INFLUENCE OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING FIRMS IN NAIROBI, KENYA

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Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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DEDICATION

I dedicate this work to my family and friends, whose unwavering support and encouragement have been my foundation throughout this academic journey. Above all, I am deeply grateful to God for granting me the strength and perseverance to complete this study.

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DEFINITION OF TERMS

Implementation of Green HRM: Implementation of Green HRM refers to the practical integration of environmentally sustainable practices across various HR functions. This includes promoting environmental innovation, fostering collective and pro-environmental behavior among employees, enhancing the organization's reputation, and improving overall job performance (Agrawal, 2024; Mandip, 2012; Bor, 2021).

GHRM Practices: GHRM practices are specific human resource strategies designed to integrate environmental sustainability into core HR functions. These include promoting work-life balance, employee empowerment, green performance metrics, eco-conscious remuneration, career advancement aligned with sustainability, and green approaches to hiring, selection, training, and development (Bor, 2021; Aremu, 2022 and ;Mishra, 2017).

Green Human Resource Management (GHRM): Green Human Resource Management (GHRM) refers to a set of principles, policies, and systems aimed at encouraging environmentally responsible behavior among employees. Its goal is to cultivate organizations that are environmentally sensitive, resource-efficient, and socially responsible (Tang, 2018; Gelan, 2022; Nisar, 2021).

Perceived Benefits of GHRM: The perceived benefits of GHRM include improved organizational culture, increased employee engagement, reduced operational costs, and better compliance with environmental regulations. These advantages arise from aligning HR practices with sustainability goals, ultimately enhancing the organization's reputation and operational efficiency (Saha, 2020; Alzyoud, 2021)

ABBREVIATIONS AND ACRONYMS

EABL – East African Breweries Limited

F & B – Food and Beverage

GHRM – Green Human Resource Management

HR – Human Resource

HRM – Human Resource Management

ISO – International Organization for Standardization

KAM – Kenya Association of Manufacturers

KNBS – Kenya National Bureau of Statistics

KWAL – Kenya Wine Agencies Limited

NACOSTI – National Commission for Science, Technology and Innovation

NCCG – Nairobi City County Government Business Licensing Department

NEMA – National Environment Management Authority

NRBC – Natural Resource Base View

AMO – Ability, Motivation Opportunity

SDGs – Sustainable Development Goals

SPSS – Statistical Package for the Social Sciences

ABSTRACT

Green Human Resource Management (GHRM) integrates environmental sustainability into organizational HR practices, contributing to improved firm performance. This study aimed to evaluate their influence of GHRM practices on the performance of food and beverage manufacturing firms in Nairobi, Kenya. The study was anchored on Natural Resource-Based View (NRBV) and Ability-Motivation-Opportunity (AMO) theory. It adopted a positivist philosophy and a descriptive cross-sectional survey design. Data was collected using structured questionnaires from HR managers, senior management, and technical personnel across selected firms. Quantitative data were analyzed using descriptive statistics, Pearson correlation, and multiple regression to assess relationships between GHRM practices, specifically green recruitment, green training and development green performance management, and green rewards, and firm performance indicators such as environmental responsibility, employee commitment, and productivity. Results showed that the identified GHRM practices were widely adopted and positively influenced firm performance, with green performance management having the strongest effect. The study recommends that policymakers and business leaders enhance regulatory frameworks and invest in sustainability training to strengthen GHRM adoption. These findings contribute empirical insights into the role of GHRM in enhancing organizational performance within Nairobi's food and beverage manufacturing sector and offer practical guidance for improving sustainable HR practices.

Keywords: Green Human Resource Management, GHRM practices, environmental sustainability, food and beverage manufacturing, Kenya

1. CHAPTER ONE

1.1 Introduction

This study explored the influence of Green Human Resource Management (GHRM) practices on the performance of food and beverage manufacturing firms in Nairobi, Kenya. In response to rising global concerns about environmental degradation and climate change, organizations are increasingly adopting sustainable practices to reduce their ecological footprint and enhance long-term competitiveness (Almada, 2018; Hinson, Adeola, & Adisa, 2021 and ;Odhiambo, 2023). GHRM which is the integration of environmental sustainability into human resource policies and practices, has emerged as a critical enabler of sustainable business strategy (Bor, 2021). Through practices such as green recruitment, training and development performance management, and rewards, firms can embed environmental consciousness into their workforce and operations.

The purpose of this study was to examine how the implementation of GHRM practices contributes to the overall performance of firms, particularly in terms of environmental responsibility, employee commitment, and operational efficiency. It sought to identify specific GHRM practices adopted by firms in the food and beverage manufacturing sector and to evaluate the extent to which these practices influence performance of the firm.

The study was aligned with broader sustainability and environmental goals by linking human capital management with ecological responsibility. The study sought to contribute to the growing discourse on the role of HR in driving green transformation, especially in emerging economies like Kenya. The food and beverage manufacturing sector is a significant contributor to Kenya's economy and a major consumer of energy and natural resources (Muthoni & Mose, 2020). Consequently, this sector has a substantial impact on environmental sustainability, making it an ideal setting for studying the effectiveness of GHRM practices.

This chapter presents an overview of the study and includes the background of the research, the statement of the problem, research objectives and questions, the scope and significance of the study, and a summary. These sections collectively set the foundation for understanding the rationale, direction, and anticipated contribution of the research.

1.2 Background of the Study

Green Human Resource Management (GHRM) which is the integration of environmental sustainability into human resource practices, policies, and systems aimed at fostering eco-conscious behavior among employees and promoting environmentally responsible organizational cultures (Tang, 2018; Gelan, 2022; Nisar, 2021). Since the term was introduced by Wehrmeyer in 1996, GHRM evolved into a strategic approach adopted by firms seeking to enhance sustainability while maintaining competitive performance. Key GHRM practices included green recruitment and selection, green training and development, green performance appraisal, and green compensation and rewards, each aligning employee behavior with environmental goals.

Although global awareness of GHRM has over the recent years increased, its implementation remained inconsistent. In developed economies such as those in Scandinavia, regulatory frameworks, corporate accountability, and sustainability-oriented cultures supported widespread adoption of GHRM, resulting in reduced environmental impact and improved organizational outcomes (Yousaf et al., 2015). However, developing countries continued to face challenges such as inadequate institutional capacity, limited leadership commitment, financial constraints, and low employee awareness (Ahakwa et al., 2021). These issues were particularly evident in high-impact sectors like manufacturing and energy, where cost considerations often outweighed long-term sustainability initiatives.

Existing literature emphasized that effective environmental strategies required not only external efforts (e.g., marketing or compliance) but also robust internal systems rooted in HRM. Hinson et al. (2021) argued that human resource practices were instrumental in translating sustainability goals into measurable firm performance outcomes. Empirical studies underscored that when sustainability was embedded into HR systems, organizations were more likely to achieve operational efficiency, employee engagement, and reputational benefits.

In Sub-Saharan Africa, the diffusion of GHRM remained fragmented. Despite the region's vulnerability to climate change and environmental degradation, many organizations had yet to fully integrate green HR practices into their strategic frameworks. Research by Ahakwa et al. (2021) showed that while green awareness was present, the operationalization of GHRM in African firms was hindered by a lack of clear policy guidelines and limited empirical evidence to support its business case. A systematic review Misztal et al. (2024) further confirmed that GHRM

literature in Africa was significantly underdeveloped and largely concentrated in non-manufacturing sectors.

In Kenya, the food and beverage manufacturing sector played a pivotal role in economic development, contributing significantly to employment, food security, and industrial output. However, the sector also contributed to environmental degradation through excessive energy use, waste generation, and carbon emissions. While some firms introduced eco-friendly initiatives such as cleaner production technologies and sustainable packaging, these efforts were largely externally focused and did not extend to internal HR systems (Kuria, 2019). The implementation of GHRM practices in the sector remained limited. Few companies had formal green recruitment policies, sustainability-oriented training programs, or environmental performance appraisal systems. Furthermore, weak enforcement of environmental HR standards and limited institutional support further constrained uptake (Sakwa, 2018).

Despite growing global evidence of the benefits of GHRM, including enhanced firm reputation, employee retention, and cost savings, empirical research on the implementation and impact of GHRM practices within Kenya's food and beverage manufacturing sector was scarce. Specifically, there was limited evidence on how internal HR practices that were environmentally aligned contributed to organizational performance in this context. Sector-specific studies in similar African contexts, such as Nigeria, highlighted inconsistent adoption of GHRM practices and emphasized the need for focused, empirical investigations (Ogbari et al., 2024). Moreover, a global systematic review of sustainable manufacturing trends between 2019 and 2024 identified a geographic and sectoral bias in the literature, with limited attention given to GHRM in Sub-Saharan Africa's manufacturing industries (Wang et al., 2024).

This study therefore addressed the empirical gap by evaluating the extent to which GHRM practices influenced the performance of food and beverage manufacturing firms in Nairobi, Kenya. It identified the GHRM practices in place and analyzed their impact on firm-level outcomes. The findings provided actionable insights for industry stakeholders and policymakers seeking to enhance environmental sustainability through human capital management.

1.3 Statement of the Problem

The implementation of Green Human Resource Management (GHRM) practices among Kenyan organizations, both public and private, had significantly lagged behind global trends in

sustainability and the pursuit of Sustainable Development Goals (Bor, 2021; Kimeu, 2015). Although there had been growing awareness of environmental issues in sectors such as policy, industry, and governance, many organizations continued to face challenges in embedding sustainability within their human resource strategies (Jabbour, 2010; Opatha, 2014). Global accords such as the Kyoto Protocol (1997), the Bali Action Plan (2007), and the Copenhagen Accord (2009) had underscored the urgency of mitigating environmental harm; however, their principles had not been fully operationalized in corporate HR practices (Houser, 2010; Hussain, 2023; Ferronato, 2022; Rodic, 2017).

According to Renwick et al. (2013) and Dangelico (2017), organizations had come under increasing pressure to balance economic performance with environmental responsibility in order to minimize their ecological footprint. Achieving this balance, however, proved challenging due to weak leadership, insufficient regulatory enforcement, and the absence of clearly defined HR policies aligned with environmental goals (Görg, 2017; Dangelico, 2017). Studies also suggested that although HR was central to planning and executing environmental policies, there remained considerable ambiguity in how GHRM strategies were implemented to foster a green corporate culture (Renwick et al., 2013; Harmon et al., 2017). Furthermore, while the importance of GHRM in supporting corporate social responsibility and environmental management was well-documented, its actual application across industries had been inconsistent (Mandip, 2012; Opatha, 2014).

In the Kenyan context, the government and private sector had taken initial steps to promote environmental sustainability, including the enactment of the Environmental Management and Coordination Act (1999) and the establishment of the National Environment Management Authority (NEMA) (Kuria, 2019). Nonetheless, the food and beverage manufacturing sector continued to exert a considerable environmental burden, particularly through energy consumption, waste generation, and pollution. A case in point was a directive issued by NEMA in February 2024, which identified 29 companies, including several in the food and beverage sector, for polluting the Nairobi River (The star, 2024). This highlighted the urgent need to investigate the integration of sustainability within the internal HR systems of such firms.

Previous studies had primarily focused on the environmental initiatives of organizations from a macro or technical perspective, with limited exploration of how GHRM practices influenced firm-level outcomes, especially in developing countries (Amjad, 2021; Adubor et al., 2022; Nwachukwu, 2022). Empirical research on GHRM in Kenya had remained scarce, with much of the existing literature either conceptual or qualitative in nature (Jabbour, 2010; Opatha, 2014; Kimeu, 2015). Most studies were conducted in developed countries, where robust regulatory and institutional support facilitated GHRM adoption (Fayazi et al., 2015). In contrast, Sub-Saharan Africa, and Kenya in particular, faced context-specific barriers such as weak institutional enforcement and limited financial resources, which constrained GHRM implementation (Adubor et al., 2022; Thiga, 2023).

Notably, few studies had empirically investigated the specific mechanisms through which GHRM practices such as green recruitment, green training and development, green performance management, and green rewards, impacted organizational performance within the resource-intensive food and beverage manufacturing sector in Nairobi. As a result, there was an evident empirical gap in terms of (a) the lack of sector-specific, quantitative data from Kenya, (b) limited studies examining how GHRM contributes to firm performance in developing economies, and (c) an absence of validated models linking GHRM practices to measurable organizational outcomes in high-impact industries.

This study was uniquely positioned to address these gaps by employing a quantitative research design to assess the influence of GHRM practices on the performance of food and beverage manufacturing firms in Nairobi, Kenya. Through this approach, the study contributed contextually relevant, empirical evidence to guide policy formulation and strategic HRM practices aimed at fostering environmental sustainability within the sector.

1.4 Objectives of the Study

1.4.1 General Objective of the Study

The overarching goals of the study was to examine the influence of Green Human Resource Management (GHRM) practices (Green recruitment, green training and development, green

performance management and green rewards) on the performance of food and beverage manufacturing firms in Nairobi, Kenya.

1.4.2 Specific Objectives

The study seeks to:

1. Evaluate the influence of green recruitment on firm performance.
2. Assess the influence of green training and development on firm performance.
3. Examine the influence of green performance management on firm performance.
4. Determine the influence of green rewards on firm performance.

1.5 Research Questions

1. What is the influence of green recruitment on the performance of food and beverage manufacturing firms in Nairobi, Kenya?
2. What is the impact of green training and development on the performance of food and beverage manufacturing firms in Nairobi, Kenya?
3. What is the influence of green performance management on the performance of food and beverage manufacturing firms in Nairobi, Kenya?
4. What is the impact of green rewards on the performance of food and beverage manufacturing firms in Nairobi, Kenya?

1.6 Scope of the Study

This study examines the influence of Green Human Resource Management (GHRM) practices (Green recruitment, green training and development, green performance management and green reward) on the performance of food and beverage manufacturing firms in Nairobi, Kenya. The research concentrated on food and beverage manufacturing firms o small, medium and large scale which operate under the Kenya Association of Manufacturers (KAM) because they represent a substantial economic impact and face rising environmental sustainability requirements.

The study interviewed HR managers, Senior management personnel and technical personnel to capture diverse perspectives on GHRM the influence on the performance of the firms in this organizations. HR managers provided insights into policy formulation and strategic decision-

making, Senior management personnel shared experiences on policy execution, compliance and coordination, while technical staff contributed firsthand accounts of how GHRM practices impact their daily operations. This comprehensive approach ensured a well-rounded understanding of GHRM's effectiveness and challenges within food and beverage manufacturing firms.

Firm performance was assessed using five key dimensions: (1) environmental responsibility, (2) cost efficiency, (3) employee engagement in green initiatives, (4) company reputation, and (5) productivity levels. These indicators were drawn from existing literature (Renwick et al., 2013; Opatha & Arulrajah, 2014) and were captured through Likert-scale questionnaire items administered to HR manager's senior managers and technical personnel staff. The data were analyzed using regression analysis in SPSS to establish the nature and extent of the influence of GHRM practices on each performance dimension.

The research design used descriptions to measure both GHRM practices effects on organizational performance. The research utilized stratified random sampling to obtain representative firms through categories of size and production scale. The research gathered data using primary information from structured questionnaires alongside key informant interviews and secondary information from industry reports and regulatory documents and company sustainability reports.

The research employed descriptive statistics through means and frequencies to present results while using SPSS software for regression analysis to examine the connection between GHRM practices and firm performance. The research findings create an evidence-based foundation about GHRM performance enhancement to provide practical guidance for better sustainability-driven HRM practices in Nairobi's food and beverage manufacturing sector.

1.7 Significance of the Study

This study is significant in three key areas: policy, practice, and theory. The research investigated Green Human Resource Management (GHRM) practices in Nairobi's food and beverage manufacturing sector to enhance understanding about sustainability-driven HRM performance effects. The obtained research outcomes brought valuable knowledge to both policy leaders and industrial practitioners and scholars to support evidence-based decision-making in sustainable HRM practices.

Policy Implications

The research provides concrete evidence that enables authorities to develop standards which support GHRM practice implementation in Kenya. The rising need for businesses to fulfill environmental sustainability requirements enables policymakers to use study findings for developing policies which push firms toward implementing green HRM strategies. The research demonstrates how the National Environment Management Authority (NEMA) combines its environmental law enforcement duties with workforce sustainability promotion initiatives.

Practical Implications

The research provides actionable information about GHRM implementation that helps food and beverage manufacturing organizations. The research offers industry practitioners performance-related insights through its green HRM strategy assessment to boost operational efficiency and minimize costs and advance corporate sustainability. Organizations must link their HRM systems to environmental sustainability goals to create employee green practices that boost market competitiveness.

Theoretical Contributions

The research adds to sustainable human resource management literature through its empirical analysis of GHRM-firm performance relationships in developing countries. This research fills theoretical gaps by addressing conceptual and contextual and methodological aspects which scholars can use to construct future studies. The research enables evaluation of GHRM model transferability from developed economies to emerging markets which enhances academic discussions about sustainable corporate strategies and HRM practices in global food and beverage manufacturing.

1.8 Chapter Summary

Chapter One provides an overview of Green Human Resource Management (GHRM) and highlights its relevance in the food and beverage manufacturing sector in Nairobi, Kenya. The chapter establishes the background of the study by discussing the slow implementation of GHRM practices in Kenyan firms despite increasing global and national sustainability demands. It outlines the general and specific research objectives, research questions, significance of the study, and scope, setting the foundation for the research. The subsequent chapters provide a detailed examination of the study's key aspects. Chapter Two presents a literature review exploring theoretical foundations, empirical studies, and research gaps. Chapter Three describes the research

methodology, including the study design, data collection, and analysis procedures. Chapter Four presents the research findings, while Chapter Five discusses the implications of these findings and provides conclusions and recommendations for enhancing GHRM implementation in the industry.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of relevant literature on Green Human Resource Management (GHRM) practices and their influence on firm performance. The chapter is divided into two main sections: the theoretical review, which discusses the underlying theories supporting GHRM, and the empirical review, which examines existing research on the relationship between GHRM practices and firm performance. The review identifies key gaps in literature providing a foundation for this study.

2.2 Conceptual Literature Review

This section explores the key concepts that informed this study. It provides an in-depth discussion of core Green Human Resource Management (GHRM) practices, their relevance to organizational sustainability, and their influence on overall firm performance. Additionally, it contextualizes the role and characteristics of food and beverage manufacturing firms in relation to the application and effectiveness of GHRM strategies.

2.2.1 Green HRM Practices

Green Human Resource Management (GHRM) is an emerging strategic approach that integrates environmental sustainability principles into human resource policies and practices. It extends traditional HRM by aligning its core functions such as recruitment, training, performance management, and rewards, with the broader environmental objectives of the organization (Renwick et al., 2013). The concept draws theoretical strength from the Natural Resource-Based View (NRBV), which posits that internal capabilities, such as employee knowledge, skills, and motivation, can be leveraged to gain environmental and competitive advantages (Hart, 1995; Hart & Dowell, 2011).

GHRM is particularly relevant in this study because the food and beverage manufacturing firms in Nairobi are under increasing pressure to comply with environmental regulations such as those enforced by Kenya's National Environment Management Authority (NEMA), while also responding to consumer and investor demands for sustainable operations (Bor, 2021). GHRM

provides a structured pathway through which firms can integrate environmental values into their corporate culture and day-to-day operations.

One critical GHRM function is green recruitment which involves attracting and hiring candidates who possess environmental awareness and align with the company's sustainability vision (Gelan, 2022). This is achieved through employer branding strategies that highlight the firm's commitment to sustainability, as well as through job descriptions, interviews, and selection criteria that emphasize green competencies (Jabbour, 2010; Kariithi, 2016; Hinson et al., 2021). Leading global firms such as Unilever and Interface have successfully employed green recruitment to build sustainability-driven workforces (Smith, 2013).Another key practice is green training and development, which equips employees with the necessary knowledge, skills, and attitudes to support environmental initiatives. Training programs often include content on energy conservation, waste management, and carbon footprint reduction (Ismail, 2023; Zibarras, 2015). These programs are instrumental in fostering an environmentally conscious organizational culture and increasing employee commitment to sustainability goals (Pham et al., 2019). Companies like Google and Patagonia have implemented extensive green training programs that not only educate but also empower employees to become agents of environmental change (Singha, 2024).

Green performance management is another essential pillar of GHRM. It involves setting sustainability-related performance objectives, incorporating environmental Key Performance Indicators (KPIs), and evaluating employees based on their contributions to environmental goals. This ensures accountability and aligns individual performance with broader corporate environmental objectives (Jabbour et al., 2013; Yong et al., 2020). Sustainability-based evaluations contribute to ongoing environmental progress and reinforce the strategic relevance of GHRM in achieving firm-wide goals. Further, green rewards system is designed to recognize and incentivize employee behaviors that support sustainability. These can range from financial bonuses and promotions to non-monetary rewards such as public recognition or participation in environmental projects. Green reward systems have been found to improve employee motivation and foster a long-term commitment to sustainability (Nisar et al., 2021). Firms such as IBM and Tesla have implemented such systems to encourage environmental innovation and reduce resource waste (Agrawal, 2024).

Overall, the implementation of GHRM practices results in multiple organizational benefits, including enhanced employee satisfaction, improved operational efficiency, and stronger environmental and social performance (Khan et al., 2022). For manufacturing firms in Nairobi, adopting GHRM not only addresses environmental compliance but also presents an opportunity to improve competitiveness, reduce costs, and strengthen stakeholder trust.

2.2.2 Firm Performance

Firm performance is a multidimensional construct that captures the effectiveness and efficiency with which an organization achieves its objectives. In the context of this study, firm performance was assessed across five key dimensions: environmental responsibility, cost reduction, employee commitment to sustainability, corporate reputation, and organizational productivity. These dimensions are directly influenced by the strategic implementation of GHRM practices and serve as critical indicators of organizational sustainability and competitive advantage (Jabbour, 2010; Harmon, 2017). Environmental responsibility reflects a firm's commitment to reducing its ecological footprint and promoting sustainable business practices. GHRM practices contribute significantly to this by embedding environmental values in daily operations and employee behaviors (Ahakwa, 2021). Organizations that adopt green policies such as sustainable procurement, energy efficiency programs, and employee-driven environmental initiatives demonstrate lower environmental impact and higher regulatory compliance (Renwick et al., 2013).

Cost reduction is another vital performance metric. Through the adoption of green HR practices, firms often realize significant financial efficiencies. Green training can lead to improved process efficiencies, while waste minimization and energy conservation can lower operational costs and reduce fines associated with environmental non-compliance (Yong et al., 2020).

Employee commitment to sustainability goals is closely linked to effective GHRM practices. When employees are trained in green practices, assessed on environmental KPIs, and rewarded for sustainability-oriented behavior, they tend to exhibit greater job satisfaction, higher levels of engagement, and lower turnover rates (Pham et al., 2019). This leads to stronger alignment between individual efforts and organizational sustainability objectives. Green reward systems, as noted by Nisar et al. (2021), have been shown to improve employee morale and retention. Moreover, corporate reputation benefits significantly from visible commitment to environmental and social governance (ESG) standards. Firms that consistently implement GHRM demonstrate a

proactive stance on sustainability, which enhances their brand image among customers, investors, and regulators (Freeman, 2021). In competitive markets like Nairobi's food and beverage sector, a strong green reputation can differentiate firms and open up access to new markets and investment opportunities.

Organizational productivity improves as a result of enhanced employee morale, process efficiency, and innovation spurred by green practices. Research by Yong et al. (2020) and Aremu (2022) confirms that firms adopting comprehensive GHRM frameworks report improved operational outcomes, better stakeholder relations, and greater adaptability in responding to environmental challenges. Empirical evidence from studies such as Nwachukwu (2022), conducted in the Nigerian manufacturing sector, further reinforces the link between GHRM and firm performance. Findings from this and similar studies suggest that manufacturing firms that adopt GHRM practices experience measurable improvements in financial performance, regulatory compliance, and environmental impact. Hinson et al. (2021) highlights the importance of human resource strategies in achieving environmental sustainability and firm competitiveness. Shafaei (2020) supports the view that GHRM is not merely a reactive compliance mechanism but a strategic tool for achieving long-term business success through sustainable development.

Firm performance is positively influenced by the strategic integration of GHRM practices. For firms in Nairobi's food and beverage manufacturing industry, GHRM provides a valuable pathway for achieving sustainability objectives, enhancing competitiveness, and securing economic viability in an environmentally constrained business landscape.

2.2.3 Food & Beverage Manufacturing Firms

The food and beverage industry in Kenya stands as one of the most resource-heavy sectors because it uses large amounts of water and energy and raw materials and produces substantial waste and emissions (Muthoni & Mose, 2020). The sector stands under growing inspection from both regulatory bodies and environmental organizations and demanding consumers who expect sustainable business practices (Kuria, 2019). The implementation of Green Human Resource Management (GHRM) practices in food and beverage manufacturing firms shows inconsistent results because of fragmented implementation (Yong et al., 2020). Companies find it difficult to implement environmental sustainability in their HR policies because they lack financial support

and regulatory oversight and technical knowledge (Odhiambo, 2023). Several organizations have started implementing standalone green initiatives but their comprehensive GHRM strategies including green recruitment and training and performance management and reward systems continue to develop (Jabbour & Souza, 2013)

The industrial center of Nairobi maintains numerous food and beverage production facilities which drive Kenya's economic expansion. The sector generates 3% of Kenya's Gross Domestic Product (GDP) while sustaining thousands of workers throughout its supply chain according to Kenya National Bureau of Statistics [KNBS] (2022). Most organizations maintain financial performance as their main priority instead of pursuing long-term environmental sustainability which produces ongoing problems in waste management and pollution control and resource conservation (Sakwa, 2018). Research shows that organizations which fail to integrate GHRM properly face environmental regulation non-compliance and negative reputational impact and weakened competitive position in today's global market (Freeman, 2021).

Some organizations have started implementing GHRM practices due to the mounting regulatory demands from NEMA and ISO 14001 sustainability standards (Ahakwa et al., 2021). The sector maintains a significant gap between sustainability goals and HR policies because employees lack training on sustainability and organizations fail to reward green performance and demonstrate weak environmental stewardship (Nisar et al., 2021).

The research analyzed GHRM practice effects on firm performance by studying Nairobi-based food and beverage production companies. Research on the implementation of GHRM in the sector becomes vital because of its environmental impact and economic significance to Kenya while offering insights into barriers and opportunities that will support sustainability and corporate responsibility (Shafaei, 2020).

2.3 Theoretical Review

The theoretical literature review draws on the foundational theories relevant to the study, allowing the researcher to explore existing concepts related to the study's objectives (Mugenda, 2018). The theoretical framework provides explanations and descriptions that clarify the theories addressing the study's problems. This study is grounded in Natural Resource based theory.

2.3.1 Natural Resource-Based View (NRBV) Theory

The theoretical foundation of this study is based on the Natural Resource-Based View (NRBV) of the firm, developed by Hart (1995). The NRBV extends the traditional Resource-Based View (RBV) by incorporating environmental considerations into strategic resource planning (Hart & Dowell, 2011). It posits that firms can attain and sustain competitive advantage through capabilities and practices that promote environmental sustainability, particularly in how they manage their internal resources which includes human capital (Almada, 2018 and Hamdoun, 2020)

According to Hart (1995), the Natural Resource-Based View (NRBV) highlights three core strategic capabilities that organizations should cultivate to achieve environmental competitiveness. The first is pollution prevention, which involves reducing waste and emissions to enhance eco-efficiency. This capability encourages firms to minimize environmental harm through internal processes and resource optimization. The second is product stewardship, which focuses on managing the entire product lifecycle with careful consideration of environmental impacts and stakeholder interests. It emphasizes responsibility beyond production, including sourcing, use, and disposal. The third capability is sustainable development, which entails aligning business growth with environmental and social responsibility, particularly in the context of emerging markets where environmental risks and opportunities are significant (Hart, 1995; Hart & Dowell, 2011). These capabilities closely relate to Green Human Resource Management (GHRM) practices. For instance, pollution prevention can be advanced through green training and development programs, product stewardship aligns with employee participation in environmental initiatives, and sustainable development is supported by fostering a long-term green organizational culture and leadership (Renwick, 2013; Zibarras, 2015 and; Agrawal, 2024).

The relevance of the Natural Resource-Based View (NRBV) to Green Human Resource Management (GHRM) lies in the shared emphasis on building internal capabilities that contribute to environmental sustainability and competitive advantage. GHRM involves integrating environmental concerns into traditional human resource functions such as recruitment, training, performance appraisal, and compensation (Alzyoud, 2021). These practices help organizations cultivate a workforce that is environmentally conscious, proactive, and innovative. These traits are considered valuable, rare, and inimitable resources under the NRBV framework. Empirical studies have demonstrated how GHRM contributes to the development of the strategic capabilities

outlined in the NRBV. For example, Jabbour (2010) found that green training and development significantly enhanced environmental innovation and operational efficiency in Brazilian industrial firms. This implies that businesses can encourage pollution avoidance and product stewardship by providing workers with environmental knowledge and skills, thus bringing HR procedures into line with NRBV's fundamental principles.

Similarly, Renwick (2013) that human resource management plays a critical role in embedding sustainability values into an organization's culture. This cultural alignment supports the NRBV's sustainable development capability, particularly by fostering long-term commitment to environmental and social goals. Daily and Huang (2001) provide additional evidence that employee participation in environmental initiatives enhances environmental performance in U.S. manufacturing organizations. This is consistent with the NRBV's emphasis on stakeholder integration and product lifecycle responsibility, illustrating how GHRM can promote product stewardship through participatory management practices.

Together, these findings underscore the strategic importance of GHRM in actualizing the capabilities proposed by the NRBV. By investing in people-oriented environmental strategies, firms can build the internal competencies necessary for sustained environmental performance and competitive differentiation.

The Natural Resource-Based View (NRBV) provides a framework for understanding how firms can build environmental capabilities and offers strategic insight into how such capabilities can enhance overall firm performance. The theory was particularly relevant to this study because the study assessed both environmental and organizational outcomes. Under the NRBV, firm performance is considered multidimensional, encompassing environmental, financial, and employee-related outcomes (Pullman, 2010 and Mitra, 2022). From an environmental perspective, GHRM contributes to improved performance by enabling practices such as pollution prevention and fostering green employee behavior. These initiatives help organizations reduce waste, conserve natural resources, and maintain compliance with environmental regulations, all of which are vital for long-term sustainability (Shafaei, 2020). Firms can develop internal systems that support eco-efficiency if they embed sustainability practices in their human resource practices.

Financially, firms that adopt environmentally responsible practices often experience greater cost efficiencies, have enhanced brand reputation, and improved access to environmentally sensitive

markets (Zaid, 2018 ;Saha, 2020). GHRM facilitates this financial performance by integrating sustainability into recruitment, performance appraisal, and reward systems. This stimulates innovation that is aligned with environmental goals, ultimately contributing to profitability and market competitiveness (Alzyoud, 2021). On the employee front, GHRM practices such as green training, participation in environmental initiatives, and sustainability-focused leadership have been shown to foster higher levels of employee engagement, organizational commitment, and green citizenship behavior (Farndale, 2010; Amjad, 2021). These behaviors enhance a firm's adaptability, productivity, and innovative capacity (Martínez-del-Río, 2012). As employees become more aligned with environmental values and practices, the organization is better positioned to achieve both its sustainability and strategic business objectives.

The NRBV highlights how GHRM serves as a critical driver not only of environmental sustainability but also of broader organizational performance. In the context of Nairobi's food and beverage manufacturing sector, firms are increasingly confronted with the dual pressures of environmental degradation and regulatory enforcement, alongside evolving expectations from consumers, communities, and international stakeholders. The Natural Resource-Based View (NRBV) provides a valuable theoretical lens for interpreting how organizations within this sector can strategically respond to these challenges by leveraging internal capabilities, particularly through Green Human Resource Management (GHRM) practices (Hart & Dowell, 2011)

GHRM enables firms to embed sustainability into their workforce strategies, thereby aligning human capital with broader environmental objectives. For instance, green recruitment processes help attract individuals who are environmentally conscious and aligned with the organization's sustainability values, thereby fostering a workforce committed to ecological responsibility (Renwick, 2013). This alignment is especially important in Kenya's manufacturing sector, where sustainable practices are becoming a market differentiator due to increased environmental scrutiny (Thiga, 2023). Furthermore, green training initiatives enhance employees' environmental awareness and operational competencies. This empowers them to identify and implement pollution prevention measures and ensure adherence to national environmental standards, such as those outlined by the National Environment Management Authority (NEMA) (Wehrmeyer, 2017). These capabilities directly support the NRBV's emphasis on pollution prevention as a strategic competency (Hart, 1995).

Equally, incorporating sustainability metrics into performance appraisals and reward systems can incentivize green behavior, encourage innovation, and reinforce a culture of environmental accountability (Bor, 2021; Aremu, 2022). Within the NRBV framework, these GHRM practices are not merely tools for regulatory compliance; they are strategic initiatives that enhance organizational resource productivity, reduce environmental risk, and improve competitive advantage in the long term (Hart & Dowell, 2011). This is particularly salient in the Kenyan context, where resource constraints, climate vulnerability, and policy shifts demand adaptive and forward-looking management approaches (Agrawal, 2024).

Although the Natural Resource-Based View (NRBV) has faced some criticism primarily for its internal orientation and its assumption that firms can readily develop or access the necessary resources, it remained highly suitable for the purposes of this study. One of the central critiques, as noted by scholars such as Barney (1991), is that resource-based approaches can sometimes overlook external environmental dynamics and overemphasize firm-specific assets. However, the NRBV addresses this limitation by extending the traditional Resource-Based View (RBV) to explicitly incorporate ecological concerns into strategic management (Shafaei, 2020) (Yousaf, 2021). The primary justification for using the NRBV exclusively in this study lies in its strong alignment with the research objectives, particularly the examination of Green Human Resource Management (GHRM) practices. The NRBV offered a direct theoretical foundation for understanding how internal capabilities especially those related to human capital could be leveraged to achieve both environmental sustainability and improved organizational performance. The theory moves beyond the static assessment of "what resources a firm has" and instead emphasizes how these resources can be configured to proactively respond to environmental challenges and generate long-term value (Hart & Dowell, 2011). Moreover, the NRBV was especially relevant in the context of emerging economies such as Kenya, where environmental degradation, regulatory changes, and sustainable development goals are increasingly shaping business practices. Unlike the traditional RBV, which neglects these external pressures, the NRBV incorporates ecological constraints and stakeholder demands into its core logic. It thus provided a more dynamic and responsive framework for examining how firms in Nairobi's food and beverage manufacturing sector can build strategic advantage through GHRM and environmentally responsible practices.

2.3.2 Ability-Motivation-Opportunity (AMO) Theory

The Ability-Motivation-Opportunity (AMO) Theory was popularized by Appelbaum et al (Appelbaum et al., 2000) in their study on high-performance work systems. The theory explains that employees perform better when they have the right abilities (A), are motivated (M) to work, and are given the opportunity (O) to contribute. This relationship is often summarized as: Performance = Ability × Motivation × Opportunity (P = f(A × M × O)) (Appelbaum et al., 2000). According to the theory, ability includes an employee's knowledge, skills, and competencies. Motivation refers to the internal drive or incentives that encourage employees to perform well. Opportunity involves having the freedom and supportive environment to apply one's skills and contribute to organizational goals (Boselie, 2005; Jiang, 2012).

In relation to Green Human Resource Management (GHRM), the AMO theory is important because it helps explain how green HR practices can lead to better environmental and organizational outcomes. For example, green training improves employees' environmental knowledge and skills, which enhances their ability. Green rewards and performance appraisals increase motivation to adopt eco-friendly behaviors. Additionally, giving employees a chance to take part in environmental initiatives such as team-based green projects improves their opportunity to participate (Jabbour, 2010; Renwick, 2013)

The contextual relevance of AMO theory is especially important in Nairobi's food and beverage manufacturing firms. These companies are facing increased pressure from environmental regulations, consumer expectations, and global sustainability goals. GHRM practices that align with AMO theory can help these firms build a workforce that is skilled in green practices, motivated to act sustainably, and given the chance to make a difference. This contributes not only to better environmental outcomes but also to stronger firm performance in terms of cost savings, reputation, and employee productivity (O'Donohue & Torugsa, 2016; Zibarras & Coan, 2015).

Empirical studies also support the use of the AMO model in HRM research. For instance, Bos-Nehles (2013) found that line managers who applied AMO-based HR practices improved employee performance. Bronkhorst (2015) used the AMO framework in the public sector and showed that when HR practices enhance ability, motivation, and opportunity, they lead to higher organizational performance. In a green HRM context, Daily and Huang (2001) found that

employee involvement in environmental management improved environmental performance in U.S. manufacturing firms, which supports the "opportunity" component of the AMO theory.

However, the AMO theory is not without criticism. AMO theory often ignores the influence of context. What works in one organization or country may not work in another. For example, McDermott et al., (2019) emphasize that cultural, economic, and organizational contexts affect how AMO variables interact. In Kenya, food and beverage manufacturing firms may face different environmental challenges and resource limitations compared to firms in developed countries. Despite these limitations, the AMO theory remained highly useful for this study. It established a strong foundation for examining how GHRM practices enhance firm performance by emphasizing the human aspect of sustainability. The theory emphasizes that organizations can achieve better results when employees are well-trained, motivated, and included in decision-making (Zibarras & Coan, 2015). In the food and beverage manufacturing sector in Nairobi, these practices could lead to enhanced environmental responsibility, reduced costs, improved employee engagement, and better firm reputation.

The AMO theory supports the study by linking GHRM practices to performance outcomes. It highlights how HR systems that develop employee ability, enhance their motivation, and create opportunities for engagement can lead to better organizational performance and environmental sustainability.

The NRBV and AMO theories informed the conceptual framework, guiding the study variables' selection and interaction. The NRBV encourages the inclusion of green HRM practices (e.g., green recruiting and training) as independent variables, emphasizing their importance in developing environmental capabilities for long-term competitive advantage. The AMO theory outlines how these practices affect employee behavior by increasing ability, motivation, and opportunity. This supports the incorporation of dependent variables like staff loyalty and environmental performance. Together, the theories describe how GHRM practices influence environmental and organizational outcomes via strategic and behavioral mechanisms.

2.4 Empirical Literature Review

2.4.1 GHRM Practices and Environmental Responsibility

Organizations can reach environmental responsibility by implementing Green Human Resource Management (GHRM) practices that embed sustainability elements into their human resource operations. Empirical studies confirm that organizations implementing well-structured GHRM practices experience significant environmental benefits. Renwick et al. (2013) found that organizations with formal green HR policies, including eco-friendly training, sustainability initiative involvement, and environmental performance management systems, achieved reductions in carbon emissions and waste output. Similarly, Yong et al. (2020) demonstrated that advanced green performance management systems enhanced environmental compliance and sustainability reporting.

Sharma (2023) conducted semi-structured interviews with HR management personnel and staff members to investigate GHRM practices and employee conduct in India's IT sector. The research identified four core GHRM practices that include green recruitment and green training with environmental engagement and green performance management. Success rates in GHRM implementation hinge on both managerial dedication to leadership and employee engagement. Organizations that used green recruitment strategies together with full sustainability education alongside environmental Key Performance Indicators in their performance management system showed greater environmental commitment. The study findings enabled researchers to analyze GHRM implementation strategy in Nairobi's food and beverage manufacturing firms while examining both management leaders and their workforce.

Despite the growing body of research on GHRM, significant empirical gaps persisted, particularly in Kenya. Most studies focused on regions such as Europe, China, and India, where strong regulatory frameworks drove sustainability practices. In contrast, African economies, including Kenya, lacked sufficient empirical evidence on GHRM due to institutional, financial, and regulatory challenges. This study addressed these gaps by investigating the specific GHRM practices implement by food and beverage manufacturing firms in Nairobi.

Existing research tended to focus on individual GHRM practices, such as green recruitment or training, without assessing their collective impact on organizational performance. Sharma (2023)

and Renwick et al. (2013) analyzed isolated effects of green recruitment and training on employee behavior but did not explore how multiple GHRM practices interacted. This study filled that gap by examining the combination of green recruitment, training, performance management, and rewards systems in Nairobi's food and beverage sector.

2.4.2 Implementation Levels of GHRM

Green Human Resource Management (GHRM) implementation shows significant diversity across different industries and geographical areas because of variables including regulatory guidelines and resource access and corporate sustainability goals. Certain industries have successfully integrated Green Human Resource Management yet numerous others face difficulties because of fragmented adoption and institutional barriers. Studies on GHRM implementation provide essential insights about both the current achievements and ongoing obstacles which help explain what helps or prevents its implementation success.

In his research of Kenyan Kimeu (2015) discovered that most alcoholic beverage manufacturers in Kenya had not integrated GHRM strategies into their business operations. The research confirmed that GHRM practices in Kenya including alcohol beverage manufacturers operated at a basic level. The research team suggested that organizations should integrate GHRM best practices into their human resource policies as well as sustainability frameworks. This research evaluated the current stage of GHRM practice implementation within food and beverage organizations operating in Nairobi. According to Masri (2017) green training and development emerged as the primary GHRM practices adopted by Palestinian manufacturing organizations. The research established that GHRM lacked integration with corporate sustainability approaches because it operated through separate projects rather than forming an integrated system. The research built upon Masri's (2017) work by examining GHRM implementation within Nairobi's food and beverage sector but did not evaluate whether companies used strategic integration or fragmented approaches.

Saha (2020) studied Bangladesh's textile sector and discovered that workers understood Global Human Resource Management practices yet implementation remained limited by financial obstacles and weak monitoring and inadequate training programs. The problems in the system led to a mismatch between employee understanding of sustainability initiatives and their implementation in real practice thus reducing their effectiveness. The research team applied Saha's

(2020) framework to study the implementation barriers of GHRM in Nairobi's food and beverage sector by examining budget constraints and enforcement gaps and training deficiencies. The survey conducted by Jabbour (2010) with sustainability officers and HR managers in Australian corporations demonstrated complete organizational adoption of GHRM through green recruitment practices and workplace sustainability programs and environmental performance evaluation systems. Strong regulations together with corporate sustainability objectives enabled the study to explain why GHRM adoption rates remained high. The research compared results from this study with Kenyan conditions to determine how regulatory systems and corporate policies influenced the adoption of GHRM practices in Nairobi's food and beverage sector

Despite these valuable studies, several empirical gaps remain. Most research on GHRM has focused on developed or emerging economies, such as Australia, Palestine, and Bangladesh, where regulatory frameworks, financial incentives, and corporate commitment to sustainability have facilitated adoption. In contrast, Kenya's food and beverage sector remains underexplored in terms of GHRM implementation. This study addressed that gap by evaluating the actual level of GHRM adoption in Nairobi's food and beverage manufacturing firms, providing a clearer picture of how sustainability is being integrated into HR functions in the Kenyan context.

Moreover, many existing studies have tended to focus on individual GHRM elements—such as green recruitment or training—without examining how multiple practices interact to create a comprehensive sustainability strategy. This study took a more holistic approach, assessing the combined influence of green recruitment, green training, green performance management, and green reward systems on firm performance in Nairobi's food and beverage sector. By doing so, it provided a more nuanced understanding of how GHRM practices work together to drive both environmental sustainability and business success.

2.4.3 Influence of Green Recruitment on Firm Performance

Green recruitment refers to the process of attracting and selecting candidates who possess environmental values and are willing to support sustainability initiatives in the workplace (Ahakwa, 2021). This approach ensures that new employees align with the organization's green goals, which can lead to improved environmental performance and overall productivity. Pham et al. (2019) studied green recruitment practices in Vietnam's hospitality sector and found that hiring environmentally conscious employees led to better job satisfaction, higher engagement, and

improved firm performance. Employees were more motivated to participate in sustainability programs, which contributed to reduced turnover and increased organizational commitment.

Sharma (2023) explored green HRM in India's IT industry and identified green recruitment as a core practice that promoted employee alignment with environmental goals. The study showed that firms using sustainable recruitment approaches experienced better environmental outcomes due to stronger employee involvement. In contrast, Kimeu (2015) found that in Kenya's alcoholic beverage sector, green recruitment had not yet been institutionalized. Many companies had initiated sustainability actions, but lacked formal green hiring policies. This limited the strategic alignment between newly recruited staff and organizational environmental objectives. This gap in Kenyan firms underscores the need for structured and deliberate recruitment processes that support sustainability.

2.4.4 Influence of Green Training and Development on Firm Performance

Green training and development involve building employees' environmental awareness, skills, and competencies (Dangelico, 2017). It helps embed sustainability into the organizational culture and equips employees to participate in eco-friendly practices. Jabbour et al. (2013) conducted a study on Brazilian manufacturing firms, demonstrating that green training and employee involvement in environmental initiatives improved financial outcomes, resource management, and regulatory compliance. Firms with structured green training programs achieved operational efficiency and enhanced corporate reputation. In addition, Masri (2017) observed that green training was the most commonly adopted GHRM practice among Palestinian manufacturing firms. However, it was often implemented in isolation, without integration into broader sustainability strategies. The lack of coordination limited its long-term impact.

Moreover, Saha (2020) studied Bangladesh's textile sector and reported that although employees were aware of sustainability initiatives, weak training programs and limited budgets hindered effective implementation. This mismatch reduced the practical effectiveness of green HRM, despite strong employee interest. These studies confirmed that green training plays a vital role in improving firm performance. However, they also showed that its effectiveness depends on how well it is integrated into the overall HR and sustainability strategy. This study contributed by examining how structured and well-implemented green training influences performance in among the food and beverage manufacturing companies in Nairobi.

2.4.5 Influence of Green Performance Management on Firm Performance

Green performance management includes setting environmental goals for employees, integrating sustainability into appraisal systems, and tracking progress toward green objectives (Ismail, 2023). This practice ensures that environmental responsibility is part of employee performance expectations. Yong et al. (2020) analyzed European manufacturing firms and found that green performance management improved resource efficiency and reduced waste. Companies with structured environmental performance systems saw higher profitability and better compliance with environmental standards.

Renwick et al. (2013) emphasized the importance of including environmental metrics in performance evaluations. The study found that organizations that measured employee contributions to sustainability experienced reductions in carbon emissions and improvements in organizational efficiency. Sharma (2023) also identified green performance management as a critical component of successful GHRM implementation. The study showed that firms using performance systems that linked employee goals with environmental targets experienced stronger alignment between staff behavior and corporate sustainability objectives. Jabbour (2010) reported that Australian firms had fully adopted green performance management as part of their sustainability strategies. This was made possible by supportive regulations and a strong commitment to corporate environmental responsibility.

These studies suggest that green performance management has a powerful influence on firm performance, especially when supported by leadership and integrated into existing HR systems. Nairobi's food and beverage firms have an opportunity to strengthen performance by embedding sustainability into their appraisal and evaluation frameworks.

2.4.6 Influence of Green Rewards on Firm Performance

Green rewards are incentives given to employees for engaging in eco-friendly behaviors and supporting sustainability initiatives (Alzyoud, 2021). These may include financial bonuses, recognition programs, or career development opportunities tied to environmental contributions. Pham et al. (2019) found that green rewards improved employee morale and increased participation in sustainability programs in Vietnam's hospitality industry. By recognizing environmentally responsible actions, firms encouraged a culture of sustainability and improved their overall performance.

Jabbour et al. (2013) also noted that combining green training with reward systems enhanced operational efficiency and reduced waste. Employees were more likely to adopt green behaviors when they knew their efforts would be acknowledged and rewarded. While there is strong evidence supporting the benefits of green rewards, few studies have examined their use in Kenya. Most existing research in the region had focused on recruitment and training. This gap highlighted the need to explore how green rewards were being used in Nairobi's food and beverage sector and their influence on employee motivation and firm performance.

2.5 Research Gaps

Table 2.1: Summary of Literature Review and Research Gap Analysis

Author	Focus of the Study	Findings	Research Gap	Focus of the current study
(Shafaei, 2020)	Impact of GHRM practices on employees' behavior in IT sector in India	GHRM practices identified include green recruitment, green training, employee involvement in environmental initiatives, and green performance management	-Conducted in IT sector in India -Did not explore food and beverage sector in Nairobi -Limited to top management and employee engagement roles	Examine GHRM practices, the role of senior management, and employee engagement in Nairobi's food and beverage manufacturing companies.
Yong et al. (2020)	Interplay between GHRM and advanced green manufacturing in Europe	Widespread implementation of green job design, green rewards, and green employee relations	- Focused on European countries - Manufacturing sector in general	Explore the prevalence and adaptation of these practices in Nairobi's food and beverage firms
Renwick et al. (2013)	GHRM implementation in Chinese manufacturing firms	Identified GHRM practices like green orientation programs, environmental awareness training, and eco-friendly workplace initiatives	-Focused on Chinese manufacturing firms -Emphasized government policies and competitive pressures	Examine external drivers such as government policies and competitive pressures in Kenyan context
Zibarras and Coan (2015)	GHRM practices in the South African food and beverage sector	Identified key GHRM practices and barriers like limited resources and lack of awareness	-Limited to South African context -Did not explore solutions to barriers	Investigate challenges faced by Nairobi-based firms and how they address these barriers

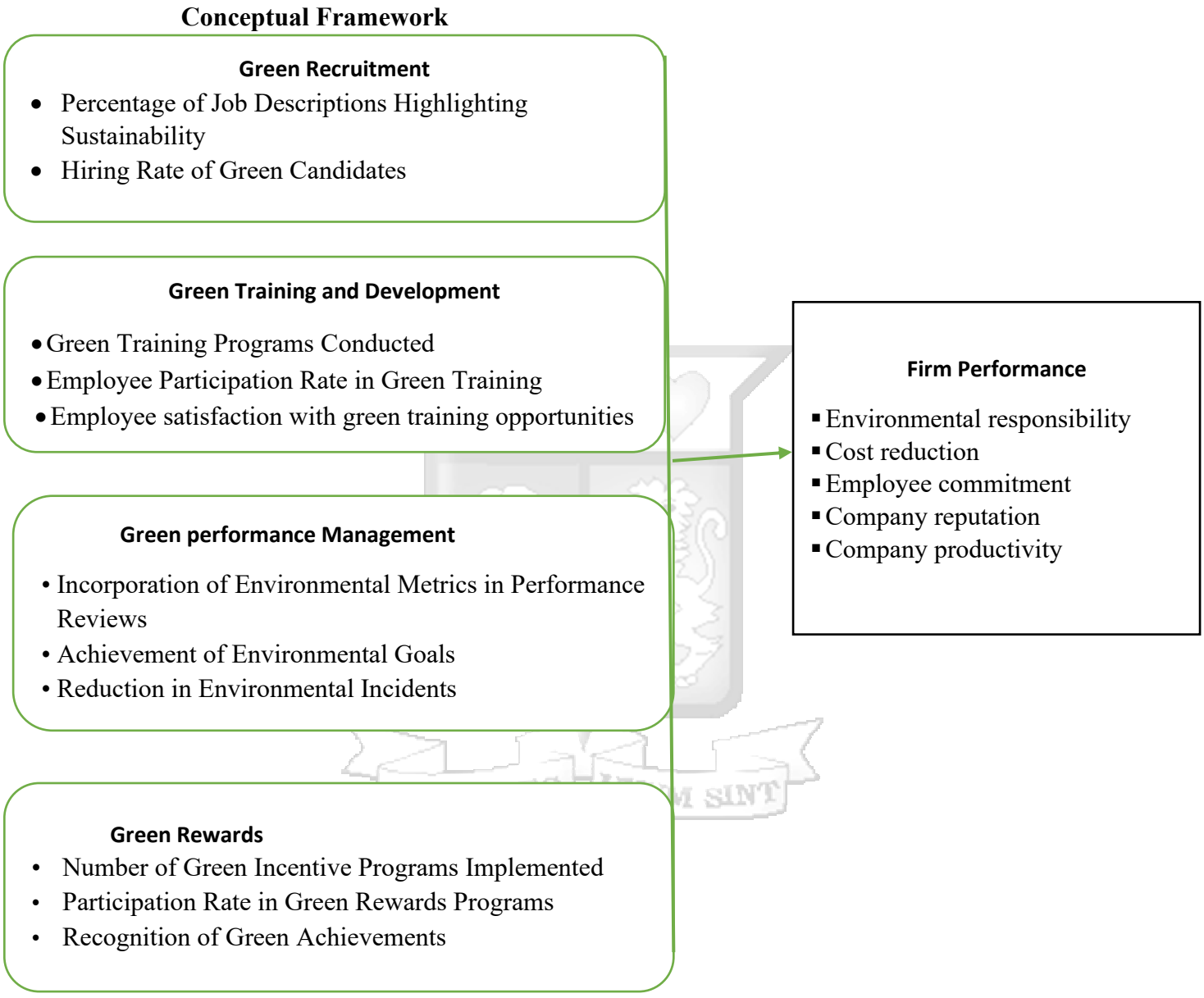
Kimeu (2015)	Green supply chain management in alcoholic beverage sector in Kenya	Identified gap in green HR practices	-Focused on supply chain management -Did not address green HR practices in depth	Assess implementation of GHRM practices in food and beverage manufacturing firms in Nairobi
Masri (2017)	GHRM implementation in the Palestinian manufacturing sector	Level of GHRM implementation was moderate, influenced by organizational commitment and environmental policies	-Conducted in Palestine -Did not explore Kenyan context	Investigate the extent to which various factors influencing implementation of GHRM in Nairobi's food and beverage manufacturing sector
Saha (2020)	GHRM implementation in Bangladeshi textile sector	High awareness but low implementation due to lack of resources and inadequate training	-Focused on textile sector in Bangladesh -Did not address solutions to challenges	Explore challenges in Nairobi's food and beverage manufacturing firms and their effect on performance of the companies
Jabbour (2010)	GHRM implementation in Australian large corporations	High implementation levels driven by regulatory pressures and sustainability goals	-Focused on Australian context -Did not explore Kenyan context	Assess presence and influence of similar drivers in Nairobi's manufacturing sector
Yong et al. (2020)	Impact of GHRM on environmental performance	GHRM practices improve environmental performance	-Focused on developed and developing countries in general -Did not explore Kenyan food and beverage sector	Compare findings with implementation and impact of GHRM practices in Kenyan food and beverage manufacturing sector

Adubor et al. (2022)	Implementation of GHRM and its impact on corporate sustainability in Nigerian manufacturing sector	Positive correlation between GHRM practices and corporate sustainability	-Focused on Nigerian context -Did not explore Kenyan context	Compare findings with implementation and impact of GHRM practices in Kenyan food and beverage manufacturing sector
Mishra (2017)	Impact of GHRM on organizational outcomes and sustainability efforts	Positive impact of GHRM practices on employee performance and organizational sustainability	-Did not explore specific practices in Kenyan context	Examine influences of GHRM practices on organizational performance in Nairobi's food and beverage manufacturing firms
Renwick et al. (2013)	Impact of GHRM practices on employee engagement and commitment	GHRM practices boost employee engagement and commitment	-Conducted in general industries -Did not explore Kenyan food and beverage sector	Examine role of GHRM practices in motivating employees' commitment to environmental responsibility in Nairobi's food and beverage manufacturing firms
Bahmani et al. (2023)	Impact of GHRM on employees' innovative performance	GHRM practices bolster employee performance and innovation	-Did not focus on food and beverage manufacturing sector -Did not explore Kenyan context	Investigate influence of GHRM practices on employee commitment towards environmental responsibility in Nairobi's food and beverage manufacturing sector

(Bangwal, 2015)	Promoting organizational sustainability through GHRM	GHRM engages employees in environmentally friendly practices	-Conducted in general industries -Did not explore food and beverage manufacturing sector	Examine role of GHRM in engaging employees in Nairobi's food and beverage manufacturing firms
(Harmon, 2017)	Influence of GHRM on employee engagement and role of leadership	GHRM improves employee engagement; leadership moderates relationship	-Focused on banking sector in Indonesia	Examine role of employee training and development on firm performance in adopting GHRM practice in Kenyan food and beverage manufacturing sector
(Khan, 2022)	Factors influencing managers' proclivity to use GHRM	Factors include managers' motivation, IT facilities access, and employee commitment	-Did not highlight role of government and industrial sustainability policies -Focused on textile sector in Bangladesh	Investigate internal and external factors, such as government policies, in pushing for GHRM practices in Kenyan food and beverage manufacturing sector

2.6 Conceptual framework

Figure 2.1: Framework Diagram for study variables



2.7 Operationalization of variables

Table 2.2: Operationalization of variables

Variable	category	Indicators	Scale Of Measurement	Supporting literature
X1=Green recruitment	Independent	● Percentage of Job Descriptions Highlighting Sustainability ● Hiring Rate of Green Candidates	Likert Scale	Jabbour (2010)
X2=Green Training and Development	Independent	● Green Training Programs Conducted ● Employee Participation Rate in Green Training ● Employee satisfaction with green training opportunities	Likert Scale	Renwick et al. (2013)
X3=Green Performance Management	Independent	● Incorporation of Environmental Metrics in Performance Reviews ● Achievement of Environmental Goals ● Reduction in Environmental Incidents	Likert Scale	Yong et al. (2020)
X4=Green Rewards	Independent	● Number of Green Incentive Programs Implemented ● Participation Rate in Green Rewards Programs ● Recognition of Green Achievements	Likert Scale	Renwick et al. (2013)
Y=Firm Performance	Dependent	● Environmental responsibility ● Employee Commitment to environmental goals ● Company reputation ● Company productivity	Likert Scale	Sharma et al. (2021)

2.8 Chapter Summary

This chapter covered both theoretical foundations and empirical research about GHRM and firm performance. This section examined Resource-Based View and Institutional Theory to explain why organizations implement GHRM. Previous studies about GHRM practices and their effects on environmental responsibility and financial efficiency and employee engagement were reviewed empirically. This section of the chapter highlighted significant research gaps which demand additional research in Kenyan settings. The research methodology of this study will be explained in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research technique used in this study to examine the implementation of Green Human Resource Management (GHRM) practices in Nairobi, Kenyan food and beverage manufacturing enterprises is outlined in this chapter. The demographic, sampling strategies, data collection and analysis tools, and study quality considerations are all included in the approach.

3.2 Research Philosophy

This study was guided by the positivist research philosophy, which assumes that reality is objective, observable, and measurable through empirical means (Trochim, 2016). Positivism is rooted in the belief that knowledge is derived from sensory experience and can be quantified through systematic observation and logical reasoning. Positivism was appropriate for this study because it focuses on the use of scientific methods to explore relationships between variables and generate objective, generalizable findings. Since the study sought to assess the influence of Green Human Resource Management (GHRM) practices in food and beverage manufacturing firms, it relied on observable and quantifiable data rather than subjective interpretations. The positivist paradigm enabled the researcher to frame hypotheses, use measurable indicators, and remain detached from the data to minimize bias. This philosophical stance ensured that the findings would be reliable, replicable, and applicable to other similar settings.

3.3 The Research Design

This study adopted a descriptive cross-sectional survey research design to assess the influence of Green Human Resource Management (GHRM) practices among food and beverage manufacturing firms in Nairobi, Kenya. A descriptive design was appropriate as it allowed the researcher to systematically document and analyze the current state of GHRM practices without manipulating the study environment. The cross-sectional nature of the study involved collecting data at a single point in time, making it ideal for capturing a snapshot of the firms' GHRM adoption and associated organizational factors. According to Creswell (2015), a research design provides the overall structure for collecting and analyzing data to answer research questions. In this study, the descriptive design facilitated the identification and analysis of GHRM practices that are in place

in the organizations and how they influence their performance, while the survey method enabled the collection of quantitative data from a large, diverse population using structured questionnaires. Data were collected from the selected respondents during a single survey period conducted in November 2024, aligning with the principles of a cross-sectional study that captures information at a specific point in time. This approach enabled the researcher to assess the current status of GHRM practices and their influence without the need for longitudinal tracking. The choice of this design aligned with Johnson (2018), who noted that descriptive cross-sectional surveys are effective for establishing relationships between variables in a population without longitudinal follow-up. Additionally, the structured and standardized nature of surveys ensures consistency and ease of statistical analysis (Kelley, 2003). This design thus provided an efficient, empirical, and representative approach to understanding GHRM practice adoption in the selected firms.

3.4 Study Population

The study population consists of all relevant individuals or objects which a research investigation requires (Pandey, 2021). The research population consisted of employees who work in food and beverage manufacturing companies located in Nairobi Kenya. The Nairobi City County Business Licensing Department (NCCG, 2023) shows that Nairobi has more than 150 registered food and beverage manufacturing companies. Official business records indicate that only 65 out of 150 registered food and beverage manufacturing firms remain operational in Nairobi (appendix contains the complete list).

The study drew its participants from employees who actively worked with HRM functions and technical staff to obtain relevant research data. The respondents included HR managers, Senior management personnel and technical personnel within these firms. Although data were collected from individual respondents (HR managers, senior managers, and technical personnel), each respondent provided information on behalf of their respective organization. While data were collected from individual employees, the analysis focused on the organization as the unit of analysis, since each respondent's input reflected firm-level GHRM practices.

3.5 Population sample

The research population selects a portion of its members to participate in investigations through study samples. The research sample represents the larger population so scientists make population

inferences from the data collected from this representative sample (Glaser, 2017). The selection process for sample entities constitutes sampling technique (Sedgwick, 2015).

The research design included specific measures to obtain a representative group of employees who work in Nairobi's food and beverage manufacturing sector. The study focused on employees who worked in food and beverage manufacturing firms within Nairobi and performed HRM functions and sustainability initiatives. According to the Nairobi City County Business Licensing Department (NCCG, 2023), there are over 150 registered firms, but only 65 firms are currently operational (see Appendix for the full list).

The unit of analysis for this study was individual employees within these firms. The selection of employees focused on key personnel involved in GHRM implementation. This approach ensured that the study gathered relevant, experience-based insights into the implementation of GHRM practices and their impact on firm performance. Since the exact number of employees across all firms was unknown, the study applied Cochran's (1977) formula for determining sample size in large populations where the total number of elements is greater than 10,000:

The formula is as follows: $n = \frac{Z^2 p(1-p)}{e^2}$

Where:

n = required sample size

Z = Z-score corresponding to the desired confidence level (e.g., 1.96 for 95% confidence)

p = estimated proportion of the population that has a particular characteristic (use 0.5 for maximum variability if unsure)

e = margin of error (Desired 5%)

Applying the values:

$$n = \frac{1.96^2 * 0.5(1-0.5)}{0.05^2} = \frac{3.8416 * 0.025\ 1.96^2 * 0.5(1-0.5)}{0.0025} = \frac{0.9604}{0.0025} = 384.16$$

To ensure representativeness across different types of firms, the study employed stratified random sampling. The 65 operational firms were stratified by size into: large firms, medium-sized firms and small firms. Within each firm, random sampling was used to select respondents from the HR, senior management, and technical personnel categories. This approach ensured that all relevant perspectives on GHRM implementation and firm performance were included.

By applying Cochran's formula and stratified random sampling, the study ensured a scientifically valid and representative sample of 384 employees, thereby providing reliable and generalizable insights into GHRM implementation in Nairobi's food and beverage manufacturing sector.

3.6 Data Collection Methods

Research questions and hypotheses testing as well as study objectives evaluation happen through a structured process of data collection and analysis (Cooper, 2014; Blumberg, 2014). The study depended mainly on quantitative primary data collected through structured questionnaires. The questionnaire served as an effective research instrument to study both Green Human Resource Management practices and their performance effects on food and beverage manufacturing companies in Nairobi Kenya because it maintained reliability and analytical simplicity while ensuring consistency. The survey contained four distinct sections to gather necessary information. The initial section of the survey obtained data about participants' age together with their education level job position and professional experience. The second part examined the GHRM practices used by organizations and included Green Recruitment and Green Training & Development and Green Performance Management and Green Rewards. The survey evaluated GHRM implementation levels in the third section and analyzed performance effects through environmental responsibility and cost reduction and employee commitment and corporate reputation and productivity metrics.

The questionnaire used a 5-point Likert scale to measure participant agreement on each statement for statistical analysis purposes and uniformity. The researcher used a 5-point Likert scale that ran from 1 = Strongly Disagree to 5 = Strongly Agree to measure attitudes and perceptions and agreement levels (Creswell, 2015). The research design generated numerical data that allowed statistical analysis through descriptive and inferential methods which included means and standard deviations and correlation and regression techniques.

The questionnaire distribution used physical and online methods to achieve high response rates while maintaining access for all intended respondents. The researcher together with trained enumerators distributed paper questionnaires to employees working in the selected food and beverage manufacturing firms. The questionnaire for digital respondents was built through Google Forms before distributing it through email. The dual method worked best for busy senior managers together with respondents who needed to manage tight schedules. A follow-up process through

phone calls and emails helped to promote questionnaire completion by reminding participants and answering their questions. The research used structured questionnaires together with standardized Likert scales and dual-mode administration methods to maintain data validity and reliability. The research approach enabled precise measurements of GHRM implementation rates together with their performance effects which generated crucial sustainability findings about Nairobi's food and beverage manufacturing industry.

3.7 Data Analysis and Presentation

According to Sedgwick (2015), data analysis is the methodical synthesis and organization of research data as well as the use of such data to test research hypotheses. Likert scale questionnaires were used in the research to collect quantitative data. Descriptive statistics was used to analyze the quantitative data. Descriptive statistics played a crucial role in highlighting the variables under investigation. Because this data analysis method is straightforward and provides summaries of the variables under investigation, it will be advantageous. The survey yielded quantitative data that were displayed as mean averages, frequencies, and percentages.

Inferential statistics including Pearson correlation and multiple regression was also used to analyze the relationship between variables. Multiple regression analysis was employed in order to determine the correlation between the dependent variable and the independent variables. Pearson correlation coefficient (R), is used to determine the strength (direction and magnitude) of relationship or association between two variables (Lohr, 2021) , in this study the relationship between GHRM Practices and implementation of GHRM. The coefficients of determination, R, range from -1 to + 1 and -1 indicates a perfect negative correlation while +1 shows perfect positive correlation.

The following regression model was used in the analysis to determine the relationship between study variables:

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

Where:

$Y =$ Performance of the firm

$\beta_0 =$Constant (coefficient of intercept)

$X_1 =$ Green recruitment

$X_2 =$ Green Training development

$X_3 =$ Green Performance management

$X_4 =$ Green rewards

$\beta_1, \beta_2 \beta_3, \beta_4$: Regression coefficients, and,

$\varepsilon$is the error term.

3.8 Research Quality

To guarantee the calibre of the research, piloting took place. A research study procedure called study piloting was used to assess the validity and dependability of the research instrument. Creswell, (2015) asserts that a pilot study is important for identifying potential restrictions on the research data gathering tool. The purpose of this study was to evaluate the research instrument's dependability through a pilot study. A pilot group consisting of 10% of the study sample size was excluded from the final research. Schindler and Cooper, 2014). The pilot research's goal of obtaining at least 10% of participants from the study sample size was crucial in supporting the validity of the instrument used in the main study (Sedgwick, 2015).

3.9 Research Instrument Validity

Instrument validity basically refers to measuring the level of satisfaction of the instrument in relation to the needs of the study. The primary way that the proposed research instrument's validity will be tested is through face validity. At least 10% of the intended sample of the population was selected to participate in a pilot study by filling in the prepared questionnaires. According to Blumberg (2014) the researcher will be able to identify the potential flaws in this research instrument and rectify where necessary. Secondly, to test construct validity, the results of the pilot study was analyzed to find out whether they measure the intended variables, that is, the indicators of GHRM implementation, current level of implementation of GHRM practices and the influence of GHRM practices on performance of food and beverage manufacturing firms in Nairobi, Kenya. Lastly, in achieving a satisfying content validity, the expert judgmental method was useful in this study from which presentation of the research instrument to the supervisor, who has a critical evaluation expertise in development and use of research instruments.

3.9.1 Research Instrument Reliability

Reliability was defined by Mugenda, Mugenda in 2003 as the degree to which a scholar instrument yields dependable data and outcomes following repeated attempts. The principal method that was

used to test for the research instrument reliability in the proposed research study is the inter-rater reliability test. The results of the study was compared against the study findings of other researchers, especially those highlighted in the literature review, and they revealed possible inconsistencies or consistencies in the study. Since the results of other researchers are consistent with what is revealed in the present research, the researcher concluded that the data collected and analyzed is reliable. If not, the researcher would have concluded that the results were unreliable. In this context, if the past research studies have proposed similar strategies for successful implementation of GHRM in the food and beverage sector, suggested similar merits of GHRM practices and revealed similar indicators of GHRM implementation, the research were considered reliable. The dependability of research instruments and components that was used in this instance included using a test-and-retest methodology. The method was useful since it determined whether the answers given were appropriate for the study. The instruments were deemed effective and provide the requisite dependability coefficient.

3.9.2 Ethical Considerations

According to Blumberg (2014) the ethical conduct of the research is an important face of research, Sedgwick, (2015) place emphasis on confidentiality of responses and anonymity of the respondents. The study therefore ensured that a part of the ethical consideration, anonymity and confidentiality in the study was maintained. This was achieved by assuring respondents that the study is a university-based activity, and the responses only accessed by the researcher. Additionally, the research study informed all the participants of their rights to participate and any risk that the research may pause as a result of their participation. The researcher pledged to destroy the instrument after they have served their purpose. The research was also done according to the regulations of the university and the research community. No pressure or inducement was applied on individuals to encourage them to fill the questionnaire. All secondary data sources and other information have been acknowledged and cited.

3.10 Chapter summary

The chapter details the research methodology for the study, the study proposes a sample size of 344 respondents determined using Yamane's (1967) formula. Primary data was gathered through structured questionnaires, employing convenience sampling. Data analysis was conducted using

SPSS version 28, employing both descriptive and inferential statistics. Ethical standards were adopted throughout the study.

4 CHAPTER FOUR: PRESENTATION OF THE RESEARCH FINDINGS

4.1 Introduction

This chapter presents the analysis, interpretation, and discussion of the research findings. The results are analyzed using descriptive statistics, including mean scores and standard deviations, as well as inferential statistics, correlation and regression analysis. The chapter examines the interrelationships among GHRM practices, their level of implementation, and their influence on firm performance. The findings are further evaluated using ANOVA tests to assess the overall efficiency of the regression model.

4.2 Response rate

The study targeted a total of 384 respondents from food and beverage manufacturing firms in Nairobi, Kenya. The respondents included HR managers, Senior management personnel and technical personnel within these firms. Although data were collected from individual respondents (HR managers, senior managers, and technical personnel), each respondent provided information on behalf of their respective organization. Therefore, the unit of analysis for this study was the organization (i.e., the food and beverage manufacturing firms). The response rate of the study is presented in Table 4.1.

Table 4.1: Response Rate

Questionnaires	**Frequency**	**Percentage**
Fully completed	344	90%
Incomplete	40	10%
Total	**384**	**100%**

Of the 384 questionnaires administered, 344 were fully completed and returned, yielding a response rate of 90%. The study collected data through both physical distribution and online surveys to ensure maximum reach and representation. Questionnaires were distributed across various food and beverage manufacturing firm in Nairobi.

The respondents were selected using stratified random sampling, ensuring representation across different hierarchical levels within the organizations. The firms were grouped based on their size (small, medium, and large-scale manufacturers) and location within Nairobi's industrial zones,

including Industrial Area, Baba Dogo, Thika Road, and Donhom. This approach ensured a balanced representation of different types of food and beverage manufacturers.

According to Mugenda and Mugenda (2003), a response rate of more than seventy percent is regarded as very good. The high response rate of 90% enhances the internal and external validity of the study, making it possible to generalize the findings on the status of Green Human Resource Management (GHRM) practices among food and beverage manufacturing firms in Nairobi, Kenya. Additionally, the high response rate minimizes non-response bias, ensuring that the collected data is reliable and representative of the target population.

4.3 Reliability test

The reliability of the scales used in the study was tested using Cronbach's Alpha, which assesses the internal consistency of the items within each scale. A Cronbach's Alpha value of 0.7 or higher is generally considered acceptable for reliability, indicating that the items within the scale are measuring the same underlying construct. The reliability test results were as presented in table 4.2

Table 4.2: Reliability test

Scale	**Cronbach's Alpha**	**Number of Items**	**Comments**
GHRM practices	0.845	9	Accepted
Current level of Implementation of GHRM	0.773	5	Accepted
Green Training and Development	0.689	4	Accepted
Green Performance Management	0.695	4	Accepted
Green rewards	0.744	4	Accepted
Performance of F&B manufacturing firms	0.754	4	Accepted

The scale for GHRM Practices exhibited high reliability with a Cronbach's Alpha of 0.845 based on the 9 items. The Current Level of GHRM Implementation scale also demonstrated strong reliability, with an alpha of 0.773 derived from 5 items. The Green Training and Development scale showed slightly lower reliability with a Cronbach's Alpha of 0.689 for 4 items, which is still within an acceptable range. Similarly, the Green Performance Management scale achieved a reliability coefficient of 0.695 for 4 items, indicating reasonable internal consistency. The Green

Rewards scale displayed good reliability with an alpha of 0.744 based on 4 items, while the Effects of GHRM scale was also found to be reliable, with a Cronbach's Alpha of 0.754 for 5 items. These results indicate that the scales are suitable for measuring the intended constructs within the study context.

Notably the number of elements (items) in each scale were not equal because each construct measured had unique dimensions and complexities that require a different number of items to capture them effectively. Some constructs, such as GHRM practices, encompass multiple dimensions, requiring a higher number of items (9) to ensure comprehensive measurement. In contrast, narrower constructs like Green Rewards or Green Performance Management require fewer items (4) to capture their essence adequately.

4.4 Demographic information

The research team obtained demographic information to establish complete understanding of respondent characteristics which could affect Green Human Resource Management (GHRM) practice implementation and implementation among Nairobi's food and beverage manufacturing firms. Demographic data enables researchers to understand workforce composition for analyzing how gender distribution and age distribution as well as education levels and job titles and experience contribute to sustainability initiatives in the sector. The study's findings gain both validity and generalizability through the comprehension of these characteristics.

4.4.1 Gender of Respondents

Table 4.3 below presents the gender distribution of the respondents, highlighting the proportion of male and female participants in the survey.

Table 4.3: Gender of respondents

Gender	**Frequency**	**Percent**
Male	166	48.25%
Female	178	51.7%
Total	**344**	**100%**

Source: Primary data (2024)

4.4.2 Age of the respondents

The age distribution of respondents reveals that the majority (64.5%) fall within the 31–51 age bracket, representing individuals in their prime working years who are likely to possess significant sector experience. Respondents aged 52 years and above account for 14.8%, indicating a relatively smaller proportion of senior or older employees in food and beverage manufacturing firms in Nairobi. Meanwhile, the younger demographic (18–30 years) constitutes 20.6% of the sample, reflecting a notable presence of early-career professionals or new entrants to the sector. These findings, as detailed in Table 4.4, provide valuable insights into the workforce composition within the sector.

Table 4.4: Age distribution

Age	Frequency	Percent
18-30 years	71	20.6%
31-41 years	119	34.6%
42-51 years	103	29.9%
52-54 years	34	9.9%
55 and above	17	4.9%
Total	344	100.0%

4.4.3 Education Qualification

The education profile of the respondents reflects a well-educated workforce, with a large percentage (64%) holding Diplomas, Bachelor's degrees, or higher qualifications. The dominance of diploma holders (37.2%) may indicate that the sector prioritizes technical or vocational education. The relatively low number of respondents with Master's degrees (3.8%) and Doctoral degrees (0.3%) suggests fewer individuals at the highly specialized or executive education level. The presence of Secondary School graduates (6.5%) highlights that entry-level positions or manual labor jobs might not require advanced education. This is as presented in table 4.5

Table 4.5: Education qualification

Education Level	Frequency	Valid Percent
Secondary School	22	6.5%
College Certificate	85	25.1%

Diploma	126	37.2%
Bachelor's degree	91	26.8%
Master's degree	13	3.8%
Doctoral Degree	1	0.3%
Others	1	0.3%
Total	339	100.0%

Understanding educational qualifications helps to determine whether higher educational attainment correlates with increased awareness and implementation of GHRM practices.

4.4.4 Job title

The distribution of job titles among respondents shows that the majority were technical personnel, who accounted for 55.5% of the sample. This reflects the operational nature of the food and beverage manufacturing sector, where technical expertise is critical to daily production processes. HR Managers made up 24.6% of the respondents, providing insights into organizational-level human resource practices. Senior management personnel comprised 19.9%, representing the strategic leadership layer in the organizations. The inclusion of respondents across various functional tiers ensured that the study captured perspectives on Green Human Resource Management (GHRM) practices from both operational and decision-making levels. These findings are summarized in Table 4.6

Table 4.6:Job title

Job Title	Frequency	Valid Percent
HR Managers	84	24.6.%
Senior Management	68	19.9%
Technical personnel	190	55.5%
Total	342	100.0%

Analyzing job roles provides insights into how different occupational levels perceive and influence GHRM implementation, particularly since decision-making authority varies across organizational hierarchies.

4.4.5 Years of Experience

The analysis of experience levels among respondents shows that a significant majority (68.9%) have between 1 to 10 years of professional experience, indicating a workforce that is moderately experienced but not predominantly senior. Notably, only 1.5% of respondents have over 20 years of experience, suggesting potential challenges related to long-term employee retention within the sector. Furthermore, the relatively high proportion of employees with 1–5 years of experience (36.9%) may reflect recent hiring trends or moderate turnover rates. These findings, as detailed in Table 4.7, provide valuable insights into workforce dynamics in the sector

Table 4.7:Years of experience

Years of experience	Frequency	Percent
Less than 1 year	25	7.3%
1-5 years	127	36.9%
6-10 years	110	32.0%
11-15 years	64	18.6%
16-20 years	13	3.8%
More than 20 years	5	1.5%
Total	344	100.0%

4.5 Descriptive Statistics

This research evaluated the influence of Green Human Resource Management (GHRM) practices on performance of food and beverage manufacturing firms in Nairobi, Kenya. Respondents were requested to indicate their opinions on various statements regarding the use, integration, and impact of GHRM practices in their organizations. Responses were measured using a 5-point Likert scale, where Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5. The variability in responses was analyzed using standard deviation (SD). A low SD (less than 1.5) indicated high agreement and consistency, while a higher SD (greater than 1.5) suggested diverse opinions. These descriptive statistics provide valuable insights into the implementation levels and impact of GHRM practices on firm performance.

4.5.1 Green recruitment

The first objective of the study was to evaluate the influence of green recruitment on firm performance. The researcher therefore first sought to assess green recruitment practices being practiced among food and beverage manufacturing firms in Nairobi. As indicated in table 4.10, respondents generally agreed that job descriptions posted by their companies highlight green or environmental sustainability aspects (M = 3.72, SD = 0.814), with the relatively low standard deviation indicating a strong consensus on this practice.

Respondents also agreed that their companies gauge the environmental consciousness of individuals during the employee selection process (M = 3.75, SD = 0.943). However, the higher standard deviation reflects moderate variation in how this practice is applied across different firms. Finally, respondents agreed that environmentally conscious candidates have a better chance of securing a job with their company (M = 3.65, SD = 0.834), and the low standard deviation suggests a consensus on the importance of this factor in recruitment decisions.

Table 4.8:Green recruitment

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
Job descriptions posted by our company highlight green/ environmental sustainability aspects	2.3%	3.5%	26.5%	55.2%	12.5%	3.72	0.814
Our company gauges environmental consciousness of individuals during selection of employees to be recruited	1.7%	6.4%	38.7%	76.7%	23.3%	3.75	0.943
Candidate who are environmentally conscious have better chance of securing a job with our company	1.5%	5.2%	34.0%	45.6%	13.7%	3.65	0.834

4.5.2 Green Training and Development

This study also evaluated green training and development practices in food and beverage manufacturing firms in Nairobi. Respondents agreed that their companies offer specific training programs related to environmental sustainability (M = 3.77, SD = 0.847), with a relatively low

standard deviation indicating general consensus on this practice. Respondents further agreed that all employees have an equal chance to attend green training programs (M = 3.67, SD = 0.948), though the higher standard deviation suggests some variation in how this practice is implemented across firms.

Additionally, respondents agreed that their companies provide regular training on environmental issues (M = 3.76, SD = 0.886), with moderate agreement across responses. Lastly, there was agreement regarding satisfaction with green training initiatives (M = 3.56, SD = 0.949), though this item showed greater variability, indicating some divergent opinions on the effectiveness of these initiatives. This is as indicated in table 4.11.

Table 4.9: Green training and Development

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
Our company offer specific training programs related to environmental sustainability	1.7%	5.5%	22.7%	53.8%	16.3%	3.77	0.847
At our company, every employee has equal chance of attending green training programs	1.7%	9.0%	27.9%	40.1%	19.5%	3.67	0.948
Our employees get regular trainings on environmental issues	1.7%	7.0%	23.0%	50.6%	17.7%	3.76	0.886
I am satisfied with the company's green training initiatives	3.2%	8.7%	31.7%	42.2%	14.2%	3.56	0.949

4.5.3 Green Performance Management

The third objective of the survey was to determine the influence of green performance management on the performance of food and beverage manufacturing firms. In this regard, the survey first sought to assess the implementation of various green performance management practices. These practices were evaluated in line with the constructs identified in the conceptual framework and were examined within the context of food and beverage manufacturing firms in Nairobi. Respondents agreed that environmental performance metrics are integrated into employee

performance evaluations (M = 3.80, SD = 0.845), with relatively low variation indicating consensus on this practice.

There was moderate agreement regarding how often employees achieve environmental goals set by the company (M = 3.61, SD = 0.887), with slight variation in responses. Respondents also agreed that employees are aware of the company's environmental goals and targets (M = 3.60, SD = 0.904), though the higher standard deviation reflects some variation in awareness across firms. Additionally, respondents agreed that employees feel environmental performance is valued by the company (M = 3.65, SD = 0.904), with a moderate level of variation in responses. This is as indicated in table 4.12

Table 4.10: Green Performance Management

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
Environmental performance metrics are integrated into employee performance evaluations	2.0%	3.8%	24.1%	52.3%	17.7%	3.80	0.845
How often do employees achieve environmental goals set by the company?	2.0%	7.3%	32.3%	44.5%	14.0%	3.61	0.887
Our employees are aware of the company's environmental goals and targets	2.6%	8.1%	28.5%	48%	12.8%	3.60	0.904
Employees feel that environmental performance is valued by the company	1.7%	8.1%	29.4%	44.8%	16.0%	3.65	0.904

4.5.4 Green rewards

The study also examined green reward practices in food and beverage manufacturing firms in Nairobi. As indicated in table 4.12, respondents agreed that their companies offer incentives or rewards for environmentally friendly behaviors (M = 3.67, SD = 0.920), with moderate consensus on this practice. There was also agreement that green rewards are regularly offered to top employees (M = 3.71, SD = 1.021), although the higher standard deviation suggests more variability in how this practice is implemented across firms. Respondents perceived green rewards as important (M = 3.70, SD = 0.952), and agreed that these rewards motivate employees to

implement environmentally friendly practices (M = 3.64, SD = 0.946), though some variability in opinions was observed.

Table 4.11: Green rewards

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
Our company offer incentives or rewards for environmentally friendly behaviors	3.8%	6.7%	21.8%	54.7%	13.1%	3.67	0.920
Our company offers green rewards to top employees regularly	2.0%	9.6%	29.9%	32.6%	25.9%	3.71	1.021
Our employees perceive the green rewards as very important to them	2.0%	7.9%	28.9%	40.5%	20.7%	3.70	0.952
Green rewards offered at our company motivate employees to adopt environmentally friendly practices	4.1%	4.9%	29.7%	45.3%	16.0%	3.64	0.946

4.5.5 Performance of the food and beverage firms

This section presents findings on the perceived outcomes of Green Human Resource Management (GHRM) practices on the performance of food and beverage manufacturing firms in Nairobi. Specifically, the study assessed how GHRM practices have contributed to improvements in environmental responsibility, operational efficiency, and overall organizational performance. Respondents agreed that their companies have become more environmentally responsible due to GHRM practices (M = 3.76, SD = 0.900), with a relatively low variation in opinions. Similarly, respondents noted that the implementation of GHRM has led to cost reductions (M = 3.76, SD = 0.935), indicating moderate consensus on this impact. There was also agreement that GHRM initiatives have strengthened employee commitment to environmental goals (M = 3.66, SD = 0.915) and enhanced the company's reputation as environmentally responsible (M = 3.66, SD = 0.943), though some variability in perceptions was noted. Additionally, respondents agreed that GHRM practices have positively impacted overall company productivity (M = 3.72, SD = 0.925), showing a general alignment in opinion on the benefits of implementing GHRM practices. This is as summarized in table 4.14

Table 4.12: Outcomes of GHRM

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation
The company has become more environmentally responsible due to GHRM practices.	2.6%	5.5%	22.7%	51.2%	18.0%	3.76	0.900
The implementation of GHRM has led to cost reductions in our company	1.5%	6.4%	30.2%	38.1%	23.8%	3.76	0.935
GHRM initiatives have strengthened employee commitment to environmental goals	2.0%	8.1%	27.6%	45.9%	16.3%	3.66	0.915
GHRM practices have enhanced the company's reputation as an environmentally responsible organization.	2.3%	8.1%	28.5%	43.0%	18.0%	3.66	0.943
GHRM practices have positively impacted overall company productivity.	3.2%	6.7%	21.5%	52.3%	16.3%	3.72	0.925

4.6 Inferential Statistics

Correlation and multiple regression analyses were used to investigate the relationship between various GHRM practices and its influence in the performance food and beverage manufacturing firms.

4.6.1 Correlational Analysis

In this study, a correlation analysis was conducted to examine the relationships among various Green Human Resource Management (GHRM) practices and its influence in the performance of food and beverage manufacturing firms in Nairobi, Kenya. The analysis utilized Pearson's correlation coefficient (r) to measure the strength and direction of the linear relationships between the different GHRM practices, namely Green Recruitment, Green Training and Development, Green Performance Management, and Green Rewards, as well as their collective impact on the performance of the firms. Where r is lower than ± 0.4 signifies low correlation, range between ±0.4 to ±0.6 signifies moderate correlation and above ±0.6 signifies high correlation. The assumptions for correlation analysis were checked before making conclusions. These included the

use of interval scale in this study, presumed linear relationship between variables, no significant outliers and normal distribution of data. The findings were illustrated in Table 4.15.

Table 4.13:Correlation analysis

Correlations						
		Green Recruitment	Green Training and Development	Green Performance Management	Green Rewards	Implementation of GHRM
Green Recruitment	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	344				
Green Training and Development	Pearson Correlation	.649**	1			
	Sig. (2-tailed)	.000				
	N	344	344			
Green Performance Management	Pearson Correlation	.662**	.717**	1		
	Sig. (2-tailed)	.000	.000			
	N	344	344	344		
Green Rewards	Pearson Correlation	.645**	.694**	.673**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	343	343	343	343	
Firm Performance	Pearson Correlation	.727**	.739**	.767**	.719**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	344	344	344	343	344
**. Correlation is significant at the 0.01 level (2-tailed).						

The findings also show that there is a positive significant relationship between green Recruitment and the firm performance; r =.727, p <.01. This suggests that green recruitment (whereby firms recruit employees based on environmental awareness or ecofriendly values) are more likely to implement GHRM practices in general. Green Training and Development also has a positive correlation with the firm performance with the correlation coefficient of.739 which is statistically significant at.01 level. The Green Performance Management has the highest correlation with the firm performance (r = .767, p < .01), this means that the performance evaluations that are done based on the impacts of the environment or sustainability have a significant effect on the general implementation of the GHRM practices. Green Rewards is also positively and significantly related to the Implementation of GHRM, r =.719, p <.01, which suggests that the provision of incentives and rewards for green behavior leads to the implementation of GHRM in firms.

The correlational analysis also reveal that green Recruitment has a positive correlation with other practices like Green Training and Development with correlation coefficient of 0.649 and Green Performance Management with the correlation coefficient of 0.662 which means that the companies that were implementing green recruitment were also likely to invest in other areas of GHRM. Moreover, green Training and Development is positively correlated with Green Performance Management, (r =.717) and Green Rewards, (r =.694) indicating that both practices are aligned. In other words, the firms that provide sustainability training to the employees incorporate these teachings into performance appraisal and compensation systems.

The firm performance was highly correlated with each of the four GHRM practices. Among them Green Performance Management contributes the most to GHRM implementation (r = .767), implying that firms that evaluate and reward employees based on their contribution to sustainability are the most likely to perform well by fully implementing GHRM. Green Training and Development and Green Recruitment also play significant roles, showing that aligning recruitment, development, and training practices with environmental objectives helps drive the implementation of GHRM. This correlation analysis supports the study's objectives by highlighting the significant role that specific GHRM practices play in fostering the implementation of GHRM. The strongest driver was Green Performance Management(r=0.767), followed by Green Training and Development (0.739) and Green Recruitment (0.727), which suggest that food

and beverage manufacturing firms that integrate green HR strategies into performance and development processes are more likely to succeed in implementation of GHRM at a broader level.

4.6.2 Regression analysis

This section presents the results of multiple regression analyses conducted to assess the influence of various Green Human Resource Management (GHRM) practices on the performance of food and beverage manufacturing firms in Nairobi, Kenya. The specific GHRM practices analyzed include green recruitment, green training and development, green performance management, and green rewards. Regression analysis was employed to determine the extent to which each GHRM practice predicts or explains variations in firm performance. The analysis involved evaluating key model outputs, including the model summary (R, R Square, and Adjusted R Square), ANOVA significance tests, and regression coefficients for each predictor.

The results provide empirical evidence on whether individual green HR practices significantly contribute to improved firm performance and how much of the performance variation can be attributed to each practice. The subsequent subsections detail the findings for each independent variable, supported by model summary tables, ANOVA tables, and regression coefficient tables.

4.6.2.1 The Influence of Green recruitment on firm performance

The study sought to determine the influence of green recruitment on the performance of food and beverage manufacturing firms in Nairobi, Kenya. A linear regression analysis was conducted, and the results are presented in Tables 4.19, 4.20, and 4.21.

The model summary, table 4.19, showed that green recruitment had a strong positive relationship with firm performance, with a correlation coefficient (R) of 0.727. The R Square value was 0.528, indicating that approximately 52.8% of the variation in firm performance could be explained by green recruitment practices alone. The Adjusted R Square was 0.527, which further confirmed the model's goodness of fit, accounting for the number of predictors used.

Table 4.14: Model Summary on the influence of green recruitment on firm performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.727[a]	.528	.527	.45081
a. Predictors: (Constant), Green Recruitment				

The ANOVA table, table 4.20, revealed that the regression model was statistically significant, with an F-value of 383.116 and a p-value of .000, which is less than the standard threshold of 0.05. This indicated that green recruitment significantly predicted firm performance.

Table 4.15: ANOVA table on the regression of green recruitment on firm performance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.862	1	77.862	383.116	.000[b]
	Residual	69.506	342	.203		
	Total	147.367	343			
a. Dependent Variable: Firm Performance						
b. Predictors: (Constant), Green Recruitment						

The coefficients table, table 4.21 showed that green recruitment had a statistically significant and positive effect on firm performance (B = 0.759, p = .000). This means that for every one-unit increase in green recruitment efforts, firm performance increased by 0.759 units, holding all other factors constant. The standardized beta coefficient (β = 0.727) indicated that green recruitment was a strong predictor of firm performance. The constant term (B = 0.901) was also statistically significant (p = .000), representing the estimated firm performance when green recruitment was not applied.

Table 4.16: Regression coefficients of green recruitment on firm performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.901	.146		6.179	.000
	Green Recruitment	.759	.039	.727	19.573	.000
a. Dependent Variable: Firm Performance						

These findings suggested that green recruitment had a positive and significant influence on the performance of food and beverage manufacturing firms in Nairobi. Firms that adopted environmentally responsible hiring practices had a tendency of performing better, possibly due to the alignment of new employees with the organization's sustainability goals.

4.6.2.2 The influence of green training and development on firm performance

The study sought to assess the influence of green training and development on the performance of food and beverage manufacturing firms in Nairobi, Kenya. In this regard, the researcher conducted a simple linear regression analysis and the results are shown in tables 4.19, 4.20, and 4.21.

The model summary presented in table 4.19 indicated a strong positive relationship between green training and development and firm performance, with a correlation coefficient (R) of 0.739. The R Square value was 0.547, meaning that 54.7% of the variation in firm performance was explained by green training and development. The Adjusted R Square of 0.545 confirmed that the model remained reliable when adjusted for the number of predictors.

Table 4.17: Model Summary on the influence of green training and development on firm performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739[a]	.547	.545	.44194
a. Predictors: (Constant), Green Training and Development				

The ANOVA results summarized in table 4.20, showed that the regression model was statistically significant. The F-value was 412.511 and the p-value was .000, which is below the standard significance level of 0.05. This indicated that green training and development significantly predicted firm performance.

Table 4.18: ANOVA table of regression of green training and development on firm performance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.570	1	80.570	412.511	.000[b]
	Residual	66.798	342	.195		
	Total	147.367	343			
a. Dependent Variable: Firm Performance						
b. Predictors: (Constant), Green Training and Development						

The coefficients table (Table 4.21) revealed that green training and development had a positive and significant effect on firm performance. The unstandardized coefficient was B = 0.742, with a p-value of .000, meaning the result was highly significant. This implies that a one-unit increase in green training and development led to an increase of 0.742 units in firm performance, assuming other factors remained constant. The standardized beta coefficient was 0.739, showing that green training and development was a strong predictor of performance. The constant value (B = 0.978) was also significant (p = .000), indicating the estimated baseline level of performance when green training was not applied.

Table 4.19: Regression coefficients of green training and development on firm performance

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.978	.137		7.146	.000

	Green Training and Development	.742	.037	.739	20.310	.000
a. Dependent Variable: Firm Performance						

The findings demonstrated that green training and development had a significant and positive influence on firm performance. This suggests that firms that invest in building employees' environmental skills and awareness are more likely to experience improvements in overall performance, including efficiency, innovation, and environmental compliance.

4.6.2.3 The influence of green performance management on firm performance

To fulfil the third objective of the survey, the researcher conducted a linear regression analysis to determine the influence of green performance management on the performance of food and beverage manufacturing firms in Nairobi, Kenya..

As indicated in table 4.22, there was a strong positive relationship between green performance management and firm performance. The correlation coefficient (R) was 0.767, and the R Square value was 0.588. This means that 58.8% of the variation in firm performance could be explained by green performance management. The Adjusted R Square was 0.586, confirming that the model was a good fit after adjusting for the number of predictors.

Table 4.20: Model summary of regression of green performance management on firm performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767[a]	.588	.586	.42157
a. Predictors: (Constant), Green Performance Management				

The ANOVA table (Table 4.23) showed that the regression model was statistically significant. The model had an F-value of 487.207 and a p-value of .000, which is less than the standard significance

level of 0.05. This confirmed that green performance management significantly predicted firm performance.

Table 4.21: ANOVA table of regression of green performance management on firm performance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.587	1	86.587	487.207	.000[b]
	Residual	60.780	342	.178		
	Total	147.367	343			
a. Dependent Variable: Firm Performance						
b. Predictors: (Constant), Green Performance Management						

As shown in the Table 4.24, green performance management had a positive and statistically significant effect on firm performance. The unstandardized coefficient (B) was 0.786, and the p-value was .000, indicating a strong and significant relationship. This means that a one-unit increase in green performance management led to a 0.786 unit increase in firm performance, assuming other factors remained constant. The standardized beta coefficient was 0.767, further showing that green performance management was a strong predictor of firm performance. The constant term (B = 0.834) was also significant (p = .000), representing the baseline performance when green performance management was not applied.

Table 4.22: Regression coefficient green performance management on firm performance

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	.834	.132		6.292	.000
	Green_Performance Management	.786	.036	.767	22.073	.000
a. Dependent Variable: Firm Performance						

The findings revealed that green performance management had a strong and positive influence on firm performance. Firms that used performance appraisal systems aligned with environmental goals were more likely to experience improvements in performance, including environmental compliance, efficiency, and employee alignment with green objectives.

4.6.2.4 The influence of green rewards on firm performance

The model summary (Table 4.25) showed a strong positive relationship between green rewards and firm performance, with a correlation coefficient (R) of 0.719. The R Square value was 0.517, indicating that 51.7% of the variation in firm performance could be explained by green rewards. The Adjusted R Square was 0.516, confirming the reliability of the model after adjusting for the number of predictors.

Table 4.23: Model summary of the regression of green rewards on firm performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719[a]	.517	.516	.45682
a. Predictors: (Constant), Green Rewards				

The ANOVA table (Table 4.26) indicated that the regression model was statistically significant, with an F-value of 365.144 and a p-value of .000, which is below the 0.05 threshold. This result confirmed that green rewards significantly influenced firm performance.

Table 4.24: ANOVA table of the regression of green rewards on firm performance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.199	1	76.199	365.144	.000[b]
	Residual	71.161	341	.209		
	Total	147.360	342			
a. Dependent Variable: Firm Performance						
b. Predictors: (Constant), Green Rewards						

As shown in the coefficients table (Table 4.27), green rewards had a statistically significant and positive effect on firm performance. The unstandardized coefficient (B) was 0.657, with a p-value of .000, indicating that the effect was both large and significant. This means that a one-unit increase in green rewards resulted in a 0.657 unit increase in firm performance, holding other variables constant. The standardized beta coefficient (β) was 0.719, showing that green rewards were a strong predictor of firm performance. The constant term (B = 1.296) was also significant (p = .000), representing the baseline level of firm performance in the absence of green rewards.

Table 4.25: Regression coefficients of green rewards on firm performance

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.296	.129		10.047	.000
	Green_Rewards	.657	.034	.719	19.109	.000
a. Dependent Variable: Firm Performance						

The results showed that green rewards had a significant and positive influence on firm performance. This means that when firms used reward systems that recognized and incentivized

environmentally friendly behavior, they experienced higher levels of performance. Green rewards likely encouraged employees to engage more actively in sustainability initiatives, leading to improvements in efficiency, innovation, and environmental outcomes.

4.6.2.5 Multiple Regression Analysis

In this study, multiple regression analysis was employed to assess the impact of various Green Human Resource Management (GHRM) practices on the firm performance among food and beverage manufacturing firms in Nairobi, Kenya. This analytical approach aimed to quantify the relationship between independent variables (Green Recruitment, Green Training and Development, Green Performance Management, and Green Rewards) and the dependent variable, the firm performance.. The study determined how well the identified GHRM practices predict the firm performance providing insights into which practices are most influential. This is as shown in table 4.28

Table 4.26: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852[a]	.726	.723	.34578
a. Predictors: (Constant), Green Rewards, Green Recruitment, Green Performance Management, Green Training and development				

The findings reveal that the model has a high level of reliability and validity since the coefficient of determination is 0.852, which shows a positive and significant relationship between Green Rewards, Green Recruitment, Green Performance Management, Green Training and Development and implementation of GHRM. The R Square of 0.726 means that 72.6% of the total variation in the GHRM practices implementation can be explained by the four independent variables in the model. Further, the Adjusted R Square value of 0.723 is free from the number of predictors in the model and verifies the fitness of the model. The standard error of the estimate is 0.34578 which is the average distance of the observation from the regression line, which is reasonable for the accuracy of the predictions. These results highlight the importance of the GHRM practices in

encouraging the use of environmentally sustainable practices in the food and beverage manufacturing firms.

4.6.2.6 ANOVA Results

The analysis of variance (ANOVA) was conducted to assess the overall significance of the regression model used to predict the implementation of Green Human Resource Management (GHRM) practices. The results are summarized in table 4.29

Table 4.27: ANOVA results

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.949	4	26.737	223.628	.000[b]
	Residual	40.411	338	.120		
	Total	147.360	342			
a. Dependent Variable: implementation of GHRM						
b. Predictors: (Constant), Green Rewards, Green Recruitment, Green Performance Management, Green Training and Development						

The ANOVA table reveals that the regression model explained a significant portion of the variance in the implementation of GHRM practices, as indicated by an F-value of 223.628 with a corresponding significance level (Sig.) of .000. This indicates that the model is statistically significant, meaning that at least one of the predictors (Green Rewards, Green Recruitment, Green Performance Management, and Green Training and Development) has a significant impact on the implementation of GHRM.

The sum of squares for the regression is 106.949, reflecting the variability explained by the independent variables, while the residual sum of squares is 40.411, indicating the variability not explained by the model. The total sum of squares is 147.360. The low mean square of the residuals (0.120) compared to the mean square of the regression (26.737) further underscores the

effectiveness of the model in explaining the implementation of GHRM practices within the food and beverage manufacturing companies in Nairobi.

4.6.2.7 Coefficients

The regression analysis provides insight into the relationship between various Green Human Resource Management (GHRM) practices and the implementation of GHRM within food and beverage manufacturing firms. The coefficients for the model are summarized in table 4.30

Table 4.28:Beta coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.092	.124		.740	.460
	Green Recruitment	.270	.044	.258	6.180	.000
	Green Training and Development	.216	.046	.215	4.698	.000
	Green Performance Management	.321	.047	.312	6.876	.000
	Green Rewards	.176	.040	.193	4.410	.000
a. Dependent Variable: Performance of food and beverage manufacturing firms						

The coefficients presented in table 4.17 indicate the strength and direction of the relationship between each GHRM practice and the implementation of GHRM. Green Recruitment (B = 0.270, Sig. = 0.000), this suggests that a one-unit increase in green recruitment practices is associated with an increase of 0.270 units in the implementation of GHRM practices, which is statistically significant. Green Training and Development (B = 0.216, Sig. = 0.000) meaning that a one-unit increase in training and development related to green practices leads to a 0.216 unit increase in the implementation of GHRM, indicating a strong positive impact. Green Performance Management (B = 0.321, Sig. = 0.000), this practice has the highest coefficient, suggesting that enhancing green performance management contributes to a 0.321 unit increase in GHRM implementation, also statistically significant. Green Rewards (B = 0.176, Sig. = 0.000) the coefficient indicates that implementing green rewards increases GHRM implementation by 0.176 units, which is statistically significant.

Overall, all GHRM practices included in the regression analysis positively influence the implementation of GHRM, with all predictors having a significance level of 0.000, confirming their relevance in promoting environmentally responsible practices in food and beverage manufacturing firms. The constant value of 0.092, while not statistically significant, serves as a baseline level of implementation of GHRM when all practices are at zero.

Theoretical Framework	Research Objective	Independent Variable	Dependent Variable	Key Finding (β, p-value)
Natural Resource-Based View (NRBV)	Evaluate the influence of green recruitment on firm performance.	Green Recruitment	Performance of the F&B firms	$\beta = 0.270$, $p < 0.000$ (Significant)
NRBV + AMO Theory	Assess the influence of green training and development on firm performance.	Green Training and Development	Performance of the F&B firms	$\beta = 0.216$, $p < 0.000$ (Significant)
NRBV+ AMO Theory	Examine the influence of green performance management on firm performance.	Green Performance Management	Performance of the F&B firms	$\beta = 0.321$, $p < 0.000$ (Significant)
NRBV + AMO Theory	Determine the influence of green rewards on firm performance	Green Rewards	Performance of the F&B firms	$\beta = 0.176$, $p < 0.000$ (Significant)

5 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion of the research findings based on the study objectives. It also outlines the conclusions drawn from the findings and provides recommendations for policymakers, industry practitioners, and future researchers.

5.2 Discussion of Findings

5.2.1 GHRM Practices Implemented in Food and Beverage Manufacturing Firms

Food and beverage manufacturing firms in Nairobi have adopted essential Green Human Resource Management (GHRM) practices through their implementation of green recruitment and green training and development and green performance management and green reward systems.

The survey demonstrated that sustainability-based recruitment serves as an active practice because organizations integrate sustainability criteria during their job description creation and candidate selection procedures (M = 3.81, SD = 0.784). Organizations now widely implement green training (M = 3.77, SD = 0.847) through their workshops and employee development programs that focus on environmental responsibility. Environmental accountability through green performance management (M = 3.80, SD = 0.845) has proven essential because organizations now integrate sustainability-based KPIs into their performance evaluation systems. The implementation of green rewards demonstrated inconsistent results as measured by the participants (M = 3.71, SD = 1.021).

There is a divide among firms between those that provide monetary incentives for sustainability and those that focus on non-monetary recognition programs as their primary method of motivation. Research indicates that implementing well-defined green HR policies is crucial for promoting organizational sustainability. According to Renwick et al. (2013), organizations that adopt structured green HR practices, such as eco-friendly training, sustainability programs, and systems to manage environmental performance, see benefits like reduced carbon emissions and minimized waste. The research of Jabbour et al. (2013) analyzed GHRM practices in Brazilian manufacturing companies through structural equation modeling. The research data indicated that green training and employee sustainability involvement enhanced financial performance while also improving regulatory compliance and corporate reputation. The combination of green job design elements and employee engagement initiatives within European firms led to enhanced sustainability

performance according to Yong et al. (2020). The Indian IT sector developed environmental commitment through green recruitment combined with training and performance management according to Sharma (2023).

The research evidence about GHRM implementation shows inconsistent results. The textile industry employees in Bangladesh demonstrated strong awareness of GHRM yet implementation remained limited because of financial challenges and inadequate regulatory backing according to Saha (2020). According to Masri (2017) Palestinian manufacturing firms adopted GHRM practices through scattered initiatives that did not support corporate sustainability objectives. The depth and effectiveness of GHRM implementation depend heavily on the industry type together with regulatory environment and resource availability. The analysis showed that Nairobi's food and beverage companies adopt GHRM practices more frequently yet face difficulties in making corporate sustainability strategy integration. Strong leadership dedication combined with organized incentive structures leads to higher levels of GHRM implementation in organizations. Organizations need to create official sustainability policies which link human resources management functions to environmental objectives for widespread implementation.

5.2.2 Influence of Green Recruitment on Firm Performance

The findings of the study revealed that green recruitment had a positive and statistically significant influence on firm performance ($\beta = 0.727$, $p < 0.001$), explaining 52.8% of the variation in firm performance. This implies that organizations that embed environmental values in their hiring processes are likely to experience higher productivity, enhanced employee alignment with sustainability goals, and stronger organizational performance. These results are consistent with the findings of Sharma (2023), who noted that organizations using green recruitment strategies observed greater employee engagement in sustainability initiatives. Similarly, Pham et al. (2019) reported that sustainable recruitment practices improved job satisfaction and organizational performance in Vietnam's hospitality sector. The alignment of new employees with green values helps build a culture of environmental responsibility, which translates into better firm outcomes. However, this contrasts with Kimeu (2015), who found that GHRM practices such as green recruitment were poorly implemented in Kenya's alcoholic beverage industry. The difference could be attributed to evolving practices in Nairobi's food and beverage sector, where

environmental awareness has grown due to increased regulatory pressure and market demand for sustainable products.

5.2.3 Influence of Green Training and Development on Firm Performance

The study also found that green training and development significantly influenced firm performance ($\beta = 0.739$, $p < 0.001$), accounting for 54.7% of the performance variance. This indicates that firms that invest in building employees' environmental competencies enjoy improved efficiency, innovation, and compliance with environmental standards. This supports findings from Jabbour et al. (2013), who reported that environmental training in Brazilian manufacturing firms led to better financial and operational outcomes. Similarly, Masri (2017) found green training to be the most commonly implemented GHRM practice in Palestinian firms, although it was often fragmented. The current study suggests that, in Nairobi's food and beverage sector, training is not only implemented but is also strategically linked to performance objectives. The results further reinforce insights from Saha (2020), who noted that lack of training is a key barrier to effective GHRM implementation in Bangladesh. Nairobi's positive findings may indicate progress in overcoming similar barriers through structured environmental capacity-building programs.

5.2.4 Influence of Green Performance Management on Firm Performance

The results showed that green performance management had the strongest influence on firm performance among the GHRM practices ($\beta = 0.767$, $p < 0.001$), accounting for 58.8% of the performance variation. This suggests that organizations that include environmental KPIs in their appraisal systems, set sustainability targets, and recognize green contributions achieve better outcomes. These results align with those of Yong et al. (2020), who found that green performance management systems enhanced resource efficiency and regulatory compliance in European firms. Similarly, Renwick et al. (2013) concluded that green performance appraisal systems reduce environmental impact and promote eco-conscious behavior among employees. The findings also echo Sharma's (2023) conclusions that performance management systems embedded with environmental indicators led to stronger employee commitment to sustainability goals. The Nairobi context supports these global trends and demonstrates that performance management can be a key driver of sustainability even in developing economies.

5.2.5 Influence of Green Rewards on Firm Performance

Lastly, the study established that green rewards had a positive and significant influence on firm performance ($\beta = 0.719$, $p < 0.001$), explaining 51.7% of the variation in performance. Firms that recognized and rewarded employees for engaging in environmental initiatives saw improvements in performance, innovation, and employee engagement. This outcome aligns with the findings of Pham et al. (2019), who demonstrated that reward systems encouraging sustainability improved organizational success and employee motivation. It also supports Jabbour et al. (2013), who found that integrating environmental incentives in HR practices improved corporate image and efficiency. However, the relatively lower R-square value compared to green performance management suggests that rewards may be more effective when combined with other practices such as training or appraisals. This aligns with previous critiques (e.g., Renwick et al., 2013) that green rewards are often underutilized or lack integration with broader performance systems.

5.3 Conclusions

This study explored the influence of Green Human Resource Management (GHRM) practices on the performance of food and beverage manufacturing firms in Nairobi, Kenya. The focus was on four key practices: green recruitment, green training and development, green performance management, and green rewards. The study also sought to identify the specific GHRM practices implemented by firms and examine their overall impact on organizational performance.

The first research question for this survey was “What is the influence of green recruitment on the performance of food and beverage manufacturing firms in Nairobi, Kenya?”. Based on the research findings, green recruitment was found to positively influence firm performance. Hiring environmentally conscious employees contributed to a more sustainability-oriented workforce, which supported the achievement of broader organizational goals.

The second question that the survey sought to answer was “What is the influence of green training and development on the performance of food and beverage manufacturing firms in Nairobi,

Kenya?". Green training and development was established to have a significant role in enhancing performance. Firms that invested in educating employees on environmental issues reported improvements in operational efficiency and staff engagement.

The survey also sought to establish the influence of green performance management on the performance of food and beverage manufacturing firms in Nairobi, Kenya. Based on the findings green performance management had strong and positive influence on performance of the food and beverage manufacturing firms . The survey established that organizations that integrated environmental goals into their appraisal and performance review systems reported stronger alignment between individual and organizational objectives. Lastly the survey sought to find out what influence green rewards had on the performance of the firms. Green rewards was found to have positive and significant influence on the performance of food and beverage manufacturing firms. When employees were recognized and rewarded for their efforts in sustainability, their motivation and commitment to organizational goals increased.

Overall, the study concluded that GHRM practices, when strategically implemented, have a meaningful and positive impact on firm performance. These practices help align human capital with environmental and business objectives, foster a culture of sustainability, and strengthen the firm's competitive edge. The research also concluded that GHRM is a valuable strategic approach that not only enhances environmental responsibility but also drives better organizational performance. Food and beverage manufacturing firms in Nairobi that embrace and invest in green HRM practices are better positioned to achieve both sustainability and business success.

The research data shows that Green Human Resource Management (GHRM) practices continue to advance their integration throughout food and beverage manufacturing operations in Nairobi. The implementation of green recruitment and training and performance management and reward strategies has become prevalent because they advance sustainability initiatives throughout organizations. The implementation of green HRM practices shows different levels of uptake among organizations with some companies fully embracing GHRM while others in the initial stages of implementation process.

The research indicates that GHRM uptake stands at a moderate level because organizations face financial limitations and regulatory barriers and show different degrees of organizational dedication. The growing recognition of sustainable HR practices fails to overcome organizational

challenges related to funding shortages and technical expertise shortages and policy support deficiencies. The smooth integration of GHRM into corporate strategies remains limited which requires policymakers and industry stakeholders to develop specific interventions for better implementation.

The research demonstrates that GHRM implementation produces substantial positive effects on organizational performance through enhanced environmental responsibility and reduced costs and improved employee engagement. Green performance management proved to be the most influential GHRM strategy because it demonstrates how structured sustainability metrics in HR frameworks create better organizational results. Organizations which methodically measure employee environmental goal contributions achieve better operational efficiency while maintaining regulatory compliance and increasing employee involvement.

The research demonstrates that firms are showing increasing dedication to sustainability despite current obstacles. Companies understand that GHRM delivers enduring advantages which boost their reputation and operational effectiveness and employee motivation. The expanding implementation of GHRM in the food and beverage manufacturing sector appears likely due to proper policy incentives together with regulatory support and sustainability training investments. Companies need to get rid of the existing obstacles and utilize available opportunities to build sustainable HR practices that comply with worldwide environmental and corporate social responsibility standards.

5.4 Recommendations

Recommendations for Policymakers

The implementation of Green Human Resource Management (GHRM) practices requires policymakers to create stronger regulatory frameworks and provide sustainability training while offering financial benefits. The government needs to establish stronger environmental compliance rules which force organizations to implement green HR practices throughout their operations. Policymakers can establish monitoring systems and clear regulations which enforce business commitment to sustainability goals.

The development of sustainability training programs should receive support from industry stakeholders who work together with academia and training institutions. These programs would provide workers with the required understanding and capabilities needed to execute GHRM

successfully. Training institutions need to add sustainability modules to their teaching programs and businesses must establish ongoing training about environmental management.

The implementation of GHRM by companies should be supported through financial incentives that include tax breaks and subsidies. Financial limitations serve as the primary reason why numerous organizations delay their sustainability practice implementation. The government should offer financial assistance to organizations because it reduces their financial strain while encouraging more widespread implementation of green HR strategies.

Recommendations for Industry Practitioners

A complete integration of GHRM requires organizations to synchronize their green HRM practices with their corporate sustainability objectives. Organizations must integrate GHRM into their strategic plans by including sustainability throughout recruitment practices and training programs and performance management systems and reward systems. GHRM as a strategic corporate element enables organizations to simultaneously boost their environmental performance and market competitiveness.

The implementation of GHRM depends heavily on employee engagement as a fundamental component. Organizations need to establish robust motivational programs including recognition schemes and monetary rewards and career advancement possibilities to encourage staff participation in sustainability programs. Employees who feel their environmental management work is appreciated demonstrate higher levels of active participation in green practices.

Organizations must dedicate resources to technology acquisition because it enhances the operational effectiveness of GHRM implementation. Organizations can use digital tools for performance management and sustainability reporting to monitor their progress and measure environmental performance indicators while maintaining sustainability goal compliance. Organizations need to investigate software solutions which unite HR and environmental management systems because these systems enable better monitoring and advancement of green HRM practices.

5.5 Recommendations for Future Research

The research delivers important findings about GHRM implementation in food and beverage manufacturing yet more extensive research is needed to understand additional green HRM

practices. Future research needs to extend its examination to cover additional industries that go beyond food and beverage manufacturing. The analysis of GHRM implementation patterns across construction healthcare and finance industries will deliver a complete understanding of green human resource management practices.

Longitudinal research needs to be performed to determine the extended effects of GHRM on organizational performance. Research into how GHRM affects organizational sustainability together with employee engagement and financial performance throughout time would reveal its true effectiveness. Research teams who monitor companies throughout multiple time periods can determine how long green HR initiatives remain effective while identifying successful implementation methods.

The study should conduct comparisons between different industries and regions to identify successful practices and potential areas for enhancement. Research examining GHRM implementation across different contexts enables scientists to discover successful implementation factors which lead to recommendations for specific economic and regulatory conditions. The analysis of different business settings through comparative research enables the detection of industry-specific challenges while developing adaptable solutions.

5.6 Limitations of the Study

The study delivers important findings yet it contains certain restrictions. The research examined only food and beverage companies operating in Nairobi which restricts its ability to apply to other industries. The financial limitations and regulatory requirements possibly affected the accuracy of the self-reported data provided by firms. Future research needs to expand its sample range and implement qualitative research methods to gain deeper insights into these limitations.

5.7 Chapter Summary

The research findings section presented conclusions which stemmed from the study objectives. The research delivered guidance to policymakers and industry practitioners and future researchers about how to improve GHRM implementation and sustainability performance in food and beverage manufacturing companies. The research identified meaningful prospects for environmental responsibility improvement alongside organizational efficiency enhancement through structured GHRM practices despite existing obstacles.

References

Adubor, N. V. (2022). Exploring Green Human Resource Adoption and Corporate Sustainability in Nigerian Manufacturing Industry. *Sustainability*.

Agrawal, R. A. (2024). Adoption of green finance and green innovation for achieving circularity: An exploratory review and future directions. *Geoscience Frontiers*.

Ahakwa, I. Y. (2021). Green human resource management practices and environmental performance in Ghana: the role of green innovation. *SEISENSE Journal of Management*, 100-119.

Almada, L. &. (2018). Sustainable competitive advantage needs green human resource practices: A framework for environmental management. *Journal of Contemporary Administration, 22*(3), 424-442.

Alzyoud, A. A. (2021). The Impact of Green Human Resource Management Practices and Knowledge Sharing on Sustainable Performance: A Conceptual Framework. *International Journal of Education Humanities and Social Science*, 115-132.

Amjad, F. A.-U.-R. (2021). Effect of green human resource management practices on organizational sustainability: the mediating role of environmental and employee performance. *Environmental Science and Pollution Research*.

Ansari, N. Y. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. . *Corporate Social Responsibility and Environmental Management*, 229-238.

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: Why high-performance work systems pay off.* Cornell University Press.

Aremu, A. B. (2022). Green Human Resource Management Practices and Employee Retention: An Empirical Evidence from Nigerian Foods and Beverages Industry.

Bahmani, H. &. (2023). High-performance concrete based on alkaline earth metal ions-activated slag at ambient temperature: Mechanical and microstructure properties. *Journal of Materials Research and Technology*.

Bangwal, D. &. (2015). Green HRM–A way to greening the environment. *IOSR Journal of Business and Management*.

Blumberg, B. C. (2014). *Business research methods. McGraw Hill.* McGraw Hill.

Bor, J. K. (2021). Green supply chain management practices and performance of food and beverage processing sector in Kenya . *Doctoral dissertation, JKUAT-COHRED*.

Boselie, P. D. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal, 15*(3), 67-94.

Bos-Nehles, A. C. (2013). Employee perceptions of line management performance: applying the AMO theory to explain the effectiveness of line managers' HRM implementation. *Human resource management, 6*, 861-877.

Bronkhorst, B. S. (2015). Transformational leadership, goal setting, and work motivation: The case of a Dutch municipality. *Review of public personnel administration, 2*, 124-145.

Cooper, D. R. (2014). *Business research methods.* Mcgraw-hill.

Crane, A. M. (2008). Ecological citizenship and the corporation: Politicizing the new corporate environmentalism. . *Organization & Environment,* , 371-389.

Creswell, J. W. (2015). *Revisiting mixed methods and advancing scientific practices.*

Daily, B. F., & Huang, S. C. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of operations & production management, 12*, 1539-1552.

Dangelico, R. M. (2017). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. . *Journal of Cleaner production,*, 1263-1279.

DiMaggio & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160.

Farndale, E. S. (2010). The role of the corporate HR function in global talent management. *Journal of world business*, 161-168.

Fayyazi, M. S. (2015). Investigating the barriers of the green human resource management implementation in oil industry. . *Management science letters,*, 101-108.

Ferronato, N. M. (2022). Are waste-based briquettes alternative fuels in developing countries? . *A critical review. Energy for Sustainable Development*, 220-241.

Gelan, E. (2022). Green building concepts and technologies in Ethiopia: the case of Wegagen bank headquarters building. . *Technologies*, 2.

Glaser, B. &. (2017). *Discovery of grounded theory: Strategies for qualitative research.* Routledge.

Görg, C. B. (2017). Challenges for social-ecological transformations: Contributions from social and political ecology. . *Sustainability*.

Greenwood, R. R. (2011). Institutional complexity and organizational responses. *Academy of Management annals*, 317-371.

Hamdoun, M. (2020). The antecedents and outcomes of environmental management based on the resource-based view: A systematic literature review. *Management of Environmental Quality: An International Journal, 31*(2), 451-469.

Harmon, J. B. (2017). Developing a sustainability strategy. . *In The sustainable enterprise fieldbook*, 89-116.

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of management review, 20*(4), 986-1014.

Hart, S. L., & Dowell, G. (2011). Invited editorial: A natural-resource-based view of the firm: Fifteen years after. *Journal of management, 37*(5), 1464-1479.

Hinson, R. E., Adeola, O. &., & Adisa, I. (2021). Introduction: Green Marketing and Management in Emerging Markets—Achieving Success Through People. *Green Marketing and Management in Emerging Markets: The Crucial Role of People Management in Successful Implementation*, 3-11.

Houser, T. (2010). Copenhagen, the accord, and the way forward (No. PB10-5). . *Washington, DC: Peterson Institute for International Economics*.

Hussain S. & Younis, Z. (2023). Green transformational leadership: bridging the gap between green HRM practices and environmental performance through green psychological climate. *Sustainable Futures,*, 100140.

Ismail, I. J. (2023). Strategic green marketing orientation and environmental sustainability in sub-Saharan Africa: Does green absorptive capacity moderate? *Evidence from Tanzania. Heliyon*.

Jabbour, C. J. (2010). Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil. . *The International Journal of Human Resource Management*.

Jabbour, C. J., & Souza, W. R. (2013). Environmental management and operational performance in automotive companies in Brazil: the role of human resource management and lean manufacturing. *Journal of Cleaner Production, 40*, 129-140.

Jiang, K. L. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of management Journal*, 1264-1294.

Johnson, D. C. (2018). Research methods in language policy and planning. *The Oxford handbook of language policy and planning,*, 51-70.

Kariithi, S. W. (2016). Effects of supply chain management strategies on competitive advantage on food and beverage processing companies . *Doctoral dissertation, Strathmore University*.

Kelley, K. C. (2003). *International Journal for Quality in health care,.*

Khan, S. A. (2022). Green finance development and environmental sustainability: A panel data analysis. . *Frontiers in Environmental Science*.

Khaskhely, M. K. (2022). Understanding the impact of green human resource management practices and dynamic sustainable capabilities on corporate sustainable performance: Evidence from the manufacturing sector. *Frontiers in Psychology*.

Kimeu, D. M. (2015). *Doctoral dissertation, University of Nairobi*.

Kuria, M. W. (2019). Effect of green human resource management practices on organizational effectiveness of universities in kenya. . *Human Resource and Leadership Journal*, 1-20.

Lohr, S. L. (2021). *Sampling: design and analysis.* Chapman and Hall/CRC.

Mandip, G. (2012). Green HRM: People management commitment to environmental sustainability. *Research Journal of Recent Sciences,*.

Martínez-del-Río, J. C.-L.-M. (2012). High-involvement work practices and environmental capabilities: How HIWPS create environmentally based sustainable competitive advantages. *Human resource management*, 827-850.

Masri, H. A. (2017). Assessing green human resources management practices in Palestinian manufacturing context: An empirical study. . *Journal of cleaner production*, 474-489.

McDermott, A. M. (2019). Performance management in context: formative cross-functional performance monitoring for improvement and the mediating role of relational coordination in hospitals. *The International Journal of Human Resource Management*, 436-456.

Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. *International Journal of Organizational Analysis, 762-788.*, 762-788.

Misztal, A. M. (2024). A systematic literature review on green human resource management (GHRM): An organizational sustainability perspective. *Journal of Cleaner Production*. Retrieved from https://www.researchgate.net/publication/

Mitra, S. (2022). An exploratory study of sustainability and firm performance for Indian manufacturing small and medium enterprises. *Journal of Cleaner Production*.

Mugenda, O. M. (2003). *Research methods: Quantitative & qualitative apporaches.* Nairobi: Acts press.

Muthoni, J. P., & Mose, T. (2020). Influence of supply chain management practices on performance of food and beverage manufacturing firms in Kenya. *International academic journal of procurement and supply chain management, 2*, 45-62.

NCCG. (2023). *Nairobi City county Government*. Retrieved from https://nairobi.go.ke/

Nisar, Q. A. (2021). Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior}. *Journal of cleaner production, 311*, 127504.

Nwachukwu, C. &. (2022). Green human resource management and organizational performance of food and beverages manufacturing firms in Enugu State. *nternational Academy Journal of Management, Marketing and Entrepreneurial Studies*.

Odhiambo, G. M. (2023). Green Employee Training—A Remedy for Environmental Behaviour: The Case of Public Universities in Kenya. . *European Journal of Business and Management Research*, 224-233.

O'Donohue, W. &., & Torugsa, N. (2016). The moderating effect of 'Green'HRM on the association between proactive environmental management and financial performance in small firms. *The international journal of human resource management, 27*(2), 239-261.

Ogbari, M. E. (2024). Green human resource management practices: Evidence from primary data analysis in Nigeria's food and beverage industry. *African Journal of Business and Economic Research*, 35-52.

Opatha, H. H. (2014). Green Human Resource Management: Simplified General Reflections. *Citation*.

Pandey, P. &. (2021). *Research methodology tools and techniques. .* Bridge Center.

Pham, N. T. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism management*, 386-399.

Pullman, M. E. (2010). Sustainability practices in food supply chains: how is wine different? *Journal of Wine Research*, 35-56.

Renwick, D. W. (2013). Green human resource management: A review and research agenda. . *International journal of management reviews*, 1-14.

Rodic, M. K. (2017). More accurate Jensen-type inequalities for signed measures characterized via Green function and applications. *Turkish Journal of Mathematics,*, 1482-1496.

Saha, S. S. (2020). Impact of Green Human Resource Management (GHRM) practices in garment industry. *Bangladesh perspective. International Journal of Management and Accounting*, 22-30.

Sakwa, S. M. (2018). Factors affecting implementation of green human resource practices in the civil service in Kenya. *Doctoral dissertation, university of nairobi*.

Sedgwick, P. (2015). *Multistage sampling.* Bmj.

Shafaei, A. N. (2020). Green human resource management: A two-study investigation of antecedents and outcomes. . *International Journal of Manpower*, 1041-1060.

Sharma, K. A. (2023). Factors affecting green purchase behavior: A systematic literature review. Business Strategy and the Environment. *A systematic literature review. Business Strategy and the Environment*, 2078-2092.

Singha, R. &. (2024). Positive Interventions at Work: Enhancing Employee Well-Being and Organizational Sustainability. *In Fostering Organizational Sustainability With Positive Psychology*.

Smith, A. D. (2013). Successful green-based initiatives among large corporate entities: a case study from a stakeholder perspective. *International Journal of Services and Operations Management*, 95-114.

Tang, G. C. (2018). Green human resource management practices: scale development and validity. *Asia pacific journal of human resources*, 31-55.

The star. (2024). Nema goes after 29 major polluters of Nairobi River. Retrieved from https://www.the-star.co.ke/counties/nairobi/2024-02-01-nema-goes-after-29-major-polluters-of-nairobi-river

Thiga, H. C. (2023). Green Procurement and Performance of Food and Beverage Manufacturing Firms in Kenya. . *International Journal of Supply Chain Management*, 16-24.

Wang, H. L. (2024). Sustainable manufacturing: A global systematic review of practices and challenges (2019–2024). .

Wehrmeyer, W. (2017). Greening people: Human resources and environmental management.

Yamane, T. (1967). *Sampling Formula.*

Yong, J. Y. (2020). Green Human Resource Management: A systematic literature review from 2007 to 2019,. Retrieved from An International Journal. 27(7):2005–7. https://doi. org/10.1108/BIJ-12-2018-0438.: https://doi. org/10.1108/BIJ-12-2018-0438.

Yousaf, Z. (2021). Go for green: green innovation through green dynamic capabilities: accessing the mediating role of green practices and green value co-creation. . *Environmental science and pollution research,*, 54863-54875.

Yousaf, Z. R., S. C., Serbanescu, L. &., & Păunescu, L. M. (2015). Towards sustainable digital innovation of SMEs from the developing countries in the context of the digital economy and frugal environment. *Sustainability, 13*(10), 5715.

Yu, Z. Y. (2020). Critical review on the cooling effect of urban blue-green space: A threshold-size perspective. *Urban forestry & urban greening*, 126630.

Zaid, A. A. (2018). The impact of green human resource management and green supply chain management practices on sustainable performance: An empirical study. *Journal of cleaner production*, 965-979.

Zibarras, L. D., & Coan, P. (2015). HRM practices used to promote pro-environmental behavior: a UK survey. *The International Journal of Human Resource Management, 26*(16), 2121-2142.

APPENDICES

I. Letter of Introduction from Strathmore Business School

Ole Sangale Rd, Madaraka Estate,
P.O Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya
Email: info@sbs.ac.ke or visit **www.sbs.strathmore.edu**

Strathmore UNIVERSITY
BUSINESS SCHOOL

9th May 2024

To Whom It May Concern,

RE: FACILITATION OF RESEARCH – KANITHI, JOAN NGONYO

This is to introduce Kanithi, Joan Ngonyo who is a Master of Commerce (MCOM) Student at Strathmore University Business School, admission number MCOM/149561/22. As part of our MCOM Programme, Joan is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MCOM course. To this effect, Joan would like to request appropriate data from your organization.

Joan is undertaking a research paper on "**Assessing the Adoption of Green Human Resource Management in Food and Beverage Manufacturing Firms in Nairobi Kenya."** The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MCOM Programme seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours sincerely,

Njoki Kiagiri
Manager – Graduate Programmes
Strathmore University Business School.

II. Respondent Consent form

This questionnaire is designed to assist in data collection for the study titled **" Influence of Green Human Resource Management Practices on Performance of Food and Beverage Manufacturing Firms in Nairobi, Kenya.** The purpose of this study is to determine the levels of implementation and the impact of Green Human Resource Management (GHRM) practices on the performance food and beverage manufacturing firms in Nairobi, Kenya

Your participation in this study is entirely voluntary, and you may choose to withdraw at any time without providing a reason. The information you provide will be used solely for academic research and will be treated with the utmost confidentiality. Your identity will remain anonymous.

There are no risks associated with participating in this study. If you have any questions or require further clarification, you may contact the investigator, **Joan Kanithi**, at Kenyatta National Hospital at **joan.kanithi@strathmore.edu or 0727956682.** You can also contact my Supervisor Dr. Tecla Kivuli at Strathmore Business school, Nairobi or via email tkivuli@strathmore.edu

If you want to ask someone independent anything about this research, please contact The Secretary- Strathmore University Institutional Ethics Review Board P.O BOX 59857-00200 Nairobi or email **ethicsreview@strathmore.edu** Tel number +254 703 034375.

By signing below, you acknowledge that you have read and understood the study details, and you voluntarily agree to participate.

Participant Consent

I agree to take part in this study.	[ ]
I do not agree to take part in this study.	[ ]

Participant's Name (Optional)……...……

……

Date……..……..

III. Questionnaire

Part A: Demographic Information

1. Gender
   a) Male [ ]
   b) Female [ ]
2. Age of the Participant
   c) 18-30 [ ]
   d) 31-41 [ ]
   e) 42-52 [ ]
   f) 52-54 [ ]
   g) 55 and above [ ]
3. Educational Qualification
   a) Secondary School [ ]
   b) College certificate [ ]
   c) Diploma [ ]
   d) Bachelor's Degree [ ]
   e) Master's Degree [ ]
   f) Doctoral Degree [ ]
   g) Other (please specify): _____
4. Position/Job Title
   a) Managerial/Executive [ ]
   b) Supervisor [ ]
   c) Administrative [ ]
   d) Production Worker [ ]
   e) Support Staff [ ]
5. Years of Experience in the Food and Beverage Manufacturing Industry
   a) Less than 1 year [ ]
   b) 1-5 years [ ]
   c) 6-10 years [ ]
   d) 11-15 years [ ]
   e) 16-20 years [ ]
   f) More than 20 years [ ]

Part B: GHRM practices

a) Green Human Resource Management Practices

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

		1	2	3	4	5
1.	The company prioritizes candidates with knowledge of green practices					
2.	The company provides training and sensitization on environmental sustainability					
3.	The company uses green KPIs to assess employee performance					
4.	Green initiatives are recognized and rewarded within the organization					
5.	Employees can advance in their careers by demonstrating commitment to green practices.					
6.	The company encourages employees to participate in environmental projects.					
7.	The company supports employee-led environmental projects					
8.	The company promotes a healthy balance between work and environmental responsibilities					
9.	The company promotes teamwork in achieving sustainability goals.					

Part C: Level of implementation of GHRM practices

b) Current level of implementation of GHRM

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
The company has fully integrated GHRM practices into its operations					
Our company's policies actively promote environmental sustainability.					
The management fully supports GHRM initiatives.					
Employees are encouraged to participate in GHRM activities.					
Our company has made significant investments in GHRM.					

c) **Green Recruitment**

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
Job descriptions posted by our company highlight green/ environmental sustainability aspects					
Our company gauges environmental consciousness of individuals during selection of employees to be recruited					
Candidate who are environmentally conscious have better chance of securing a job with our company					

d) Green Training and Development

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
Our company offer specific training programs related to environmental sustainability					
At our company, every employee has equal chance of attending green training programs					
Our employees get regular trainings on environmental issues					
I am satisfied with the company's green training initiatives					

e) Green Performance Management

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
Environmental performance metrics are integrated into employee performance evaluations					
How often do employees achieve environmental goals set by the company?					
Our employees are aware of the company's environmental goals and targets					
Employees feel that environmental performance is valued by the company					

f) Green rewards

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
Our company offer incentives or rewards for environmentally friendly behaviors					
Our company offers green rewards to top employees regularly					
Our employees perceive the green rewards as very important to them					
Green rewards offered at our company motivate employees to adopt environmentally friendly practices					

Part D: Influence of GHRM

g) Effect of GHRM practices

Please indicate your level of agreement with the following statements using the provided Likert scale: where: 1=Strongly Disagree, 2=Disagree,3=Neutral,4=Agree,5=Strongly Agree

	1	2	3	4	5
The company has become more environmentally responsible due to GHRM practices.					
The implementation of GHRM has led to cost reductions in our company					
GHRM initiatives have strengthened employee commitment to environmental goals					
GHRM practices have enhanced the company's reputation as an environmentally responsible organization.					
GHRM practices have positively impacted overall company productivity.					

Thank you for your participation

IV. Ethics Approval Letter

Strathmore UNIVERSITY

4th September 2024

Ms Kanithi Joan,
joan.kanithi@strathmore.edu

Dear Ms Kanithi,

RE: Assessing the Adoption of Green Human Resource Management in Food and Beverage Manufacturing Firms in Nairobi Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2376/24.** The approval period is from **4th September 2024 to 3rd September 2025.**

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 SU-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 SU-ISERC within 72 hours of notification.
iv. Any changes 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 SU-ISERC within 72 hours.
v. Clearance for the 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 the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

V. NACOSTI Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **221537**

Date of Issue: **15/September/2024**

RESEARCH LICENSE

This is to Certify that Ms.. Joan Ngonyo Kanithi of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Assessing the Adoption of Green Human Resource Management in Food and Beverage Manufacturing Firms in Nairobi Kenya for the period ending : 15/September/2025.

License No: **NACOSTI/P/24/39999**

221537

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
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    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
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5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
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11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke

VI. List of Food and Beverage Manufacturing Firms

1.	Aquamist Ltd
2.	Bestfoods Kenya Limited
3.	Bidco Oil Refineries Ltd
4.	Broadway Bakers Ltd
5.	Brookside Dairies Ltd
6.	Cocacola
7.	Cadbury Kenya Ltd
8.	Corn Products (Kenya) Limited
9.	Diageo Kenya Limited
10.	DPL Festive Bread
11.	East African Breweries Plc
12.	Farmers Choice Limited
13.	Farmer's Choice Ltd
14.	Gold Crown Beverages (K) Ltd
15.	Grain Bulk Handlers Limited
16.	Green Garden Deli
17.	Harmony Foods (K) Limited
18.	Highland Creamers & Food Ltd
19.	Kabansora Millers Limited
20.	Kapa Oil Refineries Ltd
21.	Kenafric Industriess Limited
22.	Kenblest Limited
23.	Kenchic Ltd
24.	Kentaste
25.	Kenya Breweries Limited
26.	Kenya Breweries Ltd
27.	Kenya Nut Company Ltd
28.	Kenya Wine Agencies Limited
29.	Kitale Industries Limited
30.	Kitui Flour Mills Ltd
31.	Krystalline Salt Limited
32.	Mafuko Industries Ltd
33.	Manji Food Industries Limited
34.	Mcneel Millers Ltd
35.	Menengai Oil Refineries Limited
36.	Mibisco Ltd
37.	Mini Bakeries (Nbi) Limited
38.	Mombasa Maize Millers Limited

39.	Nairobi Flour Millers Ltd
40.	Nestle Foods (K) Limited
41.	Osho Grain Millers Ltd
42.	Patco Industries Ltd
43.	Patiala Distillers (K) Limited
44.	Pembe Flour Mills Ltd
45.	Premier Dairy Ltd
46.	Premier Flour Mills Ltd
47.	Premier Food Industries Ltd
48.	Procter & Gamble (Ea) Ltd
49.	Promasidor (Kenya) Limited
50.	Pwani Oil Products Ltd
51.	Rafiki Millers Ltd
52.	Savannah Brands Company Limited
53.	SBC Kenya Limited
54.	Spin Knit Limited
55.	Suntory Beverage & Food Kenya Limited
56.	Supaflo Flour Mills Limited
57.	The Wrigley Co (E A) Ltd
58.	Top Food (EA) Ltd
59.	UDV (Kenya) Limted
60.	Unga Limited
61.	Unilever Kenya Ltd
62.	United Distillers And Vintages Ltd
63.	United Millers Ltd
64.	Uzuri Manufacturers Ltd
65.	Weetabix East Africa

Source: https://www.businesslist.co.ke

VII. Plagiarism Report

JOAN KANITHI MASTERS THESIS 149561 FINAL REVISED VERSION signed (2) (1).docx

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