Influence of Selected Green Human Resource Management Practices on Environmental Sustainability at Menengai Oil Refinery Limited Nakuru, Kenya

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Abstract: The study was designed to analyze some of the Green HR practices and their influence on environmental sustainability. The main variable for the study was to establish the influence of Green Human Resource management practices on environmental sustainability at Menengai Oil Refinery in Nakuru; Kenya. The study adopted a descriptive design, specifically a case study at Menengai Oil Refinery. Primary method of data collection was applied where questionnaires were used. The study targeted 275 permanent employees, from which a sample size of 163 employees was selected. Questionnaires were used in the data collection. The data was then analyzed using descriptive and inferential statistics and presented in form of tables. The findings included: Green employee sourcing had a weak insignificant influence on environmental sustainability, Green occupation health and safety had a significant influence on environmental sustainability, Green training and development programs did not influence much environmental sustainability, Green performance management had significant influence on environmental sustainability and finally the influence of NEMA policies and regulations had the greatest influence on environmental sustainability. The study thus recommended that Menengai Oil refinery should strengthen its green performance management and occupational health systems to ensure environmental sustainability.

Keywords: Green Employee Sourcing, Green Employee Training, Green Occupational Health, Green Performance Management

1. Introduction

1.1. Background of the Study

The Green HRM is necessary in the current 21st Century on a daily basis, it is reported that because of the excess consumption of natural resources as a raw material by the industries and other commercial organization there is tremendous pressure on the natural resources of planet Earth. The situation is so alarming that the scientist and the environmentalist are discussing the issues of ecological imbalances and the bio-diversity. In every International Conference on environment the nations are discussing about the carbon credits, global warming and the changes in the climate resulting into earthquakes, frequent floods and vanishing of certain species and animals.

In the environmental literature, the concept of green management for sustainable development has various definitions; all of which generally, seek to explain the need for balance between industrial growth for wealth creation and safeguarding the natural environment so that the future generations may thrive (Daily & Huang, 2001). Nevertheless, the issue of how an individual organization or entire society achieves sustainability from the green management movement is still debatable and unclear. Thus, research on how business may structure their facilities to enhance for sustainability through green management initiatives seems paramount.
According to Jabbour et al., (2010), the term “greening” of functional dimensions of human resource management such as job description and analysis, recruitment, selection, training, performance appraisal and rewards is defined as green HRM. In 2011, Jabbour viewed green HRM as the level of greening of human resource management practices in terms of functional and competitive dimensions of HRM. Green HRM is referred to “all the activities involved in development, implementation and on-going maintenance of a system that aims at making employees of an organization green. It is the side of HRM that is concerned with transforming normal employees into green employees so as to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability. Green HR practices refers to the policies, practices and systems that make employees of the organization green for the benefit of the individual, society, natural environment, and the business” (Dubois & Dubois, 2012).

Muster, & Schrader, (2011) report emphasized that sustainable development means an integration of economic and ecology in decision making at all levels. Therefore, the Green Movement, Green HR Industrialization, sustainable development is all related to environment and its management to protect the planet Earth. According to Prasad (2013), Green HRM initiatives can help companies find alternative ways to bring down cost without losing their talent. Green economy organizations have tremendous growth opportunities by going green and creating a new environment which can bring in immense operational savings by reducing their carbon footprint. Green HRM can become an active partner in achieving this objective by creating a Green HRM platform where the workforce experience high job satisfaction and being better engaged, which will result in higher productivity. Green HRM initiatives help create a culture of having concern for the well-being and health of fellow workers, besides the overriding concern for environmental protection which is a sine qua non for a healthy and happy life for all of us on this planet.

Study by Grolleau et al., (2012) identified the impact of environmental standards of a company on recruitment of an employee. The study results indicate that environmental commitment of an establishment adds to the returns of the company. They were able to differentiate and identify those professionals more than non-professionals were concerned with respect to the environmental stance of a company. GHRM is a manifesto which helps to create green workforce that can understand and appreciate green culture in an organization. Such green initiative can maintain its green objectives all throughout the HRM process of recruiting, hiring and training, compensating, developing, and advancing the firm’s human capital (Dutta, 2012). The Human Resource Department of a company is capable of playing a significant role in the creation of sustainability culture within the company (Jabbour, 2010).

HR processes play an important role in translating Green HR policy into practice (Renwick, 2008); therefore, human capital and its management are instrumental to the fulfillment of EM objectives Jabbour (2010). Huslid (1995) mentions the selection processes, incentive compensation, performance management systems, the employee involvement, and training to be central for the company’s success. Consequently, the argument is advanced that the HR function is instrumental in realizing organizational change aimed at acclimatizing to the new-found requirements for corporations and therefore also a potentially important contributor to such a strategic issue. It needs to be acknowledged that the intersection of sustainability, the natural environment, and HR management are new areas in fast development and therefore, not characterized by a fully developed body of writings (Jackson et al., 2011). John, Clements-Croome, & Jerominidis (2005) point out that many HR systems need to be aligned with each other in order to increase the likelihood that the organization will achieve its strategy.

According to Wagner (2011) in his study identified that recruitment, training, employee motivation, and rewards are important human dimensions which contribute to the improvement in employee implementation of green management principles. In order to make sure that the organization gets right employee green inputs and right employee green performance of job, it is indispensable that HRM functions are adapted or modified to be green (Muster, & Schrader, 2011). In this part of the paper, we briefly describe a few specific functional HRM activities which identify with the sustainability and the natural environment at the workplace and also provide opportunities for research in future.

1.2. Statement of the Problem

Companies are also expected to develop environmental management systems for identifying, measuring and controlling environmental impacts. They aim at increasing production thus exploiting resources in form of raw materials unsustainably, use a lot of fuel as source of manufacturing energy resulting to increased amount of wastes informs of toxic gases and biodegradable solids and poisonous liquids. These wastes end up polluting the environment and wasting resources, hence the operations costly and unsustainable. The extent of environmental degradation in Kenya is evidenced by statistical data released by NUMBEO, data shows that Air quality is 38.75%, drinking water quality is 41.25, garbage disposal satisfaction is 38%, quality of greens and parks is 53% and towns which are comfortable to spend time in is 47.5% (NUMBEO,2016). It is the mandate of HR being the custodian of all employees to initiate best practices to bring everybody on board. Despite environmental issues being pertinent, very few organizations have established green oriented training programs for ensuring environmentally oriented workforce whose operations should be appraised and monitored by well established performance management systems. Despite human resource and environmental studies worldwide, few studies have been done in Kenya on Green human Resource Management practices and how they
influence environmental sustainability. It is against this backdrop that the current study was necessary. The study is therefore intended to establish the influence of Green Human Resource practices on environmental sustainability of Menengai Oil Refinery in Nakuru, Kenya.

1.3. Objectives of the Study

The general objective of the study was to establish the influence of Green Human Resource practices on environmental sustainability at Menengai Oil Refinery in Nakuru, Kenya.

The specific objectives of the study were:
1. To establish the relationship between green employee sourcing and environmental sustainability at Menengai Oil Refinery.
2. To determine the relationship between green occupational health and safety and environmental sustainability at Menengai Oil Refinery.
3. To analyze the relationship between green employee training and development and environmental sustainability at Menengai Oil Refinery.
4. To establish the relationship between Green performance management and environmental sustainability at Menengai Oil Refinery.

1.4. Research Hypotheses

H₁: Green employee sourcing has no significant influence on environmental sustainability at Menengai Oil Refinery.
H₂: Occupational Health and Safety has no significant influence on environmental sustainability at Menengai Oil Refinery.
H₃: Green employee training and development has no significant influence on environmental sustainability at Menengai Oil Refinery.
H₄: Green performance management has no significant influence on environmental sustainability at Menengai Oil Refinery.

1.5. Significance of the Study

The current study on the influence of human resource management practices on environmental sustainability is very timely and necessary given the high rate at which the natural environment is being degraded by manufacturing industries in Kenya. The study is a wake-up call for managers and owners of manufacturing firms in Kenya in general and management of Menengai oil refinery limited in particular on how their staff can be used as a valuable asset in ensuring environmental sustainability through means like training on environmental issues. The paper also offers invaluable insight on policy issues to government agencies that charged with environmental management and sustainability in Kenya. Despite studies on influence of green HR practices on environmental sustainability worldwide, few studies have been done in Kenya on Green human Resource Management practices and how they influence environmental sustainability, this study is therefore ground breaking.

2. Literature Review

2.1. Theoretical Review

The sub section expounds on the major theories underpinning the study. The theories offer a base for the conceptualization of the variables under study. The study will major on the theories including ISO 14001 Environmental Management system model, Border theory and Paradox theory.

2.1.1. The ISO 14001 Environmental Management System Model

According to the international standard, ISO 14001, an Environmental Management System (EMS) is “the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.” The ISO 14001 EMS standard consists of five sections, Environmental Policy, Planning, Implementation & Operations, Checking and Corrective Action, and Management Review. The social concern about environment has led companies to adopt environmental management practices at an increasing rate. Companies voluntarily implement environmental management system (EMS) for this purpose. Environmental Management System is the most used tool of environmental management in companies. ISO 14001 Environmental Management System Model provides a base through which Human resource practices are directed toward in the overall green management. ISO 14001 Environmental Management System Model is relevant in this study as it identifies the effort of Human resource for developing, implementing, achieving, reviewing and maintaining the environmental policy of an organization. The 14001 Environmental Management System Model recognizes areas of human resource practices that can be involved in the overall environmental management aspect of the Menengai Oil Refinery Limited, Nakuru, Kenya.

2.1.2. Border Theory

This theory shows that employees need to be considered as active managers of their life domains, whose scope of action is influenced by their employer, other domain members and their personal resources (Desrochers, 2004). It can be assumed that employees’ scope of action for environmentally friendly behaviour at work and in private life is also shaped by the company, domain members and employees’ personal resources. Moreover, border theory illustrates that other domain members, such as colleagues and superiors, play an important role in facilitating or constraining employees’ environmental performance in both life domains. It can be assumed that employees exchange about environmental issues at home and at work influence their environmental Green HRM is in charge to deal with these interaction effects and employees’ chances to manage their life domains. On the one hand, positive interaction effects need to be facilitated.
On the other hand, negative interaction effects need to be prevented. The theory is thus relevant in identifying the role of HR officer in encouraging environmental conscious behavior among employees through means like green employee training and green performance management. Border theory recognizes the role the supervisors and management of Menengai Oil refinery limited Nakuru can play in the lives of their employees to enhance their environmental consciousness.

2.2. Empirical Review

The independent and dependent variable were broken down into indicators. The indicators on green human resource management practices and environmental sustainability are discussed in this subsection.

2.2.1. Green Employee Sourcing and Environmental Sustainability

According to Anthony (1993) sustainable development issues must be integrated into the recruitment process. This involves monitoring the long-term competency requirements for the company, providing new employees with information about sustainable development policies and commitments, using recruitment procedures which support the equitable representation of applicants and recruits in terms of gender, age, racial and ethnic groups, sexual orientation, disabled people and other relevant groups (Brio, 2007).

Phillips (2007) reports that the common sections of job descriptions can be used to specify a number of environmental aspects. For instance Environmental reporting roles and health and safety tasks, which staff are exposed to harmful substances, Job purpose must contain a reference to sustainability, the functions of the job list the primary duties associated with the position and highlight the specific eco-aspects of the job and matching personal attributes to needed environmental competencies. These then should be explained in the company’s want ads reflecting the company's commitment to sustainable development and ask that all resumes contain evidence that the prospects have contributed to triple-bottom-line enhancement in prior positions (Beechinor, 2007).

In the selection context, when interviewing candidates or evaluating them for selection, environmental-related questions are asked by those companies (Wehrmeyer, 1996; Mandip, 2012). Really, these are some of the good green selection practices any organisation can adopt to select environmentally friendly people in addition to the normal selection criteria relating to the specific duties of the job being concerned. Induction for new employees seems to be needed to ensure they understand and approach their corporate environmental culture in a serious way (Wehrmeyer, 1996).

2.2.2. Green Occupational Health and Safety Management and Environmental Sustainability

The green health and safety management is really beyond the scope of traditional health and safety management function of HRM. It really includes the traditional health and safety management and some more aspects of environmental management of an organization. The key role of green health and safety management is to ensure a green workplace for all. Green workplace is defined as a workplace that is environmentally sensitive, resource efficient and socially responsible (Phillips, 2007). As reported by (Phillips, 2007; Stringer, 2009). In order to improve health and safety of employees, some companies have really created strategies to maintain a conducive environment to prevent various health problems. These aspects can be considered as some examples for green health and safety management practices of the organizations. Some proactive companies in environmental management found that management of environment helped in improvements in the health of employees and local communities, enhancing the image of the company as a desirable employer and corporate citizen (Stringer, 2009).

2.2.3. Green Employee Training and Development and Environmental Sustainability

Denton (1999) reports that Green orientation programs for the newly hired employees should be an integral part of the training and development process. They should inform the employees about the green procedures and policies including the vision/mission statement of the company, the sustainability oriented benefits, company-wide initiatives like reducing greenhouse gases, creating green products etc. According to Denton (1999) Training is a key intervention to manage waste in terms of both prevention and reduction, and occurs through organizations training teams of front-line employees to produce a waste analysis of their work areas. Wehrmeyer, and Vickerstaff (1997) reports that training methods like Job rotation provides a useful way to train green executives or future board members in EM, and is seen as a crucial part of successful environmental programmes.

Green employee Training and development is a practice that focuses on development of employees’ skills, knowledge, and attitudes, prevent deterioration of ES-related knowledge, skills, and attitudes (Zoogah, 2011). Green training and development educate employees about the value of ES, train them in working methods that conserve energy, reduce waste, diffuse environmental awareness within the organization, and provide opportunity to engage employees in environmental problems solving (Zoogah, 2011). Ramus (2002) concluded that environmental training and education, along with establishing a favorable environmental culture for the employees where they feel that they are the part of environmental outcomes, were the most important HRM processes that facilitate the achievement of environmental goals.

2.2.4. Green Performance Management System (GPMS) and Environmental Sustainability

According to Wehrmeyer (1996) Performance management (PM) in environmental management (EM) presents the challenges of how to measure environmental performance standards across different units of the firm, and gaining useful data on the environmental performance of managers. One way in which PM systems can be successfully
initiated in an organization is by tying the performance evaluations to the job descriptions mentioning the specific green goals and tasks. For instance, Performance Appraisal (PA) can cover such topics as environmental incidents, usage of environmental responsibilities, reducing carbon emissions and the communication of environmental concerns and policy (Wehrmeyer, 1996). HR systems such as e-HR can be introduced to be able to help management and employees track their own carbon emissions (Beechinor, 2007). There is also a need to bridge any differences in corporate rhetoric and action, and develop HR systems in PA and reward so that environmental management initiatives are not seen simply as a management fad (Milliman & Clai, 1996).

3. Methodology

3.1. Research Design

Kothari (2004) describe a research design as a plan and a structure of investigation conceive to find answers to research questions. This study adopted descriptive research design that utilized both quantitative and qualitative approaches. It was a case study of Menengai Oil Refinery.

3.2. Population of the Study

A population can be defined as the total collection of elements about which inference is made and refers to all possible cases which are of interest for the study or the entire group of individuals under consideration in any field of inquiry and have common attributes (Mugenda & Mugenda, 2003). The target population constituted all permanent employees working in Menengai Oil refinery limited Nakuru town which constituted 275 employees.

3.3. Sample Size and Sampling Procedure

The following formula developed by Yamane (1967) was used to determine the sample size for the study;

\[ n = \frac{N}{1+N(e^2)} \]

\[ n = 275 / (1+275 (0.005^2)) = 163 \]

This yields a sample size of 'n' 163

<table>
<thead>
<tr>
<th>No.</th>
<th>Department</th>
<th>Population (N)</th>
<th>Sample (n)</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purchasing</td>
<td>27</td>
<td>16</td>
<td>9.81%</td>
</tr>
<tr>
<td>2</td>
<td>Acc &amp; Finance</td>
<td>15</td>
<td>9</td>
<td>5.45%</td>
</tr>
<tr>
<td>3</td>
<td>Production</td>
<td>162</td>
<td>96</td>
<td>58.91%</td>
</tr>
<tr>
<td>4</td>
<td>Marketing</td>
<td>58</td>
<td>35</td>
<td>21.09%</td>
</tr>
<tr>
<td>5</td>
<td>Human resource</td>
<td>13</td>
<td>7</td>
<td>4.73%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>275</td>
<td>163</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1. Sample Distribution.

The employees were subdivided categorically according to the departments using stratified sampling. The number of employees sampled in every stratum (department) was determined proportionally. 163 employees were drawn from different department including production, human resource, finance, purchasing and supplies and marketing departments as shown in table 1. The sampled employees were then selected using simple random sampling to get representatives from every stratum.

3.4. Data Collection Instrument and Data Procedure

Primary data was collected using structured questionnaires. Questionnaires. The questionnaires items were developed so as to collect data on each research indicator in line with specific research objectives. The questionnaire was in form of likert scale where respondents evaluated different statement about independent and dependent variable. A scale of 1-5 was used. The questionnaires were administered by the researcher to all the respondents. The respondents were given one week to fill the questionnaires after which they were collected for analysis.

3.5. Pilot Test

A pilot test was conducted in the production department of Kenya Pipeline Company Nakuru branch to determine the reliability of the research instruments which is homogenous to Menengai Oil refinery in the sense that both are refineries and are within the same county. The information generated during pilot study was used for Testing reliability and Validity of research instrument used in the study. Cronbach alpha coefficient was computed and compared with the threshold of 0.7. The calculated Cronbach alpha coefficient was 0.8 which is above the threshold of 0.7 hence the research instrument was reliable enough. Validity test on the other hand was conducted through brainstorming with colleagues in human resource management discipline as well as consulting research experts and experienced scholars from the university.

3.6. Data Processing and Data Analysis

The collected data was first checked for completeness and comprehensibility. The data was then coded and analyzed using the SPSS. Both descriptive analysis (mean, frequencies and standard deviation) and inferential analysis (Pearson correlation) were carried out. The descriptive analysis was used to explain the aspects of green human resource management and environmental sustainability. Correlation analysis was used to test the relationship between green human resource management practices and environmental sustainability. The research findings were then presented using frequencies; percentages displayed in tables whose interpretation will facilitate conclusions and recommendations.

4. Research Findings

4.1. Response Rate

Out of the 163 questionnaires issued, 114 were returned and useable for the study accounting for accounting for 70% response rate. This percentage is adequate for data analysis as argued out by Babbie (1973) and Kidder (1981) who held that response rate of 50% is acceptable in social research surveys.

4.2. Descriptive Data Analysis

The aim of the descriptive statistics was to describe the
The results in Table 2 indicate that majority (66.3%) of the respondents had worked in the organization for between 2 and 5 years indicating that there is high staff turnover in the organization. The results also indicate that most (48.2%) of the respondents were Diploma holders. It is also clear from the results that majority (60.5%) of the respondents were male while 39.5% were female implying that the organization human resource department has met the one third gender rule stipulated in the constitution. It is also clear from the results that most (48.2%) of the respondents were Diploma holders. It is also clear from the results that majority (60.5%) of the respondents were male while 39.5% were female implying that the organization human resource department has met the one third gender rule stipulated in the constitution.

**4.3. Correlation Analysis**

The results in Table 3 show the Pearson's correlation between Green Human Resource Practices variables and environmental sustainability of at Menengai Oil Refinery limited Nakuru Kenya. Green Employee Sourcing was weakly positively correlated with environmental sustainability but the relationship was insignificant since p> 0.05 (r=0.266, p= 0.064, α = 0.01) while green employee training was moderately positively correlated with the environmental sustainability (r= 0.423, p=0.023, α = 0.01) but significant since p<0.05. Green performance management system was significant and negatively correlated with environmental sustainability (r= - 0.373, p= 0.007, α = 0.01). Green occupational health and safety was significant and positively correlated with environmental sustainability (r =0.471, p=0.009, α= 0.01) and finally NEMA policies implementation was significant and strongly positively correlated with environmental sustainability (r = 0.735,p =0.001, α =0.01)

**4.4. Hypothesis Testing**

The hypotheses were tested using paired sample t-test to establish the association between dependent variable and independent variables at 0.95 level of significance.

H1 Green employee sourcing has no significant influence on environmental sustainability at Menengai Oil Refinery

The researcher tested the association between dependent variable Environmental sustainability and independent variable green employee sourcing.

**Table 3. Summary of correlation analysis.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>GES</th>
<th>GOH</th>
<th>GET</th>
<th>GPM</th>
<th>NEMA</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.151</td>
<td>.093</td>
<td>-.077</td>
<td>-.058</td>
<td>.266</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.187</td>
<td>.079</td>
<td>.856</td>
<td>.892</td>
<td>.064</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.151</td>
<td>1</td>
<td>-.399</td>
<td>-.049</td>
<td>.042</td>
<td>.471**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.187</td>
<td>.482</td>
<td>.909</td>
<td>.922</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.093</td>
<td>-.399</td>
<td>1</td>
<td>.527</td>
<td>.075</td>
<td>.423</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.079</td>
<td>.482</td>
<td>.179</td>
<td>.859</td>
<td>.023</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.077</td>
<td>-.049</td>
<td>.527</td>
<td>1</td>
<td>-.389</td>
<td>-.373**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.856</td>
<td>.909</td>
<td>.179</td>
<td>.341</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.058</td>
<td>.042</td>
<td>.075</td>
<td>-.389</td>
<td>1</td>
<td>.735**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.892</td>
<td>.922</td>
<td>.859</td>
<td>.341</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.266</td>
<td>.471**</td>
<td>.423</td>
<td>-.373**</td>
<td>.735**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.064</td>
<td>.009</td>
<td>.023</td>
<td>.007</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

**.correlation is significant at the 0.01 level (2-tailed). Independent Variables: Green Employee sourcing (GES), Green Occupational Health (GOH), Green Employee Training (GET), Green Performance Management (GPM), and Intervening Variable: National Environmental Management Authority (NEMA). Dependent variable: Environmental Sustainability (ES)**

**Table 4. Paired sample t-test Green employee sourcing - environmental sustainability.**

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 GES - ES</td>
<td>.1311688</td>
<td>.3322433</td>
<td>.0408963</td>
<td>-.2128444</td>
<td>.0494932</td>
<td>.207</td>
<td>113</td>
</tr>
</tbody>
</table>

According to table 4 the significance was 0.064 with a t value of 0.207. The level of significance was higher than 0.05 and this means that green employee sourcing do not show statistically significant relationship with environmental sustainability. Therefore this study fails to reject the null hypothesis and concludes that there is no statistical relationship between Green Employee Sourcing and Environmental Sustainability. This implies that green employee sourcing needs not to be over emphasized in order to have environmental sustainability at Menengai Oil Refinery.

$H_2$ Green Occupational Health has no significant influence on environmental sustainability at Menengai Oil Refinery

The researcher tested the association between dependent variable Environmental Sustainability and independent variable Green Occupational Health using pared t test as shown in table 5.

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOH-ES</td>
<td>-0.0589827</td>
<td>.3356583</td>
<td>.0413167</td>
<td>-0.1414978 to 0.0235324</td>
<td>-1.428</td>
<td>113</td>
<td>.038</td>
</tr>
</tbody>
</table>

According to table 5 the significance was 0.038 with a t value of -1.428. The level of significance was lower than 0.05 and this means that green occupational health shows statistically significant relationship with environmental sustainability. Therefore this study rejects the null hypothesis and concludes that there is statistical relationship between Green occupational health and Environmental Sustainability

$H_3$ Green employee training and development has no significant influence on environmental sustainability at Menengai Oil Refinery

The study also sought to test whether Green employee training and development does not significantly affect environmental sustainability at Menengai Oil Refinery Limited Nakuru, Kenya as shown in table 6.

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET-ES</td>
<td>.3023</td>
<td>.3788985</td>
<td>.0466392</td>
<td>.2092361 to .3955258</td>
<td>6.483</td>
<td>113</td>
<td>.0560</td>
</tr>
</tbody>
</table>

According to table 6 the significance was 0.560 with a t value of 6.483. The level of significance was higher than 0.05 and this means that green employee training shows no statistically significant relationship with environmental sustainability. Hence, the null hypothesis was accepted. Hence general environmental training is not critical to ensuring environmental sustainability.

$H_4$ Green performance management has no significant influence on environmental sustainability at Menengai Oil Refinery

Finally the study sought to test whether Green performance management does significantly influence environmental sustainability at Menengai Oil Refinery Limited Nakuru, Kenya as shown in table 7.

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPM-ES</td>
<td>-.014069</td>
<td>.3274994</td>
<td>.0403124</td>
<td>-.0945787 to .0664401</td>
<td>-3.49</td>
<td>113</td>
<td>.028</td>
</tr>
</tbody>
</table>

Finally, the results on the test of this hypothesis found that there was a significant association between Green performance management and the environmental sustainability at Menengai Oil Refinery. This is evidenced by a significance level of 0.028 that was lower than 0.05 hence the null hypothesis was rejected suggesting that green performance management was crucial to the success of the environmental sustainability.

5. Conclusion and Recommendations

5.1. Conclusion

Green employee sourcing has minor influence on environmental sustainability. When Management of Menengai Oil refinery insisted on recruiting and selecting employees who are eco-concerned, the company was able to improve its environmental sustainability. This is evidenced
by positive correlation which was not statistically significant and the acceptance of null hypothesis.

Green occupational health has major influence on environmental sustainability. When the Firm implemented green occupational health and safety programs, the firm was able to improve its environmental sustainability to a great deal as shown by moderately positive correlation which was statistically significant. The null hypothesis was also rejected showing green occupational health has a major influence on environmental sustainability of Menengai Oil refinery.

Green employee training has minor influence on environmental sustainability: When the firm offered training and development programs on green aspects of the organization and environmental consciousness, it was able to improve its environmental sustainability. This is evidence by positive correlation coefficient which was not statistically significant and the acceptance of null hypothesis suggesting that the trainings offered where not specific enough to equip employees to act as eco-friendly champions and environmental super stars.

Green Performance management has a major influence on environmental sustainability: Improving Green performance management programs to be biased towards environmental could promise environmental sustainability at Menengai Oil Refinery. This is evidenced by significant relationship between green performance management and environmental sustainability.

5.2. Recommendations

From the findings of the study, the following recommendations are made: 

**Green employee sourcing:** Green employee recruitment and selection needs to be emphasized at every Human resource process in order to have better environmental sustainability at Menengai Oil Refinery Limited although the issue should not be over emphasized. 

**Green Occupational Health and Safety:** The practice and programs of green Occupational Health and safety are very critical to the achievement of environmental sustainability hence should be implemented to the latter and must be seen to be working. 

**Green employee training and development:** Although the firm needs to encourage training programs aimed at equipping staff with knowledge and skills of environmental management, the training should not just be general but must be specific enough for action to be taken by employees.

**Green performance management system:** Performance management system covering areas of setting performance standards, employee’s appraisal and remuneration should be looked at on a serious note.

The current study was a case study with limited coverage to only cover case study of Menengai Oil Refinery limited Nakuru, Kenya hence limited relevance. Future researches should be a survey covering all manufacturing firms in Nakuru if possible the whole of Kenya to generate a report that has relevance across all manufacturing firms. Additionally, future studies should look into other Green human resource practices like green employee communication, green punishment, green staff separation etc., That were not in the scope of this study. This will enable total study on all green human resource practices possible.

References


