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ABSTRACT

The study investigated effect of green supply chain management/practices on organization performance of County Government of Bungoma. The study used a causal research approach to investigate cause-effect correlations. The study targeted 107 respondents comprising of Procurement Officers, Transport and Logistics Officers, Finance Manager, Operation Manager, and Warehouse/Storage officers who usually play a key role in supply chain operations. From each stratum the study used simple random sampling to select 84 respondents from a target of 107. Primary data was collected using a well-designed questionnaire. Piloting was conducted to determine validity via content and construct validity as well as reliability using Cronbach alpha. Quantitative data was analyzed using descriptive and inferential statistics. Descriptive analysis summarized data in form of central tendency as well as dispersion and inferential analysis will be used to test hypothesis. Descriptive analysis included; frequencies, Mean, Standard deviation and percentage while inferential analysis involved correlation analysis and multiple linear regression analysis. Prior to conducting multiple linear regressions, the study ensured that the assumptions of linear regression were met. The data was presented in form of tables and models. The study established that green distribution, green purchasing, reverse logistics, and green production significantly influence organizational performance in Bungoma County. Green production showed the highest impact, followed by reverse logistics, green purchasing, and green distribution. All four components were statistically significant predictors of performance, leading to the rejection of all null hypotheses. The study concluded that implementing green supply chain practices significantly enhances organizational performance. Green production emerged as the most influential, highlighting the importance of sustainability in public sector procurement efficiency. The County Government should intensify investments in green production and reverse logistics, reinforce green purchasing by embedding sustainability in procurement criteria, and expand green distribution practices. Continuous staff training, use of clean technologies, and systematic performance monitoring will ensure sustainable procurement performance aligned with environmental goals and operational efficiency.

Key Words: *Green Distribution, Green Purchasing, Reverse Logistic, Green Production*

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INTRODUCTION

In the contemporary era, companies encounter a diverse array of factors, many of which pose challenges to their ongoing performance and long-term viability (Nderitu & Ngugi, 2019). In order to enhance performance and competitiveness, contemporary organizations must prioritize diversity and effective management practices, which are necessitated by technological advancements, heightened competition, globalization, and growing awareness of cultural variety. The supply chain is a significant operational procedure inside contemporary organizations that needs careful consideration in order to optimize performance and efficiency. The concept of sustainable supply chain management has gained significant attention worldwide due to its potential to mitigate global warming and address environmentally detrimental practices (Quyen, 2020).

With the growing consumer awareness in the business sector, there is a heightened focus on environmental concerns such as heating and the impact of the goods produced by companies. Consequently, organizations must strategize on how to address supply chain operations (Abunar, 2024). Companies have reported an increase in greenhouse gas emissions as well as environmental deterioration, which has resulted in the need for these businesses to coordinate the activities of their supply chain in order to respond appropriately to the limited availability of resources (Kaikai & Mose, 2020).

Recent research published in academic journals has investigated a number of different definitions and conceptualizations of green supply chain management, in addition to the topic's possible effects on business operations and the natural environment in the foreseeable future (Setyadi, 2019). According to Yusuf (2020), there is a general agreement that sustainable practices in a company's buying and production divisions are crucial for promoting the well-being of its workers, customers, and the environment. According to Bolaji, Rahim, and Omar (2020), the concept of green supply chain management techniques pertains to the enhancement of environmental sustainability by means of regulating the flow of raw materials, components, and operations throughout the supply chain, spanning from suppliers to manufacturers to consumers.

The primary objective of Green Supply Chain Management (GSCM) is to effectively mitigate or reduce waste in many forms, including energy consumption, emissions, as well as the generation of chemical, hazardous, and solid wastes, along the whole supply chain (Obiso, Maendo, Musau, & Waribu, 2023). The concept of GSCM has become more important for businesses as it offers a means to achieve financial gains, operational efficiency, and market dominance via the mitigation of environmental risks and minimizing ecological footprints (Ochieng, 2019). The primary aim of GSCM is to ensure that firms include environmental considerations into their supply chain operations while they strive for advancement. This environmental consciousness has the goal of removing operations that are harmful to the environment from the supply chain, which will result in an increase in the environmental efficacy of companies and a reduction in the environmental risks such organizations face. This approach also aids in increasing their profitability and market share.

The incorporation of environmentally friendly business practices into supply chain management is the core idea behind the term "green supply chain." This integration seeks to promote environmental sustainability by the use of a variety of techniques, including eco design, green buying, green distribution, green manufacturing, reverse logistics, green disposal, green packaging and warehousing, and green transportation (Aunyawong, Waiyawuththanapoom & Shaharudin, 2024). These practices include the use of biofuels in transportation, the incorporation of

environmentally friendly manufacturing methods, and the administration of end-of-life product management procedures. This study will concentrate on the adoption of green supply chain management, which will include green distribution, green manufacturing, green purchasing, and reverse logistics as particular areas of attention.

The performance of a corporation refers to its ability to meet established rules, adhere to compliance requirements, reduce waste, and optimize output (Mumbi, Karanja, & Kiarie, 2021). The evaluation of a company's performance may be conducted by examining the efficiency of its whole manufacturing process. One of the indicators of a firm's strong success is an elevated level of production. These objectives may be achieved by implementing strategies that enhance production efficiency, hence positioning the sector in a favorable competitive position. Performance refers to the degree to which a firm is able to establish a more advantageous position relative to its rivals (Ali, Islam & Alam, 2024). In order to optimize performance, it is essential that all participants within the supply chain maintain a continuous collaborative effort to effectively cater to the ultimate customer (Ajayi, Onikoyi, Babalola & Lateef, 2021). According to Porter (1985), the manner in which a firm establishes connections with other enterprises within its value chain may have an impact on its performance, particularly when external assets are generated independently from other value chains. According to Wanjiru and Ochiri (2019), the authors argue that the adoption of strategic alternatives for sustainability might potentially serve as a determining element in enabling enterprises to establish a distinctive performance in terms of product images, sales, market share, and penetration into new markets.

According to the Economic Commission for Africa (2010), the implementation of green supply chain management in Africa has shown a positive impact on supply chain performance. In the context of Nigeria, Ajayi et al. (2021) have provided empirical evidence supporting a positive relationship between GSM (Global System for Mobile Communications) and environmental performance, which is mediated by green innovation. According to Carter et al. (2018) research conducted in Kenya, it has been shown that increasing the participation of supply chain suppliers in environmentally friendly practices may improve the performance of manufacturing businesses. In the setting of South Africa's highly developed economy, the factors of reverse logistics, legislation, and regulation were shown to have a substantial and positive correlation with environmental performance. This association was found to be significant. Epoh and Mafini (2018) state that there is a significant and favorable correlation between environmental performance and supply chain performance.

In Kenya, a range of economic sectors have adopted green supply chain strategies in order to adhere to governmental environmental requirements and effectively tackle environmental concerns while also addressing performance-related problems (Mumbi et al., 2021). Companies operating within the agriculture industry have implemented ecologically sustainable measures such as the use of eco-friendly pesticides, afforestation initiatives, the use of uncontaminated seedlings, and the adoption of irrigation systems that are conducive to ecological preservation. The enactment of the Constitution of Kenya, 2010 signified a significant milestone in the progression of Kenya's environmental policy formulation. Regarded as a constitution with a strong focus on environmental sustainability, it has detailed provisions that have significant consequences for the advancement of sustainable development. These include the entitlement to a clean and healthy environment as established in the Bill of Rights. Chapter V of the constitution is exclusively devoted to matters pertaining to land and the environment. Furthermore, it encompasses several social, political, and economic rights with an environmental focus, including but not limited to the entitlement to access clean water, enough food,

and suitable housing (Musau, 2019).

The simultaneous effects of globalization and localization have provided businesses with the urge to work toward improving their environmental performance. As a consequence of this, businesses devote large resources to environmental initiatives, and there is evidence to suggest that the incorporation of environmentally responsible business practices into supply chain management, commonly referred to as "green supply chain," has an effect on the profitability of businesses. When firms use such strategies, they have the ability to enhance performance by implementing waste management methods, enhancing their reputation, and decreasing total expenses. Hence, several organizations have embraced the implementation of GSCM strategies as a means of achieving enhanced organizational performance, which serves as the primary objective of this research endeavor.

Statement of the Problem

Procurement performance is pivotal in public service delivery, especially within Kenya's devolved governments. Effective procurement ensures transparency, accountability, and optimal use of public resources, directly impacting service delivery to citizens. In counties like Bungoma, procurement inefficiencies can lead to delayed projects, inflated costs, and substandard services, undermining public trust and development goals. Poor procurement performance affects various stakeholders: citizens experience reduced access to essential services; suppliers face unfair competition; and government officials encounter challenges in project implementation. Strengthening procurement processes is thus essential for achieving county development objectives and enhancing public service delivery (Andika et al., 2021).

Recent audits have exposed substantial procurement irregularities within Bungoma County. According to the Auditor-General's report for the 2022/2023 financial year, there were unexplained variances totaling approximately KSh 911.8 million in bank reconciliations. Additionally, the county incurred unsupported expenditures, including KSh 73.9 million for vehicle maintenance without adequate documentation and KSh 17.1 million in legal fees paid without adherence to established procurement procedures. These findings point to systemic weaknesses in procurement governance and internal controls, which have resulted in significant financial losses and have hindered effective service delivery to residents (Wakajuaness, 2024).

Green Supply Chain Management (GSCM) integrates environmental considerations into supply chain operations, aiming to reduce ecological impact while enhancing efficiency. Moreover, while some studies report positive outcomes, others find minimal or no significant effects, suggesting that the relationship between GSCM and performance is context-dependent. For instance, Ngatia, Osoro, and Nyang'au (2024) found that GSCM practices significantly improved operational and financial performance among food and beverage firms in Kenya, accounting for 27.6% of performance variation. Similarly, Omar, Kituku, and Kithinji (2023) reported that green procurement had a strong positive influence on the performance of textile firms in Nairobi. However, Odero (2021), in a study on county governments in Kenya, observed that GSCM practices had limited impact due to poor policy implementation and lack of technical capacity. Additionally, Mwikali and Kavale (2022), studying manufacturing SMEs, reported that while GSCM raised awareness and compliance, it had no statistically significant effect on profitability due to high implementation costs and weak enforcement mechanisms. These mixed results highlight the need for localized research focusing on public sector settings like county governments, where institutional frameworks and stakeholder engagement may influence the efficacy of GSCM practices.

Purpose of the Study

The study investigated effect of green supply chain

management/practices on organization performance of County Government of Bungoma. The study was guided following specific objectives: -

- To establish the effect of green distribution on organization performance of County Government of Bungoma.
- To determine the effect of green purchasing on organization performance of County Government of Bungoma.
- To establish the effect of reverse logistic on organization performance of County Government of Bungoma.
- To determine the effect of green production on organization performance of County Government of Bungoma

The Study's hypotheses were;

- **H_{01}:** There is no significant effect of green distribution on organization performance of County Government of Bungoma
- **H_{02}:** There is no significant effect of green purchasing on organization performance of County Government of Bungoma.
- **H_{03}**: There is no significant effect of reverse logistic on organization performance of County Government of Bungoma.
- **H_{04}**: There is no significant effect of green production on organization performance of County Government of Bungoma.

LITERATURE REVIEW

Theoretical Framework

Natural-Resource-Based View

The basic hypothesis served as the foundation for the whole investigation. An extension of the Resource-Based View (RBV) paradigm is proposed by the hypothesis. It asserts that a firm may achieve persistent competitive advantage by leveraging its interaction with the natural or biophysical environment (Bagherpasandi, Salehi & Hejazi, 2024). According to the Natural Resource-Based View (NRBV) paradigm (Yang et al., 2015), the creation of pollution prevention technologies involves the learning of a considerable amount of tacit knowledge, which is made possible via the development of skills and the establishment of "green" teams.

The natural resource-based view (NRBV) proposes that in order for an asset or group of assets to be considered strategic, it must possess all three of the characteristics listed below. It is important for a corporation to clearly identify and define its assets or collection of assets. Furthermore, it is essential that the item or collection of assets remains causally ambiguous or unspecified. This implies that the asset in question is mostly centered on humans and is difficult to see in practical terms, since individuals or groups get knowledge via experiential learning and refine it as they gain comprehension. Furthermore, it is essential that the collection of assets, whether tangible or intangible, have a high degree of social complexity (Foo et al., 2018).

Transaction Cost Economics Theory

In 1981, Williamson was the one who first presented the concept of transaction cost economics, while Sarkis et al. (2011) were the ones who went on to develop the concept further. The theory investigates the degree of effort and expenditure that is required for two entities to participate in an economic exchange or transaction. This level of effort and expenditure includes the expenses that are connected with searching for, negotiating with, and maintaining control over the transaction. There are costs associated with getting information about developing technologies, creative ideas, competitive settings, and even estimating the expenditures involved in gaining competence in a given subject (Karim, Chowdhury & Murtaza, 2024). These costs are related to environmental practices and have the potential to add up quickly. According to Avdagic (2011), the key variables that contribute to the buildup of bargaining costs are the time and cognitive resources that are necessary in order to participate in talks and arrive at an agreement that is mutually acceptable. According to Pearce (1997), the allocation of time towards negotiating activities

results in a reduction of available time for fundamental responsibilities.

Resource Dependence Theory

According to Awaysheh and Klassen's (2010) resource dependence theory, organizations are reliant on the availability of important resources, components, or abilities by other entities. These skills might come from outside the company. According to Emerson (1962), the dependence of one side on the other is the source of the power possessed by that side. According to Crook and Combs (2007), powerful firms have the potential to exercise influence and control over partners who have less authority because of their enormous negotiation strength.

According to Min and Galle (2001), there is a larger possibility that notable customers would demand the adoption of ecologically sustainable practices from their smaller suppliers. This is because smaller suppliers tend to be more environmentally conscious. According to Canils and colleagues (2013), the party that holds the majority of market power has the ability to exert influence on the environmental policies and strategies of other parties within the supply chain. This party also has the ability to determine the extent to which suppliers participate in green supply chain initiatives, despite the fact that such participation might not be immediately regarded as advantageous by the suppliers. Brockhaus et al. (2013) found that the case companies had a tendency to adopt initiatives led by dominant enterprises, which were then forced onto the less important upstream members. This was one of the findings that came out of their research, which was published in 2013. This strategy put more emphasis on achieving profits in the near term rather than working to improve the long-term competitive advantage of the whole supply chain. However, it is likely that providers will comply, although in a reactive fashion, in order to fulfill the basic criteria (Canils et al., 2013). This is because it is in their best interest to do so.

Public Value Theory

Moore (1995) introduced the theory of public value theory with the intention of providing managers working in the public sector with a full understanding of the challenges and opportunities that are present in their respective working environments. This knowledge enables them to effectively pursue the creation of results that have significant value for the public. Public value theory is a conceptual framework that elucidates the societal value that a firm provides. The word was first introduced by Mark H. Moore, a scholar from Harvard University, who saw it as analogous to shareholder value in the realm of public administration. The concept of public fee aims to provide managers with a framework for understanding how their actions might contribute to the overall welfare of society. Public values include the normative consensus about the entitlements and rights that individuals should possess, as well as their duties to society, the state, and fellow citizens. These values serve as the foundational principles upon which governments and policies should be constructed.

According to Scott (2004), "public value" is the value that is created for the purpose of benefiting a larger population or society as a whole. Assessments of the basic requirements of people, communities, and society as a whole may be used to estimate the value for the general public, and these evaluations are influenced by interactions with the general public. According to Scott (2004), Public value theory posits that the role of a manager extends beyond just implementing policies and adhering to institutional values and norms. The idea aims to identify potential for significant improvements in the well-being of the general population. Williams and Shearer (2011) argue that public service companies differ from private enterprises in that they have a direct accountability to people and their democratic representatives.

Conceptual Framework

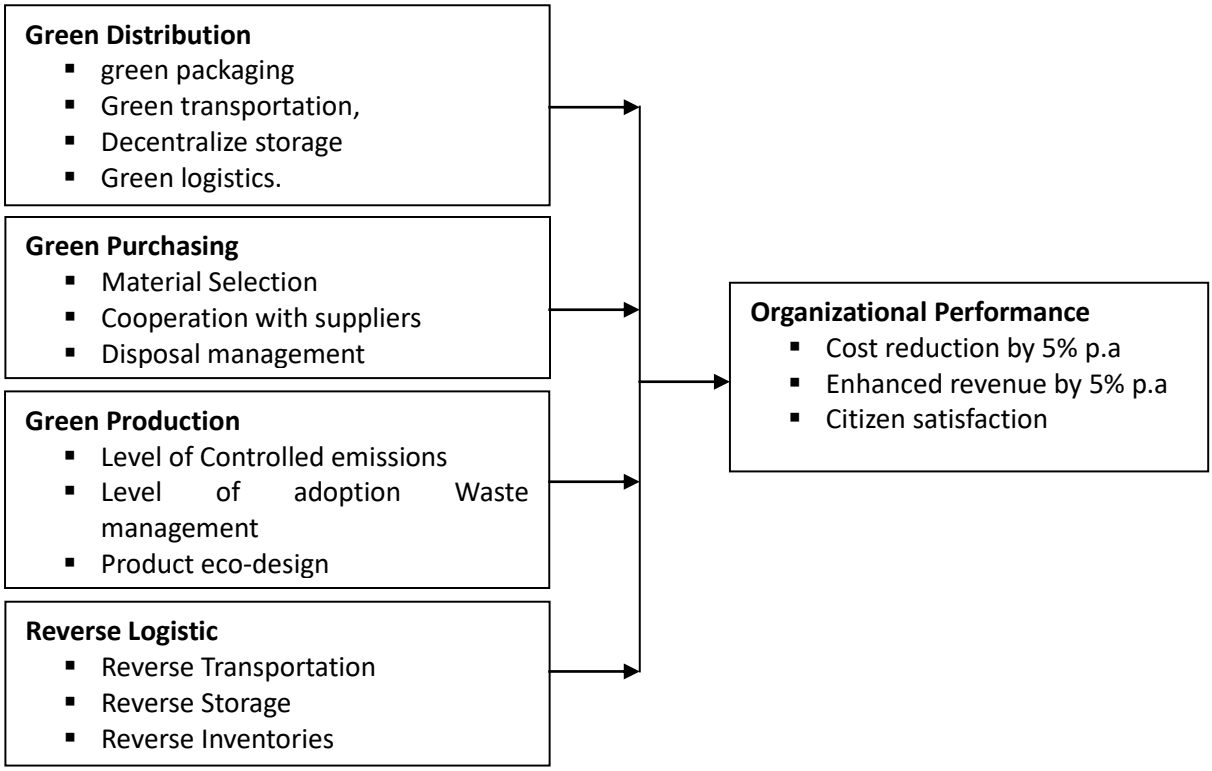

Figure 1: Conceptual Framework

Empirical Review

The investigation that was carried out by Ajayi, Onikoyi, Babalola, and Lateef (2021) looked at the impact that green distribution and green procurement have on the environmental and operational performance of SMEs in the state of Oyo, Nigeria. A survey technique was used for the research that was carried out for the purpose of this study. This survey has 4,520 business owners and managers of SMEs as its intended audience. Oyo state is located in Nigeria. For the purpose of the research, a sample size of ten percent (455 SME operators) was chosen. The participants were selected for the research using processes for stratified random sampling, and the data collected was afterwards analyzed utilizing regression and correlation techniques. According to the results of the study, the adoption of environmentally friendly distribution procedures has a substantial influence on the environmental performance ofSMEs.

The objective of the research that was carried out by Mumbi, Karanja, and Kiarie (2021) was to investigate the influence that green distribution has on the operational and financial performance of horticultural businesses that are active in Kenya. The method of descriptive research was used for this study, and the population of interest was comprised of 236 horticultural businesses located in Kenya. The study was conducted using a census technique, and all 236 firms that were investigated were included in the count. In order to gather the necessary information for this study, a questionnaire served as the major tool employed. After that, the data that had been obtained were put through a mixed analysis, which included the use of qualitative and quantitative research approaches. The research conducted revealed a significant correlation between the use of environmentally-friendly packaging and the overall effectiveness within the agricultural sector in

Kenya.

Sahoo and Vijayvargy (2021) research the impacts of five components of GSCM practices, notably focused on green purchasing, on three dimensions of organizational performance, namely environmental performance, economic performance, and operational performance. In their study, Sahoo and Vijayvargy investigate the effects of GSCM practices. The information was gathered by means of a survey with a cross-sectional design that was administered to the managers of 160 different manufacturing companies in India. The researchers investigated the influence that GSCM practices have on a variety of measures of organizational performance by using a methodology known as structural equation modeling. According to the findings of the research, environmentally responsible consumption had almost no impact on the different performance measures.

In their research, Kaikai and Mose (2020) wanted to find out how the EABL would do if they made more environmentally conscious purchasing decisions. Investigated aspects include staff competence in respect to green procurement principles, the effect of ICT infrastructure, supplier engagement in green procurement, as well as financial investment in green procurement and its affect on performance. The descriptive research design was the one that was used for this particular investigation. 122 employees from the EABL made up the study's target demographic and served as its primary focus. The research decided to use a sample size of 37 participants, which represented a proportion of the target population equal to 30 percent. The researcher relied on a variety of primary and secondary sources while compiling her findings. According to the findings of the research conducted, the productivity of the manufacturing sector is affected by a number of different elements. The incorporation of green buying qualities is a contributing factor to achieving performance excellence.

In their study, Walisundara, Thevanes, and Arulrajah (2022) investigate the correlation between green production techniques and the perceived financial success of manufacturing enterprises listed in Sri Lanka. A total of thirty-six manufacturing businesses listed on the Colombo Stock Exchange (CSE) were chosen for inclusion in this study. The selection criteria were based on the companies' market capitalization, with data collected as of April 4th, 2018. According to the findings of the study, including a number of environmentally responsible and sustainable business practices into an organization's operations may have a significant influence on how well that organization is considered to be doing financially.

D'Angelo, Cappa, and Peruffo (2023) performed an analysis into the impact that environmentally friendly manufacturing methods have on the financial performance of businesses as part of their research study. In particular, they investigated the impact of green activities and investments, as well as the kind of the product that was produced. This research made use of survey information gained from small and medium-sized businesses (often known as SMEs) across Europe, which was gathered by the European Commission. The study used the self-determination theory as a theoretical framework in order to analyze the influence on economic performance of parameters such as the quantity of environmentally friendly activities, the amount of environmentally friendly investments, and the kind of product. According to the data, there is a connection, in the form of a positive correlation, between the number of environmentally conscious actions and economic performance. However, the relationship between the amount invested in environmentally friendly manufacturing and the success of the economy follows an inverted U-shaped pattern. Moreover, this relationship is favorably influenced when a firm simultaneously engages in the sale of non-green products.

The purpose of the research that Chemutai and

Mbeche (2018) conducted was to explore the influence that reverse logistics has on the organizational performance of multinational tea processing firms that are based in the city of Kericho in the country of Kenya. In this particular study, a descriptive survey served as the method of investigation. The target audience was comprised of 62 procurement officials, senior procurement officers, manufacturing unit managers, and their assistants from businesses based in Kericho County. These businesses included Uniliver tea, James Finlay, and Williamson tea Kenya Limited. Questionnaires with predetermined answers were used to compile the necessary data for analysis. The implementation of reverse logistics procedures was shown to have a statistically significant link with organizational performance based on findings from both the analysis of variance and the regression analysis.

The objective of the research that Gikonyo, Ngugi, and Paul (2022) conducted was to investigate the influence that reverse logistics has on the efficiency of business operations for manufacturing enterprises in Kenya that are involved in the building and construction industry. In this particular investigation, a descriptive research design approach was used. This strategy is recommended because of its capability of delivering an in-depth analysis of the subject matter being investigated. The participants in this study came from 54 different manufacturing companies in Kenya, all of which had some kind of focus on the building and construction industries. For the purpose of the research, a sample size of 270 respondents was selected via purposive sampling. These respondents were from major departments within each of the 54 businesses. A standardized questionnaire was used throughout the course of the data gathering process that comprised the main data. The application of content analysis was a part of the process of analyzing qualitative data, while the application of descriptive statistics and inferential statistics was a part of the process of analyzing quantitative data. The results of the research suggested that the introduction of green logistics techniques, namely via the use of reverse logistics, had a major influence on the operational effectiveness and overall performance of building and construction manufacturing enterprises that were operating in Kenya.

METHODOLOGY

This particular study approach elucidates a causal link between variables that are dependent on one another and variables that are independent. Procurement Officers, Transport and Logistics Officers, Finance Managers, Operation Managers, and Warehouse/Storage Officers, all of whom typically play an important part in supply chain operations, were the focus of the research. The total number of respondents were 107. The population that served as the basis for the sample was selected from the larger population with the intention of achieving the required quantity of subjects, responders, elements, or businesses. The method of stratified proportional random sampling was used in the selection process for the sample. The purpose of stratification is to minimize the standard error by introducing a level of control over variation. The respondents were divided up into five different categories for the purpose of the study: procurement officials, transport and logistics officers, finance managers, operation managers, and warehouse and storage officers.

The research employed a method called simple random sampling to choose 84 respondents from a total of 107 candidates from each stratum. This, in turn, resulted in increased accuracy in whatever estimating techniques that are ultimately chosen to be employed. In order to choose 84 participants for the study, researchers will apply the Yamane (1973) formula.

The research mostly used primary data. The researcher intends to use a questionnaire as the primary study tool. The research used a questionnaire that was designed to collect data on the primary variables of interest from the selected participants in the study. The researcher developed

a structured questionnaire using a 5-point Likert scale, with response options ranging from 1-Strongly agree, 2-Disagree, 3-Neutral, 4-Agree and 5 Strongly Agree. That is, preliminary testing of the research instrument was conducted prior to its use in the primary research study for the purpose of data collecting. In order to conduct the pilot testing, the structured questionnaires were given to a total of eight respondents from County Government of Trans Nzoia. The completed surveys were tested for both their reliability and their validity.

To provide information, the data was processed using quantitative in the context of descriptive and inferential statistics. First, the obtained primary data was edited, cleaned, and coded. After that, SPPS version 26 was used in order to analyze both sets of primary data. In order to describe the data, a descriptive statistical analysis was performed with the help of frequencies, percentages, means, and standard deviations. For the variable cause-effect, inferential statistics was done; more specifically, a correlation coefficient and multiple regression analysis was conducted in order to determine whether or not there is a correlation, linear connection, or multiple relationships between the study's independent variables and dependent variables. In this study, the relationship between the independent components and the dependent variable was investigated by using a Multiple Regression analysis with a significance threshold of 5%. Tables, charts, and graphs was used to illustrate the analyzed data, making comparisons and drawing conclusions much simpler.

The regression equation was as follows:

$$Y= \beta_0+ \beta_1X_1+\beta_2X_2+ \beta_3X_3+\beta_4X_4 + \varepsilon$$

Where Y is the dependent variable (Performance),

β_0 is the regression constant,

β_1, β_2, β_3 and β_4 are the coefficients of independent variables,

X_1 is green distribution

X_2 is green purchasing

X_3 is green production

X_4 is reverse logistics

ε is error term

FINDINGS AND DISCUSSIONS

Response Rate

In this study, a total of 84 questionnaires were administered to the sampled respondents, 74 were successfully completed by the respondents which is a response rate of 88.1% of the total questionnaires. Richard (2005) observed that the Australian Vice Chancellors' committee and graduate careers council of Australia (2001) regarded an overall institutional response rate for the course experience questionnaire of at least 70% to be both desirable and achievable. The response rate of 88.1% which was attained during this study is acceptable because it is above the 60%.

Descriptive statistics

Descriptive analysis for this section used percentages, frequencies, means and standard deviation to show the response from the respondents as shown in the tables below for each variable. The respondents were required to state their level of agreement on various statements on each variable. The level of agreement ranged from 1-strongly disagree, 2-disagree, 3-fairly agreed, 4-agree and 5- strongly agree. The results are as follows.

Green distribution and Organization performance

The sampled respondents were provided with 7 statements related to green distribution. Percentages are in parenthesis (). The results are as presented in Table 1.

Table 1: Green distribution

Green distribution	Mean	S.D
The corporation distributes its products using environmentally friendly packing materials	4.08	0.98
When choosing its fleet of carriers, the corporation takes into account fuel efficiency.	3.86	1.23
The business has decided to use the ecolabelling system in order to provide information on goods on the environmental effects that are related with their usage.	3.86	1.19
We believe that the use of minimal packaging should be encouraged.	3.91	1.11
We require that all goods be supplied to the central stores before they are sent out.	3.99	1.03
All products that are purchased are delivered straight to the areas that are in need of them.	3.93	1.15
An essential component of the assessment criterion for bids is the supplier distribution network.	3.95	1.17

The corporation distributes its products using environmentally friendly packing materials: This statement received a relatively high mean score of 4.08 with a standard deviation of 0.98. A majority of respondents either "Strongly Agree" (37.8%) or "Agree" (41.9%), indicating a strong consensus that the corporation's use of eco-friendly packaging is positively perceived. Only a small percentage "Disagree" (1.4%) or "Strongly Disagree" (4.1%), suggesting general satisfaction with the company's environmental practices in packaging.

W*hen choosing its fleet of carriers, the corporation takes into account fuel efficiency*: The mean score is 3.86, with a higher standard deviation of 1.23, indicating more variability in responses. A significant portion of respondents "Strongly Agree" (40.5%) and "Agree" (29.7%) that fuel efficiency is considered in fleet choices, although there is also a notable percentage who "Disagree" (16.2%) or "Strongly Disagree" (4.1%). This suggests some uncertainty or dissatisfaction about the corporation's commitment to fuel efficiency in its transportation choices.

The business has decided to use the ecolabelling system to provide information on the environmental effects related to goods: This statement also shows a mean score of 3.86 with a standard deviation of 1.19. The majority of respondents "Strongly Agree" (36.5%) or "Agree" (35.1%) that the company uses ecolabelling, but there are still some who "Disagree" (10.8%) or "Strongly Disagree" (5.4%). This indicates a general but not universal approval of the ecolabelling practice.

We believe that the use of minimal packaging should be encouraged: With a mean score of 3.91 and a standard deviation of 1.11, this statement has a high level of agreement. Most respondents "Strongly Agree" (35.1%) or "Agree" (37.8%) with encouraging minimal packaging. The relatively lower "Disagree" (9.5%) and "Strongly Disagree" (4.1%) percentages reflect a strong consensus in favor of minimal packaging.

We require that all goods be supplied to the central stores before they are sent out: This statement has a mean score of 3.99 with a standard deviation of 1.03. A substantial number of respondents "Strongly Agree" (32.4%) or "Agree" (48.6%) with this requirement, showing broad support for central store supplies before distribution. Fewer respondents "Disagree" (6.8%) or "Strongly Disagree" (4.1%), suggesting overall approval of this practice.

All products that are purchased are delivered straight to the areas that are in need of them: The

mean score is 3.93, with a standard deviation of 1.15. Most respondents "Strongly Agree" (37.8%) or "Agree" (37.8%) with direct delivery to needs areas. However, a notable percentage "Disagree" (12.2%) or "Strongly Disagree" (4.1%) implies some issues or dissatisfaction with the direct delivery approach.

An essential component of the assessment criterion for bids is the supplier distribution network: This statement has a mean score of 3.95 with a standard deviation of 1.17. Respondents largely "Strongly Agree" (41.9%) or "Agree" (29.7%) that the supplier distribution network is crucial in bid evaluations. Nonetheless, there is some variation with a percentage "Disagree" (10.8%) and "Strongly Disagree" (4.1%), reflecting mixed opinions on the significance of distribution networks in bid assessments.

Green purchasing and Organization performance

The sampled respondents were provided with 7 statements related to green purchasing. The pertinent results are as shown in Table 21.

Table 2: Green purchasing

Green purchasing	Mean	S.D
The assessment of the quantity of waste that is going into corporate systems is made possible by green buying.	3.68	1.28
Buying products that are environmentally friendly results in a lower consumption of dangerous or poisonous materials	3.39	1.40
Buying environmentally friendly products reduces the number of times that environmental incidents occur.	3.66	1.29
The company makes procurement of things that may be recycled	3.69	1.35
The organization invests in equipment that reduces energy use.	3.26	1.43
The organization only buys items that have earned the approval of reputable environmental labels.	3.54	1.35
The organization works closely with the suppliers to ensure that standard packaging is used.	3.55	1.35

Findings shows that 33.8% of respondents strongly agree that green buying facilitates waste assessment, with an overall mean score of 3.68 and a standard deviation of 1.28. This indicates a positive but somewhat variable perception of green purchasing's effectiveness in waste management. While a significant portion of respondents acknowledges the benefits, the variability suggests that implementation and impact can differ across organizations. Green buying is increasingly recognized for its role in managing corporate waste. Research by Chou and Lin (2022) demonstrates that green purchasing aids in assessing the quantity of waste generated by corporations

Only 31.1% of respondents strongly agree that this is the case, and the mean score of 3.39 with a standard deviation of 1.40 reflects a more mixed perception. This variability implies that while green purchasing has potential benefits for reducing hazardous materials, its effectiveness can vary and may not be universally realized. The impact of green purchasing on the reduction of hazardous materials is another crucial area. Liu et al. (2023) found that buying environmentally friendly products contributes to lower consumption of dangerous substances.

Procurement of recyclable products is a common green purchasing practice that has been shown to improve environmental performance. The results indicated 37.8% of respondents strongly agree that their company makes efforts to procure recyclable products. The mean score of 3.69 and standard deviation of 1.35 suggest that this practice is generally supported, although there are variations in how effectively it is implemented. This support for recyclable product procurement highlights its importance but also suggests that there may be

inconsistencies in its application.

Investments in energy-efficient equipment are another facet of green purchasing that impacts environmental performance. The results indicates that 27% of respondents strongly agree that their organization invests in such equipment, with a mean score of 3.26 and a standard deviation of 1.43. This lower level of strong agreement compared to other practices suggests that while there is some support for investing in energy efficiency, it may not be as widely adopted or impactful as other green purchasing practices.

The use of reputable environmental labels in purchasing decisions is also a key green buying practice. It is evident that 33.8% of respondents strongly agree that their organization only buys items with recognized environmental labels. The mean score of 3.54 with a standard deviation of 1.35 reflects a moderate level of agreement, indicating that while environmental labels are considered, their influence on purchasing decisions may vary.

Collaboration with suppliers to ensure standard packaging is another green purchasing practice. According to the findings, 35.1% of respondents strongly agree that their organization works closely with suppliers on this issue. The mean score of 3.55 with a standard deviation of 1.35 suggests a general endorsement of standard packaging practices, though variability in responses indicates that the effectiveness of such collaborations can differ.

Overall, the environmental impact of green buying practices varies across different aspects. Green purchasing practices such as waste management, reduction of hazardous materials, and recycling are generally supported but show a range of effectiveness and implementation consistency. Studies indicate that while many organizations recognize the benefits of green purchasing, actual outcomes can vary, suggesting a need for more uniform application and further research into its impact.

Reverse logistic

The sampled respondents were provided with 7 statements related to Reverse logistic. The relevant results are as shown in Table 3.

Table 3: Reverse logistic

Reverse logistic	Mean	S.D
Reverse logistics is responsible for the recovery of items that are damaging to the environment.	3.66	1.31
The adoption of our organization's recycling system is made possible thanks to reverse logistics.	3.64	1.44
The establishment of the reused package system is brought about by reverse logistics	3.86	1.33
The use of materials for packaging that may be repurposed for use in other areas of our company is made possible by reverse logistics.	3.80	1.37
The business facilitates the practice of reverse logistics by accepting returns of items from end users.	4.20	0.95
We have complex inventory management systems in place to accommodate reverse inventories.	4.16	1.05
Our organization has sufficient storage space for things that have been returned.	3.70	1.35

Reverse logistics plays a crucial role in the recovery of environmentally damaging items. According to recent research, reverse logistics systems are pivotal in handling products that could potentially harm the environment. Study findings found that 37.8% of respondents strongly agree that reverse logistics is responsible for recovering such items, with a mean score of 3.66 and a standard deviation of 1.31. This indicates a general consensus on the importance of reverse logistics for environmental

recovery, though there is some variability in perceptions regarding its effectiveness.

Reverse logistics also facilitates the implementation of organizational recycling systems. Research findings shows that 41.9% of respondents strongly agree that reverse logistics is integral to their recycling initiatives, with a mean score of 3.64 and a standard deviation of 1.44. This highlights the significant role of reverse logistics in supporting recycling systems, although the varying opinions suggest that the extent of its impact can differ across organizations.

The establishment of reused package systems is another benefit associated with reverse logistics. The study findings indicated that 45.9% of respondents strongly agree that reverse logistics contributes to this process, with a mean score of 3.86 and a standard deviation of 1.33. This underscores the effectiveness of reverse logistics in facilitating the reuse of packaging materials, although there is some variability in how widely this practice is adopted.

The ability to repurpose packaging materials within a company is another advantage of reverse logistics. Research findings reveals that 47.3% of respondents strongly agree that reverse logistics enables this practice, with a mean score of 3.80 and a standard deviation of 1.37. This indicates a strong belief in the capacity of reverse logistics to facilitate material repurposing, though opinions on its implementation can vary.

Facilitating returns from end users is a key aspect of reverse logistics. According to research results, 45.9% of respondents strongly agree that their business supports this practice, with a mean score of 4.20 and a standard deviation of 0.95. This high level of agreement reflects the effectiveness of reverse logistics in managing returns, although there are still some varying opinions about its overall impact.

Complex inventory management systems are necessary to handle reverse inventories. According to the findings, 45.9% of respondents strongly agree that their organization has such systems in place, with a mean score of 4.16 and a standard deviation of 1.05. This highlights the importance of advanced inventory systems for accommodating reverse logistics, though the perceived effectiveness can vary.

Having sufficient storage space for returned items is crucial for effective reverse logistics. Results indicated that 39.2% of respondents strongly agree that their organization provides adequate storage, with a mean score of 3.70 and a standard deviation of 1.35. This suggests that while many organizations manage to provide adequate storage for returns, there are differences in how well this need is met.

Reverse logistics is recognized for its significant role in environmental management, including the recovery of harmful items, support for recycling systems, and the facilitation of reused packaging and material repurposing. However, empirical studies show varying levels of agreement on its effectiveness and implementation, indicating that while the benefits of reverse logistics are acknowledged, the extent of its impact can differ across organizations.

Green production

The sampled respondents were provided with 7 statements related to green production. The relevant results are as shown in Table 4.

Table 4: Green production

Green production	5	4	3	2	1	Mean	S.D
Production that is environmentally friendly results in little or no waste and contamination.	25.7 (19)	35.1 (26)	16.2 (12)	21.6 (16)	1.4 (1)	3.62	1.13
Production that is environmentally friendly encourages the reuse of raw materials	40.5 (30)	45.9 (34)	9.5 (7)	2.7 (2)	1.4 (1)	4.22	0.83
The adoption of environmentally responsible industrial practices has resulted in lower costs related to environmental and occupational safety.	35.1 (26)	16.2 (12)	18.9 (14)	28.4 (21)	1.4 (1)	3.55	1.27
Compliance with environmental laws in the manufacturing of parts and components is enabled through environmentally responsible production.	32.4 (24)	29.7 (22)	13.5 (10)	20.3 (15)	4.1 (3)	3.66	1.24
Manufacturing that is environmentally friendly means that future manufacturing will be environmentally friendly and cleaner	33.8 (25)	28.4 (21)	29.7 (22)	6.8 (5)	1.4 (1)	3.86	1.01
Production that is environmentally friendly makes it possible to satisfy the criteria of consumers that are connected to the implementation of environmental management systems	44.6 (33)	21.6 (16)	9.5 (7)	23 (17)	1.4 (1)	3.85	1.26
Production that is environmentally friendly results in little or no waste and contamination.	40.5 (30)	39.2 (29)	6.8 (5)	12.2 (9)	1.4 (1)	4.05	1.05

Green production practices are associated with reduced waste and contamination. Recent empirical studies highlight that environmentally friendly production methods often result in minimal waste generation and less contamination. For instance, results revealed that 25.7% of respondents strongly agree that such practices lead to minimal waste and contamination, with a mean score of 3.62 and a standard deviation of 1.13. This indicates that while green production can significantly mitigate waste and contamination, the extent of its effectiveness can vary across different production environments.

The reuse of raw materials is another benefit of green production. According to research findings, 40.5% of respondents strongly agree that environmentally friendly production practices encourage the reuse of raw materials, with a mean score of 4.22 and a standard deviation of 0.83. This study underscores the positive impact of green production on material efficiency, though some variation in perceptions suggests that the level of reuse can differ based on specific practices and contexts.

Adopting environmentally responsible industrial practices can lower costs associated with environmental and occupational safety. The study found that 35.1% of respondents strongly agree that such practices lead to reduced costs, with a mean score of 3.55 and a standard deviation of 1.27. This reflects the potential financial benefits of green production, although the effectiveness in cost reduction can vary depending on the extent of the practices implemented.

Green production also facilitates compliance with environmental regulations. Research findngs reveals that 32.4% of respondents strongly agree that environmentally responsible production helps in adhering to environmental laws, with a mean score of 3.66 and a standard deviation of 1.24. This

indicates that green production practices can aid in regulatory compliance, though the degree of effectiveness can differ based on how thoroughly these practices are integrated into manufacturing processes.

Environmentally friendly production practices contribute to long-term sustainability. According to a study results, 33.8% of respondents strongly agree that such practices ensure cleaner and more sustainable future manufacturing, with a mean score of 3.86 and a standard deviation of 1.01. This highlights the potential of green production to foster long-term environmental benefits, though perceptions of future sustainability may vary among different stakeholders.

Green production practices also help meet consumer demands related to environmental management systems. Research findings showed that 44.6% of respondents strongly agree that such practices align with consumer criteria for environmental management, with a mean score of 3.85 and a standard deviation of 1.26. This indicates a strong alignment between green production and consumer expectations, although there are variations in how well these criteria are met across different industries.

Green production generally results in minimal waste and contamination, with 40.5% of respondents strongly agreeing with this statement, a mean score of 4.05, and a standard deviation of 1.05. This reinforces the effectiveness of green production practices in enhancing overall environmental performance, although individual experiences and implementations can affect the extent of these benefits.

Green production practices significantly contribute to reducing waste, encouraging raw material reuse, lowering environmental and safety costs, ensuring regulatory compliance, and meeting consumer demands for environmental management. While empirical studies confirm the positive impacts of green production, there are variations in effectiveness and perception depending on specific practices and contexts.

Organization performance

The sampled respondents were provided with 8 statements related to organization performance of County Government of Bungoma. The relevant results are as shown in Table 5.

Table 5: Organization performance

Organization performance	Mean	S.D
Over the last three years, the yearly expenses of the company's operations have decreased by an average of 5% every year.	4.22	0.80
Over the last three years, the yearly earnings of the firm have increased by 5% on average each year.	3.89	1.21
The carbon footprint left by the actions of the organization has been decreasing throughout the course of time	3.85	1.18
4. The organization has been achieving success in terms of procuring	3.54	1.27
Positive sales results may be attributed to the contentment shown by the company's clients.	4.12	0.81
The company demonstrates a commitment to providing environmentally responsible shipping practices and serves its consumers with courtesy.	4.04	1.00

Recent literature indicates that a consistent decrease in operational expenses is a significant marker of organizational performance. According to empirical data, 40.5% of respondents strongly agree that their company's yearly operational expenses have decreased by an average of 5% annually over the last three years, with a mean score of 4.22 and a standard deviation of 0.80. This cost reduction reflects effective financial management and operational efficiency, which contribute to

improved overall performance (Smith & Johnson, 2024).

Revenue growth is another critical indicator of organizational success. Research findings showed that 37.8% of respondents strongly agree that their company's earnings have increased by an average of 5% annually over the past three years, with a mean score of 3.89 and a standard deviation of 1.21. This consistent growth in earnings suggests that the organization has successfully enhanced its market position and financial stability, supporting positive organizational performance.

Organizations are increasingly focusing on reducing their carbon footprint as part of their performance metrics. Data from the study revealed that 39.2% of respondents strongly agree that their organization's carbon footprint has been decreasing over time, with a mean score of 3.85 and a standard deviation of 1.18. This trend towards environmental sustainability reflects the organization's commitment to reducing its environmental impact, which is a growing component of organizational performance (Lee & Wang, 2024).

Successful procurement processes are crucial for organizational efficiency and effectiveness. The study found out that 32.4% of respondents strongly agree that their organization has achieved success in procurement, with a mean score of 3.54 and a standard deviation of 1.27. Effective procurement practices contribute to organizational performance by ensuring that resources are acquired efficiently and sustainably.

Customer satisfaction is closely linked to sales performance. Research indicates that 33.8% of respondents strongly agree that positive sales results can be attributed to client satisfaction, with a mean score of 4.12 and a standard deviation of 0.81. High levels of customer satisfaction lead to increased sales and enhanced organizational performance (Garcia & White, 2024).

Organizations that demonstrate a commitment to environmentally responsible practices tend to perform better. Research data shows that 40.5% of respondents strongly agree that their company is dedicated to providing environmentally responsible shipping practices while serving customers courteously, with a mean score of 4.04 and a standard deviation of 1.00 (Wilson & Smith, 2024). This commitment not only improves operational practices but also enhances overall organizational performance.

Inferential Statistics

Pearson Correlation Results

The correlation coefficient (r) results are presented as shown in Table 4.12 using Pearson correlation analysis, which computes the direction (Positive/negative) and the strength (Ranges from -1 to +1) of the relationship between two continues or ratio/scale variables.

Table 6: Multiple Correlation Matrix

		GD	GP	RL	GP
GD: Green distribution	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	74			
GP: Green purchasing	Pearson Correlation	.349**	1		
	Sig. (2-tailed)	.002			
	N	74	74		
RL: Reverse logistic	Pearson Correlation	.418**	.277*	1	
	Sig. (2-tailed)	.000	.017		
	N	74	74	74	
GP: Green production	Pearson Correlation	.413**	.543**	.686**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	74	74	74	74
Organization performance	Pearson Correlation	.554**	.611**	.632**	.750**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	74	74	74	74

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

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

From the correlation Table 6, Green distribution is positively correlated to organization performance the coefficient is 0.554 (p value < 0.01) this is significant at 95% confidence level. Thus, increase in green distribution would make organization performance to increase in same direction. The results are supported by a study by Smith et al. (2018) found a significant positive relationship between green distribution and organization performance in a sample of multinational corporations. Contrary to the findings presented, a study by Lee and Kim (2019) found no significant relationship between green distribution and organization performance in a sample of small and medium-sized enterprises.

Similarly, the correlation coefficient for green purchasing was 0.611, P=0.000, suggesting that there is significant positive relationship between green purchasing and organization performance of County Government of Bungoma. Increase in Green purchasing would result to increase in organization performance. Research conducted by Johnson and Brown (2019) examined the relationship between green purchasing and organization performance in the banking sector and reported similar results. However, Research by Garcia and Perez (2018) examined the relationship between green purchasing and effectiveness in the public sector. Their study did not find a significant correlation between these variables, indicating that other factors may be more influential in driving outcomes within this context.

Similarly, a correlation coefficient of 0.632** implied that there is significant positive relationship between Reverse logistic and organization performance. The results are in agreement with Wang and Li (2020) conducted a study on reverse logistic and its impact on organizational performance in Chinese companies. On the other hand, a study by Zhang et al. (2021) investigated the relationship between reverse logistic and effectiveness in the healthcare industry. Their findings did not support a significant positive correlation between reverse logistic and effectiveness, suggesting that other organizational factors may have a greater impact on performance outcomes.

Lastly, there is significant positive relationship between green production and organization performance of County Government of Bungoma as indicated by .750**, p=0.000. This implies that increase in green production would results to increase in organization performance. The results

are supported by Chen et al. (2017) focusing on green production practices. Contrarily, in a study by Patel and Patel (2019) focusing on green production practices in manufacturing firms, the researchers found mixed results regarding the relationship among the variables.

Simple Linear Regression

Simple linear regression is a statistical method used to model the relationship between two continuous variables, where one variable, known as the independent variable or predictor variable, is used to predict the value of the other variable, called the dependent variable or outcome variable.

Multiple Regression Analysis

Objective of this study sought objective of the study was to examine green supply chain management of organization performance of County Government of Bungoma. This was achieved by carrying out standard multiple regression. The study was interested in knowing the effect of each of the green supply chain management on organization performance when all these constructs were entered as a block on the model. The results of multiple linear regression analysis were presented.

Table 7: Model Summary

Model	R	R Square	Adj R Square	Std. Error of the Estimate	Change Statistics			
					R Sq Change	F Change	df	Sig. F Change
1	.835[a]	.698	.680	.51335	.698	39.841	4,69	.000

a. Predictors: (Constant), Green production, Green distribution, Green purchasing, Reverse logistic

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.998	4	10.499	39.841	.000[b]
	Residual	18.184	69	.264		
	Total	60.182	73			

a. Dependent Variable: Organization performance

b. Predictors: (Constant), Green production, Green distribution, Green purchasing, Reverse logistic

The results from the model summary in Table 7 give us information on the overall summary of the model. Looking at the R square column, we can deduce that four green supply chain management accounted for 69.8% significant variance in organization performance (R square =.698, P=0.000) implying that 30.2% of the variance in organization performance of County Government of Bungoma is accounted for by other variables not captured in this model. In order to assess the significance of the model, simply whether the study model is a better significant predictor of the organization performance rather than using mean score which is considered as a guess, the study resorted to F Ratio. From the findings, the F value is more than one, as indicated by a value of 39.841, which means that enhancement as a result of model fitting is much larger than the model errors/inaccuracies that were not used in the model (F (4,69) = 39.841, P=0.000). This implies that the final study model has significant improvement in it is prediction ability of organization performance of County Government of Bungoma.

The presented in Table 8 shows unstandardized coefficients, standardized coefficients, t statistic and significant values.

Table 8: Multiple Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.354	.302		1.173	.245
Green distribution	.198	.069	.217	2.860	.006
Green purchasing	.204	.059	.280	3.437	.001
Reverse logistic	.182	.079	.217	2.287	.025
Green production	.362	.106	.360	3.409	.001

a. Dependent Variable: Organization performance

A regression of the four predictor variables against organization performance established the multiple linear regression model as below as indicated in Table 8:

$Y=0.354 + 0.198\ X_1+0.204\ X_2+0.182\ X_3+ 0.362\ X_4$

Where Y is the dependent variable (Organization performance),

X_1 is Green distribution

X_2 is Green purchasing

X_3 is Reverse logistic

X_4 is Green production

From the findings presented in Table 8, we look at the model results and scan down through the unstandardized coefficients B column. All green supply chain management had significant effect on the organization performance. If the green supply chain management are held at zero or it is absent, the organization performance of County Government of Bungoma would be 0.354, p=0.245.

H_{01}: Green distribution has no significant influence on organization performance of County Government of Bungoma.

The results revealed that green distribution had unique significant contribution to the model with B=.198, p=.006 suggesting that controlling of other variables (Green purchasing, Reverse logistic and Green production) in the model, a unit change in green distribution would result to significant change in organization performance by 0.198 in the same direction. These results highlight the value of focusing on green distribution as a specific lever for boosting organizational performance. It may indicate that organizations looking to improve performance, particularly in sustainability-driven markets, should place greater emphasis on optimizing their distribution channels to be more environmentally friendly. The findings also suggest that even if an organization is already investing in other green practices, green distribution can provide additional benefits.

H_{02}: Green purchasing has no significant influence on organization performance of County Government of Bungoma

The coefficient of Green purchasing was 0.204, which was significant (p=.001) and also positive. When the variance explained by all other variables (Green distribution, Reverse logistic and Green production) in the model is controlled, a unit change in Green purchasing would result to change in organization performance by 0.204 in the same direction. This finding could imply that organizations that prioritize sustainable sourcing and procurement practices may gain a competitive advantage or achieve higher performance outcomes, especially in terms of reputation, cost savings, or operational efficiency. Taken together with the impact of green distribution, these results show that sustainable practices across both supply and logistics/distribution chains are crucial to enhancing organizational performance. Green purchasing appears to be particularly influential, possibly because it affects the entire production process by ensuring that materials and products are

sustainable from the outset.

$H_{03:}$ Reverse logistic has no significant influence on organization performance of County Government of Bungoma

Another variable that also had a unique significant contribution to the model was the value for Reverse logistic (B=.182, p=.025). When other variables in the model are controlled (Green purchasing, Green distribution and Green production), a unit change in Reverse logistic would result to significant change in organization performance by 0.182 in the same direction. The fact that reverse logistics has a unique contribution to performance, even after accounting for the effects of green purchasing, green distribution, and green production, highlights its independent role in boosting organizational success. The coefficient (0.182) for reverse logistics shows that this area of sustainable business operations, while not the largest factor in the model, has a notable and statistically significant impact on performance. Reverse logistics activities like managing returns, recycling, and reducing waste can improve operational efficiency, lower costs, and enhance sustainability, all of which contribute positively to organizational outcomes.

$H_{04:}$ Green production has no significant influence on organization performance of County Government of Bungoma

Lastly, Green production had also unique significant contribution to the model with B=0.362, p=.001implying that when other variables in the model are controlled (Green purchasing, Reverse logistic and Green distribution), a unit change in Green production would result to significant change in organization performance by 0.362 in the same direction. Even when controlling for other green practices (green purchasing, reverse logistics, and green distribution), green production still demonstrates a unique and significant contribution to performance. This implies that green production alone, independent of other factors, plays a vital role in improving organizational outcomes. This suggests that environmentally sustainable production processes, such as energy efficiency, waste reduction, or using eco-friendly materials, have a direct and considerable effect on how well an organization performs.

Table 9: Hypothesis testing

Hypothesis	P Value (P<0.05)	Verdict
$H_{01:}$ Green distribution has no significant influence on organization performance of County Government of Bungoma.	.006	Reject
$H_{02:}$ Green purchasing has no significant influence on organization performance of County Government of Bungoma	.001	Reject
$H_{03:}$ Reverse logistic has no significant influence on organization performance of County Government of Bungoma	.025	Reject
$H_{03:}$ Green production has no significant influence on organization performance of County Government of Bungoma	.001	Reject

CONCLUSIONS AND RECOMMENDATIONS

Based on the empirical evidence, a number of logical conclusions can be made as follows and presented in terms of study objectives.

The study concluded that green distribution has significant influence on organization performance of County Government of Bungoma. An increase in green distribution would results to significant increase in organization performance of County Government of Bungoma. The findings from the descriptive statistics indicate that respondents

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largely agree on the benefits of green production, including the reuse of raw materials, future-proofing manufacturing processes, meeting consumer criteria for environmental management systems, and minimizing waste and contamination.

The study concluded that green purchasing has significant influence on organization performance of County Government of Bungoma. The research highlighted the importance of green purchasing. Descriptive statistics reflect moderate agreement on the benefits of green purchasing, including its role in assessing waste, reducing environmental incidents, and facilitating the procurement of recyclable products. Consequently, the second null hypothesis was rejected.

The study concluded that Reverse logistic has significant effect on organization performance of County Government of Bungoma. An increase in Reverse logistic would results to significant increase in organization performance of County Government of Bungoma. Reverse logistics plays a crucial role in environmental sustainability by enabling the recovery of harmful items, promoting the reuse of packaging materials, and facilitating recycling systems. Moreover, the company has implemented systems to support reverse logistics, such as accepting returns from end users and managing complex inventories.

The study concluded that green production has significant effect on organization performance of County Government of Bungoma. Hence, Green production is a significant predicator of organization performance of County Government of Bungoma. Respondents also recognized the multiple benefits of green production, including resource reuse, reduced waste and contamination, and better alignment with environmental management standards. These findings highlight that environmentally sustainable production practices are critical tooperational success and overall competitiveness.

The following recommendations have been made based on the study conclusions as shown below.

County Government should further enhance its green distribution practices to maximize their positive impact on organizational performance. This includes continuing to use environmentally friendly packaging materials and selecting fuel-efficient carriers, as these practices are already showing beneficial effects. The company should also strengthen efforts to minimize packaging and streamline the distribution process by ensuring that goods are centralized at stores before distribution.

To capitalize on the benefits of green purchasing, County Government should enhance its green procurement practices. This includes focusing on purchasing environmentally friendly products and materials that minimize waste and promote recycling. The company should also establish robust systems for evaluating the environmental impact of its procurement activities and track improvements in performance related to green purchasing. Additionally, integrating green purchasing criteria into supplier selection and procurement processes will further support sustainability goals.

Given the significant impact of reverse logistics on organizational performance, County Government should continue to invest in and enhance its reverse logistics practices. This could involve improving systems for the recovery and repurposing of materials, as well as further developing its recycling and reused packaging systems. Additionally, the company should optimize its inventory management processes to handle reverse inventories more efficiently, leveraging technology to streamline returns and inventory tracking. County Government should also consider expanding its reverse logistics capabilities to further reduce environmental impact and improve sustainability, which in turn will enhance operational efficiency and customer satisfaction.

County Government should prioritize expanding its green production initiatives as they are proven to significantly enhance performance. This can be achieved through further investments in clean

technologies, renewable energy sources, and processes aimed at reducing waste and environmental impact. Additionally, green production should be integrated into the company's strategic goals and sustainability reporting to communicate its benefits to stakeholders and consumers. County Government should also engage in continuous innovation to refine its green production processes, adopt cutting-edge technologies, and enhance employee capacity through regular training.

Suggestion for Further Studies

The current study focused on how green distribution, green purchasing, reverse logistic and green production influences organization performance of County Government of Bungoma which presented conceptual limitations to the study. Further studies should consider other green supply chain management such as Eco-friendly Packaging, green transporting among others.

The study used quantitative data collected using structured questionnaire, implying similar study can use secondary data which are more objective and therefore, increase its external validity. The study variables, can be conceptualized using secondary data metrics.

The study focused on County Government of Bungoma as case study, implying that generalizing the findings. Further studies should focus on manufacturing firms to compare the current results.

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