

Organization Innovation And Performance In Licenced Logistics Sector In Nairobi City County, Kenya

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Abstract: Kenya logistics sector has grown steadily in recent years, but some companies are hesitant to adopt new technologies, while others have failed to fully integrate technological advancements into their business operations, resulting in inefficiencies in service delivery and a negative impact on the company's performance. The aim of this investigation is to ascertain how organisational innovation impacts the licenced logistics sector's performance in Nairobi City County. The implications of technological, marketing, process, and product innovation on the operational effectiveness of logistic enterprises were investigated. Innovation diffusion theory, balanced scorecard, and institutional model served as the study's guiding principles. 45 logistics companies were included in the investigation. The sample size of 141 managers was deemed representative since it was drawn using a proportional random selection procedure with a sample ratio of 30%. Primary data was gathered using self-administered semi-structured questionnaires. Preliminary research was done to validate the research tool. The Cronbach Alpha statistical test, with a threshold of 0.70, was used to determine the research instrument's reliability. A double-check technique was also used to confirm content legitimacy. Descriptive statistics were computed to describe the characteristics of the variables in the study while multiple regression analysis was used to establish the nature and magnitude of the relationships between the independent and dependent variables. The study reached the conclusion that taking into account product, process, marketing and technological innovation does positively influence the firms' performance. According to research, marketing innovation has the biggest impact on the performance of the organizations. However, since there are no turnkey or universal applications for organizational innovation organizations should take all factors (i.e., product, process, marketing and technological innovation) into account collectively rather than singly. The author recommends that logistics companies invest more in research and development to ensure that new items are introduced to the market more consistently. The author also recommends that managers consider implementing organisational innovation techniques as a competitive strategy by rewarding employees whenever they develop new products in order to promote product innovation in the firm.

I. OVERVIEW

A. CONTEXT

Corporate objectives are specified and graded subjectively and quantitatively, requiring departments to collaborate to attain them. An organization's efficacy is measured not only by its appropriateness, but also by its effectiveness, efficiency, and financial viability. You may utilise relevance to determine if company stakeholders believe it is essential to their needs. A company's capacity to fulfil its objectives, goals, and vision is also a measure of its effectiveness. A global research found that organisational innovation may increase the effectiveness

of logistics businesses. As a result, the quality management system is an essential component of organisational innovation as well as the long-term survival and profitability of logistics firms.

OI overcomes considerable difficulties and barriers while also building relationships with customers, all of which lead to enhanced performance. Consumers may save money and space by selecting the FedEx Late Delivery Service, which uses a speedy delivery technique. The creation of superior customer feedback systems also leads to a smaller and more efficient workforce, which decreases the threat even more. Technology in supply chain operations decreases lead times

and provides functional benefits, resulting in improved corporate efficiency.

The \$150 billion logistics network in Africa is experiencing massive upheaval. Demand has expanded dramatically over the past two years due to the rising attraction of e-commerce and technology, which allows things to be sold abroad. Organizational innovation, outsourcing cost reduction, and organisational structure integration are all critical to the logistics industry's success. Several African logistics start-ups, like Fleetly, Sendy, and Mzansigo, are leveraging technology to boost efficiency and performance.

Kenya's logistics industry benefits from the organization's inventive power in terms of enhanced performance. E-logistics increases visibility, which promotes both a company's image and long-term profitability. Diligence has recently improved and is now ranked 61 in the Business Index and 68 in the Logistics Performance Index (World Bank, 2018). Despite the growth of this industry, businesses are still reticent to adopt new technology, and some have not properly incorporated technological breakthroughs into their operations, resulting in poor service delivery. Inefficiencies in service and negative consequences on thrift. Due of its linkages to globalisation, employment, fiscal development, and global security, logistics planning is critical to a country's economic existence. As a consequence, eliminating innovation from the domain can assist enhance productivity and acceptance across various areas.

a. ORGANIZATIONAL PERFORMANCE

Organizational performance can be used to gauge a company's efficacy. A company's progress towards achieving its declared aims and objectives is gauged by this metric. Organizational performance refers to the actual outcomes of a company's declared aims. Every company aspires to compete in and grow within an unexpectedly lucrative market while acquiring a competitive edge. Companies must be flexible in how they respond to external changes and in how they elaborate the present business geography through organisational changes that enable them to do so in a variety of ways. Knowing what elements affect performance is critical since performance is the most significant measure for evaluating connections, training, and terrain.

Organizational performance measures the total productivity of a business by taking into account variables like revenue, visitors, and request share. Despite the fact that the word "power" appears frequently in literature, there is no agreed-upon definition or measure of it. It was put out by Neely et al. (1995) as a set of standards for assessing task effectiveness and efficiency. Customer satisfaction, return on trade (ROS), revenue growth, enquiry share, new product launches, return on investment (ROI), and profitability are all crucial quantitative measures of a company's performance. Indicators that emerge quickly, such as ROI, deal growth, and operational income, may be deceptive since they may show that creative results aren't functioning even if the effects may take years to manifest. Efficiency, cost savings, functional effectiveness, and requirement share are all used in this study as measures of commercial success.

With the highly competitive world of thrift, creativity has become necessary as technology advancements and fierce competitive pressures erode the perceived value of existing goods and services. To measure improved organizational performance, measures including effectiveness, cost reduction, functional effectiveness, and demand share are used.

b. ORGANIZATIONAL INNOVATION

OI represents the application of innovative organizational management procedures as well as interactions between a corporation and external parties. Collaboration, information sharing, coordination, collaboration, learning, and invention are all important aspects of organizational innovation. It typically attempts to maximize a company's operational efficiency, satisfaction, or innovation capability. A renewal or expansion of markets, products, or services; promotion of alternative production techniques; and, launch of novel management techniques are all indicators of OI. It may also mean implementing innovative solutions into a business operations and producing benefits for its clientele, whether the novelty and value-added are found in the organization's operations, management, or marketing systems, processes, goods, or services.

With the rise of competition, OI's function in establishing a long-term competitive edge has become vital to a company's long-term survival and success. Although several research has developed typologies to understand organizational innovation, many of them overlap. Four categories of OI identified by Armbruster et al. (2008) are: structural, which modifies the departmental structure of organizational processes, hierarchical levels, and information flow; procedural; which modifies the processes and operational routines within organisations; entrepreneurial orientation that takes place within an organisation; and cross-organizational aspects of innovation.

Organizational innovations are classified using product and process categories. Managers all around the world are pressing their organisations to use OI because of the potential benefits. Those that are creative are more productive because they can implement and create new methods. In conclusion, organisations that embrace organisational innovation are better positioned to react more effectively and swiftly to avoid squandering and risking possibilities, resulting in higher organisational performance. Product innovation is a systematic technique to decreasing waste, rework, and loss in the manufacturing process. Product innovation refers to improvements in operational procedures that aim to deliver fundamental items while reducing costs.

Product innovation is utilized as a way of increasing revenue hence, improving business results. Existing commodities and processes are transformed through innovation, resulting in increased productivity, lower budgets, and profitability. Customers that consume innovative solutions enjoy a high choice of selections, better service, reduced pricing, and more productivity. Government rules and customer distrust were recognized as important impediments to product innovation, whereas market orientation and company culture were listed as supporting components.

Process innovation has an obvious influence on organizational efficiency. Process innovation is a new or considerably enhanced manufacturing method. It occurs when a corporation solves an issue or conducts business in a novel way that benefits the employees. As a result, process innovation is critical for businesses facing increased competition, and it should be recognized as a major difference for logistics firms. The creation of new procedures aids process innovation. To improve service delivery and cut costs, businesses should focus on process innovation. As a result, for organizations that succeed at process innovation, strategy execution becomes a crucial source of competitive advantage. Furthermore, process improvements can boost product quality and service levels dramatically.

Innovating in marketing is developing fresh ways to create, deliver, and provide value to clients while also preserving relationships with them. To enhance sales, a corporation may use marketing innovations to better adapt to changing conditions, enter new markets, and sell its products. Technological innovations include actions that aid in the research and development of new goods, services, or procedures as well as the alterations of present items and know-how. The development of new technology is influenced by interactions between customers, suppliers, competitors, and a variety of other public and private groups. Hence, clusters, rivalry, and other business ties are essential for technical progress.

c. LOGISTICS FIRMS IN NAIROBI, KENYA

Performance of economic sectors, notably product import and export, has a direct impact on Kenya's logistics sector's success. Manufacturing, transportation, and storage, as well as wholesale and retail commerce, are all important components of the country's logistics network, which has been supported by the implementation of Special Economic Zones (SEZs). The Nairobi City County Government indicated that it will decrease foreign investor fees and purchase land for special economic zones as part of its aim to develop Nairobi into a global investment hub. In Nairobi, there are several freight forwarders and customs brokers. The Kenya International Freight and Warehousing Association is the industry's trade group in Kenya. Growth and regulation fall within the purview of the Ministry of Transport. Several international freight forwarders are acquiring Kenyan businesses to obtain access to the lucrative perishables market.

Kenya's logistics industry is diversified, with enterprises specializing in perishable goods. Due to technological advancements, Kenya's logistics industry is booming with new methods of providing services, increasing customer needs, and competitive pressures. Technological improvements can boost productivity by eliminating time, costs, and errors in the face of labor shortages, severe competition, and increasingly demanding customers. As such logistics firms must embrace innovative solutions.

B. PROBLEM DESCRIPTION

The domestic logistics industry still exists with great development in the present time, but the country's logistics

industry associations are reluctant to adopt progressive inventions, and some have not. rationalize these advances into their operations, leading to inefficiencies in service delivery. and negative performance goods. The drop in performance requires a closer look at how logistics companies are reinventing themselves to improve their efficiency.

Multiple investigations have been done to explore organisational innovation and performance. Aziz (2016) discussed the impact of technological and organisational innovations on logistics; Phan (2019) investigated whether organisational innovations increase efficiency; Leovaridis and Popescu (2015) see organisational innovation as a way to improve the quality of knowledge-based frugality; and Makimi (2015) investigated the impact of organisational innovation on quality of life. According to the previous literature, learning about innovation and organisational success remains a challenge, particularly in Kenya.

Although most of the empirical exploration considered in this study focuses on patents, there may not be sufficient reason to associate institutional patents with performance. Empirical exploration also suggests that there may be little information available about many aspects of organizational innovation, limiting our assessment of how they impact performance. This explored the goals of probing the impact of product, process, demand and technology innovations on the overall logistics of operations in Nairobi.

C. GOAL OF THE INVESTIGATION

a. PARTICULAR GOAL

Impact of organisational innovation on performance of Nairobi's logistics sector.

b. PARTICULAR GOALLINE

- ✓ Find out how product innovation affects the logistics sector's organizational performance in Nairobi, Kenya.
- ✓ See how process innovation affects the logistics sector's organizational performance in Nairobi.
- ✓ Explore the effect of marketing innovation on performance of the logistics sector in Nairobi.
- ✓ Determine the bearing of technological innovation on performance of the logistics sector in Nairobi.

c. Research Hypothesis

H₀₁ Product innovation has no substantial impact on the performance of logistics industry in Kenya.

H₀₂ Process innovation has no discernible impact on the performance of logistics sector.

H₀₃ Marketing innovation has no substantial impact on the success of logistics industry.

H₀₄ Technological innovation has no substantial impact on the performance of logistics sector in Kenya.

D. SIGNIFICANCE OF THE STUDY

A deeper grasp of the strategic elements influencing organizational innovation might enhance strategic planning in

the sector. Outcomes can be utilized as a model for analogous or related research in other sectors, as well as a road map for efficient organizational change implementation. Other researchers will profit from this study. This sort of study might be conducted in other industries to benefit the economy as a whole. Organizational innovations will be crucial for executives attempting to remain competitive in this uncertain market, as they will offer up new business options that increase customer experience, shareholder value, and operational and cost efficiency.

E. SCOPE OF THE STUDY

The investigation concentrated on product, process, marketing, and technological developments. It was based on three theories: innovation diffusion theory, balanced scorecard theory, and institutional theory. The information was gathered via a semi-structured questionnaire.

F. LIMITATIONS OF THE STUDY

The sample size was limited to 45 logistics companies in Nairobi; if we had compiled a larger sample size by incorporating other logistics companies in Kenya, the analysis might have been more significant. Other logistics companies who were not included in this study may have mentioned difficulties in implementing innovation. The study included a 5-year timeframe from 2017 to 2021, a period during which organization innovation is transforming across all sectors and thus may not reflect the depth of implementation maturity across the board. The study's data collection was hampered by a time constraint, particularly when respondents took their time filling out the questionnaires.

II. LITERATURE ANALYSIS

A. OVERVIEW

Section goes through models of OI and performance. Furthermore, the chapter reviews empirical literature and presents findings from several studies on organizational innovation and performance.

B. REFERENCE FRAME

There have been other theories on organizational innovation and performance contested, however, this study is based on Innovation Diffusion Theory, Balanced Score Card Theory, and Institutional Theory. The innovation diffusion theory supports the independent variable, whereas the institutional theory and the balanced score card support organizational performance.

a. INNOVATION DIFFUSION THEORY

A model was put up by Rogers (2003) to investigate the psychological and environmental aspects that affect the adoption of innovations. Innovation, communication, time, and the social structure are all factors in the dynamic and

cyclical process of innovation diffusion. Innovation diffusion hypothesis that a customer's perceptions determine whether they would embrace or reject an idea. The process of invention dissemination is cyclical and dynamic, including innovation, communication, time, and the social structure. Individual characteristics of potential adopters as predictors of adoption, according to innovation diffusion theory, a person's proclivity to adopt is governed by his or her characteristics. In the workplace, there are two methods for spreading innovation: generation and acceptance. Firms produce innovations for their use or to export to other organizations in the case of generation, whereas innovations are imported into a business for adoption in the case of adoption. Adoption of a new concept can take a long period, particularly as many concepts take a long time to gain widespread acceptance.

The diffusion of innovation hypothesis looks at how rapidly new ideas or technologies are embraced in industries. This is mostly determined by decision-makers and their desire to embrace fresh ideas as rapidly as possible. Using technology to simplify procedures and improve customer satisfaction is crucial for logistics firms looking to achieve operational efficiency. The hypothesis might be used to look at how innovation spreads in Kenyan logistics companies and whether this has had an impact on their performance. In this study, the independent variable will be supported by the innovation diffusion hypothesis.

b. INSTITUTIONAL THEORY

The theory was born out of the fact that organizational structures and norms are rarely directly associated with operational conduct (Meyer & Rowan, 1977). The institutional theory discusses the internal and environmental factors that influence how well a particular institution works. Apart from financial considerations, coercive forces play an important role, while normative demands, such as work experience, influence how performance measures are employed and produced.

The social, political, and economic circumstances, according to institutional theory, have a considerable impact on how organizations work and deserve respect. Global commitments, national demands, and trade relations have all hampered organizational transformation efforts that influence how firms run. This notion also demonstrates how institutional concerns may lead to the stabilization of organizational structures and processes. Institutional factors, especially within an industry, have a big influence on performance appraisal. Furthermore, institutional features and business success are inextricably linked.

By identifying structural dysfunction and functional implications inside a logistics organization, this study will utilize institutional theory to evaluate how internal elements such as innovation affect operational performance or contribute to the formation and enhancement of critical capabilities. Institutional theory will be used to illustrate how internal and external variables affect performance.

c. *BALANCED SCORE CARD*

BSC is a method of planning and evaluating task performance to translate an organization's vision and overall strategy into a specific goal with metrics and specific goals. It is a tool for emphasizing criteria for measuring performance and for generalizing the activities of important entities, including customer service, internal professional processes, employee training and development, and shareholder interests, among others (Kaplan & Norton, 1992).

A powerful tool for translating a company's vision and strategy into a tool that effectively communicates a strategic purpose and drives performance against particular strategic goals. Performance objectives and outputs for the BSC's internal processes, customers, and innovation make up the whole framework. It fosters reactions in the area of internal business practise outcomes as well as developing a feedback loop inside strategic intention outcomes. "Double-loop feedback" is a new feature of the balanced scorecard. Since each employee can see how they contributed to accomplishing the vision, the balanced scorecard enables a company to work tirelessly towards shared objectives while also developing a feeling of community. The model is very useful since it incorporates all of the dependent variables in the conceptual framework of the investigation.

C. EMPIRICAL LITERATURE REVIEW

The subsections that follow provide an overview of studies that have been done as well as the research results that the researchers have come up with under the study's unique aims. It emphasizes the suggestions they came up with as a consequence of the research methodology they used, as well as the explanations for the consistency and inconsistency in the study findings they came up with.

a. *PRODUCT INNOVATION*

Based on Kamakia's cross-examination, there was widespread communication about the product's invention among workers, with the agreement that it had a positive effect on the company's success. According to the research results, the product invention is highly appreciated by the radio and the bank's demand characteristics can help maintain it sporadically. According to research, profiting from the money of invention by banks can help them improve supplier self-immolations. This learns to focus on a specific type of respondent, the common bankers.

Muchoki (2013) records show that cell phone companies have improved their performance with a variety of services, including SMS, mobile plutocrat transfers, and mobile internet. To stay competitive, mobile smartphone vendors must borrow similar technology-based innovations from mobile plutocrat transfers. They explore anatomical budget performance metrics, such as transaction growth, revenue circumference, and return on investment.

Wangila (2018) conducted a review of innovative approaches to the overall performance of public sectors using a standardized questionnaire. Innovation in the public sector and performance has been planted to be enjoyed. The

expedition focuses on the public sector, in which the absorption of inventions is low. Logistics is the theme of knowledge about new products perhaps to determine a lot of acceptance in this area.

Studies to estimate the relationship between the production and successful inventions of the Bank, as well as check the challenges of the invention techniques of dust products and improve better selfano and simiyu (2014). This study married a descriptive audit. According to research, demand for exploration and consumer comments affect the invention of the product. According to the poll, banks offering new services attract many new customers (new requirements). In their study, they no longer used any assumptions. The survey also uses a test system, which will probably be limited by the design of social reality. Contemporary learning will be enhanced by institutional proposal and invention dispersal proposal.

b. *PROCESS INNOVATION*

The goods of the invention in scrap yards in Sweden were a calculable victimization of the predicted propositional system of Sintset et al., (2013). Consistent with this research, the imposing method invention includes a positive outcome for the business performance and customer satisfaction of world cities. In addition, the method invention must be a method in small steps and not a big bang metamorphosis. The influence of the method invention on the social responsibility of companies was also deepened in the course of the exploration. As a result, it is difficult to pinpoint the particular impact of method invention on performance.

Karanja (2018) method creation was determined to have the most positive impact on structure performance. Method inventions enable businesses to improve the quality of their goods and services by better using technology and equipment, resulting in lower purposeful effectiveness, a better overall image, and greater request rank performance. Because they conducted their research in a case study format, the findings cannot be applied to other areas of frugal living. As a result, the primary focus of this research is on the provision of businesses in the national capital, with the conclusions being applied to all or any other businesses throughout the African nation.

Process invention and competitive advantage, in keeping with Kariuki (2017), have a big positive link. method invention required necessary stages similar to method plan, development, and committal. in keeping with the exploration, method invention, that contains coming up with, design, and prosecution, includes a sizeable impact on shopper happiness, employees' performance, and association gain. during this essay, no hypotheticals were used. The study additionally used a check approach, which can be strained by social reality conception. This study can take advantage of institutional proposition and invention dissipation proposition.

The findings of Kiragu (2016) show an affirmative influence on structure performance. In Kenya's insurance assiduousness, method invention was likewise verified to be the foremost current style of the invention. Their exploration used across-sectional strategy, which can create determinative cause and result in backbreaking. As a result, establishing a

causative relationship between the dependent and freelance variables is delicate. consequently, this exploration can use a descriptive exploration fashion to spot the extent of method invention relinquishment and verbosity in provision enterprises.

c. MARKETING INNOVATION

Wangai and Kariuki's (2020) descriptive review concluded that organizations that have avoided marginal customer accounts and taken strict cost-cutting measures hamper organizational effectiveness. The company that invested the most in technology to improve access to its services had the greatest impact. As a result of the inquiry focus strategy, deals and profit improved significantly. Their study was primarily concerned with marketing tactics as a whole, with little focus on the invention.

Marketing innovations, thus according to Maier and Dan (2018), assist organizations enhance their burnt offerings by redefining and reworking products to better correspond with evolving customer preferences. Other impacts might be achieved by adopting uncommon procedures to progressively set comparable businesses apart from the competition. Marketing innovations assist businesses in identifying the key areas and hazards connected with marketing inventions, as well as developing a set of metrics that can be used to measure and enhance overall performance by maximizing the effect of marketing inventions.

d. TECHNOLOGICAL INNOVATION

According to a descriptive study by Ombuis (2015), well over half of the companies do not use information technology to improve service delivery. There appears to be a discrepancy in exploration results as logistics is a profession where advances in technology are generally recognized. Therefore, to determine the extent of abandonment and diffusion of technological inventions in logistics companies, this study will employ a descriptive mode of exploration.

Letangule and Letting (2012) assert that the utilisation of various professional advancement variables has a substantial influence on business productivity. Yet, it is important to investigate the precise effects of these technical advancements with a focus on enterprises. Suntu (2019) looked at how the creativity of business owners affected the link between specialised invention and business performance. The study suggests that entrepreneurs should use innovative approaches to boost their company performance. Most frequently, SEM is used in exploration to validate a design.

D. SYNOPSIS OF LITERATURE AND RESEARCH GAP

Author	Topic	Study Parameter	Findings	Gaps Identified	Addressing the Gap
Wangai (2020)	Marketing advantage and how they influence the efficiency of licensed logistics firms.	Marketing innovation	Organizations that avoided marginal customer accounts and adhered to rigorous cost requirements beat Kenya's licensed logistics enterprises significantly.	Their study was mostly concerned with marketing methods.	will concentrate on the implications of marketing innovation on productivity.
Chege & Wang & Suntu (2019)	ICT innovation's impact on business success	Technology innovation	To achieve commercial success, entrepreneurs must adopt innovative approaches.	The researchers employed structural equation modeling to look into and analyze the relationships between the components.	Descriptive research will be used in this study, with a focus on the reasons for accidental correlations between variables.
Wangila (2018)	The impact of new techniques on public sector performance.	Product innovation	Product innovation and government performance are linked positively.	The study concentrated on the public sector, which uses technology at a low rate.	The study is centered on the logistics industry since it is a sector where product improvements are likely to be well-received.
Maier & Dan (2018)	Marketing innovation's influence on company outcomes	Marketing innovation	Marketing innovation helps businesses improve their offers by rethinking and redesigning items to better meet shifting market demands.	In this investigation, no assumptions were employed.	Institutional theory and diffusion of innovation theory will be useful in this research.
Kariuki (2017)	An innovation strategy's bearing on banks' competitive advantage.	Process innovation	Process idea, development, and implementation phases were all essential in the process innovation process.	Their research used a cross-sectional approach, which might make identifying cause and effect more difficult. As a result, it will be difficult to determine what causes the dependent and dependent variables.	This project will use a descriptive research approach to quantify the amount of process innovation adoption and dissemination in logistic organizations.
Kiragu (2016)	Innovation's implications on the viability of Kenyan insurance providers.	Marketing innovation	Market innovation and performance, according to the studies, do not correlate.	Given that the logistics business is expected to use cutting-edge marketing strategies to stay ahead of the competition, their outcomes appear to be contradictory.	In this study, a descriptive research approach will be used to determine the quantity of market innovation acceptance and propagation in logistic companies.
Simiyu et al (2014)	Kenyan banks' attempts towards product innovation	Product innovation	According to the study, market research and customer feedback influence product innovation methods.	No hypotheses were tested. The study also utilized a survey method, which may be limited by the oversimplification.	Institutional theory and innovation diffusion theory will be used to support the investigation.

Author	Topic	Study Parameter	Findings	Gaps Identified	Addressing the Gap
Kamaki a (2014).	innovation in products' impact on commercial banks' performance.	Product innovation	product innovation affects customer satisfaction, and the bank's market standing helps it stand out.	For this study, which focused on a specific sort of respondent, only the general managers of the banks were questioned.	The purpose of this study is to identify different sorts of people who work in logistics firms using a multiple responder approach.
Muchoki (2013)	Financial success of mobile phone companies and product innovation	Product innovation	Product innovation also helped them improve their financial performance, according to the report.	Their study concentrated on financial performance indicators such as increased sales, earnings, and return on investment.	Non-financial indicators of organizational performance will be the focus of this study.

Table 2.1: Literature Review and Research Gaps

B. STUDY APPROACH

This investigation employed a descriptive survey approach.

C. LOCALE

Kenya has 120 licenced logistics businesses, of which 50.5 percent (45 firms) are located in Mombasa, 37.5 percent (45 companies) are located in Nairobi County, and the rest 12 percent are located elsewhere (Macharia et al., 2015; Shippers Council EA, 2014). Major cities are where the nations are dispersed. Hence, the 45 logistic types that were discovered in Nairobi County, Kenya made up the research population. because Nairobi City County serves as the headquarters for the bulk of Kenyan logistics firms. Appendix III is a list of the logistics businesses that are active in Nairobi County as of 2021. Table 3.2 shows that the percentages for top-level management were 11.6%, middle-level management was 22.9%, and low-level management was 65.5.

Category	Population	%
Executive Level	54	11.6
Intermediate Management	108	22.9
Lower level management	308	65.5
	470	100

Source: Shipper's Council EA (2020).

Table 3.2: Distribution of Target Population

D. SAMPLING DESIGN AND PROCEDURE

A proportionate random sample strategy was used to choose the study subjects in this research investigation. A sample size of 10% to 50% of the target population is feasible and adequate for descriptive research. Our representative sample for the investigation is 30%. As there are three strata that make up the three levels of management in logistics companies, the sample size of 141 was considered to be representative of these strata.

Category	population	%	Ratio	Frequency
Executive Level	54	11.6	0.3	16
Intermediate Management	108	22.9	0.3	33
Lower level management	308	65.5	0.3	92
	470	100		141

Source: Researcher, 2022

Table 3.3: Distribution of Sample Size

E. DATA COLLECTION INSTRUMENT

For this investigation, quantitative primary and secondary data were gathered. The core data for this study were gathered using a semi-structured questionnaire. From the financial accounts and yearly performance reports of the logistics firms, secondary data on innovation was collected.

E. CONCEPTUAL STRUCTURE

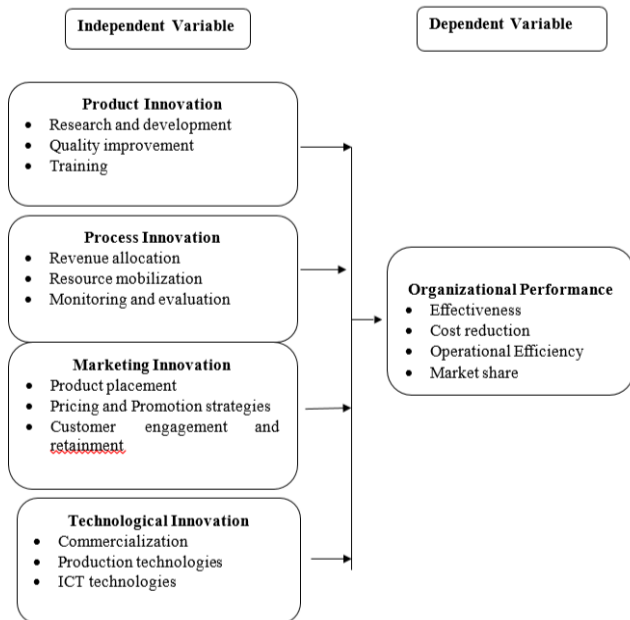


Figure 2.1: Conceptual Framework
Source: Researcher, 2022

III. STUDY METHODOLOGY

A. OVERVIEW

A method is offered for assessing how organisational innovations impact the efficiency of Kenya's logistics industry.

F. PRELIMINARY RESEARCH

To evaluate the data collection strategies and lower the chance of failure, preliminary analysis was undertaken. Pilot tests allow researchers the chance to hear from subject-matter experts while also establishing the questionnaire's structure and content accuracy. Ten people from the target population took part in a pilot research. The results were used to enhance this study's design and support the development of new tools by researchers. For high accuracy pilot studies, the pilot test size should account for 1% to 5% of the trial. Findings for a pilot sample should be as similar to the results of the actual sample as feasible to reflect the results of the survey.

G. VERACITY AND DEPENDABILITY OF STUDY TOOL

a. VERACITY

Construct power was determined using several methods of correlation analysis based on pretest findings. To guarantee the clarity and relevance of the questionnaire, necessary updates and alterations will be implemented. CFA was used to validate the instrument.

Model	Default Model	Saturated Model	Independent Model
NPAR	27.000	78.000	12.000
CMIN	637.029	.000	1651.849
DF	51.000	.000	66.000
P	.000		.000
CMIN/DF	12.491		25.028
RMR	.046	.000	.126
GFI	.946	1.000	.308
AGFI	.459		.182
PGFI	.422		.260
NFI Delta1	.614	1.000	.000
RFI rho1	.501		.000
IFI Delta2	.634	1.000	.000
TLI rho2	.522		.000
CFI	.970	1.000	.000
RMSEA	.027		.394
LO 90	.254		.377
HI 90	.291		.410
PCLOSE	.000		.000
	.000		.000

Source: Pilot data, 2022

Table 3.4: CFA

At p 0.001, the chi-square test was 637.029. Goodness-of-fit (0.946) was higher than the proposed 0.9, the comparative fit (0.970) was higher than the 0.95 standard, and the RMSEA (.027) was lower than excellent and sufficient. As a consequence, the model was acceptable, and no indicators with low loadings less than 0.7 or large standardised covariance's with other components were deleted.

b. DEPENDABILITY

Cronbach's alpha was used to gauge the survey tool internal consistency. For indication testing and speculative

concept evaluations, a confidence threshold of 0.70 has been advised. The variables met the recommended and acceptable threshold of alpha 0.50, as shown by the data in the table below. Approximately 85% of respondents think the tool is credible.

Category	# of items	Score	Judgement
Product Innovation	11	.965	Reliable
Process Innovation	9	.813	Reliable
Marketing Innovation	10	.743	Reliable
Technological Innovation	8	.878	Reliable
Organizational Performance	8	.906	Reliable
All	46	.850	Reliable

Source: Pilot data, 2022

Table 3. 5: Test of Dependability

H. STRATEGY FOR DATA GATHERING

Self-administered survey using a drop and pick later method.

I. ANALYSES OF GATHERED DATA

To depict the features of the study's key variables, means, standard deviations, percentages, and frequency distributions were created. Descriptive statistics provided the key characteristics of the data collected on the variables examined and provided the impetus for further data analysis. The findings of the data analysis, which was made possible using Stata, are presented in tables for easy comprehension and interpretation. The analysis of qualitative data was performed using NVIVO software. The frequency of recurrence of these tags in word clouds showed the degree of predominance, as depicted by bar size, text size, text thickness, and text color.

To test the hypothetical relationships, this study used inferential analysis. The research hypotheses are tested at a 95% confidence level as the statistical basis for conclusions and conclusions. Below is a description of the regression version that became utilized in the observe;

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

J. ETHICAL ISSUES

The APA guide turned into utilized by researchers to precisely perceive all the books, journals, articles, and different references noted in proposals from sure authors and businesses. All information become maintained in entire secrecy, and the respondent's identification is protected thru a code. The evaluation's targets and methodology are recognized to the respondents, who're unfastened to paintings towards any objectives they see healthy. Respondents verbally agree to participate earlier than presenting an assessment. Additionally, the affiliation and NACOSTI are bought via the management of each university for permission to apply their records series.

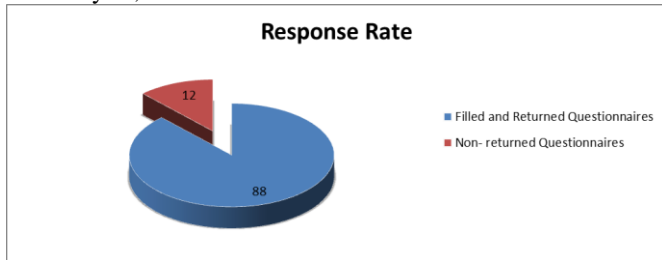
IV. RESEARCH OUTCOMES & DISCUSSIONS

A. OUTLINE

Presents the findings and discussion of the investigation.

B. RETURN RATE

140 respondents received questionnaires from the author, and 124 of them answered the questions and submitted them. 88% of the study's participants responded. As the aforementioned response rates satisfy this requirement, the study was suitable. Below is a presentation of the response rate analysis;



Source: Survey Data (2022)

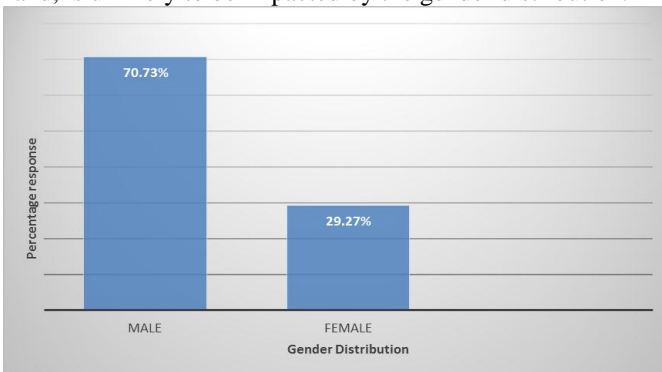
Figure 4.1: Response Rate

C. DEMOGRAPHIC DETAILS

Information required included the term of operation and tenure in the logistics. The outcomes are presented as counts and percentage.

a. GENDER DISTRIBUTION OF THE RESPONDENTS

The gender distribution of the respondents was not equal, as shown in Figure 4.2. Male respondents made up 70.73 percent of the responses, compared to female respondents' 29.27 percent. The statistical power of the data, on the other hand, is unlikely to be impacted by the gender distribution.



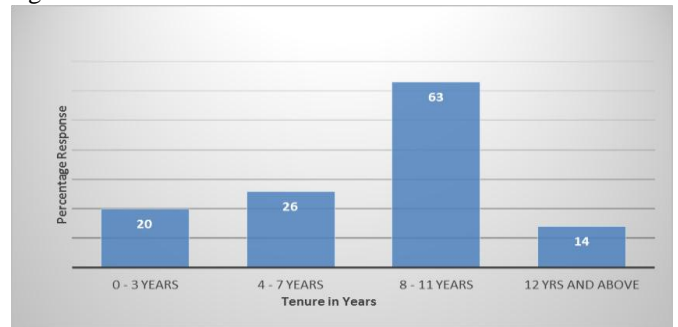
Survey Data (2022)

Figure 4.2: Gender of Respondents

b. TENURE OF RESPONDENTS

It was required in the questionnaire, that participants indicate their tenures in the respective logistic firm. The questionnaire item was regarded essential, as it would provide an indication of the individual respondents' practical

experience in organizational innovation in their respective companies and how the same influences performance. The item was also meant to ascertain that the study is inclusive of individual respondents with diverse experiences based on the length of tenure. A depiction of the outcomes is given in Figure 4.3.



Source: Survey Data (2022)

Figure 4.3: Respondents Tenure

The majority of respondents (51.22%) were those who had served for 8 to 11 years. The smallest group of respondents—those who had been in service for more than 12 years—represented 11.13 percent of the total. 16.26% and 21.14 % of the remaining respondents had each served for at least seven years. This is consistent with private sector career advancement standards, which value years of experience and service. This suggests that the study's participants are qualified to offer accurate information about the study's variables.

c. POSITION OF RESPONDENTS



Source: Survey Data (2022)

Figure 4.4: Job Position of Respondents

Marketing Managers made 41.46%, while Finance Managers made up 8.13%. 3.33 percent of respondents were ICT managers, while the remaining respondents, at 17.08 percent, were operations managers. Because there were so many respondents, it is likely that the results are sufficient to understand how well the logistics sector operates.

D. DESCRIPTIVE ANALYSIS

a. PRODUCT INNOVATION

This variable was measured using indicators comprising of research and development, quality improvement, and training.

	n	Mean	Std. Dev.
Innovative goods have the potential to attract a diverse spectrum of clients with diverse needs.	124	4.63	0.496

Logistic enterprises with new goods have the opportunity to sustain consumer loyalty.	124	4.40	0.495
Innovative goods have a great possibility of success independent of the logistics firm that introduces them.	124	4.68	0.493
The logistic firm gains a competitive edge via continuous cycles of product innovation.	124	4.60	0.491
Adding features to a product improves its quality.	124	4.07	0.575
The logistics sector's norms and procedures inhibit successful product innovation.	124	4.20	0.401
Product innovation leads to long-term corporate growth.	124	4.74	0.449
This logistics firm has created new items.	124	4.20	0.751
The company has invested in expanding its product offering.	124	4.29	0.850
This logistics organization is devoted to the creation of new ideas and investing in them.	124	4.13	0.500
This logistics company has invested in technology to support firm strategy	124	4.20	0.751
Aggregate score		4.37	0.568

Source: Survey data (2022)

Table 4.6: Statistical Analysis of Product Innovation

The data's mean and standard deviation demonstrate how Kenyan logistics firms routinely make use of product innovation. Other than that, there wasn't much of a departure from the average response. Respondents largely concurred that innovative items have the ability to draw a wide range of customers with a variety of demands. Respondents agreed that innovative products have a strong chance of success regardless of the logistics company that presents them. All of the respondents agreed that product innovation is an essential component of organizational innovation and has an impact on performance because of the low total standard deviation.

The results back up Tamunomiebi and Okorie's (2019) recommendation to implement robust policies on product innovation in order to enhance the calibre of service delivery and enhance organisational performance. The results confirm Muchoki's (2013) assertion that product innovation is used by mobile phone businesses and that it has improved the financial performance of Kenyan mobile service providers through higher sales, profit growth, and ROA.

b. PROCESS INNOVATION

This was investigated using the revenue allocation, resource mobilization, and monitoring and evaluation.

	n	\bar{x}	σ
Our logistics company's sales turnover is increasing as a result of service delivery improvements.	124	4.20	0.751
The logistics company's operational expenses can be reduced through process innovation.	124	4.40	0.494

Routine duties have been automated by the firm.	124	4.60	0.491
The company has implemented business process reengineering.	124	4.74	0.449
The organizational structures of the company offer a conducive atmosphere for innovation.	124	4.20	0.751
This logistics firm's main goal is to improve service quality through process innovation.	124	4.29	0.850
This logistics firm promotes cost-cutting solutions that improve organizational processes, resulting in improved performance.	124	4.13	0.500
When a company incorporates new features into its production processes, it enhances the speed, flexibility, and quality of its goods while also lowering operational costs.	124	4.20	0.401
Aggregate scores		4.27	0.565

Source: Survey data (2022)

Table 4.7: Descriptive Statistics for Process Innovation

This result indicates that the majority of participants were in agreement that their organisations were engaged in process innovation initiatives. The aggregate mean score is also a trustworthy and accurate estimate because there is little variety in the replies. The average response was 4.60, and the standard deviation was 0.491, indicating that respondents agreed with the company's decision to automate regular tasks. When respondents were asked if process innovation may help the logistics firm lower operating costs, a mean of 4.40 with a standard deviation of 0.494 was discovered. The respondents in this case concur that carefully evaluating process innovation is necessary for enhancing performance.

The findings support the arguments of Kowo, Akinbola, and Akinrinola (2021) and Mbocho (2020) that process innovation helps an organisation obtain a competitive edge, whereas social innovation increases an organization's ability to manage human relationships, hence increasing firm performance. Dorin's (2018) findings are also supported by the findings. That decision to incorporate process innovation can have an impact on the organization's quality, efficiency, competitiveness, and sustainability.

c. MARKETING INNOVATION

Product placement, pricing and promotion strategies, customer engagement and retain-ment were used as indicators to measure the variable of marketing innovation.

	n	Mean	σ
This logistics firm features a customer complaint channel that is utilized to enhance service.	124	4.07	0.491
The goal of market innovation strategies is to increase client demand and satisfaction.	124	4.60	0.493
Through social	124	4.74	0.449

responsibility and incentives, this logistics business's marketing approach helps clients feel like they are a part of the company.						
This logistics company's products and services are one-of-a-kinds.	124	1.00	5.00	4.20	0.751	
This logistics firm employs a creative and diverse target market mix.	124	1.00	5.00	4.20	0.751	
This logistics firm is known for introducing new product offerings regularly.	124	1.00	5.00	4.40	0.494	
The establishment of branches in various places guarantees that the company's consumer base is diverse.	124	1.00	5.00	4.60	0.491	
Information technology has aided in the creation of efficient marketing strategies.	124	1.00	5.00	4.20	0.401	
Consumers are more likely to buy products that focus on their primary qualities.	124	1.00	5.00	4.74	0.449	
The development of multiple distribution channels for this logistics company is a smart way of doing business	124	1.00	5.00	4.29	0.850	
Aggregate scores				4.40	0.562	

Research data (2022)

Table 4.8: Statistical Analysis for Market Innovation

The mean score for all the things up for sale is 4.40, and the standard deviation is 0.562, which is demonstrated in Table 4.8. Generally speaking, respondents agreed that logistics organisations employ marketing innovations to increase productivity. This conclusion supports Peng, Qin, and Tang's argument that both market-driven and market-driving innovations considerably affect a firm's performance. In addition, their impacts are greatly tempered by the level of competition and technical turbulence but not demand uncertainty.

d. TECHNOLOGICAL INNOVATION

The variable on was measured using the following indicators; commercialization, production technologies and ICT technologies.

ICT in the organization reduced operational costs and increased productivity	124	4.73	0.444
Through enhanced goods and market developments, ICT has grown its market share.	124	4.40	0.491
The use of ICT in the firm has resulted in greater revenue and profitability.	124	4.40	0.491
ICT has increased the efficiency of company processes.	124	4.58	0.897
Whenever there is a software or hardware upgrade, the company provides training to the personnel.	124	4.27	0.774
The employees have the necessary expertise to access the organization's ICT resources.	124	4.72	0.624
The management makes it possible for the business to conduct System Monitoring regularly to avert breakdowns.	124	4.57	0.453
The current ICT infrastructure improves the efficiency with which ICT solutions and services are delivered.	124	4.13	0.500
Scores for		4.475	0.522

Source: Survey data (2022)

Table 4.9: Technology Innovation

The organization's ICT enhanced production and decreased operating expenses, according to respondents. The study's findings support Azubuike's (2013) notion that technological innovation strategy is a crucial factor in company success and should be developed and put into practise as an integral component of the business plan. Organizations with a strategic perspective can use innovations to solve challenges and pursue long-term competitive advantage.

e. PERFORMANCE OF THE LOGISTIC COMPANIES

Competitive Advantage	n	Min.	Max.	Mean	Std. Dev.
This logistics company's operational cost has been reduced due to innovation	124	1.00	5.00	4.63	0.496
This logistics company has experienced increased market share over the previous years.	124	1.00	5.00	4.58	0.897
In comparison to prior years, the return on investment (ROI) has grown.	124	1.00	5.00	4.29	0.850
The profitability, debt, and liquidity ratios of this logistics firm have all grown in recent years.	124	1.00	5.00	4.13	0.500

	n	\bar{x}	Std. Dev.
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Because of the elimination of bottlenecks caused by the dissemination of innovation, operations are more efficient and effective.	124	1.00	5.00	4.20	0.401
Tasks have become more automated and efficient, benefiting organizational performance.	124	1.00	5.00	4.72	0.624
The organization has implemented an innovative approach to get a competitive edge.	124	1.00	5.00	4.57	0.453
Strategic innovation allows the company to deliver high-quality products.	124	1.00	5.00	4.51	0.481
Aggregate score for Performance				4.453	0.588

Source: Survey data (2022)

Table 4.10: OP

The entire group of respondents agreed that organisational innovation is essential for improving logistics firms' performance. This data supports Phan's (2019) assertion that organisational creativity at work and innovation in business operations are strongly correlated with improved company performance. It also supports Tanesab and Park's (2020) study, which found beneficial relationships between its factors and showed that organisational innovation significantly affects improved job performance in organisations. Similarly, organisational innovation is posited as a strategic asset and a powerful strength of the organisation to improve long-term competitive development and performance in public-sector companies.

f. INFERENTIAL STATISTICS

To model the linear relationship between the predictor and product components, the investigation adopted regression and Pearson correlation analyses.

g. REGRESSION ANALYSIS

This involved using field data, and the outcomes were examined using adjusted R2 values, P values, and degrees of significance P 0.001 and P 0.005, respectively. By regressing the study's variables on organisational innovation, a composite organisational performance measure that captures overall performance was created.

Table 4.11: Model Summary

Model	R	R2	Adj. R2	SEM
1	.925 ^a	.855	.849	.5301

Source: Survey data (2022)

a. Predictors: (Constant), Product, Process, Marketing and Technological Innovation.

Products, processes, marketing, and technical innovation may be held responsible for 85,5% of the performance variance across Kenyan logistics enterprises. The model has

an excellent match for determining the impact each variable has on organisational performance, judging from the adjusted R squared. Further proof of the model's strong fit was supplied by the standard error of estimate value. The value was low, indicating a perfect match.

		SS	df	MSE	F	Sig.
1	Regression	64.494	4.00	16.124	5737.922	.000 ^b
	Residual	.450	160.00	.003		
	Total	64.944	164.00			

^a. Dependent Variable: Organizational performance

^b. Predictors: (Constant): Product, Process, Marketing and Technological Innovation.

Source: Survey data (2022)

Table 4.11: Summary of the Variance Analysis

As per Table 4.12, the regression model's F= 5737.922 and P = 0.000 scores indicate that it is significant in predicting the interaction between the dependent and independent variables. Given that it was statistically significant at F (4, 160) and that its computed probability was equal to 0.000, the proposed regression model successfully matched the data. There is no discernible difference between the constructions' means, as indicated by the significant value 0.000 being less than = 0.05. The relevance of the model is demonstrated by a statistic smaller than 0.05 since the data were processed using a 95% confidence level. This suggests that even a little adjustment in one variable can have an impact on how well an organisation performs. These evaluations show that the model fits the research well.

E. REGRESSION ANALYSIS

Model	Raw		Homogeneous	t	Sig.	
	β	Beta	β			
1	(Constant)	1.804	.261		1.129	.000
	Product innovation	.714	.030	.419	23.615	.000
	Process innovation	.778	.042	.060	18.588	.000
	Marketing innovation	.588	.008	.697	76.612	.000
	Technological innovation	.379	.026	.242	14.629	.000

Source: Survey data (2022)

^a Dependent Variable: Organizational Performance

The correlation between product, process, marketing and technological innovation and the performance is displayed in Table 4.13. The following explanation of the regression model is provided;

$$Y = 1.804 + 0.714 \text{ Product innovation} + 0.778 \text{ Process innovation} + 0.588 \text{ Marketing innovation} + 0.379 \text{ Technological innovation} + \epsilon$$

The P-values in the last column of Table 4.13 show that each of these independent variables significantly impacted the organizational performance of the logistics companies because the significance level in each case was lower than 0.05. The firms' performance among Kenyan logistics companies can

therefore be inferred to be significantly influenced by product, process, marketing and technological innovation.

a. PEARSON CORRELATION

Using Pearson correlation, the author attempted to quantify the direction and magnitude of the relationship between the predictor and product components. The statistical Sig. represented the significance of the relationship, whereas r represented the scale of the correlation. The results are illustrated in Table 4.14. This is similar to the study conducted Wangila's (2018) and Odhiambo's (2019) investigations, which found a beneficial relationship between innovation in products, processes, marketing, and technology, and, accordingly, organisational success.

		OP	Product Innovation	Process innovation	Marketing innovation	Technological innovation
Organizational performance	r	1.000				
	Sig.					
Product Innovation	r	0.786**	1.000			
	Sig.	0.000				
Process innovation	r	0.802**	165**	1.000		
	Sig.	0.000	0.002			
Marketing innovation	r	0.594**	0.059	204**	1.000	
	Sig.	0.000	0.278	0.000		
Technological innovation	r	0.853**	175**	0.219**	396**	1.000
	Sig.	0.000	0.001	0.000	0.000	

** Correlation is significant at the 0.001 level (2-tailed)

Table 4.12: Pearson Correlation Matrix

b. HYPOTHESIS TESTING

Multiple linear regression was used to validate the hypotheses. Study hypotheses are confirmed if the p value was 0.05 or below, alternatively hypotheses are disregarded if the p value was higher than 0.05.

OBI.	OBJECTIVE	HYPOTHESIS	RULE	P VALUE	COMMENT
1.	To determine the impact of product innovation on the logistics sector's organizational performance in Nairobi City County, Kenya.	H ₀₁ Product innovation has no significant effect on the performance of the logistics sector in Nairobi City County, Kenya.	Reject H ₀₁ if p value < 0.05 and accept H ₁	p < 0.05	The null hypothesis was rejected; therefore, this a positive significant relationship between Product innovation and organizational performance in logistics sector in Nairobi City County, Kenya.
2.	To determine the impact of process innovation on the logistics sector's organizational performance in Nairobi City County, Kenya.	H ₀₂ Process innovation has no significant effect on the performance of the logistics sector in Nairobi City County, Kenya.	Reject H ₀₂ if p value < 0.05 and accept H ₁	p < 0.05	The null hypothesis was rejected; therefore, this a positive significant relationship between Process innovation and organizational performance in logistics sector in Nairobi City County, Kenya.
3.	To determine the impact of marketing innovation on the logistics sector's organizational performance in Nairobi, Kenya.	H ₀₃ Marketing innovation has no significant effect on the performance of the logistics sector in Nairobi City County, Kenya.	Reject H ₀₃ if p value < 0.05 and accept H ₁	p < 0.05	The null hypothesis was rejected; therefore, this a positive significant relationship between Marketing innovation and organizational performance in logistics sector in Nairobi City County, Kenya.
4.	To determine the impact of technology innovation on the logistics sector's organizational performance in Nairobi, Kenya.	H ₀₄ Technological innovation has no significant effect on the performance of the logistics sector in Nairobi City County, Kenya.	Reject H ₀₄ if p value < 0.05 and accept H ₁	p < 0.05	The null hypothesis was rejected; therefore, this a positive significant relationship between technological innovation and organizational performance in logistics sector in Nairobi City County, Kenya.

Source: Author, 2022

Table 4.13: Outcome of Hypotheses Test

F. QUALITATIVE ANALYSIS

a. PRODUCT INNOVATION AND PERFORMANCE

When asked if product innovation influences organisational performance in the firm, the majority of respondents answered affirmative, indicating that Kenyan logistics firms engaged in innovative activities such as entering new products and reengineering others, indicating

that product innovation sways firm performance. A respondent argued that:

“.....demonstrating the organization's R&D operations produced new knowledge to tackle scientific and technological difficulties, resulting in improved performance....”

According to the report, improved quality of goods and services in logistics organisations would have a significant impact on performance.

a. PROCESS INNOVATION AND PERFORMANCE

Majority of those surveyed regarding if process innovation promotes performance in the company replied yes, signifying that Kenyan logistics enterprises employed process innovations to improve the quality of their goods and services. Improved operational effectiveness, brand perception, revenue growth, and market position performance resulted from the integration of process innovation. A respondent stated that:

“.....that the delivery, distribution, or logistical tactics used for their materials, goods, or services by their logistics supplier are new or dramatically improved....”

According to the findings, enhanced techniques and procedures of innovation activities in any business will have a significant impact on the performance of the sector.

b. MARKET INNOVATION AND PERFORMANCE

A number of respondents who were asked if marketing innovation impacts organisational performance in the business replied yes, demonstrating that Kenyan logistics firms used marketing innovation tactics to provide fresh ideas for providing value to customers and managing customer relationships.

c. TECHNOLOGICAL INNOVATION AND PERFORMANCE

Probed on whether in their experience, technological innovation influences organisational performance in the firm, a majority of respondents affirmed it does so by facilitating the creation of new products, services, or techniques, as well as by optimising current systems and generating novel insights into technology.

V. SYNOPSIS, INFERENCES & RECOMMENDATIONS

A. OUTLINE

A synopsis of the results according to the precise intents of the study, conclusions arrived at the end, relevant recommendations to policy-making and management practices, and lastly, a suggestion for further research is made.

B. FINDINGS SYNOPSIS

Understanding out how OI impacts performance across Kenyan logistics businesses was the fundamental objective of this investigation. The tested hypotheses were put to the test using both correlational and regressive calculations. 88% of

the survey's participants responded. Adjusted R2 reveals that product, process, marketing, and technological advances account for 85.5% of productivity variances, with the residual 14.5% being attributed by various factors that were not factored in by the statistical model.

a. PRODUCT INNOVATION

Per the descriptive statistics, performance was boosted by product innovation. In line with the statistics, creating new goods is crucial for enhancing performance, and one method to start the process of product innovation is by making improvements to an already existing product. Technical requirements are essential to the improvements since product innovation encompasses a wide spectrum of changes, from the product's contents to how it is given to the client. These results supported the inferential statistics' findings, which recognised that product innovation had a positive effect on logistics enterprises in Kenya.

b. PROCESS INNOVATION

In most cases, it was found that all principles relating to resource mobilisation, income allocation, and monitoring and evaluation were employed, albeit to different degrees. Inferential statistics indicate that process innovation enhances performance. This conclusion is based on the fact that the majority of respondents agreed with these presumptions. For instance, respondents noted that logistic companies used process innovation to modernise their product and service offerings. They also recognised and successfully addressed the changing demands of the consumer, which led to increased client happiness and improved business performance. As a result of market factors that had an effect on their company performance, businesses used open communication and information flow through process innovation to adapt to emerging internal and external changes.

c. MARKETING INNOVATION

The products of logistic companies are significantly less expensive than those of rivals. The businesses manufacture distinctive products of the highest calibre. The logistic companies are aware of and knowledgeable about their rivals. Statistics showed that marketing innovation improved the performance of Kenya's logistic companies.

d. TECHNOLOGICAL INNOVATION

Outcome demonstrated that these variables are necessary for boosting organizational performance among Kenyan logistic enterprises, which would lead to economic expansion and development. The descriptive statistics reveal that technology innovation was a critical component of organisational innovation, assisting logistics organisations in improving their performance. These findings have identified four critical areas of technological innovation that are important in driving the performance of logistics companies in Kenya. They are: an integrated manufacturing management information system, inter-organizational procedures and

collaborations, new technologies in manufacturing processes, and technical skill training for employees. The findings also highlight the need of logistic firms automating processes and regular procedures, as well as implementing online reports to save expenses. Regression analysis also corroborated these findings, demonstrating that technical innovation enhanced performance. The statistical analysis supported the objective's assertion that technological innovation positively and significantly impacted performance among logistic companies.

C. INFERENCES

Data indicate that organisational innovation has helped Kenyan logistics businesses perform better as a whole. Also, it has come to light that organisational innovation has improved the financial performance of logistic companies by boosting sales. The results also showed that the company's adoption of organisational innovation assisted in reducing operational expenses and boosting operational efficiencies.

In terms of market share, it was discovered that organisational innovation resulted in a minor rise in the company's market share. This was linked to logistic businesses' business model, which emphasises volume of products sold and is heavily reliant on retail network expansion. More precisely, organisational innovation has improved the organization's revenues, operational performance, and customer management.

a. PRODUCT INNOVATION

For the first aim, product innovation shows a favourable and statistically significant link with performance, indicating that it might be employed as a tactic to promote organisational growth, which would eventually result in increased profits and market share.

b. PROCESS INNOVATION

Process innovation has a strong impact on the efficiency of the logistics companies, as shown by the statistical significance it possesses. According to the data, process innovation significantly influences overall performance since buyers are prepared to pay more for high-quality goods even if the price is somewhat higher. The study confirmed that businesses in general, aside from logistics companies, must consistently maintain and sustainably improve on process innovations.

c. MARKETING INNOVATION

The third goal demonstrates that marketing innovation is statistically significant. The analysis determined that logistic companies frequently used all marketing innovation strategies to boost the effectiveness of their sales efforts and revenues.

d. TECHNOLOGICAL INNOVATION

The success of logistical businesses in Kenya is significantly impacted by technological innovation, according to data. So, these businesses need to advance their

technological advancements, adopt cutting-edge technology into their daily operations, and build a purposeful plan for technical staff development.

D. RECOMMENDATION FOR POLICY

a. *PRODUCT INNOVATION*

The author suggests that, in order to ensure that different innovations are offered to the market more systematically, the logistics sector invest more in R&D. This can also be accomplished through strategic relationships with SMEs, which frequently have innovative ideas but lack the resources to commercialise them. Similarly, the study recommends that logistic enterprises make constant enhancements to their products in order to increase their competitive edge.

The author similarly recommends that managers consider implementing organisational innovation techniques as a competitive strategy by rewarding employees whenever they develop new products in order to promote product innovation in the firm. Organizational innovations foster teamwork, information sharing, coordination, collaboration, learning, and invention, all of which can lead to improved organisational performance.

b. *PROCESS INNOVATION*

To boost performance, logistics companies should place a larger emphasis on process innovation. These companies' processes should be enhanced in order to grow market share while reducing costs. Furthermore, logistics companies should continue to explore new technologies, as they are critical to efficient and effective marketing approaches.

c. *MARKET INNOVATION*

The researcher recommends logistics firms to continue investing in market innovation strategies because they have the greatest influence on performance. Because of their direct interaction with clients, firms with greater marketing power can develop more innovative ideas and products, allowing them to meet their demands before competitors. A focus on quality will help their products compete in terms of price.

d. *TECHNOLOGICAL INVENTION*

The author asserts that introducing programmes to advance knowledge and technology transfer, and commercialisation would enhance productivity in the logistics sector.

E. PROPOSALS FOR FURTHER INVESTIGATIONS

Our investigation revealed a substantial relationship between organisational innovation and performance. There is a need for comparable research to be done in other companies in order to identify other elements that influence success. In addition, further research should be done to examine the difficulties that Kenyan businesses have while adopting organisational innovation. It is also important to do further

research to examine the moderating and mediating impacts of various factors on the relationship between organisational innovation and performance.

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REFERENCES

- [1] Achieng, N.D. (2014). Business process re-engineering practices and performance of Kenya Commercial Bank.
- [2] Alharbi, I., Jamil, R., Mahmood, N. and Shaharoun, A. (2019) Organizational Innovation: A Review Paper. Open Journal of Business and Management, Vol.7 No.3,
- [3] Askarany, D., (2009). Diffusion of Innovations in Organizations. SSRN Electronic Journal. 10.2139/ssrn.1370753.
- [4] Azubuike, Vera M.U. (2013) "Technological Innovation Capability and Firm's Performance in New Product Development," Communications of the IIMA: Vol. 13: Iss. 1, Article 4.
- [5] Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17 (1) 99-120
- [6] Bloomberg. (2016). Bloomberg Professional. Retrieved from Bloomberg terminal
- [7] Chege, S. & Wang, D. & Suntu, S., (2019). Impact of information technology innovation on firm performance in Kenya. Information Technology for Development, 26. 1-30. 10.1080/02681102.2019.1573717.
- [8] Daft, R. L., & Marcic, D. (2015). Understanding management. Stamford, CT, USA: Cengage Learning
- [9] DeJonckheere M., & Vaughn L. M., (2019). Semistructured interviewing in primary care research: a balance of relationship and rigor. Fam Med Com Health;7:e000057.
- [10] Dorin, Maier. (2018). PRODUCT AND PROCESS INNOVATION: A NEW PERSPECTIVE ON THE ORGANIZATIONAL DEVELOPMENT. International Journal of Advance Research And Innovative Ideas In Education. 3. 132-138.
- [11] Fernandes Rodrigues Alves, M., Vasconcelos Ribeiro Galina, S. and Dobelin, S. (2018), "Literature on organizational innovation: past and future", Innovation & Management Review, Vol. 15 No. 1, pp. 2-19.
- [12] Gachunga, M. N., Karanja, P. N., & Kihara, A. N. (2020). Influence of Strategic Innovation Management on Competitiveness of Technical Vocational Education and Training (Tvet) Institutions in Kenya. International

- Journal Academic Research in Business and Social Sciences, 10(11), 1334–1346.
- [13] Gor, K., (2015). Factors Influencing the Adoption Of Online Tax Filing Systems In Nairobi, Kenya. *The Strategic Journals of Business and Change Management*, Vol. 2 (77), pp 906- 920.
- [14] Hajiesmaeili, A., Rahimi, M., Jaber, E., Hosseini, A. (2016). 'Studying the Influence of Logistics on Organizational Performance through a Supply Chain Strategy: Case Study in Goldman Electronics Co.'. *World Academy of Science, Engineering, and Technology, Open Science Index 112, International Journal of Economics and Management Engineering*, 10(4), 1065 - 1073.
- [15] Heale, R. & Twycross A., (2015). Validity and reliability in quantitative studies. *BMJ Journals*, Volume 18, Issue 3.
- [16] Heracleous, L. & Papachroni, A., (2016). Strategic Leadership and Innovation at Apple Inc.. 10.4135/9781526446565. Effect of technology organization environment framework on the adoption of e-commerce in logistic firms in Nairobi County
- [17] IFC (2019). Technology uptake drives African logistics innovation. <https://internationalfinance.com/technology-uptake-drives-african-logistics-innovation/>
- [18] Kang, K., Lee S. & Huh C. (2010). Impacts of Positive and Negative Corporate Social Responsibility Activities on Company Performance in the Hospitality Industry. *International Journal of Hospitality Management*. 29. 72-82.
- [19] Karanja, S. W., Kahuthia, J. & Gakenia, J., (2018). Innovation Strategies and Organizational Performance: A Case Study Of Telkom Kenya Limited. *The Strategic Journal of Business and Change Management*, Vol. 5, Iss. 3, pp 69 – 79,
- [20] Kariuki, A. N., (2017). Effects of Innovation Strategy in Enhancing Competitive Advantage among Commercial Banks in Kenya. Unpublished dissertation. United States International University- Africa
- [21] Kamakia P., (2014) Effect Of Product Innovation On Performance Of Commercial Banks In Kenya. The unpublished dissertation university of Nairobi.
- [22] Kaplan, S., & Norton, P., (1992). The Balanced Scorecard: measures that drive performance: *Harvard Business Review*, 1, 71-80.
- [23] Kaplan, S., & Norton, P., (1996). "The balanced scorecard: translating strategy into action", *Harvard Business Press*.
- [24] Keshavdas M., (2021). Top 10 Challenges Logistics Companies Are Facing In 2019, <https://fleetroot.com/blog/top-10-challenges-facing-logistics-companies-in-2019/>
- [25] Kiende, C., Mukulu, E., & Odhiambo, R. (2019). Influence of Strategic Innovation on the Performance of Small and Medium Women-Owned Enterprises in Kenya. *Journal of Entrepreneurship & Project Management*, 3(1), 50-67.
- [26] Kim, T. (2015), "Diffusion of changes in organizations", *Journal of Organizational Change Management*, Vol. 28 No. 1, pp. 134-152.
- [27] Kinyua, G.M., Muathe, S.M.A., & Kilika, J.M. (2015). Effect of knowledge conversion and knowledge application on performance of commercial banks in Kenya. *International Journal of Education and Research*, 3(10), 431-445
- [28] Kiraka, R.N., Kobia, M. and Katwalo, A.M. (2013) Micro, Small and Medium Enterprise Growth and Innovation in Kenya: a Case Study on the Women Enterprise Fund, Investment Climate and Business Environment Research Fund report, Nairobi.
- [29] Kiragu, R. W. (2016). Influence of Innovation on the performance of Insurance companies in Kenya Unpublished dissertation, Strathmore University.
- [30] Kising'u, T. M., Namusonge, G. S., & Mwirigi, F. M., (2016). The Role of Organizational Innovation in Sustainable Competitive Advantage in Universities in Kenya; *The International Journal of Social Sciences and Humanities Invention*, Vol.3, Iss. 09, pp: 2762-2786 ,
- [31] Kiveu, M. N. & Namusonge M. & Muathe, S., (2019). Effect of innovation on firm competitiveness: the case of manufacturing SMEs in Nairobi County, Kenya. *International Journal of Business Innovation and Research*, Vol. 18, No. 3,
- [32] Kothari, C.R. (2004) *Research Methodology: Methods and Techniques*. 2nd Edition, New Age International Publishers, New Delhi.
- [33] Kothari, C. R. (2011). *Research Methodology and Techniques*. New Age International Limited Publishers: Delhi.
- [34] Kombo & Trump (2006). *Proposal and thesis writing. An Introduction* DK Kombo, DLA Trump. Nairobi: Paulines publications Africa, 10-45, 2006.
- [35] Kowo, Solomon & Akinbola, Olufemi & Akinrinola, Olalekan. (2021). The Impact of Process Innovation on Organisational Performance. Vol-15.
- [36] Lam, Alice. (2004). *Organizational Innovation*. University Library of Munich, Germany, MPRA Paper. 10.1007/978-1-4020-6071-7_5.
- [37] Leung L., (2015). Validity, reliability, and generalizability in qualitative research, *Journal of Family Med Prim Care*, Vol. 4(3): pp 324–327.
- [38] Letangule, S.L., & Letting, N. K., (2012). Technological Innovation and Corporate Performance. *International Journal of Management & Business Studies*, Vol. 2, Issue 3, July - Sept 2012
- [39] Macharia, N. W., Iravo, M. A., Ondabu I. T., & Ombui K., (2015). Effects of Information Technology on Performance of Logistics Firms in Nairobi County. *International Journal of Scientific and Research Publications*, Volume 5, Issue 4,
- [40] Maier, A., & Dan, H., (2018). Influence of the Marketing Innovation on the Organizational Performance. 3. 182-192.
- [41] Maina, H. N. & Namusonge, E. (2018). Logistical Innovation on Service Delivery in 3PL Companies in Kenya: A Case Study Of Spedag Interfreight Ltd. *Strategic Journal of Business and Change Management*, Vol. 5, Iss. 4, pp 81 - 89,
- [42] Makimi, H. M., (2015). The Effect of Organizational Innovation and Information Technology on Firm Performance: A Case Study of Safaricom Limited.

- Unpublished dissertation, United States International University- Africa.
- [43] Memia, F. K., (2018). Influence Of Contemporary Supply Chain Practices On Performance Of Large Manufacturing Firms In Kenya. Unpublished dissertation, JKUAT.
- [44] Madhani, P., (2010). Resource-Based View (RBV) of Competitive Advantages: Importance, Issues, and Implications.
- [45] McKinsey Quarterly, (2018). The innovation commitment. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-innovation-commitment>
- [46] Muchoki, E., (2013). The Effect Of Product Innovation On The Financial Performance Of Mobile Telephony Firms In Kenya. The unpublished dissertation university of Nairobi.
- [47] Muhammad, A., & Munir, A., & Sajid, H., & Sajjad, Muhammad, S., (2021). Expanding competitive advantage through organizational culture, knowledge sharing, and organizational innovation. *Technology in Society*. 66. 10.1016/j.techsoc.2021.101635.
- [48] Mugenda, O.M. and Mugenda, A.G. (2003) Research Methods, Quantitative and Qualitative Approaches. ACT, Nairobi.
- [49] Mugenda, O., & Mugenda, A. (2010). Research Methods: Quantitative and Qualitative Approach. Acts Press: Kenya.
- [50] Mutai, H. C., (2019). Application of balanced scorecard on organizational performance in selected public secondary schools in Nandi county- Kenya.
- [51] Mutindi, U.J.M., Namusonge, G.S., & Obwogi, J. (2013). Effects of Strategic Management Drivers on Organizational Performance: A Survey of the Hotel Industry in Kenyan Coast. *International Journal of Arts and Commerce* Vol. 2 No. 11.
- [52] Ndemo B. (2017) The Paradigm Shift: Disruption, Creativity, and Innovation in Kenya. In: Ndemo B., Weiss T. (eds) *Digital Kenya*. Palgrave Studies of Entrepreneurship in Africa. Palgrave Macmillan, London.
- [53] Novikov, A.M., & Novikov, D.A. (2013). Research Methodology: From Philosophy of Science to Research Design (1st ed.). CRC Press.
- [54] OECD/Eurostat, (2005). Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition, the Measurement of Scientific and Technological Activities, OECD Publishing, Paris,
- [55] Peng, Jianping & Qin, Qun & Tang, Tanya. (2021). The Influence of Marketing Innovations on Firm Performance under Different Market Environments: Evidence from China. *Sustainability*. 13. 10049. 10.3390/su131810049.
- [56] Pfeffer, J., & Sutton, R.I., (2000). The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action. Harvard Business School Press, Brighton, MA,
- [57] Phan, T.T.A. (2019), "Does organizational innovation always lead to better performance? A study of firms in Vietnam", *Journal of Economics and Development*, Vol. 21 No. 1, pp. 71-82.
- [58] Prange, C., & Pinho, J. C., (2017). How personal and organizational drivers impact SME international performance: The mediating role of organizational innovation, *International Business Review*, Volume 26, Issue 6, Pp. 1114-1123
- [59] Rajesh, S. & Rajhans, M., (2014). A Review of Evolution of Theories and Models of Technology Adoption.
- [60] Richard, H., (2020). The Contribution of the Logistics to the Economic Growth: Evidence from Tanzania (2007-2016). *SSRN Electronic Journal*, doi.org/10.2139/ssrn.3518943
- [61] Rehman, Su., Mohamed, R. & Ayoup, H. (2019). The mediating role of organizational capabilities between organizational performance and its determinants. *Journal of Global Entrepreneurship Research*, Res 9, 30
- [62] Rogers, E. M. (2003). *Diffusion of innovations*. New York: Free Press.
- [63] Sammut, J. (2012). Organizational Assessment of Performance Management. *SSRN Electronic Journal*. DOI: 10.2139/ssrn.2129713
- [64] Scott, W. R., (2004). "Institutional theory" P408-14 in *Encyclopedia of Social Theory*, George Ritzer, ed. Thousand Oaks, CA: Sage.
- [65] Selfano, F. O., & Simiyu R., (2014). Product Innovation Strategies Among Banks In Eldoret Municipality, Kenya. *British Journal of Marketing Studies*, Published by European Centre for Research Training and Development UK Vol.2, No.4, pp. 1-8,
- [66] Sethibe, T. & Steyn, R., (2016). Innovation and organizational performance: A critical review of the instruments used to measure organizational performance., *Southern African Journal of Entrepreneurship and Small Business Management* 8(1), a50
- [67] Sintset, G., & Sahand, K., & Yang, M. N., (2013). Process Innovation: Impacts on Organization's Performance A Qualitative Study of Four Swedish Municipalities. Unpublished dissertation, Linnaeus University
- [68] Shamsie, J., (2003). The context of dominance: An industry-driven framework for exploiting reputation. *The Strategic Management Journal*.
- [69] Shapiro, A., (2006). On the complexity of multistage stochastic programs, *Operations Research Letters*, 34, 1 – 8
- [70] Tavasszy, L. A., (2020). Predicting the effects of logistics innovations on freight systems: Directions for research, *Science Direct, Transport Policy*, Volume 86, Pages A1-A6,
- [71] Tamunomiebi, M. D., & Okorie, P. N. (2019). Product innovation and organizational performance of insurance companies in Rivers State, Nigeria. *The Strategic Journal of Business & Change Management*, 6 (3), 428 – 436.
- [72] Tuan, T. T. (2020). The Impact of Balanced Scorecard on Performance: The Case of Vietnamese Commercial Banks. *The Journal of Asian Finance, Economics, and Business*, 7 (1), 71–79.
- [73] Wangai, N. & Kariuki, P. (2020). Influence of competitive strategies on performance of licensed logistics companies in Kenya. *Journal of International Business, Innovation and Strategic Management*, 4(2), 38 – 58
- [74] Wangila, F., (2018). Influence of Innovation Practices on the Public Sector Performance in Nairobi City County

Government-Kenya. Unpublished dissertation, Jomo
Kenyatta University of Agriculture And Technology

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