

**LOGISTICS REFORMS AND OPERATIONAL PERFORMANCE OF THE
NATIONAL POLICE SERVICE IN VIHIGA COUNTY, KENYA**

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MANAGEMENT) OF KAIMOSI FRIENDS UNIVERSITY**

2022

DECLARATION

I declare that this thesis is my original work and has not been submitted to any other college, institution, or university for academic credit.

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DEDICATION

I earnestly dedicate this thesis to my wife Charity Pato, my sons Mwakio, Mae, Mwanyama, my daughter Dama, and my parents, who have incessantly inspired me.

ABSTRACT

Logistic reforms are key in dealing with threats to barriers that hinder operational performance. However, in the recent past the reforms seem not to be quite efficient given the rise in the crime rate in Vihiga County. This study sought to establish the influence of logistic reforms on the operational performance of the national police service in Vihiga County, Kenya. The specific objectives for the study were to determine the influence of police escort rationalization on operational performance in the National police service in Vihiga County, Kenya., to establish the influence of integrated communication command and control on operational performance in the National police service in Vihiga County, Kenya, to ascertain the influence of police vehicle hiring on the operational performance of the National police service in Vihiga County, Kenya, and to determine the influence of multi-agency team operations, approach on the operational performance of National Police Service in Vihiga County, Kenya. This study was guided by the theory of replacement, Paradox theory, and systems theory. The study used positivism research philosophy in choosing the methods, research instruments and techniques. A descriptive survey research design was employed where primary data was collected. A target population of 740 police officers was used, and from this number, a sample size of 260 respondents was computed through Yamane's formula. Questionnaires were used to collect primary data. Both descriptive and inferential statistics was used. The results of the regression analysis showed that police escort rationalization, integrated communication command and control, police vehicle and multi-agency team operations had a positive significant influence on operational performance (cost reduction) with coefficients of 0.210, 0.149, 0.190, 0.124 and p values of 0.000, 0.010, 0.05 and 0.01 respectively which are less than 0.05. The study concluded that improvement of police escort rationalization, integrated communication command and control, police vehicle rationalization and multi-agency team operations improve the operational performance by increasing operation efficiency of police service in Vihiga County. The findings have a direct benefit on managers of police services and policy makers to enable them put strategies in place to improve the logistic reforms on operational performance. The study recommended that management of Vihiga police service should implement the police logistic reforms to enhance and improve the operational performance of the National Police Service in Vihiga County.

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ACRONYMS

AP	Administration Police Service
ATPU	Anti-Terrorist Police Unit
DCI	Directorate of Criminal Investigations
CIPEV	Commission of Inquiry into Post Election Violence
DIG	Deputy Inspector General of Police
GPS	Global positioning system
GPRS	General Packet Radio Services
GSM	Global system for mobile communication
IC3	Integrated Communication Command and control
I.G.P.	Inspector-General of Police
KPS	Kenya Police Service
NPS	National Police Service
NPSC	National Police Service Commission
OCS	Officer Commanding Police Station
OCPD	Officer Commanding Police Division
PRIC	Police Reforms Implementation Committee
RPP	Rights Promotion and Protection
SSR	Security Sector Reforms

OPERATIONAL DEFINITION OF TERMS

Police vehicle hiring	It is a contractual agreement of acquiring police vehicles between companies and the vehicle dealers where by the company agrees to pay to use of vehicles for a set time (Frost & Sullivan, 2014)
Integrated communication, command, and control	It involves adopting new hardware, software, and new technology to improve the operations of police in providing quality services to the public and improve operation efficiency (Kithure, 2014).
Logistics	Is the complete procedure used by the police force for gathering resources, keeping them, and moving them to their destination (KNCHR, 2015)
Multi-agency operations approach	team As this is a continuous process, and these characteristics will differ with arrangements, it involves all prospective actors to determine their level of commitment, expectations, and intended outcomes as a result of creating such an agreement (Goris & Walters, 2019).

- Operational Performance** Operational performance is the state where there are few obstacles in dealing with the activities of the Kenya police Services. It is the act of easy flow of every activity and can be achieved through customer satisfaction (Ritson, 2011)
- Police Escort Rationalization** This is the act of escorting and guarding very important people, money in transits, and other valuable items. It helps in making sure there is the safety of both persons and goods in transit and minimizes the chances of hijacking and other criminal acts targeted by terrorists in and outside the country (Wonyoike, 2013)
- Reforms** In our context of Kenyan police reforms, the terms transformation and refer to change have been used interchangeably to denote the same phenomenon (KNCHR, 2015).

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Security is one of the pillars required for long-term funding and sustenance of current ventures. Government and citizenry need combined effort to deal with threats to barriers that hinder operational performance. The government invested in enhancing operational performance by reforming the police through logistic reforms, improving their welfare, and embracing a multi-sectoral approach to preventing a lack of confidence (Kenya Police Annual Report, 2018).

For the past one hundred and fifty years, international trade and other stakeholders in the logistic industries worldwide have evolved in response to the accelerating delay in cargo, barriers to quick access to hospitals on the roads, and slow traffic movement (Choudhury, 2016). The cutting-edge worldwide environment where the police and law enforcement organizations play a crucial defence against inefficiency in logistic operations. Democratic societies like the United Kingdom, the United States, and India are dedicated to providing satisfactory reaction offerings in the operational performance in the logistic section. The countries endeavour to make reforms enforcement more attuned to the modern-day social and monetary framework of their international locations through innovative tactics (Duque, 2016).

Globally, states are obliged to align police training and system to the needs of their citizens. A study on the new decision for operation within the United States affirms the importance of police offerings in safeguarding the logistic sector

through efficiency in operations. Operational performance leads to customer satisfaction, structuring the organizational culture, and ensuring global standards (Pilants, 2003)

A study on operations rationalization affirms that institutionalization of logistic reforms occurs while the reform turns into a manner of often engaging in police enterprise as they incorporate particular norms, values, and structures into their operational structure. Walker identified the need for a worldwide platform to talk about methods of reforming in tandem with the country's needs (Walker, 2010).

Though this is the case, logistical alignment of police operations could be operations-specific, relying on nature, vicinity, sophistication, frequency, and complexity. Globally the competition in the market has grown in sophistry due to technological development, increased production, and overall use of logistics across the world. This increases the need to develop and implement better logistical reforms worldwide. Barley's article on Australia and New Zealand addresses the worldwide organization supporting the reform of police institutions to help democracy. However, the scholar no longer analyses the implications of logistic reforms (Bayley, 2005).

In most global scenes, police management and leadership require technically being able to implement reforms without fear and with urgency. The Independent Commission on Policing (I.C.P.) of Northern Ireland proposed several modifications to logistic reforms, structures, and preparations. An assessment of how those reforms have been operationalized furnished necessary training adopted in international quality practices (Mulcahy, 2006).

In America, it is observed that in the early 2000s to 2010s, America started to use a proof-primarily based policing approach sponsored by statistics to help in choice-making and crafting more powerful post-battle rebuilding projects of police forces. For efficiency, the Indian police targeted the operationalization of the reforms to enhance performance, be provider-oriented, unfastened from extraneous impacts, and be responsible for the rule of the regulation (Miletich, 2015)

By ensuring that policies are in line with international logistical standards, key changes are undertaken, called logistic reforms that provide the population's confidence in the capacity of the state to govern. Logistic reforms emphasize the need to have developed and upgraded functions in the police service to upgrade the governing principles of domestic logistic institutions and adopt a new look (Molana, 2009).

Logistic reforms involve upgrading of the service, getting advanced tools and technology, logistic services restructuring, chain of command within the organization, and decision-making decentralization. It also entails a review of the training curriculum to incorporate basic training ideas like community policing and human rights. The creation of a logistic service geared toward serving the needs of institutions and citizens is the result of the establishment and application of policies. Its guiding principles are accountability, integrity, and respect for human rights, non-discrimination, objectivity, justice, and professionalism (Bayley, 2005).

After a terrible period marked by politicians abusing the police, logistic changes began in democratic nations like the U.S.A. There was no pattern or control in

the use of force by American police officers while doing their duties. As a result, corruption and abuse by the police were widespread. Regarding logistics, there was minimal respect among the public for the police, which resulted in police brutality. After a terrible period marked by politicians abusing the police, logistic changes began in democratic nations like the U.S.A (Walker, 2010)

According to Ungar (2012), In America, logistics reforms focused on streamlining the industry's structure, regulating the usage of roadblocks and other obstacles, and establishing an internal control system. A speedy response to emergencies, fleet leasing to cut expenses, and police service cooperation were all part of the measures. This contributed to better service delivery. Five areas of police reform in Latin America increased the region's capacity to combat unwelcome logistical inefficiency.

Long-centralized agencies were divided into regions in accordance with their preventive and investigative units over time as part of the structural restructuring intended to streamline militaristic hierarchies. Control mechanisms, including general ombudspersons and internal affairs agencies, were improved to provide more monitoring of police activity (Walker 2010).

The logistic reforms in Asia meant moving away from colonial regimes to a more democratic framework where the police served the community rather than the ruling class or another powerful party. The police organization was restructured, laws and regulations were reviewed, and the culture of the institution was altered. According to Shahjahan, the initiatives enhanced how well police officers provided their services (Shahjahan, 2006).

Africa has seen numerous instances of logistical inefficiencies over the last 50 years of its countries' independence and statehood, including cargo theft, delays in the delivery of commodities due to inefficient roadblocks, and general delays in vehicle monitoring. The incidents involved police enforcing law and order on the streets and when an event was really taking place. A collision may result in a lengthy traffic snarl. Due to this, people, groups, and governments all over the African continent have been compelled to implement reforms that can boost operational effectiveness in the logistics sector. Effective police escort to reduce the likelihood of hijacking and theft of expensive goods, bolstering the response to emergencies, and developing an emergency plan were some of the measures suggested (Fredrick, 2006)

The institutional organization of the police in the Democratic Republic of the Congo runs like a military force. The majority of the senior police officers in Congo were formerly in charge of armies. This type of leadership promoted an operational culture that increased the likelihood of lower-ranking officers acting violently and abusively, which enhanced the inefficiencies of how the police were run. This led a lot of people to propose logistics reforms that could help the sector. Some of the reforms aimed to improve how the police functioned (Molana, 2009).

It is a grave disillusionment that most African governments have taken no steps to visibly improve the overall performance of the police in enhancing operational performance. Operational inefficiency of the police service leads to brutality, corruption, increase in transportation costs of goods and services, which generally increases the overall pricing of commodities in the content and high inflation (Rauch & van de Spuy, 2006).

There is a need for the overall African continent to embrace operational performance that can help in improving service delivery and coming up with new ways of dealing with traffic jams on the road. Logistic reforms ensure little or no disturbance in the road, which can be enforced by embracing new reforms in the countries. Effective response by police officers to emergencies ensures the flow of vehicles to their destination. The integration between police officers in various countries in ensuring operational performance assists in creating interaction and harmony among countries (Kithure, 2014).

The interests of political figures and others in positions of power were protected by the Kenyan police force. As a result, the police force became ingrained with a culture of brutality, impunity, and corruption, which undermined public confidence in and respect for the law. The Kenyan government first acknowledged the need for police reforms in the early 1990s, when Kenya revised its constitution to accommodate a multi-party system (Kagari 2006).

In accordance with the UN norms for the exercise of police powers, the Kenya Review Commission's constitution from 2001 recognized the public perceptions that police behavior was violent and corrupt. As a result, the government decided to take the lead in 2003 by creating a task group to evaluate and reform the police. In 2004, the task force won pay raises and launched a program for community policing (Murunga, 2014).

The security priorities that required reforms in order to create operational performance between 2015 and 2018 included the introduction of codes of conduct, the development of independent complaints and oversight mechanisms, improving police responses to control traffic jams in cities, improving police

local service delivery through the shift from reactive to proactive policing, and improving car tracking reporting procedures. These reforms were mostly of an operational and administrative nature because they did not address the structural policy and legislative reforms that were essential for modernizing the police. The president's office mandated the establishment of a national steering council on community policing in 2015 in an effort to increase police productivity (Githaka, 2020).

To increase the effectiveness of the police department, the following security priorities were established: Increase the number of police officers per 1,000 people, Boost police efficacy through using current technology, providing them with better training, and stressing the importance of abiding by the law, provide the cops with the latest tools and technologies, Improve the housing and working circumstances for police officers, To address issues with modern crime, such as tax evasion, cybercrime, money laundering, and terrorism, review and pass the proper laws. Create and implement a framework for cooperative security management and cross-border and territorial seas policing (Irungu & Kimani, 2019)

Police Reform Implementation Committee (PRIC) was set up by the president to fast track and coordinate the implementation of the 200 recommendations of the Ransley Task Force in line with the new constitution. Significant reform affected the Police Service's management by introducing a single police command structure. The police effectively transformed from a force into service to reverse decades of a police culture characterized by impunity, secrecy, and brutality into more transparent, humane, responsive, and proactive rather than reactive (Ndungu, 2011).

The police service's capacity difficulties were also addressed by the changes. Poor service delivery by the police was a result of workforce gaps, logistical inefficiency, and training issues that were created over many years by heinous corruption, nepotism, and a lack of funding. Terrible pay, poor living and working circumstances, and an unsupportive public (which finds it difficult to appreciate some of the outstanding work of the police) all contributed to low police morale, which hindered effective and efficient police performance (Mulama, 2012)

1.2 Statement of the Problem

The logistic reforms in the National Police Service are meant to provide an efficient and effective service that keeps pace with modern logistic policing techniques and standards recognized as international best practices. However, the logistical reforms introduced and implemented in the National Kenya police service in 2015-2018, have not met the need of the society since it still produces conflicting outcome as for as operational performance is concerned. According to the National Police Service Report (2020), Vihiga County still suffers inefficiency in its operations. The report states that although vehicle fuelling reduced by decreasing rate, in 2020 compared to 2019 in Vihiga County, the same costs increased by 35% during the 2021. In other operational areas, the response rate to reported cases and other logistic issues decreased by approximately 10% nationally, while in Vihiga County, there were increases of 40%. On average, according to the report by Kenya Nation Commission on Human Rights KNCHR (2020), the Vihiga county police service response rate to criminal cases was below average compared to the neighbouring counties like Kakamega, Kisumu, and Busia. The reason for the poor operational performance

in Vihiga County is not known since all the reforms required were put in place. Further, the effects of the recent attempts to change the various police logistical practices like police vehicle hiring, tooling and equipping of police, and adopting new uniforms are statistically captured in terms of operational performance and were expected to have generated positive results. Various studies have been done on the relationship between logistics reforms and efficiency, such as Kithure (2014), Gaoyan, Lihua, and Baofeng (2019), but few studies have significantly recorded the milestones of operational performance in the police service. This study focused on the influence of logistic reforms on the operational performance of the National Police Service in Vihiga County, Kenya.

1.3 Research Objectives

The study had one general objective and four specific objectives as discussed below

1.3.1 General Objective

The study's general objective was to establish the influence of logistic reforms on the operational performance of the National Police Service in Vihiga County, Kenya.

1.3.2 Specific Objectives

The specific objectives for the study were to:

- i. To determine the influence of police escort rationalization on operational performance of the National Police Service in Vihiga County, Kenya.
- ii. To establish the influence of integrated communication command and control on operational performance of the National Police Service in Vihiga County, Kenya.

- iii. To ascertain the influence of police vehicle hiring on the operational performance of the National Police Service in Vihiga County, Kenya
- iv. To determine the influence of multi-agency team operations, approach on the operational performance of National Police Service in Vihiga County, Kenya.

1.4 Research Hypotheses

A null hypothesis was adopted based on the variables of the study. The hypothesis sought to respond to the following areas;

H₀₁: Police escort rationalization has no significant influence on operational performance of the National Police Service in Vihiga County, Kenya.

H₀₂: Integrated communication command and control has no significant influence on the operational performance of the National Police Service in Vihiga County, Kenya.

H₀₃: Police vehicle hiring has no significant influence on the operational performance of the National Police Service in Vihiga County, Kenya.

H₀₄: Multi-agency team operations has no significant influence on the operational performance of the National Police Service in Vihiga County, Kenya.

1.5 Significant of the Study

The study is important because it would shed more light on the influence of logistic reforms on the performance of the National Police Service in Vihiga County, Kenya. The study findings would be beneficial to various stakeholders as follows: It is hoped that the study findings will provide helpful information to

top police management, policymakers, and the National Police Service Commission on the influence of logistic reforms on the operational performance of the National Police Service in, Vihiga County, Kenya and beyond.

The study will be significant to the administration of the National Police Service and other security agencies in general. The police managers will understand how logistic reforms can be used to enhance operational performance in general. It is hoped that the findings of the current study will shed more light on the ministry to establish how the influence of logistic reforms affects the operational performance of the National Police Service in Vihiga County. The ministry of interior and national coordination will find a platform on which it can evaluate the logistic reforms that will be suitable to maximize logistical performance.

This study will be significant because of its ability to affect service delivery in theory and practice within the police unit and beyond. It will be built on previous logistic reforms and operational performance theories. It is hoped that the findings of the current study will contribute additional knowledge, which would provide the ministry of internal security with better ways of boosting service delivery within the police unit.

1.6 Scope of the study

The study was limited to the influence of logistical reforms on the operational performance of the National Police Service in Vihiga County, Kenya. Vihiga County was targeted since it recorded operational inefficiency despite implementing the required reforms. The study mainly target administration police, regular police officers, and the directorate of criminal investigation officers within Vihiga County. For this study, operational performance was the

dependent variable, while police Logistical reforms was the independent variable. The reason for choosing Vihiga County was because it was a representation of the whole population of the study and had the same characteristics as other counties. The study was focused on a period between 2016 to 2022 to get the accurate manifestation of the problem a hand.

1.7 Limitation of the Study

The study used primary data which required the respondent time to respond and most of the officers in different police stations in Vihiga County were on duty which led to much time as compared to the defined time allocated. The researcher had to persevere to ensure adequate information was collected for analysis.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed both the theoretical and empirical (past studies) frameworks related to the influence of logistic reforms on the operational performance of the National Police Service in Vihiga County, Kenya.

2.2 Theoretical Framework

The study was guided by the Paradox theory which was the main theory, theory of replacement, and systems theory. The theories were discussed in the following subsections.

2.2.1 Paradox Theory of Logistics

The theory was proposed by Poole and Van De Ven in 1989 and stated that logistics had several paradoxes that need to be addressed. The theory defined the logistic paradox as the disagreements and new changes that exist in the logistic industry. They proposed four issues affecting the logistic industry, trade barriers, inefficient logistical reforms, fleet management costs, and the overall management conflict in the logistic industry (Poole & Van De Ven, 1989).

Logistics is complex, and to ensure operational performance, several managers must work hand in hand with shareholders for better performance of any organization. The theory states that several changes have occurred in logistic management, and managers should understand market changes. These adjustments can be attributed to market developments, such as rising customer

expectations, increasing competition, and globalization, as well as new business models like customization, demand chain management, agility, and lean principles. Manage the market dilemma and make sure the company is operationally efficient to achieve customer happiness (Fredrick, 2006).

The paradox theory's main takeaway is that paradoxes must be addressed both internally among functions and externally at the interface with other supply chain participants if an organization (or supply chain) is to be effective. The conflicts between centralization and decentralization, control and flexibility, and global and local need to be continuously balanced against one another. Focusing on these conflicts helps managers understand how they affect business performance and even how to use them as catalysts for organizational growth (Graetz & Smith, 2009).

Paradox theory had had to put several improvements to meet the international standards. The improvement suggested was increasing global outsourcing of services and equipment and improving logistical reforms to enhance better performance. Organizations had little resources to purchase the required equipment and employ people within the country; hence outsourcing was applicable for better service delivery(Sandberg, 2017).

Organizational success is achieved through proper operation of activities which can be achieved through segregation of logistical duties, teamwork in the company, coordination, and compliance with the set rule and regulations of the organization (Miguel & Putnam, 2017). Paradox theory sets the success of the organization by highlighting the critical thing an organization must do to achieve efficiency and satisfaction of customers.

This theory was criticized by Fereidoon and Zhong (2011), who stated that the theory focused on efficiency and did not look at the motivation of the employees and managers. Efficiency in any organization can not be achieved without employee motivation, training, and development. They proposed that managers should look at the internal forces affecting the organization rather than the external ones. Priorities in handling organizational forces increase the efficiency of the organization.

This theory was relevant in this study as it described the current issues affecting logistics and the ways to improve them. This theory was the main theory as it covered three basic variables: police vehicle hiring, multi-agency team approach, and police escort rationalization. The theory also gave the need for every organization to undertake activities and improve the organization performance.

2.2.2 The Theory of Replacement

Renaud Camus first formulated the theory of replacement in 2010. It is based on the idea that all systems experience wear and tear over time and with use, and they may become obsolete as a result of technological change. As a result, maintenance must be done to prolong lifespan and ensure increased usage (Camus, 2010)

To lessen system degradation, equipment failure, obsolescence, and failure risk, repair and replacement policies are frequently enacted and put into practice (Gitahi & Ogollah, 2014). The study of replacement theory and the use of its recommendations in organizations have attracted interest due to the complexity of systems and the ongoing changes in technology. The majority of models were initially created primarily for industrial and military systems, but more recent

applications have expanded to other fields like health, ecology, and the environment as well as information technology systems. Replacement of failure and preventive replacement are the two main replacement strategies.

One of the fleet manager's most significant duties is to replace cars and worn-out components. The fleet manager's organization will incur significant financial costs if he replaces his vehicles too quickly. In contrast, if he waits too long, his company may face increased financial obligations. This variable will be used in looking at the integrated communication command and control and police vehicle hiring.

This theory was relevant in the study since it tackled how integrated communication command and control was used in enhancing operational performance through cost reduction. The vehicle hiring also was one of the variables that was used to establish the effectiveness of the National Police Service to reduce costs in an attempt to enhance operational performance.

2.2.3 Systems Theory

The theory was proposed by Bertalanffy in 1968. According to the systems, the theory is considered the interdisciplinary study of systems to expound principles that can be applied to all types of systems at all nesting levels in all fields of research. The theory proposed that organizations create systems that should be reviewed in conducting the business of the organization to enhance the performance of the operations.

Skyttner (1996) looks at a system as a set of two or more elements where the behavior of each element affects the behavior of the whole; the behavior of the elements and their effects overall are interdependent. The theory emphasizes the

interaction of the organization with the environment and concentrates on identifying the particular elements in the environment of the group or organization that significantly affects the outcomes of its decision-making.

It is critical to note that systems theory views an organization as a system built by energetic input and output where the energy coming from the output reactivates the system. In terms of logistical reforms, the theory looks at the institutions as holistic systems that are characterized by a high degree of interaction between the factors intervening in the process of value creation. The factors should be analyzed and monitored to ensure no barriers to service delivery (Fredrick, 2006)

Kenya police service logistic reforms were meant to integrate all forces into one unit. According to system theory, every organization must integrate all departments into one effective and functional unity. The theory will be used to see how to determine how the police force was integrated and how the integral parts work effectively for service delivery. It also views an organization as a cognitive system with skills and competencies that enable it to produce its knowledge. This theory supports both logistical reforms and operational performance as it highlights systems.

2.2.4 Theoretical Synergy

Paradox theory, system theory, and theory of replacement are relevant to the current study as they address four main issues affecting the logistic industry, trade barriers, inefficient logistical reforms, fleet management cost, and the overall management conflict in the logistic industry. The theories further explain

the integration of the police force and the reduction of barriers to effective service delivery.

2.3 Conceptual Framework

Logistic Reforms

Operational

Performance

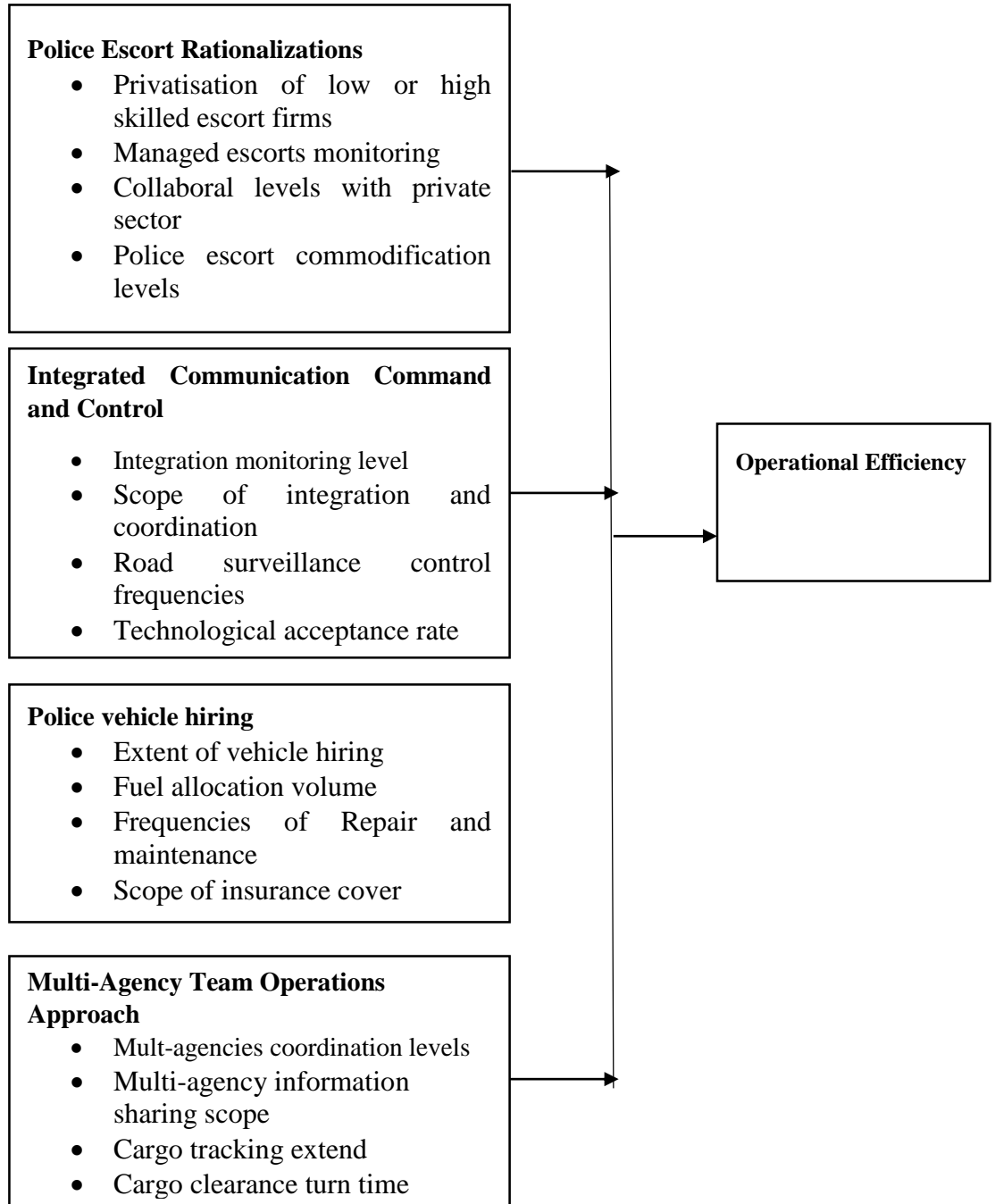


Figure 2. 1 Conceptual Framework

2.3.1 Logistic Reforms

According to International Trade Center (2017), the Logistic reforms refer to the changes that have taken place in the logistic industry to enhance efficiency, smooth the flow of services, integrate trade, and enhance the productivity of the economy. Logistic reforms in every country are used to enhance the movement of goods and services within and outside the country. Logistic reforms were implemented in Kenya in every sector, and the Kenya police service is one of the critical sectors in Kenya; a number of logistic reforms were implemented.

Some of the logistics reforms implemented in Kenya were police escort rationalization, integrated communication command and control, police vehicle hiring, and a multi-agency operations approach. The main aim was to ensure operational performance in the National Police Service by ensuring cargo safety and minimizing the number of car hijacking cases.

2.3.2 Police Escort Rationalization

Police escort rationalization is the act of escorting and guarding very important people, money in transits, and other valuable items (Wonyoike, 2013). It helps in making sure there is the safety of both persons and goods in transit and minimizes the chances of hijacking and other criminal acts targeted by terrorists in and outside the country. The government imposed numerous ways to ensure streamlining of the National Police Service by implementing the police escort rationalization as a logistic reform. The reform consists of several components like privatization of low or high skilled escort firms, Managed escorts monitoring, structured levels, Collabra levels with the private sector, and Police escort commodification levels.

2.3.3 Integrated Communication command and Control (IC3)

Integrated communication command and control is a program meant to improve the National Police Service's efficiency. It involves adopting new hardware, software, and new technology to improve police operations in providing quality services to the public and improve operation efficiency (Kithure, 2014). The National Police Service of Kenya implemented the reform with a view to ensuring Integration monitoring level, scope of integration and coordination, and road surveillance control frequencies.

2.3.4 Police vehicle hiring

According to Zhang and Zhang (2019), police vehicle hiring refers to the practice or process by which the police service uses to pay an individual for the use of their vehicles and aircraft during the delivery of services. This practice helps the Kenya police to acquire vehicles and aircraft that may be expensive to acquire and maintain. The paid amount is called lease fees, and it is meant for a specified period documented in a lease contract.

2.3.5 Multi-Agency Team Operations

As this is a fluid process, and these factors will vary between arrangements, it involves all potential actors to determine their level of commitment, expectations, and intended outcomes as a result of creating such an arrangement (Goris & Walters, 2019).

2.3.6 Operational Performance

Operational performance refers to the state where there are few obstacles in dealing with the activities of the police services. It is also the act of easy flow of every activity and can be achieved through customer satisfaction (Ritson, 2011).

The operational performance in the National Police Service can also be realized through cargo safety costs and a reduction in the number of hijacking cases.

2.4 Empirical Literature

2.4.1 Police Escorts Rationalization and Operation Performance

A study carried out by Waiyaki (2013) aimed to evaluate the effectiveness of a modern fleet management system in improving the logistics of transporting staff, goods, and materials in Kenya Power & Lighting Company, a utility firm in power distribution. The sampling procedure of one-stage, cluster sampling, and the use of the simple random sampling technique were used in this study to select a sample size that was sufficiently representative of the whole population. Both the descriptive study approach and the survey research strategy were adopted to enable data collection in a manner that allowed in-depth examination while gathering information that explained the relationships between constructs, in particular, cause and effect relationships. The study findings indicated that police escort rationalization had a significant positive effect on logistical efficiency.

Gitahi and Ogollar (2014) carried out a study on logistics reforms and operational performance in United Nations High Commission for Refugees in Kenya. The study used a descriptive research design on a target population of 250 respondents. The findings indicated that police escort rationalization had a significant positive effect on operational performance.

Musau (2016) carried out research on the impact of logistics reforms on organizational performance: In a case study of Bidco Africa Limited using a sample size of 90 respondents, the findings indicated that police escort rationalization had a significant positive effect on operational performance. The

findings were in line with (Gitahi and Ogollar 2014) and (Waiyaki,2013), who recorded that logistics reforms had a significant effect on operational performance.

In a study by Gaoyan, Lihua, and Baofeng, (2019) on the impact of logistics platforms and operational performance, using a structured questionnaire, qualitative data was collected from 273 companies in China. The findings recorded that logistics reforms had an insignificant negative impact on operational performance, thus contradicting Musau (2016) and Waiyaki (2013).

2.4.2 Integrated Communication, Command and Control, and Operational Performance

A study conducted by Duque (2015) did a study to establish the influence of fleet leasing management practices, specifically vehicle repair, and maintenance, on the logistics efficiency of the Philippine police service. The study used a descriptive survey research design on a population drawn from all police officers involved in fleet management. Data collection was done by use of structured questionnaires. The study found that integrated communication, command, and control had a significant positive effect on operational performance.

Spinelli, Sharma, and Dines (2016) carried out a study on Coordination and Communication in Police Command and Control Rooms in police information technology organizations in the United Kingdom. Using a descriptive research design and a sample population of 230, the findings recorded that Integrated Communication, Command, and Control had a significant positive effect on operational performance. The study recorded similar findings to (Duque 2015).

Odadi (2014) did a study on the effect of Integrated Communication, Command and Control, and Operational performance on corporate governance in the National Police Service in Kenya. The study used a correlational research design and a target population of 330; the study findings indicated that Integrated Communication, Command, and Control had an insignificant negative effect on operational performance. The study contradicted (Spinelli, Sharma, & Dine, 2016), who got significant positive results.

2.4.3 Police vehicle hiring and Operational Performance

Kithure (2014) studied police reforms in the police service, a case study of Nyeri county. The study adopted a cross-sectional research design on a target population of 115 police stations. The findings indicated that police vehicle hiring had a significant positive effect on operational performance in the police service.

Wonyoike (2013) studied on Implementation of police reforms and how it affects service delivery in the Nyeri police division. Using a survey design and sample population of 288 respondents, the findings of the study indicated that police vehicle hiring had a significant positive effect on service delivery. The results were in line with Kathure (2014), who found that police vehicle hiring had a significant effect on operational performance.

Simiyu (2013) study on determinants of lease financing decisions by non-financial firms was quoted in the Nairobi securities exchange, Nairobi, Kenya. The study used a cross-sectional research design on 40 non-financial companies; questionnaires were used to collect primary data. The findings indicated that vehicle leasing had a significant positive effect on operational performance.

Kilasi, Juma, and Mathooko (2013) carried out a study on the impact of outsourcing logistics on the supply chain performance strategy of East Africa Breweries Limited. The study adopted a case study research design on a target population of 1000 and a sample of 580 using purposive sampling. The study findings depicted that vehicle hiring had a non-significant negative effect on the operational performance of East African breweries.

2.4.4 Multi-agency Operations Approach and Operational Performance

James (2020) investigated the implication of National Police Service reforms in response to terror activities in Mandera County, Kenya. The study aimed at determining the extent to which police response to terror activities has become a national issue following the rolled the implementation of our logistic reform. A case study design was used, which combined qualitative and quantitative techniques of data collection and analysis. However, the study was more inclined to the qualitative research paradigm. The findings indicated that the multi-agency operations approach had a significant positive effect on operational performance.

Everitt (2010) carried out a study on a critical evaluation of the effectiveness and efficiency of multi-agency working. A descriptive research design was used on a sample of 329 employees. The study findings established that multi-agency operations had a significant positive effect on operational performance.

Kibusia (2020) studied the contribution of a multi-agency approach to security in the fight against terrorism in Kenya: A case study of disciplined services. Using a descriptive survey research design and target population of 1,310 with a sample of 306 obtained through purposive and snowball sampling were used.

Questionnaires and interview schedules were used to collect primary data. The finding indicated that the multi-agency approach had an insignificant negative effect on operational performance.

2.5 Research Gaps and Critiques

Table 2. 1 Research Gaps

Author	Title	Methodology and Findings	Contribution and Research Gap
Waiyaki (2013)	Effectiveness of a modern fleet management system in improving the logistics of transporting staff, goods, and materials in Kenya Power & Lighting Company.	Their study used descriptive research design, cluster, and random sampling techniques to arrive at its target population. The findings indicated that police escort rationalization had a significant effect on logistics efficiency.	The study was limited to Kenya's power and lighting company. The present study will target National Police Service within Vihiga County. It is still not known whether police escort rationalization affects the logistic efficiency of the National Police Service in Vihiga county, hence filling the conceptual gap.
Gitahi and Ogollar (2014)	Logistic reforms and operational performance in the United Nations High Commission for Refugees in Kenya	The study used a descriptive research design and used targeted employees in the UNHCR. The study was correlational to how the police escorted various food staff and other commodities to the refugee camps. The study established that there was a significant positive effect of police escort rationalization on the operation efficiency of the UNHCR in Kenya.	The study was based on a description of the operational performance of the UNHCR before the use of the police escort rationalization reforms and after the implementation. The major target was also the UNHCR which is not the main user of the reforms. The study will look at the national police service perspective and whether the reforms enhance operational performance in the National Police Service.
Musau (2016)	Impact of logistics reforms on organization performance: A case study of Bidco Africa Limited.	The study used a descriptive research design with a sample size of 90 employees. The study established that there was a significant positive effect of logistic reforms on organizational performance.	The study looked at the organizational performance when logistic reforms were implemented but did not look at the operational performance of the organization. This makes it unknown whether logistic reforms enhance operational performance; hence this study intends to fill the gap.

Gooyan, Lihua and Baofeug (2019)	Impact of logistic platforms and operational performance of logistic companies in Chain.	The study used a sample of 273 logistic companies in china. The study found that police escort rationalization had an insignificant negative impact on the operational performance of the logistic companies in China.	The study looked at the logistic platforms of the logistics companies. The targeted companies were based in China which is different from the National Police Service of Kenya. Therefore, it is still unclear whether police escort rationalization affects the operational performance of the National Police Service. This study intends to fill the gap.
Duque, (2015)	Influence of fleet leasing management practices, specifically vehicle repair and maintenance, on logistic efficiency of the Philippine police service	The study used a descriptive survey research design and targeted the police officers in the Philippines. The study concludes that the communication command and control significantly influence the operational performance through designing a unit of command and communication.	The study showed how useful the integrated communication command and control was effective in the Philippine police service. The study's target population is different in the Kenyan context limiting its results for generalization hence the need to undertake a study from a Kenya perspective. This study intends to fill the gap.
Spinali, Sharma, and Dines (2016)	Coordination and integrated communication command and control rooms in police information technology organizations in the United Kingdom	The study used a descriptive research design, and the findings showed that integrated communication command and control had a significant positive influence on operational performance .	The study targeted police information technology organizations within the United Kingdom. The study did not cover the police service in Kenya hence the need to conduct the study to understand the influence of the integrated communication command and control on the operational performance of the National Police Service within Vihiga County.
Odadi (2014)	The influence of integrated communication command and control and operational performance of corporate organization in National Police Service in Kenya.	A correlational research design was used, and the findings showed that there was no insignificant negative effect on the operational performance of the National Police Service in Kenya.	The study targeted only the police officers. In addition, there is a need to conduct another study to understand the effect of the integrated communication command and control in specified areas; hence the intended study will provide input on the results.
Kithure (2014)	Police reforms in police service: A case study of Nyeri County.	The study used a cross-sectional research design. The findings showed that police vehicle hiring had a significant positive effect on the operational performance of the Kenya police service.	The study targeted the Kenya police service only in Nyeri county. The current study will cover the National Police Service, which includes the DCI and other organs.

Wanyoike (2013)	The implementation of police reforms and how it affects service delivery in the Nyeri police division.	A survey research design was used. The findings indicated that the vehicle hire had a significant positive effect on the service delivery of the Nyeri police division.	The study targeted only the Nyeri police division, which could not be generalized to the entire county. The independent study will cover Vihiga county, and the results could be generalized to other counties in Kenya.
Simiyu (2013)	Lease financing decisions by non-financing firms quoted in the NSE, Nairobi, Kenya.	The study used a cross-sectional research design. The study findings showed that police vehicle hiring had a positive influence on the operations efficiency of the non-financial firms listed in the NSE.	The study mainly targeted non-financial firms listed in the NSE, which differs from the National Police Service in Kenya. Therefore, it is still not known whether the police vehicle was hired influences the operational performance of the National Police Service.
Kilasi, Juma and Mathooko (2013)	Impact of outsourcing of logistics on the supply chain performance strategy of the East African Breweries Limited.	A purposive and descriptive research design was used. The findings were there was a non-significant negative influence on the vehicle hiring and strategic performance of the East African Breweries Limited.	The study majored in strategic performance; hence there is a need to understand the influence of vehicle hiring on operational performance.

Source: Author 2022

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter consists of the research design and methodology of the study. The presentation of the chapter is in the following sub-sections: Research design, Research philosophy, Target population, sample and sampling procedure, validity, reliability, the procedure for data collection, and data analysis techniques.

3.2 Research Philosophy

According to Crotty (2008), a research philosophy refers to the set of ideas and presumptions that underpin the pursuit of knowledge in a particular field of study. Because positivism is associated with the philosophical attitude of natural phenomena and requires working with an observable social reality to aid in making generalizations about findings, this study used this philosophy. This philosophy was adopted since the area under study was viewed as real in the same way as the physical objects under it, and natural phenomena are real.

In addition, Positivism philosophy provide means for data collection, hypothesis testing and analysing of data before coming up with the general conclusion about a certain topic. In this regard, the philosophy was regarded as superior to the other philosophies with regard to the topic under study. The philosophy helped in coming up with clear observations, generating of new knowledge and proposed recommendations to be used in development of new and fully implementation of logistic reforms in the National Police Service.

3.3 Research Design

This study employed a descriptive survey research design, a type of research undertaken to describe the characteristics of variables in a situation. It involved collecting, analyzing, and integrating both qualitative and quantitative data. The integration of qualitative and quantitative methods provided a better understanding of the research problem than either of each alone. In so doing, it sought individuals' exact perceptions; attitudes, behavior, or values to determine and report the way things were to enable the description of characteristics associated with the target population, estimation of proportions of a population that have these characteristics, and discovery of associations among different variables. These two approaches were vital to enable an understanding of the influence of logistic reforms on the operational performance of National Police Services in Vihiga County.

3.4 Target Population

Target population refers to the larger population to which the researcher ultimately would like to generalize the study results (Kothari, 2017). According to a census report (2019), Vihiga County had a population of 590,013. International policing standards state that one police officer is supposed to police 450 people; hence Vihiga County ought to be manned by 1,311 police officers (International Trade Center, 2017). However, Kenya is a developing country; Vihiga County has 740 police officers. Therefore, the study targeted 740 police officers drawn from the Administration police service, Kenya police service, and directorate of criminal investigation within Vihiga County, Kenya, in the following sub-counties; Vihiga, Sabatia, Emuhaya, Hamisi, and Luanda.

The target population will be distributed in the table 3.1

Table 3. 1 Target population

Police formation	Vihiga	Sabatia	Emuhaya	Hamisi	Luanda	Total
KPS	162	123	115	112	98	610
APS	29	14	10	12	11	76
DCI	18	9	8	11	8	54
Total	209	146	133	135	117	740

Source: Vihiga County Head Quarters (2022)

3.5 Sampling Frame

The selected police officers that were used in the study were from the sampling frame. The sampling frame for the officers who participated in the study were provided by the Overall Commander of the Station using written permission to carry out research. The sampling frame enabled the researcher to draw an adequate stratified random sample, where all members of the population of police officers had an equal chance of being selected for the sample.

3.6 Sampling Technique and Sample Size

Sampling is the method the study uses to collect participants, locations, or objects to examine. Several people or things are chosen from a population so that the chosen group comprises components that are typical of the traits prevalent in the overall group (Kothari, 2017).

The study utilized both purposive and stratified sampling procedures in the selection of the sample size. Purposive sampling was used to categorize officers in either Administration or Kenya police officers or directorate of the criminal investigation. The sample size were determined using Taro Yamane's (1967) formula as used by Mbuthia and Omagwa (2019), which is stated as follows:

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

n = required sample size

e² = level of significance taken to be 0.05

N = the population size

$$n = \frac{740}{1 + (740 \times (0.05)^2)} = 259.64$$

approximately 260 respondents

The percentage presentation of the sample size were calculated to determine the proportion used in the sampling, as shown. $\frac{260}{740} \times 100 = 35.14\%$.

The percentage that were used to sample the population will be 35.14%. According to Mugenda and Mugenda (2013), 10%-30% of the sample size can be a good representative of the entire population; however, Kadan and Bhalora (2010) argued that a sample size that is more than 100 units is adequate; hence the calculated sample size of 260 is adequate in this study. Furthermore, Wham and Vidokovic (2007) stated that 30% and more numbers of the total population is adequate. Hence the study will use the 35.14%, as calculated in the sample size formula. The study sample size was therefore be 260 respondents distributed proportionately in Table 3.2.

Table 3. 2 Proportionate Distribution of Police Officers

Police formation	Vihiga	Sabatia	Emuhaya	Hamisi	Luanda	Total
KPS	57	43	40	40	34	214
APS	10	5	4	4	4	27
DCI	6	3	3	4	3	19
Total	73	51	47	48	41	260

Source: Author, (2022)

3.7 Data Collection Instruments

The study collected both primary. The data was gathered by the use of questionnaires. The questionnaires were used to obtain first-hand information about a population with high precision (Kothari, 2017). Therefore, the respondents were able to fill out the questionnaires at their convenience. This helped the study to get the information about the topic understudy in the shortest time possible. The questionnaire was divided into sections A, B, C, D, E, and F. Section A covered information on the background information of respondents, section B covered police escort rationalization, section C was integrated communication, command, and control while section D covered police vehicle hiring, E was a multi-agency team approach.

3.7 Pilot Study

A pilot study was carried out on 10 police officers in Kakamega County. The officers were selected via purposive sampling where 2 officers in the 5 sub counties were picked to participate in the study. The 5 sub counties had the highest crime rate in Kakamega county thus was suitable in assessing the data analysis document through validity and reliability. The results of the pilot test were used to determine which parts of the questionnaire needed to be changed, such as the order of the questions or the use of simple language to elicit more information about the study's goals.

3.7.1 Reliability of Research Instruments

The level of consistency that a research instrument produces after numerous trials is known as its reliability. Alpha test of 0.7 and above or more implies that there is a higher degree of reliability of the data (Kothari & Garg, 2014).

How closely linked a group of objects are to one another is determined by Cronbach's alpha, a measure of internal consistency. It is regarded as a gauge of scale dependability. A "high" alpha number does not always mean that the measurement was one-dimensional. The average inter-correlation of the test items and the number of test items can be used to calculate Cronbach's alpha. The formula for the standardized Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}} \quad \text{Where:}$$

N was equal to the number of items, C-bar was the average inter-item covariance among the items, and v-bar equals the average variance.

The study used the Cronbach Alpha coefficient value to test the reliability of the research instrument. For the research instruments was reliable, the Cronbach Alpha coefficient attained needs to be above the recommended 0.7 in social sciences (Cronbach, 1951). The reliability results were as shown below

Table 3.3: Reliability

Construct	Number of Items	Cronbach alpha
Police Escort Rationalization	6	.725
Integrated Communication	6	.760
Police Vehicle Hiring	5	.701
Multi-Agency Team Approach	7	.783
Operational performance	7	.792

Source: Author, (2022)

Given the criteria, the questionnaires were found to be reliable since all the variables i.e.; police escort rationalization, integrated communication, police vehicle hiring, multi-agency team approach and operational performance had

alpha values of .725, .760, .701, .783, .792 which were more than 0.70 as seen in table 3.3.

3.7.2 Validity

Validity is the extent to which the instrument measures what it appears to measure according to the study's subjective assessment (Kothari & Garg, 2014). The study tested for construct validity which involved employing the Bartlett's test and Kaiser Mayer- Olkin (KMO) test which enabled the study to determine to determine the sampling adequacy of the questionnaire as a data collection instrument. With regard to the test a KMO value of more than 8.0 shows that the questionnaires can appropriately measure intended elements in the study. Further, a value less than 0.05 also indicates that data collection instrument will be accurate in deciphering the problem in the research.

Table 3.4: KMO and Bartlett's Test

Variable	No of Items	KMO	Bartlett's test		
			χ^2	df	P-value
Police Escort Rationalization	6	0.850	26.603	10	0.000
Integrated Communication	6	0.841	19.401	10	0.000
Police Vehicle Hiring	5	0.902	33.863	10	0.000
Multi-Agency Team Approach	7	0.810	23.319	10	0.000
Operational performance	4	0.983	48.200	10	0.000

Source: Author, (2022)

As shown in table 3.4, the Bartlett's test's p values are significant at 95% confidence level since they are $< \alpha = .05$ proving that the questionnaires would give forth to data that does not contain correlational matrices. The Kaiser Mayer-Olkin test shows values that are more than .80 and closer to 1 which is the set threshold for identifying instruments that would be sufficient for generalization. Table 3.4 indicates that police escort rationalization, integrated communication,

police vehicle hiring, multi-agency team approach and operational performance have KMO values of 0.850, 0.841, 0.902, 0.810 and 0.983 respectively thus the questionnaire measured what it was intended to measure.

3.8 Data Collection Procedure

The study questionnaire was divided further into specific sections as per the objectives of the study. The primary data was collected by the use of questionnaires which were administered through the drop and pick method. The questionnaire was attached to an approval letter from the board of graduate studies

3.9 Data Analysis and Presentation

Collected data was checked and sorted using Microsoft excel before being imported to the SPSS software for analysis. Both descriptive and inferential statistics was used. Descriptive statistics was presented in the form of percentages and tables. Inferential statistics was analyzed using a multiple linear regression model. Durbin Watson test was used to test autocorrelation, Variance inflation factors was used to test for multicollinearity, histogram and Jacque Bera was used to test for normality of the data. The hypothesis of the study was tested using the F test at a 5% significance level. The multiple linear regression model ought to fit the study to test the independent variables affecting the dependent variable, as represented in the regression equation below.

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

Where: Y = Operational performance

$\beta_i, i = 1, 2, 3, 4$ = Beta coefficients

X_1 = Police Escorts Rationalization

X_2 = Integrated Communication, command and control

X_3 = Police vehicle hiring

X_4 = Multi-agency team operations approach

ϵ = error term

3. 10 Ethical Consideration

Permission to carry out the research was obtained from the Board of Graduate Studies where an approval letter was written. The approval was then used to obtain a research permit from the National Commission for Science and Innovation (NACOSTI). Before data collection an authorization was given by the management of the Police Service in Vihiga County. Confidentiality and consent letter was sent to respondents asking them to participate in the study and guaranteeing assurance with regard to the safety and privacy of the data provided. Data collected was only used for research purposes and was not disclosed to any other party at any given time whatsoever.

3.11 Measurement of Variables

The study had four variables as constructs of logistics reforms that were assessed through a five point Likert scale. The measurement of variables was done as shown below;

Table 3.5: Measurement of Independent Variables

Independent Variable	Indicators	Measurement tool	Section on Questionnaire	Empirical Studies
Police Escort Rationalization	Privatization Management escort monitoring Collaboral levels Police escort commodification	5 Point Likert Scale	Section B	Waiyaki (2013) Gitahi and Ogollah (2014) Musau (2016) Gaogan, Lihua and Dines (2016)
Integrated Communication, Command and Control	Integrated monitoring level Scope of integration Road Surveillance Technological acceptance rate	5 Point Likert Scale	Section C	Duque (2015) Spinelli, Sharma and Dines (2016) Odachi (2014)
Police Vehicle Hiring	Extent of vehicle hiring Fuel allocation volume Repair and maintenance frequency Scope of insurance cover	5 Point Likert Scale	Section D	Kithure (2014) Wonyoike (2013) Simiyu (2013) Kilasi, Juma and Mathooko (2013)
Multi Agency Operations Approach	Coordination levels Information sharing scope Extent of cargo tracking Cargo clearance turn time	5 Point Likert Scale	Section E	James (2020) Everitt (2010) Kibusia (2020)

Table 3.6: Measurement of Dependent Variable

Variable	Indicator	Measurement Tool	Empirical Studies
Operational Performance	Efficiency	5 Point Likert Scale	(Ritson, 2011)

CHAPTER 4

RESULTS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter entails results, findings and discussions in line with the study objectives.

4.2 General information

The sections present the information about the number of target population who responded to the questionnaires, the job cadre, area of deployment, year of experience and formation.

4.2.1 Response rate

260 questionnaires were sent to respondents, 186 were filled and returned, leading to a respondent rate of 71.54%. Respondent rate above 70% is recommended for generalizing results to a larger population (Kothari, 2014). Therefore, the information gathered was sufficient to accomplish the study objectives.

Table 4.1: Response Rate

Questionnaires	Number	Percentage
Returned	186	71.54%
Un returned	74	28.46%
Total (Sample Size)	260	100.00%

Source: Author, (2022)

4.2.2 Job Cadre

From the findings 98 (52.69%) respondents indicated that they belonged to police constable while 11 (5.91%) belonged to gazette officer. The findings

indicated that majority of the respondents were constable police officers. This implies that police service in Vihiga County is in a position to sufficiently carry out its operation since it has the majority officers at the operational level. According to Bvirindi (2011), an organization require most of its staff at the bottom level.

Table 4.2: Job Cadre

Response		Frequency	Percent	Cumulative Percent
Valid	Constables	98	52.69	52.69
	Non-Commissioned Officers	54	29.03	81.72
	Members of Inspectorate	23	12.37	94.09
	Gazetted Officers	11	5.91	100.00
Total		186	100.0	

4.3.1.2 Area of Deployment

The respondents were asked on the area they were deployed. The areas include the transport, traffic, records and general duties. The responses were as follows.

Table 4.3: Area of Deployment

Response		Frequency	Percent	Cumulative Percent
Valid	Transport	60	32.26	32.26
	Traffic	23	12.37	44.63
	Records	48	25.81	70.44
	General Duties	55	29.56	100.00
Total		186	100.0	

Source: Author, (2022)

Findings in Table 4.3 indicates that majority of the respondents (32.26%) were of transport department while few indicated that they belong to the traffic departments. This was an implication that the respondents were deployed to the rightful department and were likely to deliver their services with regard to the operation guidelines and requirements.

4.2.3 Years of Experience

Respondents were asked on the number of years they worked in the police service and the responses were as follows.

Table 4.4: Years of Experience

Response		Frequency	Percent	Cumulative Percent
Valid	Below 5 Years	43	23.12	23.12
	5 to 10 Years	68	36.56	59.68
	11 to 15 Years	38	20.43	80.11
	16 to 20 Years	25	13.44	93.55
	Over 20 Years	12	6.45	100.00
Total		186	100.0	

Source: Author, (2022)

Respondents were expected to state their years of work experience, from the findings it was evident that 76.88% of the respondents stated that they had worked in the police services for 5 years and above while 23.12% indicated that they had worked for less than 5 years. This was an indication that most of the respondents were aware of the logistic reforms on operational performance in Vihiga County. Therefore, the study was able to relay on the responses given.

4.2.4 Formation

The respondents were asked about the formation which they belonged. They were KPS, the APS and the DCI. The responses were as shown below.

Table 4.5: Formation

Response		Frequency	Percent	Cumulative Percent
Valid	KPS	137	73.66	73.66
	APS	32	17.20	90.86
	DCI	17	9.14	100.00
	Total	186	100.0	

Source: Author, (2022)

Respondents were expected to indicate their formation, from the findings majority (73.66%) of the respondents stated that they belonged to Kenya Police formation while 17 (9.14%) are members of the DCI formation. According to Duque (2016), Kenya police service are mandated to carry out logistics operations, transport, and are entrusted in ensuring free flow of traffic, hence the responses were relevant to the study.

4.3 Descriptive Statistics

This section covers a description of the data collected with regard to the study objectives. The statistics was in form of the minimum, maximum, standard deviation and the mean. The statistics helps in understanding the overall data as displayed by the questionnaires.

4.3.1 Police Escorts Rationalization and Operational performance

Respondents were asked questions which were rated in 5 Likert scale, stating from the strongly agree, agree, neutral, disagree and strongly disagree. The responses were presented in the table below.

Table 4.6: Police Escorts Rationalization and Operational performance

Statements	S A	A	N	D	S D	To tal
The Kenyan police service levels of high skilled functions has increased over the past five years	76	58	22	18	12	18
	40	31	11	9.	6.	6
	.8	.1	.8	68	45	10
	6	8	3	%	%	0.0
	%	%	%			0%
Managed police escort monitoring is a strategy of escort rationalization adopted by the Kenyan police service.	70	62	18	20	16	18
	37	33	9.	10	8.	6
	.6	.3	68	.7	60	10
	3	3	%	5	%	0%
	%	%		%		
Police escort commodification has an influence operational performance	69	54	25	19	19	18
	37	29	13	10	10	6
	.1	.0	.4	.2	.2	10
	0	3	4	2	2	0.0
	%	%	%	%	%	0%
Collaboration between the Kenya police service and the private security sector in relation to escort services has increased over the past five years.	80	42	30	21	13	18
	43	22	16	11	6.	6
	.0	.5	.1	.2	99	10
	1	8	3	9	%	0.0
	%	%	%	%		0%
Car hijacking incidences has reduced due to police escort rationalization	75	61	28	12	10	18
	40	32	15	6.	5.	6
	.3	.8	.0	45	38	10
	2	0	5	%	%	0.0
	%	%	%			0%
The level of cargo theft during transits has reduced in the past five years due to police escort rationalization.	65	69	30	8	14	18
	34	37	16	4.	7.	6
	.9	.1	.1	30	53	10
	5	0	3	%	%	0.0
	%	%	%			0%

Source: Author, (2022)

4.3.1.1 Levels of skilled functions

Respondents were asked to indicate on a five point Likert scale whether service levels of high skilled functions have increased over the past five years in the Kenya police service in Vihiga County. From the findings 134 (72.04%) respondents agreed while 52 (27.96%) disagreed that the Kenya police service levels of high skilled functions has increased over the past five years. This implies that for the last five years national Police Service was able to provide skilled functions within Vihiga county, while those who disagreed means that although there were skilled function services provided, it was not sufficient in

ensuring operational performance within Vihiga county. These findings concur with a study done by Waikiki (2013) who evaluated the effectiveness of a modern fleet management system in improving the logistics of transporting staff, goods, and materials in Kenya Power & Lighting Company.

4.3.1.2 Police Escort Monitoring

Respondents were expected to indicate whether management of police escort monitoring is a strategy of escort rationalization adopted by the Kenya police service. From the findings 132 (70.97%) respondents agreed that police escort monitoring is adopted by the Kenyan police service while 54 (29.03%) disagreed. Since majority of the respondents agreed implies that police service in Vihiga County adopted escort monitoring rationalization to enhance operational performance. The few who disagreed implied that the police Service in Vihiga County all though they adopted the police escort monitoring strategy, it is not to greater extent to actualize the operational performance within the county. These findings are in agreement with a study done by Gitahi and Ogollar (2014) on logistics reforms and operational performance in United Nation High Commission for Refugees in Kenya.

4.3.1.3 Police escort commodification

Respondents were to indicate whether police escort commodification has an influence operational performance. From the findings 123 (66.13%) indicated that police escort commodification has an influence on operational performance while 63 (33.88%) disagreed on the same. The majority of respondents who agreed implied that there is access for of the police services in Vihiga County at a fee, as stipulated on the service charter. On the other hand, those who disagreed means that the, the free services were not accessed to all at large extent. These

findings are in line with a study conducted by Musau (2016) carried out a research on impact of logistics reforms on organizational performance: A case study of Bidco Africa Limited

4.3.1.4 Collaboration between the Kenya police service and the private security sector

Respondents were required to indicate whether Collaboration between the Kenya police service and the private security sector in relation to escort services has increased over the past five years. From the findings it was evident that 156 (75.27%) respondents indicated that collaboration between police service and private security sector has increased over time while 46 (24.73%) disagreed about the same. Those who agreed implied that there is mutual benefit between the private security and the police service, hence increasing operational performance of the service.

4.3.1.5 Reduction of Car Hijacking incidences

Respondents were asked to indicate whether reduction of car hijacking incidences have reduced due to police escort rationalization. From the findings 136 (73.12%) agreed while 50 (26.88%) disagreed. The majority who agreed implied that there is reduced car hijacking in Vihiga County, while those who disagreed implied the reduction in car hijacking was not due to police escort rationalization only. The findings are in line with a study done Waiyaki (2013) aimed to evaluate the effectiveness of a modern fleet management system in Kenya Power Company Limited.

4.3.1.6 Reduction of Cargo Theft During Transit

The responded were asked if the level of cargo theft during transits has reduced in the past five years due to police escort rationalization. From the results it was

recorded that 125 (67.20%) respondents agreed that there has been reduction in cargo theft during transit implying that there is police escort rationalization during transit of goods. while 61 (32.8%) disagreed, indicating though there is an improvement in reducing cargo theft, there is still some cases which have been reported during transit. These findings concur with a study conducted by Musau (2016) carried out a research on impact of logistics reforms on organizational performance: A case study of Bidco Africa Limited

4.3.2 Integrated Communication, Command, Control and Operational performance

The section presents seven items Likert scale that the respondents were asked on questions and the responses were presented in the table below.

Table 4.7: Integrated Communication, Command and Control and Operational performance

Statements	SA	A	N	D	SD	Total
The level of integrated cargo monitoring has increased in the past five years	68	71	10	22	15	186
	36.	38.	5.3	11.	8.0	100
	56	17	8%	83	6%	.00
	%	%		%		%
Communication integration and coordination within the national police service has an influence on operational performance	57	65	26	15	5	186
	30.	34.	13.	8.0	2.6	100
	65	95	98	6%	9%	.00
	%	%	%			%
Road surveillance and control influences operational performance within the national police service.	70	49	22	16	29	186
	37.	26.	11.	8.6	15.	100
	63	34	83	0%	59	.00
	%	%	%		%	%
Integrated control has increased operational performance within the national police services	66	63	20	23	14	186
	35.	33.	10.	12.	7.5	100
	48	87	75	37	3%	.00
	%	%	%	%		%
Cargo tracking levels has increase cargo safety cost.	78	55	30	16	7	186
	41.	29.	16.	8.6	3.7	100
	94	57	13	0%	6%	.00
	%	%	%			%
Cargo clearance turn time improves operational performance	68	45	25	30	18	186
	36.	24.	13.	16.	9.6	100
	56	19	44	13	8%	.00
	%	%	%	%		%

Source: Author, (2022)

4.3.2.1 Integrated Cargo monitoring

Respondents were to indicate the level of agreement on the level of integrated cargo monitoring has increased in the past five years. The findings proved that 139 (78.73%) respondents agreed, while 47 (25.27%) disagreed on the statement that the level of integrated cargo monitoring has increased in the past five years. The majority who agreed implies that police service in Vihiga County are able to track goods in transit until they reach their destination. The few who disagreed was an indication that there still some difficult for the police service to identify and fix problems and shortcomings during transportation due to network coverage. These findings are similar to a study conducted by Duque (2015) did a study to establish the influence of fleet leasing management practices, specifically vehicles repair and maintenance, on the logistics efficiency of the Philippine police service.

4.3.2.2 Communication Integration

Respondents were required to say whether Communication integration and coordination within the national police service in Vihiga County has an influence on operational performance. The findings indicated that 122 (65.6%) respondents agreed while 46 (34.1%) disagreed that communication integration and coordination within the national police service has an influence on operational performance. The majority who agreed was an implication that operational performance is enhanced by deploying technology that enable the Police to adopt more efficient working practices and new operating concepts. These findings are in agreement with a study done by Spinelli, Sharma and Dines (2016) carried out a study on Coordination and Communication in Police

Command and Control Rooms in police information technology organizations in United Kingdom

4.3.2.3. Road Surveillance

Respondents were to state whether road surveillance and control influences operational performance within the national police service. From the findings majority of the respondents (69.97%) while 36.02% disagreed that road surveillance and control influences operational performance. The majority of respondents who agreed implies that properly implemented of road surveillance systems increase operational performance while improving the security and safety of public transportation. Fleet efficiency translates into cost savings, increased public safety, risk reduction and more effective incident responses.

4.3.2.4 Integrated Control

Respondents were required to state whether integrated control has increased operational performance within the national police services. From the findings 129 (69.35%) agreed while 57 (30.65%) respondents disagreed that integrated control has increased operational performance within the national police services. The majority who agreed implied that an integrated control strategy helps the police service deliver a cohesive message across digital and traditional channels to engage the police service. It also provides management reports and statistical data on a real-time basis for instantaneous analysis of data and personnel deployment to meet operational changing needs.

Those who disagreed was an indication that there exists poor control thus their logistics channels may be exposed to reduced efficiency in fighting crime by police and this may hinder effective delivering of government services to the

citizens. These findings are in agreement to a study done by Odadi (2014) did study on effect of Integrated Communication, Command and Control and Operational performance of corporate governance in National Police Service in Kenya

4.3.2.5 Cargo Tracking

Respondents were asked to indicate whether cargo tracking increases cargo safety. From the findings 133 (71.51%) respondents agreed while 73 (39.25%) disagreed that cargo tracking do not increase cargo safety. Most of the respondents who agreed was an implication that cargo tracking reduces operational costs by planning faster routes save time, as it reduces the risk of delivery delays.

It also provides all the convenience to the customer, by security keeping them informed of everything that is happening on the cargos in transit. Cargo tracking and tracing of items is needed to increase visibility and control in various logistics operations of the police service. It is critical for a supply chain manager to know about the cargo location, the estimated time of arrival and any possible disruption or current and past status of the cargo to manage and control their fleet, orders, and goods. The few who disagreed was an indication that in case of theft and crime some goods may not be retrieved from thieves or occurrence of an accident and this may disrupt operational activities of respective organizations.

4.3.2.6 Cargo Clearance

Respondents were to indicate if cargo clearance cargo clearance turn time improves operational performance. From the findings 113 (60.75%) agreed while 73 (39.25%) disagreed. The majority who agreed implies that cargo

clearance influences operational efficiencies, that the police service in Vihiga county are able to protect domestic industries and control smuggling and contraband items from entering the borders of the county through effective operational and logistics efficiencies. These findings are in line with a study done by Spinelli, Sharma and Dines (2016) who investigated on Coordination and Communication in Police Command and Control Rooms in police information technology organizations in United Kingdom.

4.3.3 Police Vehicle Hiring and Operational performance

The respondents were asked on police vehicle hiring and the results were presented below.

Table 4.8: Police Vehicle Hiring and Operational performance

Statements	SA	A	N	D	SD	Total
The national police service has fully incorporated leasing practices for their vehicles.	65 34.95%	73 39.25%	13 6.99%	24 12.09%	11 5.91%	186 100.00%
Police vehicle hiring has an influence on operational performance	55 29.57%	79 42.47%	11 5.91%	20 10.75%	21 11.29%	186 100.00%
The repair and maintenance function have significantly reduced the workload of the national police service	60 32.26%	57 30.65%	18 9.68%	31 16.67%	20 10.75%	186 100.00%
The fuel card/voucher issued to logistic officers has facilitated prudent use of fuel in the national police service.	44 23.66%	66 35.48%	15 8.06%	38 20.43%	23 12.37%	186 100.00%
The scope of insurance cover in the police service has improved operational performance.	59 31.72%	68 36.56%	17 9.14%	26 13.98%	16 8.60%	186 100.00%

Source: Author, (2022)

4.3.3.1 Incorporation of leasing practices for their vehicles

Respondents were to give their views and state whether national police service has fully incorporated leasing practices for their vehicles. From the findings in Table 4.8, 138 (74.19%) respondents agreed while 48 (25.81%) disagreed. The majority who agreed implies the police service in Vihiga County is able to ensure better service delivery, and maximum value for money through leasing of vehicles for service to the public. The rationale behind vehicle leasing provides police service an opportunity to concentrate on its core competences. The few who disagreed was an implication that some police service in Vihiga county has not incorporated vehicle leasing practices hence they may not be in a position to offer maximum value and service to the public. These findings are in line with a study done by Kithure (2014) studied police reforms in the police service, a case study of Nyeri county

4.3.3.2 Police Vehicle Hiring

Respondents were asked to indicate whether Police vehicle hiring has an influence on operational performance. From the findings in Table 4.8, 134 (72.04%) respondents agreed while 52 (27.96%) disagreed. Those who agreed it implies that it provides cost effective transport and has also spurred growth in the local motor vehicle assembly industry. This is aimed at cutting costs, ensuring proper maintenance of vehicles and improving mobility in their daily operations. These findings are in tandem with a study done by Simiyu, (2013) on determinants of lease financing decision by non-financial firms quoted in Nairobi securities exchange, Nairobi Kenya

4.3.3.3 Repair and Maintenance

Respondents were required to state if repair and maintenance function have significantly reduced the workload of the national police service. From the findings it was confirmed that 117 (62.90%) agreed while 69 (37.10%) disagreed. The majority who agreed implies that the police service in Vihiga County are able to ensure efficient operation through reduction of the adverse effects of breakdown and maximize facility availability at minimum cost. Therefore, the national police have ensured repair and maintenance function is strategically integrated for proactive maintenance initiatives into their operational strategies to boost productivity and performance in the police service. These findings agree with a study done by who investigated effect of Kilasi, Juma and Mathooko,(2013) who carried out a study a study on impact of outsourcing of logistics on the supply chain performance strategy of East Africa Breweries Limited.

4.4.3.4 Fuel Card/ Voucher

Respondents were to state whether use of fuel card/voucher issued to logistic officers has facilitated prudent use of fuel in the national police service. The findings revealed that 110 (59.14%) respondents agreed while 76 (40.86%) disagreed. The majority of the respondents who agreed on the use of fuel cards implies that with the right fuel card program, logistics managers in Vihiga County in the police force are able to set limits on fuel products and non-fuel purchases. As an owner-operator, this also frees you from constant budgeting and monitoring accounts while on the road. The few who disagreed was an indication that some of the police officers may not be able to detect fraud as they are still using a receipt-based system, that is likely to be exposed to fraud and

this makes it impossible to detect theft. These findings concur with a study done by Spinelli, Sharma and Dines (2016) carried on Coordination and Communication in police command and control rooms in police information technology organizations in United Kingdom.

4.3.3.5 Scope of Insurance Cover and Operational performance

Respondents were required to state whether the scope of insurance cover influences operational performance. From the results in Table 4.8 it was evident that 127 (68.28%) agreed while 59 (31.72%) disagreed. The majority who agreed implies that, the police service in Vihiga County is able to boost operational capacity of the Police across the county aimed at cutting costs and improving police mobility in their daily operations within the county. Moreover, initially police vehicles were not insured hence it was an act of impunity. This initiative has boosted with the confidence of both the public and the police. Those who disagreed was an indication that some of the police services have not incorporated insurance cover, hence endangering lives and properties. These findings concur with a study done by Wonyoike (2013) on Implimentation of police reforms and how it effects on service delivery in Nyeri police division.

4.3.4 Multi-Agency Team Approach and Operational performance

The target respondents were asked seven questions linked to the five Likert scale and the feedback was presented in the following table.

Table 4.9 Multi-Agency Team Approach and Operational performance

Statements	S A	A	N	D	S D	To tal
Multi-agencies coordination levels have increased in the past five years.	70	49	25	30	12	18
	37	26	13	16	6.	6
	.6	.3	.4	.1	45	10
	3	4	4	3	%	0.0
	%	%	%	%		0%
The multi-agencies information sharing level has increased in the national police service for the past five years due to the multi-agency approach	56	77	10	26	17	18
	30	41	5.	13	9.	6
	.1	.4	38	.9	14	10
	1	0	%	8	%	0.0
	%	%	%	%		0%
The level of cargo clearance turn-times has an influence on operational performance	43	68	24	19	32	18
	23	36	12	10	17	6
	.1	.5	.9	.2	.2	10
	2	6	0	2	0	0.0
	%	%	%	%	%	0%
Cargo monitoring and tracking as improved in the past five years due to the multi-agency approach.	39	72	29	22	24	18
	20	38	15	11	12	6
	.9	.7	.5	.8	.9	10
	7	1	9	3	0	0.0
	%	%	%	%	%	0%
The levels of inspection of cargo have influences operational performance	68	47	29	32	10	18
	36	25	15	17	5.	6
	.5	.2	.5	.2	38	10
	6	7	9	0	%	0.0
	%	%	%	%		0%
Vehicle hijacking have reduced since the adoption of the multi-agency approach in the police service	57	68	18	15	24	18
	30	36	9.	8.	12	6
	.6	.5	68	06	.9	10
	5	6	%	%	0	0.0
	%	%	%	%		0%
Cargo safety have has in influence on operational performance.	79	43	9	31	24	18
	42	23	4.	16	12	6
	.4	.1	84	.6	.9	10
	7	2	%	7	0	0.0
	%	%	%	%		0%

Source: Author, (2022)

4.3.4.1 Multi- agency Coordination

Multi-agencies coordination levels have increased in the past five years. From the findings 119 (63.98%) agreed while 67 (36.02%). The majority who agreed implied that the police service is able to enhance operational performance through better information sharing, high quality team coordination and timely responses. The few who disagreed was an indication that police service in Vihiga County might be exposed to multi-agency challenges occasioned various parties

being players. These findings are in agreement with a study done by James (2020) investigated the implication of national police service reforms on response to terror activities in Mandera County, Kenya.

4.3.4.2 Multi agency Information Sharing

Respondents were to indicate whether multi-agencies information sharing level has increased in the national police service for the past five years. The findings revealed that majority (71.51%) of the respondents agreed that multi agencies information sharing has increased over time. This implies that most of the national police officers in Vihiga County are able to accurately assess risk and need, as safeguarding decisions are based on sufficient, accurate, timely information sharing, joint decision making and coordination of operations. The few who disagreed (28.49%) was an indication that multi-agencies information sharing in the police service in some parts of Vihiga county has been decreasing over years, therefore, the national police service may not be capable to share timely information and this affects operations due to lack of joint decision making and coordination of the personnel involved.

4.3.4.3 Cargo clearing

Respondents were required to state whether the level of cargo clearance turn-times has an influence on operational performance. From the findings 111 (59.68%) respondents, while few respondents (40.32%) disagreed. The majority who agreed was an implication that the police service in most of the parts in Vihiga County experience efficiency of the clearance process in terms of speed, simplicity and predictability of formalities by border control agencies, in turn when cargos are timely cleared there are possibilities that operations will be efficient and effective. These findings corroborate a study conducted by Kibusia,

(2020) studied contribution of a multi-agency approach to security in the fight against terrorism in Kenya.

4.3.4.4 Cargo clearing

Respondents were expected to indicate whether cargo monitoring and tracking has improved in the past five years due to the multi-agency approach. The findings indicated that majority (59.68%) of the respondents agreed while few disagreed (40.34%). The majority who agreed was an implication that national police service in Vihiga County is able to increase visibility, patrols, increase safety of the community, reduce fleet costs and improve efficiency and fleet operations. These findings are in line with a study done by James (2020) investigated the implication of national police service reforms on response to terror activities in Mandera County, Kenya.

4.3.4.5 Cargo inspection

Respondents were to answer whether they agreed or disagreed to the statement that levels of inspection of cargo has an influence on operational performance. The results indicated that majority of the respondents agreed (61.83%) while few respondents disagreed (38.17%). The majority of the respondents who agreed implies national police service are able to monitor what is happening to the cargo while in transit in between logistics milestones. The insights from cargo monitoring help to coordinate supply chain processes more efficiently and optimize them to increase agility in resolving issues, minimize costs, and increase operational performance.

4.3.4.6 Vehicle Hijacking

Respondents were required to indicate if vehicle hijacking have reduced since the adoption of the multi-agency approach in the police service. From the findings majority of respondents agreed (67.20%) while few disagreed (32.98). The majority of respondents who agreed implied that national police force in most of the parts in Vihiga county do not experience car hijacking incidences and they are likely to deliver their operational duties efficiently and effectively to the citizens due to concerted efforts of the multiagency team. Those who disagreed was an indication that there are still few cases of vehicle hijacking in Vihiga County as recorded by the national police service.

4.3.4.7 Cargo safety

The last question, respondents were to indicate if cargo safety has an influence on operational performance. Findings indicated that 122 (65.59%) respondents agreed while 64 (34.41%) disagreed that cargo safety influences operational performance. The majority who agreed was an implication that safety is one of the strategic practices in logistics and enhances productivity through delivering on time, every time, and it is an important aspect to achieving operational performance in the supply chain. The findings are in line with a study carried out by Simiyu, (2013) on determinants of lease financing decision by non-financial firms quoted in Nairobi securities exchange, Nairobi Kenya

4.3.5 Operational performance

Four questions were presented to the respondents on operational performance and the feedback were tabulated in the following table

Table 4.10: Operational performance

Statements	SA	A	N	D	SD	Total
Police escorts rationalization enhances operational performance	46	71	14	34	21	186
	24.	38.	7.5	18.	11.	100.
	73	17	3%	28	29	00%
	%	%		%	%	
Integrated communication, command and control has an influence on operational performance	58	43	30	29	26	186
	31.	23.	16.	15.	13.	100.
	18	12	13	59	98	00%
	%	%	%	%	%	
Police vehicle hiring facilitates operational performance	59	65	17	19	26	186
	31.	34.	9.1	10.	13.	100.
	72	95	4%	22	98	00%
	%	%		%	%	
Multi-Agency team approach has an influence on operational performance	74	38	31	24	19	186
	39.	20.	16.	12.	10.	100.
	78	43	67	90	22	00%
	%	%	%	%	%	

Source: Author, (2022)

4.3.5.1 Police Escorts Rationalization and Operational performance

Respondents were asked to state whether police escort rationalization influences operational performance. From the findings 117 (62.90%) respondents agreed while 69 (37.10%) disagreed. The majority of respondents who agreed that police escort rationalization influences operational performance implies that work tasks in Vihiga county police force departments have risen dramatically, and project executives have commonly reacted by aspiring to improve the effectiveness of police operations and focus police resources only on more significant information systems. These who disagreed implied that Vihiga County does not react to nuisance calls at all and does not provide services such as escorts and house inspections to the public, which can result in late responding to emergencies, deterring and preventing crimes. It can make people who require protection feel unsafe.

The findings were similar to that of Waiyaki (2013), but contradicted with Gaoyan, Lihua, and Baofeng, (2019) who found that police escort rationalization had insignificant influence on operational performance.

4.3.5.2 Integrated Communication, Command, Control and Operational performance

Respondents were to indicate if integrated communication command and control enables operational performance. The findings revealed that 101 (54.30%) agreed while 85 (45.70%) disagreed that integrated communication, command and control does not enhance operational performance. This implied that police in most parts of Vihiga County are able to manage disasters, respond to inconsistencies, and has ability to handle various operations through monitoring, controlling, and commanding.

4.3.5.3 Police Vehicle Hiring and Operational performance

In table 4.10 results revealed that 124 (66.69%) respondents agreed that police vehicle hiring has an influence on operational performance while 62 (33.33%) respondents disagreed. The majority of those who agreed imply that the police service in Vihiga County is capable of ensuring effective service delivery, the creation of more jobs in the logistics and supply chain function, and the best value for money through the leasing of vehicles for public service. The rationalization behind vehicle leasing is to provide government transportation services while also allowing access too many fully serviced motor vehicles.

4.3.5.4 Multi-Agency Team Approach and Operational performance

Respondents were to indicate whether multi agency approach has an influence on operational performance. Results indicated that most of the respondents (60.22%) agreed while a few (39.78%) disagreed. This implies that the majority

of national police officers in Vihiga County can accurately determine uncertainty and need, because safeguarding decisions are based on adequate, realistic, and timely information sharing, joint decision making, and operational coordination.

4.4 Diagnostic Tests

To assess the model assumptions which state that residuals should be normal distributed, free from autocorrelation, heteroscedasticity, autocorrelation and multicollinearity. The study carried test on normality, autocorrelation, multicollinearity and heteroscedasticity.

4.4.1 Normality

Normality test is carried out on a set of data to ascertain if the sample data were taken from a regularly distributed population. Many statistical tests require a determination of the data's normality since parametric testing assumes normal data as a fundamental tenet. Analyzing normalcy can be done in two ways: graphically and statistically. The study employed Kolmogorov- Smirnov test to test the normality of the data since the test is used for $n \geq 50$. The null hypothesis for the test states that data is taken from normal distributed population. The acceptance criteria dictate that: If calculated value is less than critical value accept null hypothesis, however if the calculated value is greater than table value reject null hypothesis.

The calculated statistics from table 4.11 for police escort rationalization, integrated communication, police vehicle hiring, multi-agency team approach and operational performance are .322, .299, .300, .255, .258 respectively. Given the K-S critical value from the K-S table is 1.38, the null hypothesis was failed to be rejected since all the calculated values are less than 1.38 and thus it is

evident that all the variables are normally distributed. Furthermore, all the p values are < 0.05 hence significant.

Table 4.11: Kolmogorov-Smirnov^a

Variable	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Police Escort Rationalization	.322	186	.050
Integrated Communication	.299	186	.058
Police Vehicle Hiring	.300	186	.070
Multi-Agency Team Approach	.255	186	.054
Operational performance	.258	186	.062

4.4.2 Autocorrelation

Autocorrelation represents the degree of similarity between a particular time series and a lagged version of itself over successive time intervals. It was necessary for the study to establish the autocorrelation between the variables since it can cause inefficiencies in the least squares estimates by producing high variances among all linear unbiased estimators. The study employed the Durbin Watson test to establish autocorrelation between the variables in the model.

The Durbin Watson statistic was derived from SPSS and it usually ranges from 0 to 4 where values above 2 showing negative autocorrelation whilst those below 2 indicate positive autocorrelation. A perfect statistic that indicates no autocorrelation is 2. From the table 4.12, the derived statistic of 2.017 indicated no autocorrelation between the variable in the study hence the data passed the test of autocorrelation.

Table 4.12: Durbin Watson Test

Durbin-Watson
2.017

4.4.3 Multicollinearity

Multicollinearity is an occurrence where one parameter can be accurately predicted exponentially from another variable in linear regression model given a significant level of accuracy. Multicollinearity poses a problem in the model since it reduces the precision of the calculated regression coefficients which lowers the statistical power of the regression model. The Variance Inflation Factor (VIF) was used in the study to gauge the model's degree of multicollinearity. The variance inflation factor, or VIF, is a score that quantifies how much the variance of a regression coefficient is inflated as a result of multicollinearity in the model, and it can be computed for a given predictor (p) to determine the degree of multicollinearity.

As put forward by Bruce, Peter, and Andrew (2017), derived VIF can have value as low as 1 which shows absence of multicollinearity while a VIF value greater than 5 or 10 generally denotes collinearity that is undesirable. From table 4.13, all the variables had VIF values of one and less than 10 hence the study concluded that there was no multicollinearity between the variables of study.

Table 4.13: Variance Inflation Factor

Variable	Tolerance	VIF
Police Escort Rationalization	.905	1.029
Integrated Communication	.982	1.053
Police Vehicle Hiring	.929	1.116
Multi-Agency Team Approach	.868	1.041

Source: Author, (2022)

4.4.4 Heteroscedasticity

Linear regressions assume that residues in the model are not heteroscedastic i.e. homoscedastic. Heteroscedasticity occurs when the standard deviations of a predicted variable are not constant when observed over a range of independent

variable values or when compared to earlier time periods. To test if the data and the variables are homoscedastic, the Breusch Pagan test was employed on the data. This was directed to establish if there was equal distribution of variances in the model. The test has a null hypothesis that the residuals in the model are equally distributed thus proving that there is no heteroscedasticity. The decision criteria for the test is based on the p value where the null hypothesis is rejected when the Breusch Pagan p-value is less than 0.05 at 5% significance level (i.e. $\alpha = .05$). Given that the p value of 0.159 was more than 0.05, the residuals variances in the model were proved to be equal i.e. homoscedastic.

Table 4.14: Breusch Pagan Test

Model	chi2(1)	Prob > chi2
BP test	2.40	0.159

Source: Author, (2022)

4.5 Correlational Analysis

Correlation analysis is a method of statistical evaluation used to study the strength of a relationship between two, numerically measured, continuous variables. It tries to establish the variation in a given variable due to other variables. The Pearson product moment was employed by the study to measure the association between police escort rationalization, integrated communication, police vehicle hiring and multi-agency team approach as elements of logistics reforms and operational performance. The person product moment is an appropriate technique since it gives regression coefficients which can clearly show the inter relatedness of the variables in the model, it also provides significance values that dictate the significance of the relationships between the variables.

Table 4.15: Pearson Product Moment Correlation

	PER	IC	PVH	MAA	Operational Efficiency
PER	1				
IC	0.120 (0.321)	1			
PVH	0.211 (0.371)	0.359 (0.262)	1		
MAA	0.164 (0.202)	0.495 (0.279)	0.316 (0.106)	1	
Operational Eff.	0.508* (0.000)	0.312* (0.004)	0.461* (0.012)	0.380* (0.000)	1

Source: Author, (2022)

As in table 4.15, both police escort rationalization, integrated communication, police vehicle hiring multi-agency team and operational performance are positively correlated. Further, the relationship between police escort rationalization, integrated communication, police vehicle hiring multi-agency team and operational performance are significant at 95% confidence level given the p values of .000, .004, .012 and .000 which are $< \alpha = .05$. The regression coefficients of 0.508, 0.312, 0.461 and 0.380 indicate that when the variables are increased by one unit causes costs to increase by 0.508, 0.312, 0.461 and 0.380 units respectively hence improving operational performance.

The findings of correlation analysis can be echoed by the research result of Gitahi and Ogollar (2014) who carried out a study on logistics reforms and operational performance in United Nations High Commission for Refugees in Kenya. The findings indicated that police escort rationalization had a significant positive effect on operational performance. Another study done by Spinelli, Sharma, and Dines (2016) on Coordination and Communication in Police

Command and Control Rooms in police information technology organizations in the United Kingdom, recorded that Integrated Communication, Command, and Control had a significant positive effect on operational performance.

4.5.1 Inferential Statistics

The section contains presentation of inferential statistics which include the model summary, ANOVA and regression coefficients that explain both the joint and individual influence of police escort rationalization, integrated communication, police vehicle hiring multi-agency team on operational performance measured in terms of cost reduction.

4.5.2 Model Summary^b

The model summary explains the relationship between logistic reforms and operational performance where R gives the aggregate association between the variables while r^2 denotes the variations in the dependent variables that can be attributed to the independent variable in the model.

Table 4.16: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.682 ^a	.465	.307	.192

a. Predictors: (Constant), PE, IC, PVH, MA

b. Dependent variable (Operational performance)

The model summary in Table 4.16, shows an r^2 of 0.465 and an R of 0.682. This implies that there is a strong positive association between logistics reform and operational performance given R of 0.682. An r^2 of 0.465 shows that 46.5% of variations in operational performance in National Police Service in Vihiga County, Kenya can be attributed to logistics reforms. Thus, the other variations in operations efficiency cannot be explained by variations in the model.

4.5.3 ANOVA

The study conducted analysis of variance (ANOVA) to determine if there is a significant between logistic reforms and operational performance. The results were presented in table 4.17 below.

Table 4.17: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.121	4	3.030	2.72	.001 ^b
	Residual	201.490	181	1.113		
	Total	140.156	185			

a. Predictors: (Constant), PE, IC, PVH, MA

b. Dependent variable (Operational performance)

The Analysis of Variance (ANOVA) was used by the study to show the combined influence of police escort rationalization, integrated communication, police vehicle hiring and multi-agency team approach on operational performance. The approach uses the f statistic and the significance level to gauge the significance of the variables in the model. Table 4.17 shows an f statistic of 2.72 with a p value of 0.001. The f statistic is significant at 5% significance level given it is less than 0.005. The f statistic is more than a calculated f critical of 2.46 hence it is evident that logistic reforms have a significant influence on operational performance of the National Police Service in Vihiga County, Kenya.

4.5.3 Regression Coefficient

The section presents the influence of the regression reform variables (police escort rationalization, Integrated communication command and control, Police vehicle hiring and Multi agency team approach) on operational performance variable (cost reduction level).

Table 4.18: Regression Coefficients

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	1.781	.421	4.230	.000
	PER	.210	.072	-2.917	.000
	IC	.149	.048	-3.104	.010
	PVH	.190	.073	-2.603	.005
	MAA	.124	.051	-2.431	.001

- a. Predictors: (Constant), PER, IC, PVH, MA
b. Dependent variable (Operational performance)

Table 4.18 shows both regression coefficients and a constant which were derived from the multiple linear regression. They are presented in the regression equation 4.1.

$$Y = 1.781 + 0.210 \text{ PER} + 0.149 \text{ IC} + 0.190 \text{ PVH} + 0.124 \text{ MAA} \quad (4.1)$$

From the multiple linear regression, a constant of 1.781 was derived. The constant implied that when all variables i.e. (Police escort rationalization, Integrated communication, Police vehicle hiring, Multi agency team approach) are kept constant, operational performance (cost reduction levels) of National Police Service in Vihiga County stands at 1.781 units. The regression constant was significant at 95% level of significance given its p value of 0.000. The multiple linear regression coefficients have been discussed as per the objectives of the study in the subsequent subsections.

4.5.3.1 Police Escorts Rationalization and Operational Performance

The study's first objective was aimed at determining the influence of police escort rationalization on operational performance in the National police service in Vihiga County, Kenya. As a result, the first null hypothesis the study was testing stated that there is no significant influence between police escort rationalization and operational performance of the national police service in

Vihiga county Kenya. From the multiple regression results portrayed in table 4.18, police escort rationalization had a regression coefficient of analysis resulted into a coefficient of 0.210 which had a p value of a p value of .000 and a t statistic of -2.917. The coefficient showed that a percentage increase in police escort rationalization causes a 21% increase in operational performance hence improvement in operational performance. The p value of .000 is significant at 95% confidence interval given that it is more than 0.05. Hence, the relationship between police escort rationalization and operational performance was found to be significant.

Subsequently, the null hypothesis was rejected and it was concluded that there exists a significant influence between police escort rationalization and operational performance of National Police Service in Vihiga County. The findings are in line with the descriptive statistics on the objective which tried to determine if Kenyan police service levels of low and high skilled functions has increased over the past five years, police escort commodification has increased over the last five years, the level of cargo theft during transits has reduced in the past five years due to police escort rationalization. Most of the respondents agreed and strongly agreed to the statements indicating that the National Police Service has put in place police escort rationalization in Vihiga County.

The findings concur with the results of a study done by Waiyaki (2013) aimed to evaluate the effectiveness of a modern fleet management system in improving the logistics of transporting staff, goods, and materials in Kenya Power & Lighting Company, a utility firm in power distribution. The study findings indicated that police escorts rationalization had a significant effect on logistical efficiency. However, a research by Gaoyan, Lihua and Baofeng, (2019) on the

impact of logistics platforms and operational performance found conflicting results where logistics reforms had a negative insignificant impact on operational performance.

4.5.3.2 Integrated Communication, Command and Control and Operational Performance

The second objective was to establish the influence of integrated communication command and control on operational performance in the National police service in Vihiga County. Hence the second null hypothesis stated integrated communication command does not have a significant influence on the operational performance in the National Police Service in Vihiga County, Kenya. According to the multiple regression results shown in Table 4.18, integrated communication command and control had a regression coefficient of 0.149 with a p-value of .010 and a t statistic of -3.104. The coefficient indicated that a percentage increase in integrated communication command causes a 14.9% increase in operational performance hence improvement in operational performance. The p value of .000 is significant at 95% confidence interval given that it is more than 0.05. Thus, the relationship between integrated communication command and operational performance was found to be significant.

The null hypothesis was therefore rejected and the study concluded that integrated communication command has a significant influence on operational performance of the National Police Service in Vihiga County. The findings echo findings of descriptive statistics where most respondents were in agreement that the level of integrated cargo monitoring has increased in the past five years, the scope of communication integration and coordination within the national police

service has significantly increased in the past five years, road surveillance, control as an element of integrated communication command and control has increased its frequency within the national police service and cargo tracking levels has reduced cargo safety cost.

Further the findings are also in agreement with study findings of research done by Duque (2015) to establish the influence of fleet leasing management practices, specifically vehicles repair and maintenance, on the logistics efficiency of the Philippine police service. The study used a descriptive survey research design on a population drawn from all police officers involved in fleet management. Data collection was done by use of structured questionnaires. The study found that integrated communication, command and control had a significant effect on operational performance.

Another study was done by Spinelli, Sharma and Dines (2016) on Coordination and Communication in Police Command and control rooms in police information technology organizations in United Kingdom. Using a descriptive research design, and a sample population of 230, the findings recorded that Integrated Communication, Command and Control had a positive significance effect on operational performance.

4.5.3.3 Police Vehicle Hiring and Operational performance

The study's third objective of the study was to ascertain the influence of police vehicle hiring on the operational performance of the National police service in Vihiga County, Kenya. The null hypothesis was that there is no significant influence between the police vehicle hiring and operational performance of the national police service in Vihiga County, Kenya. A multiple regression analysis

employed produced a regression coefficient of .190 which had a p value of .005 and a t statistic of 2.603. The coefficient implied that a percentage improvement in police vehicle hiring increases operational performance by 19.0% hence improvement in operational performance.

A p value of 0.05 shows that police vehicle hiring had a significant influence on operational performance of national police service in Vihiga County at 5% significance level given that it is less than 0.05. The t statistic of 2.603 is more than a t calculated of 1.984 which further supported the fact that police vehicle hiring had a significant influence on operational performance. The null hypothesis was hence rejected and the study held that police vehicle hiring has a significant influence on operational performance of National Police Service of Vihiga County, Kenya. The findings are in agreement with descriptive statistics findings on police vehicle hiring which indicated that the national police service has fully incorporated leasing practices for their vehicles, The incorporation of leased vehicles has improved service delivery, insurance cover levels have increased confidence of parties using vehicles of the Kenya national police service, adopted police vehicle hiring have promoted the police service operations within the 450 litters per month fuel allocation guidelines within five years etc.

The results of inferential statistics findings were in agreement with the findings of Wonyoike (2013) who studied on iImplimentation of police reforms and how it effects on service delivery in Nyeri police division. Using a survey design and sample population of 288 respondents, the findings of the study indicated that police vehicle hiring had a significant effect on service delivery. Simiyu, (2013) also did study on determinants of lease financing decision by non-financial firms

quoted in Nairobi securities exchange, Nairobi Kenya. Using a cross-sectional research design on 40 non financial companies, questionnaires were used to collect primary data. The findings indicated that vehicle leasing had significant positive effect on operational performance.

4.5.3.4 Multi-Agency Team Approach and Operational Performance

The last and fourth objective was to determine the influence of multi-agency team operations, approach on the operational performance of National Police Service in Vihiga County, Kenya. The null hypothesis therefore stated that there is no significant influence between the multi-agency team operations and the operational performance of the national police service in Vihiga County, Kenya. From the multiple regression results portrayed in table 4.18, multi-agency team operations, approach had a regression coefficient of 0.124 which had a p value of a p value of .001 and a t statistic of -2.431. The coefficient indicated that a percentage increase in multi-agency team operations, approach causes a 12.4% increase in operational performance hence improvement in operational performance. The p value of .000 is significant at 95% confidence interval given that it is more than 0.05. Thus, the relationship between multi-agency team operations, approach and operational performance was found to be significant.

As a result, the null hypothesis was rejected and it was concluded that there exists a significant relationship between multi-agency team operations, approach and operational performance of National Police Service in Vihiga County. The findings were in line with descriptive statistics on multi-agency team operations, approach where most of the respondents agreed and strongly agreed that multi-agencies coordination levels have increased in the past five years, multi-agencies information sharing level has increased in the national police service for the past

five years due to the multi-agency approach, the level of cargo clearance turn-times has increased due to the multi-agency approach for the past five years, levels of inspection of cargo have improved in the past five years due to the multi-agency approach and vehicle hijacking have reduced since the adoption of the multi-agency approach in the police service.

Similar studies have been done on multi-agency team operations, approach and operational performance and their findings were found to be similar to this research. James (2020) investigated the implication of national police service reforms on response to terror activities in Mandera County, Kenya. The study aimed at determining the extent to which police response to terror activities has become a national issue following the rolled the implementation of our logistic reform. The findings indicated that multi agency operations approach had a significant positive effect on operational performance.

Another study was done by Kibusia, (2020) on contribution of a multi-agency approach to security in the fight against terrorism in Kenya: A case study of disciplined services. Using a descriptive survey research design and target population of 1,310 with a sample of 306 obtained through purposive and snow ball sampling was used. Questionnaires were used to collect primary data. However, the finding was contradictory to the findings of this study since multi-agency approach was found to have a negative insignificant effect operational performance.

CHAPTER 5

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

This chapter presents the summary, conclusion, recommendations and areas for further study.

5.2 Summary of the Findings

The purpose of the study was to establish the influence of logistic reforms on the operational performance of the National police service in Vihiga County. Descriptive and Inferential data analysis techniques were used. Most of the respondents agreed to the questions while few disagreed. On the other hand, all the variables had significant influence meaning that the study findings were in line.

5.2.1 Police Escort Rationalization

Police escort rationalization had a regression coefficient of -0.210 and a probability value of 0.000 which was less than 0.05 . That is a unit increase in police escort rationalization increases operational performance by 0.210 units. Therefore, the null hypothesis was rejected at 0.05 significance level. This indicated that police escort rationalization has a significant positive effect on operational performance at a 5% significance level.

5.2.2 Integrated Communication, Command and Control

Integrated Communication, command and control had a regression beta coefficient of 0.149 and a probability value of 0.010 which was less than 0.05

led to rejection of the null hypothesis. This integrated communication, command and control had a significant positive effect on operational performance at a 5% level of significance. That is a unit increase in risk assessment improves operational performance by 0.149 units.

5.2.3 Police Vehicle Hiring

Descriptive statistics proved that a larger percentage of respondents agreed that risk police vehicle hiring had a significant influence on operational performance of police service in Vihiga County. Operational performance had a regression coefficient of 0.190 and probability value of 0.0 which was less than 0.005. This showed that police vehicle hiring had a significant positive influence on operational performance at 5% significance thus the null hypothesis was rejected. That is a unit increase in numbers of police hired vehicles improves operational performance by 0.190 units.

5.2.4 Multi-Agency Team Approach and Operational performance

Multiagency team approach had a regression coefficient of 0.124 with a probability value of 0.001 which was less than 0.05, thus led to the rejection of the null hypothesis at 95% confidence level. This implies that, multi-agency team approach had a significant positive influence on operational performance.

5.3 Conclusions

It was concluded that, police escort rationalization, integrated communication command and control, police vehicle hiring and multi-agency team approach had a significant positive influence on operational performance

5.4 Recommendations

The following recommendations were obtained from the findings of the study.

5.4.1 Police Escort Rationalization

Since the descriptive statistics showed that some people disagreed implies that although the county have embraced police escort rationalization but not 100%, which may lead to higher cases of car hijacking and other problems. Therefore, it was recommended that county governments to embrace police escort rationalization practices such as police escort monitoring and prevention of car hijacking to effectively carry out their operations

5.4.2 Integrated Communication, command and control

Vihiga County have not implemented the integrated communication command and control fully. It is therefore recommended that the police service in Vihiga County to add more communication devices, improve on tracking system and other equipment to better operational performance.

5.4.3 Police Vehicle Hiring

According to the descriptive statistics, it is evident that police service in Vihiga County is still using vehicle not hired to some extent. This reduces the level of operational performance since it forces most of the police service to look for other means to respond to emergencies. It was recommended that police service in Vihiga County should embrace vehicle hiring in order to increase the operational performance.

5.4.4 Multi-agency Team Approach

Majority of the respondents agreed while a few strongly disagreed multi-agency team approach is not embraced by Vihiga county government police service,

implying that the multi-agency team approach is not adopted to maximum. Therefore, it is recommended that the management of Vihiga County police service to offer support through use of multi-agency approach to improve operation performance

5 Areas for Further Studies

The research therefore recommends that further studies to be conducted on logistics reforms and operational Performance of other industries rather for instance; manufacturing firms other than the security industry. Since the study variables explained only approximately 47% of the variation in logistics reforms, there is need for more studies to be done on other factors that affect operational performance of the national police service in Vihiga County, Kenya like policy formulation, training and development, operations costs etc.

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APPENDICES

Appendix I: Introduction Letter

Dear Sir/Madam,

Re: Request for data collection

I am a graduate student of Kaimosi Friends University. As part of the university requirement, I am required to research the above subject. Because of this, you have been randomly identified as a respondent in this exercise. I would like to seek your kind indulgence in completing the enclosed questionnaire.

The information you give will be strictly for this study and will be treated with utmost confidence.

Your cooperation will be highly appreciated.

Thank you.

Norman Bongoli Mwawasi

Sign _____

Appendix II: Questionnaire

SECTION A: BACKGROUND INFORMATION

Please put a tick (✓) against the appropriate response.

What is your Job Cadre:

i. Constable Non-commissioned officer

Member of inspectorate Gazetted officer

ii. Area of deployment

Transport Traffic Records General duties

iii. Years of experience:

Below 5 Years

5-10 years

10-15 years

15-20 years

Above 20 years

iv. Formation:

Kenya police service

Administration police

Directorate of criminal investigation

SECTION B: POLICE ESCORTS RATIONALIZATION

4. The following statements relate to police escorts. Kindly respond by placing a tick (√) against each statement where: Strongly Agree {SA} =5, Agree {A} =4, Neutral {N} =3, Disagree {D} =2 and Strongly Disagree {SD} =1

S/N	Statements	5	4	3	2	1
1	The Kenyan police service levels of low and high skilled functions has increased over the past five years					
2	Managed police escort monitoring is a strategy of escort rationalization adopted by the Kenyan National Police Service.					
3	Police escort commodification has increased over the last five years					
4	Collaboration between the Kenya police service and the private security sector in relation to escort services has increased over the past five years.					
5	Police escort rationalization has increased levels of risk assessment and mitigation in the operation efficiency of Kenya police Service					
6	Reduction of car hijacking improves the operational performance of the Kenya police Services due to police escort rationalization					
7	The level of cargo theft during transits has reduced in the past five years due to police escort rationalization.					
8	Police escort rationalization has reduced the time taken in transporting cargo from one time to another for the last five years.					

SECTION C: Integrated Communication Command and Control

4. The following statements relate to integrated communication, command and control

Kindly respond by placing a tick (√) against each statement where: Strongly Agree

{SA} =5, Agree {A} =4, Neutral {N} =3, Disagree {D} =2 and Strongly Disagree

{SD} =1

S/N	Statements	5	4	3	2	1
1	The level of integrated cargo monitoring has increased in the past five years					
2	The scope of communication integration and coordination within the National Police Service has significantly increased in the past five years					
3	Road surveillance as an element of integrated communication command and control has increased its frequency within the National Police Service.					
4	Integrated control has increased operational performance within the National Police Services within the last five years.					
5	Cargo tracking levels has reduced cargo safety cost.					
6	High road surveillance levels have improved the operational performance of the National Police Service because of integrated communication command and control.					
7	Cargo clearance turn time has improved in the past five years due to integrated communication command and control.					

SECTION D: POLICE VEHICLE HIRING

6. The following statements relate to police vehicle hiring practices. Kindly respond by placing a tick (✓) against each statement where: Strongly Agree {SA} =5, Agree {A} =4, Neutral {N} =3, Disagree {D} =2 and Strongly Disagree {SD} =1

S/N	Statements	5	4	3	2	1
1	The National Police Service has fully incorporated leasing practices for their vehicles.					
2	The incorporation of leased vehicles has improved service delivery.					
3	The adopted police vehicle hiring have promoted the National Police Service operations within the 450 litters per month fuel allocation guidelines within five years					
4	The repair and maintenance function has significantly reduced the workload of the National Police Service to concentrate on their core activities.					
5	Insurance cover levels have increased confidence of parties using vehicles of the Kenya National Police Service.					
6	The fuel card/voucher issued to logistic officers has facilitated prudent use of fuel in the National Police Service.					
7	Integrated communication command and control within the National Police Service has significantly reduced cargo safety costs					
8	Integrated communication command and control within the National Police Service has significantly reduced number of car hijackings.					

SECTION E: Multi-Agency Team Approach

7. The following statements relate to multi-agency approach practices **Kindly** respond by placing a tick (✓) against each statement where: Strongly Agree {SA} =5, Agree {A} =4, Neutral {N} =3, Disagree {D} =2 and Strongly Disagree {SD} =1

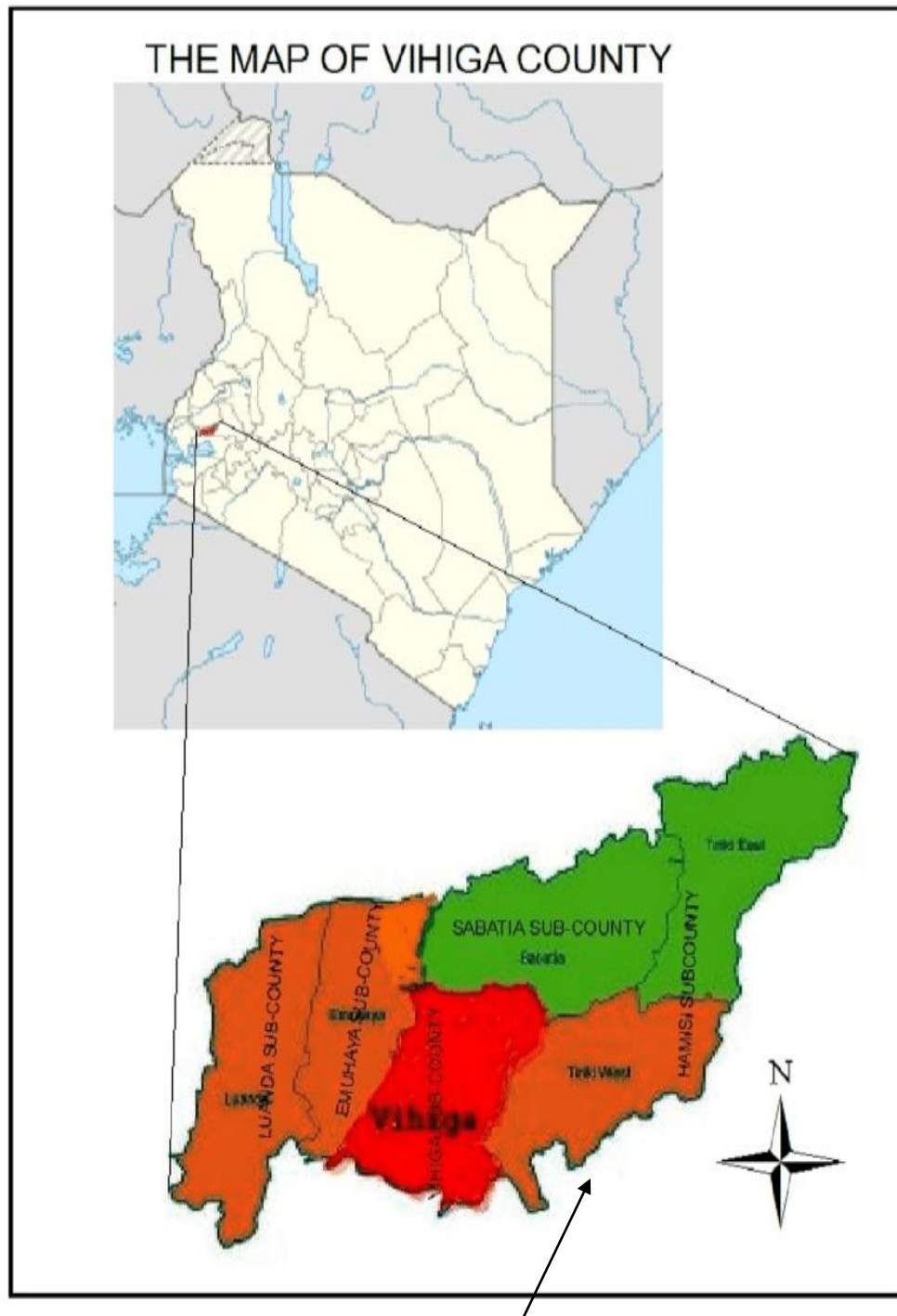
S/N	Statements	5	4	3	2	1
1	Multi-agencies coordination levels have increased in the past five years.					
2	The multi-agencies information sharing level has increased in the national police service for the past five years due to the multi-agency approach					
3	The level of cargo clearance turn-times has increased due to the multi-agency approach for the past five years.					
4	Cargo monitoring and tracking as improved in the past five years due to the multi-agency approach.					
5	The levels of inspection of cargo have improved in the past five years due to the multi-agency approach.					
6	Vehicle hijacking have reduced since the adoption of the multi-agency approach in the police service					
7	Cargo safety have improved because of the multi-agency approach.					

SECTION F: OPERATIONAL PERFORMANCE

8. The following statements relate to operational performance Kindly respond by placing a tick (√) against each statement where: Strongly Agree {SA} =5, Agree {A} =4, Neutral {N} =3, Disagree {D} =2 and Strongly Disagree {SD} =1

S/N	Statements	5	4	3	2	1
1	Police escorts rationalization enhances operational performance					
2	Integrated communication, command and control has an influence on operational performance					
3	Police vehicle hiring facilitates operational performance					
4	Multi-Agency team approach has an influence on operational performance					


APPENDIX III: MAP OF STUDY AREA




Area of Study

Source: Kenya data

Appendix IV: NACOSTI Permit


REPUBLIC OF KENYA
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 502195
Date of Issue: 13/July/2022

RESEARCH LICENSE




This is to Certify that Mr., Norman Bongoli Mwawasi Nguku of Kaimosi Friends University College , has been licensed to conduct research in Vihiga on the topic: LOGISTICS REFORMS AND OPERATIONAL EFFICIENCY OF THE NATIONAL POLICE SERVICE IN VIHIGA COUNTY, KENYA for the period ending : 13/July/2023.

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Office of the Director, Directorate of Graduate Studies

REG NO: DGS/MBA/G/0019/2019

Date: 17th June, 2022

FROM: DIRECTOR OF GRADUATE STUDIES

TO: Norman Bongoli

SUBJECT: APPROVAL OF PROPOSAL

This is to inform you that your MBA Proposal titled “Logistics Reforms and Operation Efficiency of the National Police Service in Vihiga County, KENYA” was approved at the 98th UCAB meeting of 14th June, 2022 to enable you proceed to the field.

You will work closely with the following approved supervisors in executing your research;

1. Dr. Denis Ouma - Department of BAMS
2. Dr. Nurwin Fozia - Department of Supplies Management (KAFUCO)

You will be expected to submit progress reports every two months regularly to the Director, Graduate Studies. Do not hesitate to consult the undersigned on any matter pertaining to your studies. The Directorate of Graduate Studies wishes you success in your studies.

Thank you,

Dr. B.R. Shiundu, Ph.D.

Director of Graduate Studies

Copy to:

- Deputy Principal (A&SA)
- Dean, SOBE
- Supervisors
- Registrar Academics
- COD, Supplies Management