						
3	Revenue generated	To record amount of revenue collected for the last six years	Finance office- Annual Financial Statements						
4	Recruitment methods	To record number of green (online) recruitments for the past six years	HRO-records (Check recruitment file website)						
5	Green selection methods	To record number of employees selected online for the past six years	HRO-records (Check interview and selection recorded video/hard files)						

6	Selection criteria	To record number of employees selected/promoted due to their green activities for the past six years	HRO-records (Check interview/s election file)						
7	Training Needs Assessment	To record number of green training needs assessment undertaken for the past six years.	HRO-records (Training minutes file)						
8	Training programs	To record the types of green training programs undertaken for the past six years.	HRO-records (check training minutes file)						
9	Safety measures	To record types of safety measures implemented for the past six years To record number of available Environmental audit reports for the past six years	HRO-records Public Health (check reports)						
10	Waste disposal methods	To record types of eco-friendly medical waste disposal methods for the past six years.	Public Health (minutes file or poster)						
11	Green occupational safety guidelines	To record types of disciplinary actions imposed on employees for non-	Public Health (Disciplinary records)						

		compliance to GOSH activities for the past six years							
12	E-evaluation instruments	To record number of E-evaluations conducted for the past six years	HRO-records (e-performance summary file)						

Thank you.

Appendix V: Interview Guide

This tool will be used for collection of data on effect of **green human resource management practices on performance of devolved healthcare services in Kenya.**

This interview guide will specifically collect data on the following specific areas to complement data collected through other methods.

Name of the Hospital _____

Person Interviewed (e.g. Chief Nurse, Administrator) _____

- 1) How does green occupational employee safety and health affect performance of devolved healthcare services? Do you have an employee or committee that specifically deal with daily health issues of employees and their safety at work?
- 2) How do you manage your staff to ensure that you sustain your environment? How does management affect performance of devolved healthcare services?
- 3) To what extent does the hospital encourage e-training and e-learning?
- 4) How does e-business affect your performance level of devolved healthcare services?
- 5) During recruitment, does the hospital include information about its environmental concerns; e.g. the hospital is environmentally responsible? During interview does the hospital management ask candidates questions connected with safe and healthy environment? Explain why.
- 6) Does the hospital provide online (paperless) induction program and if so, does it include environmental awareness? How does it affect employee performance level?
- 7) Does the hospital practice paperless offices or operations? If so, explain briefly how it affects performance of devolved healthcare services?
- 8) Does the hospital practice e-evaluations? If so, to what extent does it affect performance of healthcare services?
- 9) Explain briefly how the hospital integrates environmental issues with your HR practices.

Thank you for your Time

Appendix VI: List of Level Five Hospitals

The following is a list of Level Five Hospitals

S/No.	Names of Level Five Hospitals
1	Kiambu Level Five Hospital
2	Thika Level Five Hospital
3	Machakos Level Five Hospital
4	Embu Level Five Hospital
5	Kakamega Level Five Hospital
6	Kisumu Level Five Hospital
7	Nakuru Level Five Hospital
8	Meru Level Five Hospital
9	Nyeri Level Five Hospital
10	Mombasa Level Five Hospital
11	Garrisa Level Five Hospital
12	Mama Lucy Level Five Hospital

Source: Ministry of Health, 2018

Appendix VII: List of Departments and Sections

The information you provide as the Head of your department/ Section/Unit will be for academic research and not for commercial purposes. It will also be handled as confidential. The research title is the effect of **green human resource management practices on performance of devolved healthcare services in Kenya**. The list of participating departments are as follows:

S/No.	Department	Respondents per Department
1	Public Health	
2	Information Technology	
3	Health Information (Medical Records)	
4	Physiotherapy	
5	Orthopaedic	
6	Bio-medical Engineering	
7	Laboratory	
8	Pharmacy	
9	X-Ray (Medical Imaging)	
10	Dental	
11	Social Work	
12	Occupational Therapy	
13	Nursing	
14	Infection Control	
15	Finance/Accounts	
16	Procurement	
17	NHIF	
18	Palliative (Cancer)	
19	Human Resource Management	
20	Clinical	
21	Laundry	
22	Nutrition	
23	Catering	
	Total Respondents	

Appendix VIII: Letter from University Department to Collect Data



JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY

NAIROBI CBD CAMPUS
Department of Entrepreneurship and Procurement

P.O. Box 62000
NAIROBI - 00200
KENYA

TEL: 020-321306
Email: epd@jkuat.ac.ke

Ref : JKU/6/3/17a

Date: 23rd August 2021

TO WHOM IT MAY CONCERN

SUBJECT: NELSON MOMANYI BOGONKO HD412-C004-1613/2015

This is to confirm that the above named is a bonafide student pursuing his Doctor of Philosophy in Human Resource Management Programme at Jomo Kenyatta University of Agriculture and Technology, Nairobi CBD Campus. The student is currently undertaking his research thesis entitled: **"The Effect of Green Human Resource Management Practices on the Performance of Devolved Healthcare Services in Kenya "**, in partial fulfillment of the requirement for the degree program.

The purpose of this letter is to request you to give the student the necessary support and assistance to enable him obtain necessary data for the thesis. Please note that the information given is purely for academic purpose and will be treated with strict confidence.

Yours faithfully,

DR. SAMSON NYANG'AU (Ph. D)
ASSOCIATE CHAIRPERSON, EPD

Associate Chairman
EPD NAIROBI CBD CAMPUS



JKUAT is ISO 9001:2015 and ISO 14001: 2015 Certified.



Setting Trends in Higher Education, Research, Innovation and Entrepreneurship

Appendix IX: Ethics Review Approval Permit



JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
P.O BOX 62000(00200) NAIROBI, Tel:(067) 58706001-4
(Office of the Deputy Vice Chancellor, Research Production and Extension Division)

JKUAT INSTITUTIONAL SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REF: JKU/2/4/896B

Date: 9th June 2022

MOMANYI, NELSON BOGONKO
DEPARTMENT OF ENTREPRENEURSHIP AND PROCUREMENT, JKUAT

Dear Mr Momanyi,

RE: GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON PERFORMANCE OF DEVOLOYED HEALTHCARE SERVICES IN KENYA

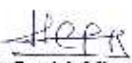
This is to inform you that JKUAT Institutional Scientific and Ethics Review Committee has reviewed and approved your above research proposal. Your application approval number is JKU/ISERC/02316/0618. The approval period is 9th June 2022 to 8th June 2023.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by JKUAT ISERC.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to JKUAT ISERC within 72 hours of notification
- iv. Any charges, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to JKUAT ISERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to JKUAT ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.or.ke> and also obtain other clearances needed

Yours sincerely


Dr Patrick Mburugu
Chair, JKUAT ISERC



JKUAT is ISO 9001:2015 and ISO 14001:2015 certified



Setting Trends in Higher Education, Research, Innovation and Entrepreneurship

Appendix X: Research Permit from NACOST

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 644265	Date of Issue: 20/September/2021
RESEARCH LICENSE	
	
This is to Certify that Mr. NELSON MWANJI BOGONKO of Jomo Kenyatta University of Agriculture and Technology, has been licensed to conduct research in Embu, Kiambu, Muchakos, Nairobi, Nakuru, Tharaka-Nithi on the topic: EFFECT OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON PERFORMANCE OF DEVOLVED HEALTHCARE SERVICES IN KENYA for the period ending : 20/September/2023.	
License No: NACOST/P/21/02958	
644265 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code: 
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THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License and rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies
5. The License does not give authority to transfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one year of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

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