

FROM A POLICE FORCE TO A POLICE SERVICE. INFLUENCE OF FLEET LEASING PRACTICES ON LOGISTICS EFFICIENCY OF THE KENYA POLICE SERVICE

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Abstract

Despite the enactment of several legislations supporting police reforms, the Kenyan National Police Service still highlights inadequacy of resources and equipment causing poor response to emergencies, increase in crime and emergence of criminal gangs. Paradoxically, this is even after the reforms that lead to proposals that lead to equipping the service with new vehicles through leasing. Using the replacement and transaction cost economic theories, the current study sought to establish the influence of fleet leasing management practices, specifically vehicles repair and maintenance on logistics efficiency of Kenya police service. Based on good practices of policing globally, Vehicles repair and maintenance of the Kenya police are coordinated from the central command and therefore, this study sought to identify this practices using Kakamega County for generalization purposes. The study used a descriptive survey research design on a population drawn from all police officers involved in fleet management in Kakamega County. Data collection was done by use of structured questionnaires. The study found there is significant statistical effect of vehicles repair and maintenance practices on logistics efficiency. The study recommends that Kenya police service needs to invest on current technology in their application of fleet leasing management practices.

Keywords: Efficiency: Fleet Leasing: Logistics: Vehicle repair and Maintenance

Background of the study

Fleet management involves the activities of planning tracking, managing vehicle service, maintenance and repair, fuel control, driver vehicle use, vehicle safety and journey authorization in compliance country traffic practices and organizational operational objectives to achieve logistics efficiency and vehicle safety (Alan & Remko, 2012). Logistics management leads to establishment, maintenance and promotion of an efficient operations and fleet logistics (Cozzolina, 2012). Continuous adjustments and improvement of fleet operations processes hold key activities for the smooth control of the logistician activities in the modern conditions and competition presented by the changing customer needs and agile transport expectations. According to Armstrong and Associates (2012), the estimates of global logistics management practice constitutes a gross revenue of \$133.8 billion. Consequently, an inefficient and ineffectiveness logistics management systems supported by inefficiency of internal management would disable the organizations ability to respond to the needs of customers leading to units and organizations to be overrun by competitors (Roman, Parlina & Veronika, 2013). Logistics

operations management practices impact not only on the overall organizational operations performance, but also on knock-on flow of the competitors using the same public, quasi and merit goods such as the military, paramilitary and police services (Karimi & Rafiee, 2014).

For military, paramilitary, police and other units providing essential services, logistic support holds key to the success and victory in operations (Pagonis, 2012). Akin to other sectors, fleet leasing management helps in planning, controlling, organizing and operating fleets in the organization to provide service economically, efficient, effective and in a productive manner (Alsaed, 2005). To optimally attain efficiency and effectiveness, outsourcing has emerged as a hallmark of improved operational performance delivering; decreased operating costs, improved customer satisfaction, increased productivity, timely delivery of services to clients, reduced lead time and improved profits, faster response to customer's demands and use of modern technology in offering services (Mulama, 2012). Citing the US Marine Corps Logistics and National Defense, Henry (2013), notes that logistics is the bridge between military operation and national economy and therefore its physical support and economic operations is paramount. According to Kabia, (2013), although policing in the US is facing human rights abuse challenges, it has undergone rapidly and considerable logistics change in the twentieth century. The recorded change is supported by two forces; a movement to establish logistics performance and the modernization of the police operations. According to Kennedy (2013) the logistic planners was anchored on aligning logistics and supply chain practices and principles to ease movement of material, men and provide logistic support and planning vital for overall logistics efficiency of any field battle. Classic examples that have invoked discourse on logistics efficiency include the saddam ouster war. In this attack, while in Iraq, America and Allied forces game plan relied on using massive logistics power operations to airlift men, military equipment's assets, food and medical supplies to defeat Saddam Hussein (Ruben, 2014). In Sudan, Augustine (2013) holds that some of the weaknesses of South Sudan People's Defense Force is logistical inefficiencies that leads to delays in rapidly response to matters security, emergencies and natural calamities.

According to the Global Leasing Report (2017), the solution to logistics inefficiencies lies in outsourcing and leasing resources in operations, so that forces concentrate on their core activities. In the leasing industry, Africa ranks highly with four African countries falling within the top 50 lease threshold– South Africa, Egypt, Morocco, and Nigeria. In West Africa, Nigeria's quick adoption and growth significantly improved logistics efficiency of forces and companies. This lead to high strides registered between 1986 and 2018. In eastern Africa, the Rwandan government practice allows vehicle leasing from private operators. In Kenya, the logistics industry in Kenya is generally competitive (Gacuru & Kabure, 2015). The growing importance and dynamics of logistics locally arise from the pursuit of companies becoming globalized to expand their logistics markets (Kilasi, Juma, &Mathooko, 2013).

Gitahi and Ogollah (2014) conducted a research in Kenya's fleet leasing practices and found that the market is dominated by National Government, County Government, large corporations and international bodies such as United Nations on the demand-side. Locally, the market is characterized by a variety of leasing companies ranging from independent leasing companies to banks. According to the national police strategic plan 2013-2018 the logistics activities of fleet

management in Kenya is not in any way different from the global perspective as it manifests numerous inefficiencies of significant impact in logistics performance. Key strides, in the public service could be associated with the government of Kenya 2016 review and analysis of the implementation of the vehicle leasing program that lasted from July 2013 to December 2015. With the government changes on policies and strategies on purchase of assets, equipment and vehicles favoring the leased vehicles, the Kenyan government has already many huge strides. For instance, the Budget Policy Statement (2015/16) provided for an estimated Ksh. 7.7 billion for lease financing of Police/Prisons motor vehicles increasing the total number of Police vehicles under the leasing program to the current 3,200 (Otieno, 2012).

According to the National Police service Act 2011 Kenya Police service is a national body in charge of law enforcement in Kenya. With the Police modernization and introductions of reforms programs, the National Police Service through the ministry of interior and coordination of national government has heavily invested in providing necessary resources and equipment to enable Police officers discharge duties effectively, efficiently and to the expectations of Kenyans. The issue of police mobility has also been comprehensively addressed through the government motor vehicle leasing program. According to Kihara (2013) the shift in government policy and strategies to adopt leasing solutions is likely to enhance flexibility on fleet composition, reducing maintenance risks, and reducing fleet administration burdens. Highlighted in the Kenya police annual report, (2012), was, inadequate number of motor vehicles in the police service has making policing harder and compromising effectiveness and preparedness.

Statement of the Problem

Police reforms in Kenya were highly advocated for after the 2007/2008 post-election violence. This led to the formation of a commission of inquiry chaired by Justice Philip Waki. Among the commission's findings was that the police totally lacked the capacity to contain violence and crime. The report recommended meaningful and urgent police reforms to avert re-occurrence of high violation of human rights (Waki, 2008). Besides, the Government formed a task force on police reforms which was chaired by Justice retired Philip Ransley. The task force conducted research on the police affairs and came up with many recommendations to reform police service. Paramount was acquisition of enough operational resources (Ransley, 2010). The reforms were further supported by the National Police Service Act of 2011 and Kenyan Constitution of 2010 that provided avenues for positive equipping of the police. Despite the enactment of several laws and legislations in support of police reforms the police service still faces inefficiency in its logistics performance as commands suffer from inadequate repairs and maintenance (Amnesty International 2013). The study sought to establish why policing still suffered yet fleet leasing practices had highly been adopted by the service.

Research Objective

General objective

Influence of fleet leasing practices on logistics efficiency of Kenya police service.

Research Hypothesis

H₀: Vehicles repair and maintenance practices has no effect on logistics efficiency of Kenya police service in Kakamega County

Scope of the study

The study was conducted in Kakamega County which is located in the Western region and has 13 sub-counties which are headed by sub-county police commanders and are decentralized units for the delivery of security services next to the citizens. The Sub Counties include; Kakamega Central, Kakamega East, Kakamega South, Mumias East, Mumias West Navakholo, Butere, Matungu, Kakamega North, Matete, Lugari and Likuyani. The study was conducted between February and April 2020 and looked into the effects of fleet leasing practices on logistics efficiency in Kenya police in Kakamega County. The findings of the study will be generalized for the whole county since fleet leasing practices are the same in all the counties in Kenya.

Justification of the Study Area

Kakamega County proved ideal for the study as it is one of the model counties with working devolved units. The county was also ideal as it had registered prolonged insecurity events as the 42 brothers' gangs in Butere- Mumias and Matungu sub counties gang molestations where police operations were slow to respond to gangsters for close to two months.

Theoretical Literature Review

The Theory of Replacement

The theory of Replacement was developed by French author Renaud Camus, initially in 2010. It uses the principle that all systems deteriorate with age or usage and can also be out of use due to effects of technological change, corrective measure and action must be taken to maintain and ensure that lifespan and usage is increased. Gitahi and Ogollah (2014) corroborate the theory through assertion that repair and replacement policies are often enacted and implemented to reduce system deterioration, machine breakdown, obsolescence and failure risk. Increasingly complex systems and constant change in technology have generated interest in the research of replacement theory and its recommendations implemented in organizations. Originally most of the models were developed for mainly industrial and military systems; however, more recent applications of these models have extended to other areas such as health, ecology, and the environment and information technology system. In general, there are two fundamental replacement strategies replacement of failure and preventive replacement. The replacement of vehicles and worn out parts is one of the most important responsibilities of the fleet manager. If the fleet manager replaces his vehicles in a short span of time, it will cost his company high financial implication. Conversely, if he waits too long, it will again cost his company higher financial commitments.

Transaction Cost Economic Theory

Transaction cost economic theory Williamson (1979,) states that the optimum organizational strategies determine the extent to which organizations achieves economic efficiency by minimizing the operational costs of exchange. The theory proposes that each type of transaction in an organization will require costs of monitoring, planning controlling, and managing all

transactions. This theory is also the most quoted approach by academic literature to explain the decision of outsourcing (Willcocks & Lacity, 1995). This theory looks at the cost of leasing and outsourcing in totality. Other than the cost incurred to get the desired services, there are also the costs that the organization incurs during the process of procuring these services. These costs are including the cost of all transactions incurred in the process of acquiring lease vehicles and outsourcing other non-core services. According to Kay (2005), the theory is important in facilitating the control and evaluation of the comparative costs of planning, adapting, and monitoring task completion under alternative governance structures.

Effects of Fleet repair and maintenance practices on logistics efficiency

Vehicle Maintenance, repair and operations involves maintaining, repairing, servicing and replacing if necessary devices and defective or broken parts and components of a machine, equipment, machinery, and supporting all operations and activities of fleet management in industrial, business, governmental, and residential installations.(Defense Logistics Agency,2016)

Road Safety requires both driver fitness and the vehicle fitness at all time and a well-maintained vehicle helps reduce road breakdowns and accidents. Kay (2005) asserts that journey cancellation due to vehicle mechanical breakdown will be reduced by using vehicles constantly serviced and defects checked. The author provides that organizations must ensure that vehicle are well maintained to assure users of road safety, creating awareness and preventative driving of properly maintained vehicles. In this case, the results of using effectively and properly maintained vehicles saves fuel and money, since mechanical systems of a well maintained vehicle are always fuel efficient and reduce long-term maintenance costs. In practice, Servicing of vehicles should be done by trained, qualified and experienced automotive professionals with expertise, skill, knowledge, experience and tools to diagnose and correct vehicle defects, promoting road safety and ensuring vehicles are fuel-efficient. Preventive maintenance and regular routine daily inspection checks by the driver, could also be practiced to avoid vehicle break- down and increase vehicles life span (Richardson, 2011).

Empirical Review

In a study conducted by Kenyon and Meixell (2010) it was found that the effects of outsourcing transportation operations was the most promising aspect in the success of any organization. Corroborating the former, Odadi (2012), using concurrent triangulation studied the effects of company specific factors on leasing decisions, procurement policies, strategies, influence of corporate governance on leasing decisions and determined the effect of lease specific environment factors on leasing decisions. Using a list of firms quoted on the stock exchange market, the results established that cost of capital, financial constraints, size, management compensation packages, total debt ratio were important factors in affecting lease decisions. The results of the study established that just like in many developed countries effective tax rate and size of the organization were the key aspects affecting making leasing decision options.

Gitahi and Ogollah (2014) carried out a study on how practices used to manage fleet influence service delivery to refugees under the UNHCR in Kenya. They established that transportation is central to logistics. The study used descriptive method and the researcher concluded that the rate

of fuel consumption of vehicles as monitored, fuel sourcing, fuel allocation on a day to day basis, and the rate at which fuel usage are cost effective in operations of refugees in the UNHCR program (Mulama, 2012). More so it showed that outsourcing of logistics services including transport led to a reduction in delivery time to clients and general reduction in lead time.

Anyango (2014) study in Kenya, revealed that outsourcing had effect on the performance on operations of state corporations. This was seen by analyzing the level of customer satisfaction, quality of products, efficiency in operations and staff turnover. Further research carried out in Delmonte company in Kenya by Maku and Iravo (2013) showed that outsourcing has positively impacted on Delmonte performance through cost reduction, increased to technology uses and expertise, core competence business concentration and improved organizational flexibility. The study cautions that these benefits came with some challenges such as loss of control of the outsourced services, dependence on suppliers, loss of confidentiality of important information which may land in the hands of competitors, poor quality of certain products such as spare parts.

A research by Musau (2016) on the impact of strategic outsourcing on organization performance, corroborated Mulama (2012) study that cost driven outsourcing led to increased organizational performance and competitiveness by reducing costs and risks while increasing operational efficiency. Kiongera *et al.* (2014) carried out a research to investigate the effect of logistic outsourcing on the performance of sugar manufacturing firms in Kenya. In this study, the researchers concluded that logistic outsourcing had significant effect on the performance and operations of sugar manufacturing firms. According to Magut, Chirchir and Mulama (2013), the study carried out in Nairobi established that outsourcing practices led to the firms' performance improvement in many aspects such as resulted in increased productivity, Organizational effectiveness, increased profits, continuous improvement, improved quality and improved quality offering of services, (Magut *et al.*,2013).

Research Gaps

There major empirical evidence on logistics efficiencies is targeting manufacturing firms in Kenya. Lack of empirical evidence on logistics efficiency in Kenya police service or in any other military units the empirical review had evident that research in the area of logistics management had been done but not in a comprehensive approach in the country. Literature review available indicated that studies had focused more on developed world like European Union, United states and Asia and failed to account for developing counties in Africa and parts of South America (Kaufmann & Carter, 2006).

In Kenya, Wambui, (2010); Bosire, (2011), Kangaru, (2011); Magutu, at el., (2012); Njumbi and Katuse (2013); Kilasiet *al.*, (2013); had all done studies on third party logistics(3PL) that is logistics outsourcing however, little had been written about the effects of fleet leasing on logistics efficiency in Kenya police service. From the above therefore many studies highlight fleet and logistics efficiency but are not focused on government institutions hence there was a need to carry a research of establishing the influence of fleet leasing management practices on logistics efficiency of Kenya police.

RESEARCH METHODOLOGY**Research Design**

This research was conducted using a descriptive survey design. Descriptive survey was used because it portrays an accurate profile of persons, events and situations. This design refers to a set of methods and procedures that describe variables. Descriptive studies portray the variables by answering who, what and how questions (Kozlowski, 2013). According to Georgia (2013), descriptive design is a process of collecting data in order to test hypothesis or to answer the questions of the current status of the subject under study. Its advantage is that, it is used extensively to describe behavior, attitude, characteristic and values.

Population

The study population comprised of all 71 officers of Kenya police service involved in managing transportation and logistics in the sub counties in Kakamega County as per to February staff monthly return obtained from the county transport and logistics office. The study population was chosen to enable comparing logistics efficiencies in all the police sub counties in Kakamega County. Population is defined by Fisher (2014) as the whole pool which a measurable sample can be drawn. It comprised of the senior officers in transport and logistics, the population is preferred as they are directly involved with the day to day management of transport and logistics in the sub counties.

Table 3.1: Target Population

Sub counties	Number of respondents
Kakamega central	6
Kakamega East	5
Kakamega South	5
Khwisero	4
Butere	6
Mumias East	5
Kakamega North	5
Mumias West	6
Matungu	7
Navakholo	5
Matete	6
Lugari	6
Likuyani	5
Total	71

Sample Size and Sampling Procedure

Cramer and Hewitt (2004) define a sample size as the actual number of elements, cases or entities in a population that will be studied. Several approaches can be used to determine the sample size. A census approach targeted all the 71 officers for the study. The use of the census approach was justified to enable comprehensive determination of the phenomenon with equal representation of all the study elements. This is also supported by the assertion of Kothari,

(2008) who stated that a census approach was appropriate where the sample was small and manageable to minimize biasness and ensure completeness in the findings.

Data Collection Instruments

The data collection instrument is the tool used for collection of information. The study collected primary data by use of a structured Questionnaire. The questionnaire was used since it was easy to administer and with data obtained it could be easy to analyze (Hair, et al 2006).

Data Collection Procedures

Primary data was used to collect information for the study. The questionnaire was administered using a drop and pick later method, Primary data was collected through questionnaire developed from the study objectives and a review of literature 71 questionnaires was issued targeting all the police officers in charge of transport and logistics management in all the thirteen police sub counties. The questions were organized along the study objectives. The main objective was to establish the effects of fleet management on logistics efficiency of county commands of Kenya police service in Kakamega County.

Pilot test

Pilot testing of the study was done in sub counties in Vihiga County. According to Newman and Cullen (2005), a sample of 10% was representative for pre-tests. Hence 10% was used and 8 officers involved in managing transport and logistics in Kenya Police Service in sub counties in Vihiga County.

Data processing Analysis

The data and information collected during the study was checked to ascertain the level of completeness. Those questionnaires that were adequately completed or filled and fit for analysis were coded by use of SPSS version 24. The data analysis entails calculating the mean, standard deviation and compute the measurements of the multiple regressions for descriptive analysis and subsequently, linearity test, regression analysis was done to find out the effects of fleet leasing on logistics efficiency.

The regression model used was;

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

Where:

Y = Logistics efficiency

X_1 = Technological practices

X_2 = Fuel management practices

X_3 = Maintenance and repair

X_4 = Insurance

β_0 = Intercept

β_1 = Coefficient of Technological practices

β_2 = Coefficient of Fuel management practices

β_3 = Coefficient of Maintenance and repair

β_4 = Coefficient of Insurance

μ = is the error term which captures the unexplained variations in the model (Olusola et. al, 2013).

Response Rate

Seventy-one (71) questionnaires were distributed to respondents; sixty-five (65) questionnaires were received back. The response rate is shown in the Table 4.1.

Table 4.1: Response Rate

Gender	Frequency	Percentage
Returned	65	91.5
unreturned	6	8.5
Total	71	100

From the above response rate was 91.5 % response rate and six questionnaires were not received hence accounted for 8.5 % of the total questionnaires distributed. Mugenda and Mugenda (2003) asserted that a response rate more than 50% is adequate for analysis 60% is good, and above 70% is perfect. 91.5 % response rate is excellent Information from the questionnaires was used for analysis. Structured questionnaires were administered, respondents were given assurance of anonymity as they were not required to disclose traceable identities hence this method partly contributed to the high response rate achieved in this study.

Reliability of the Research Instrument

For reliability tests Cronbach’s alpha was applied for each variable which ranged from 0.717 to 0.858 for the study, Cronbach’s alpha statistic with a value of 0.7 or more was considered reliable. The tested items were retained and used in this study hence considered reliable as shown in the Table 4.2.

Table 4.2: Reliability Results

Variable	No of Items	Cronbach alpha
Repair and maintenance practices	5	0.825

With an average of 0.825 which is way above the threshold of 0.7, the tools were considered reliable (Mugenda & Mugenda (2003)).

Gender

Respondents were asked to indicate their gender. The results are presented in table 4.3

Table 4.3: Descriptive Information on Demographics

Gender	Count	Percentage
Female	26	40
Male	39	60
Total	65	100

The results in Table 4.3 indicate that, 60% of the total respondents were male while 40% of the total respondents were female. It is therefore observed that among the officers analyzed, it seems to be dominated by males other than females.

Level of education

Respondents were asked to indicate their level of education the results are shown in table 4.4.

Table 4.4: Level of education

Level of Education	Frequency	Percentage
Others	2	3.1
certificate	40	61.5
Diploma	13	20
Bachelors	7	10.8
Masters	3	4.6
Total	65	100

The results also revealed that 40(61.5%) of the respondents had a certificate, 13(20.0) % of the total respondents possessed diploma, 7(10.8) % of the total respondents were having bachelor's degree while 3(4.6%) had a master's degree. Minority 2(3.1%) of the respondents were found to have various non-mainstream qualifications. A majority of respondents were certificate holders and only a small percentage had degrees and masters. From the results it is evident that literacy levels are high which was recommendable in administering questionnaire on logistics efficiency. This therefore made it possible for the researcher to obtain relevant responses on the topic under study.

Number of years worked

Respondents were asked to indicate the number of years worked in the police service the results are shown in table 4.4.

Table 4.5: Number of years worked

Number of years worked	Frequency	Percentage
Less than 10 years	5	3.07
From 11 to 20 years	29	44.6
From 21 to 30 years	25	46.2
Above 30 years	6	9.2
Total	65	100

Regarding duration (years) of the respondents in the institution, 5(3.07%) of the respondents had worked with the forces for less than 10 years, 29(44.6%) of the total respondents had worked for between 11-20 years, 25(38.5%) respondents had worked for between 21-30 years while 6(9.2%) of the respondents had worked for over 30 years. Majority of the respondents had worked for 11-20 years with the police service. The long tenure carries with it experience and better information in various issues. This therefore assisted the researcher obtain responses from a people with a wealth of experience on fleet leasing management practices.

Repair and Maintenance Practices

The respondents rated the extent of agreement with each of the repair and maintenance practices statements ranging from strongly disagree (5) to strongly agree (1). The pertinent results are presented in Table 4.11

Table 4.11: Vehicles repair and maintenance practices

Vehicles repair and maintenance practices	5	4	3	2	1	Mean	Stdev
We have a successful vehicles repair and maintaining system	13.8 (9)	1.5 (1)	6.2 (4)	23.1 (15)	55.4 (36)	3.15	0.99
Drivers undertake daily routine checks of our vehicles	12.3 (8)	1.5 (1)	4.6 (3)	16.9 (11)	64.6 (42)	3.17	0.91
Well maintain vehicles are environmentally friendly.	3.1 (2)	12.3 (8)	12.3 (8)	7.7 (5)	64.6 (42)	3.48	1.11
New fleet has potentially lower operations and maintenance cost	7.7 (5)	10.8 (7)	13.8 (9)	46.2 (30)	21.5 (14)	3.37	1.17
Fleet leasing has helped enhance efficiency in repair and service management.	13.8 (9)	1.5 (1)	6.2 (4)	23.1 (15)	55.4 (36)	3.15	0.99
Overall						3.26	1.03

From Table 4.11, 15(23.1%) of the respondents agreed that they have a successful vehicles repair and maintaining system while 36(55.4%) strongly agreed. A mean of 2.15 and standard deviation of 0.99 implied that there is great deviation from the mean. Majority 51(78.5%) of the respondents agreed that they have a successful vehicles repair and maintaining system. Eleven (16.9%) of the respondent agreed that drivers undertake daily routine checks of vehicles and 42(64.6%) strongly agreed on the same. A mean of 2.17 and standard deviation of 0.91

suggested that there is great deviation from the mean. Majority 53(81.5%) of the respondents agreed that drivers undertook daily routine checks of vehicles. In establishing whether well maintain vehicles are environmentally friendly, 7.7% (5) agreed while 64.6% (42) strongly agreed that well maintain vehicles are environmentally friendly. A mean of 2.48 and standard deviation of 1.11 indicated that there is great deviation from the mean. Therefore, majority of the respondents 72.3 % (47) agreed that well maintain vehicles are environmentally friendly.

On whether new fleet has potentially lower operations and maintenance cost 46.2 % (30) of the respondents agreed while 21.5 % (14) strongly agreed that new fleet has potentially lower operations and maintenance cost with a mean of 2.37 and standard deviation of 1.17. This implies that there is great deviation from the mean. Majority of the respondents thus 67.7% (44) agreed that new fleet has potentially lower operations and maintenance cost. From the findings on whether fleet leasing has helped enhance efficiency in repair and service management 23.1 % (15) respondents agreed that Fleet leasing has helped enhance efficiency in repair and service management while 55.4%(36) strongly agreed. A mean of 3.15 and standard deviation of 0.99 implied that there is great deviation from the mean. Majority 78.5% (51) of the respondents agreed that fleet leasing has helped enhance efficiency in repair and service management.

Logistics Efficiency

Respondents were given statements on logistics efficiency and were required to state their level of agreement. The pertinent results are presented in Table 4.15.

Table 4.15: Pertinent Results on Logistics Efficiency

Logistics efficiency	5	4	3	2	1	Mean	Stdev
By use of technology in tracking vehicles misuse has been reduced	6.2 (4)	4.6 (3)	10.8 (7)	36.9 (24)	41.5 (27)	4.03	1.13
Police can respond to need within a short period of time	4.6 (3)	4.6 (3)	12.3 (8)	38.5 (25)	40 (26)	4.05	1.07
Fuel control system has help reduce on amount of fuel consumed	4.6 (3)	9.2 (6)	9.2 (6)	44.6 (29)	32.3 (21)	3.91	1.10
Police vehicles are well maintained and are in good condition	1.5 (1)	3.1 (2)	13.8 (9)	53.8 (35)	27.7 (18)	4.03	0.83
Fleet leasing has improved logistics efficiency in our office	6.2 (4)	4.6 (3)	10.8 (7)	36.9 (24)	41.5 (27)	4.03	1.13
Overall						4.01	1.05

From Table 4.15, 24(36.9%) of the sampled respondents agreed that by use of technology in tracking vehicles misuse has been reduced while 27(41.5%) strongly agreed with a mean of 4.03 and standard deviation of 1.13 implying that there is great deviation from the mean. Majority of the respondents agreed 51(78.4%) that by use of technology in tracking vehicles misuse has been reduced. Further, 25(38.5%) of the respondents agreed that police can respond to need within a short period of time while 26(40.0%) strongly agreed on the same with a mean of 4.05 and

standard deviation of 1.07. Majority of the respondents 78.5% agreed that police can respond to need within a short period of time.

Fuel control system has helped reduce on amount of fuel consumed as revealed by 29(44.6%) of the respondents who agreed and 21(32.3%) who strongly agreed with a mean of 3.91 and standard deviation of 1.10. Majority of the respondents 50 (76.9%) agreed that Fuel control system has helped reduce on amount of fuel consumed. Thirty five (53.8%) of the respondents agreed that their vehicles are well maintained and are in good condition and 18(27.7%) of the respondents strongly agree with a mean of 4.03 and standard deviation of 0.83. Majority of the respondents 81.5% agreed that their vehicles are well maintained and are in good condition. Twenty four (36.9%) of the sampled respondents agreed that Fleet leasing has improved logistics efficiency in our office while 27(41.5%) strongly agreed with a mean of 4.03 and standard deviation of 1.13 implying that there is great deviation from the mean. Majority of the respondents agreed 51(78.4%) that fleet leasing has improved logistics efficiency in our office.

Correlation between Vehicles repair and maintenance practices and logistics efficiency

The Pearson correlation analysis was used to investigate the relationship between Vehicles repair and maintenance practices and logistics efficiency. In investigating the influence of Vehicles repair and maintenance practices on the logistics efficiency, the study established a coefficient of correlation (r) as 0.414**, P<0.01. This shows that there exists a significant negative relationship between vehicles repair and maintenance practices and logistics efficiency. This implies that the logistics efficiency increase with increase in vehicles repair and maintenance practices.

Regression Results of Vehicles repair and maintenance practices and Logistics efficiency

A simple linear regression was carried to examine how vehicles repair and maintenance practices affect logistics efficiency. The detailed results of simple linear regression analysis involving vehicles repair and maintenance practices and logistics efficiency is as shown in Table 4.12.

Table 4.12: Simple Regression Analysis Results

Model Summary				
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.414 ^a	.171	.158	.56937

- a. Predictors: (Constant), Vehicles repair and maintenance practices
- b. Dependent Variable: Logistics efficiency

The proportion of variance in-logistics efficiency explained by the independent variable (vehicles repair and maintenance practices) is 17.1% or R²=0.171. From the findings, the F ratio is greater than 1, as indicated by a value of 13.040, which means that improvement due to fitting the model is much greater than the model inaccuracies (F(1,64)= 13.040, P=0.001). This implies that Vehicles repair and maintenance practices are useful predictor of logistics efficiency.

Table 4.17: p values

Variable	P	Sig	Decision
vehicles repair and maintenance practices	0.030	0.05	Reject H ₀

vehicles repair and maintenance practices had also a unique significant contribution to the model with B=-0.144, p=implying that when other variables in the model are controlled, a unit change in vehicles repair and maintenance practices would result to significant change in logistics efficiency by 0.144 in the opposite direction. Therefore, the hypothesis was rejected since $\beta_3 \neq 0$ and P value <0.05.

Conclusions

From the findings, the study concludes that vehicles repair and maintenance practices affect logistics efficiency in Kenya police service in Kakamega County. The study also concludes that aspects of repair and maintenance including routine servicing, oil change, maintaining correct tyre pressures, arranging for repairs on automobiles within the fleet and spare part management affect logistics efficiency in Kenya police service in Kakamega County. The study concludes that fuel consumption rate tracking, fuel sourcing, fuel monitoring, allocating fuel day-to-day and monitoring usage rates aspects of fuel management affect logistics efficiency in Kenya police service.

The findings of this study establish that fleet leasing practices affect logistics efficiency of Kenya police service. Therefore, from the study, it can be concluded that fleet leasing technology practices, fuel control practices, vehicles repair and maintenance practices and insurance service management practices have an effect on logistics efficiency and hence officers in charge of transport and logistics in Kenya police should always ensure that proper allocation of resources to increase leased vehicles and hence increasing logistics efficiency.

The study finally concludes that fleet leasing technology practices had the highest influence on logistics efficiency, followed by fuel control practices, and then insurance service management practices while vehicles repair and maintenance practices had the least effect to the service delivery

Managerial Implications

Based on the study findings the following recommendations are made. The study recommended that Kenya police service to invest on current technology in their transport and logistics since the research has found that it has a high influence on logistics efficiency. The study recommends that there is need for other firms and institutions adapt to this modern method of acquiring fleets by leasing them and hence increasing their logistics efficiency and having more time to concentrate on the main core business and activities. The study further recommends that Policies and legislation to be enacted to enhance implementation and management of fleet leasing contracts agreements. Based on the research findings, management of transport and logistics in Kenya police service should enhance logistics efficiency through the following ways: enactment of effective safety measures to ensure all police vehicle are well maintained, serviced and insured.

Areas for Further Research

This study sought to establish influence of fleet leasing practices on logistics efficiency of Kenya police service in Kakamega County. The study was limited to Kakamega County hence limited in its generalizability of the findings; there is need for further studies of the same to consider other counties in Kenya for the sake of corroborating the findings. This research study included only four variables, there could be some other relevant factors that may be perceived as important, but those were excluded from this study. Future researches, may consider more factors such as adaptation to change and government policies. Moreover, including moderator factors and looking forward to direct or indirect relationship towards policing performance can also be made in new research models.

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