THE CAPACITY OF DIRECTORATE OF CRIMINAL INVESTIGATION DEPARTMENTS IN CRIME SCENE MANAGEMENT: A CASE STUDY OF KAJIADO NORTH SUB-COUNTY

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June 2022

DECLARATION

I declare that this document and the research that it describes are my original work and that they have not been presented in any other university for academic work.

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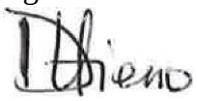
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This research was conducted under our supervision and is submitted with our approval as university supervisors.

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DEDICATION

I dedicate this work to my wife Alice Nyaguthii and son Ivan Muriuki who have been a source of encouragement and inspiration during the writing period.

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ABSTRACT

Crime scene management has been an issue of great concern in Kenya. Criminal cases have been rested without securing convictions due to mismanaged crime scenes and bungled evidence leading to an increase in crime. Kajiado North Sub-County proportionately shares this high crime rate and this, therefore, led the researcher to investigate the extent to which the Kajiado North's Directorate of Criminal investigations (DCI) departments could deliver what was required in crime scene management. The study was guided by the following objectives; to examine the training levels and skills of officers, the adequacy of technological resources used in crime scene management, and the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub County. The study was anchored on Lockard's exchange principle and the Crime Scene Reconstruction Theory. In the conceptual framework the management of the crime scene was the dependent variable, while the independent variables were; training levels and skills of officers in crime scene management, adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management and external and internal areas of improvement for enhanced crime scene management. This study employed a descriptive survey research design. The study was carried out in Kajiado North Sub County Police Command in Kajiado County. The sample size to be studied was 116 respondents drawn from a population of 610. The sampling technique is missing. This sample was selected through a proportionate stratified random sampling method. The research instruments used in this research included questionnaires and key informant interviews. The research instruments were tested for validity and reliability. The statistical software analysis tool, SPSS version 26 was used to analyse quantitative data contained in the research and instrument reliability. An overall Cronbach Alpha coefficient of 0.899 was obtained, showing that the questionnaires were reliable. Validity was ensured by supervisors who checked the instruments and their comments were integrated into the final data collection tools. Frequencies and percentages were used in the analysis of quantitative data, which was presented in figures and tables, while content analysis was used for qualitative data. Qualitative data were presented using themes that arose from the responses. The study found that formal training on crime scene management was present for most security officers, though the training was done before the officers joined their respective positions. In addition, important equipment such as lockable cabinets, remote stations, and logistical equipment was missing, which hampered the process of crime scene investigations. Further, both internal and external factors existed that affected how crime scene management was conducted. The study recommends training for all security officers who are involved in crime scene management. The study further recommended that the government should work towards providing necessary instruments such as lockable cabinets for all officers involved in crime scene management, in addition to enough vehicle and equipment such as gloves, stationary, body bags, biohazard bags, first aid kits, and bodily fluid collection kit that were not present for all officers. There is also a need for the promotion of knowledge to the public through awareness creation programmes that bribery and corruption should be avoided, as this affects them in one way or another. The findings of this study are expected to bring forth significant contributions to policy, research, and community. The research findings can further be used by law enforcers and contribute to the available knowledge of crime scene management.

OPERATIONAL DEFINITION OF TERMS

Curtilage: In this study, it implies a portion of a residence is not open to the public. Sidewalks and alleys are open to the public. But the curtilage is reserved for private use by the property owner or the family.

Dactyloscopy: This refers to the science of fingerprint identification in this study.

Defendant: Based on this study, it implies an individual charged and brought to trial. Before being charged, an individual is usually a suspect.

Detective: In this study, it is one employed or engaged in conducting investigative work to identify lawbreakers or in getting information that is not readily available

Duty Officer: A duty officer is a person who is on call or present in the police station for 24 hours. He is an experienced officer who is responsible for managerial oversight of the effective running of the police station.

Evidence: Anything, either in physical form or otherwise that bears witness to an allegation is usually legally submitted to a tribunal or court to ascertain the truth.

Felony: In the current, it refers to a major crime that usually carries a penalty of imprisonment of over one year in a state penitentiary or death. Examples are aggravated assault, homicide, and robbery. More serious than a misdemeanour.

Head of Investigations: The Head of Investigations is responsible for the management and supervision of all criminal investigations conducted in the local police area.

Investigator: For purpose of this study, it is a person who is actively involved, or even in charge of close examination or systematic inquiry into a crime committed with a view to uncovering the actions predating, and leading to the occurrence of the crime and the perpetrators of the crime.

Occurrence Book (OB): This refers to the primary document used for recording details of all crimes and incidents that are reported in the local police station in this study.

Regional Commander: The regional commander is in overall command of a Kajiado police region and is directly responsible and accountable for all policing activity in the region.

Station Commander: The station commander is in overall command of the local police area and the police station, and is directly responsible and accountable for all police investigations and police activity.

ABBREVIATIONS AND ACRONYMS

AP	Administration Police
ICITAP	International Criminal Investigative Training Assistance
CSI	Crime Scene Investigation
CSM	Crime Scene Management
DCI	Directorate of Criminal Investigations
DV	Dependent Variable
FBI	Federal Bureau of Investigations
IPOA	Independent Policing Oversight Authority
IV	Independent Variable
JLOS	Justice Law and Order Sector
MTRH	Moi Teaching and Referral Hospital
NP	National Police
NPS	National Police Service
NTSCIU	National and Transnational Serious Crimes Investigation Unit
SPSS	Statistical Package for Social Science
USA	United States of America

CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

1.1 Introduction

This study sought to investigate the capacity of Kajiado North Sub-county's Directorate of Criminal Investigations (DCI) in the management of crime scenes within the sub-county. In investigating the capacity, the study looked at the training levels and skills of officers, adequacies of technologies and instruments used, and external and internal areas of improvement for enhanced crime scene management as the independent variables (IV) while crime scene management was the dependent variable (DV).

This chapter first lays down the background of the intended study to promote a proper understanding of the study topic to the reader. It considers what is expected in an ideal situation and compares it to what happens in the rest of the world. The problem statement is then exposed and the purpose of the study is stated. The objectives of the study are formulated and the research questions are posed. The significance, scope of the study, delimitations, limitations, and assumptions of the study are established and finally theoretical and conceptual frameworks are discussed.

1.2 Background of the Study

Effective crime scene management all over the world remains central to the successful prosecution of criminal offenders. The concept of crime scene management was first popularized in the United Kingdom in the 17th century when Fielding Henry established a sizeable group of gifted volunteers to assist in investigations (Muthini, 2018). Before this, the main methods available for evidence collection were eyewitness accounts and confessions obtained from the infliction of physical torture

(Saldivar, 2017). In Malaysia, Mohamad (2019) noted that evidence collected through this method in most cases was however not admissible in courts as it could not stand proper scrutiny. Following successes in Fielding's methods, Saldivar (2017) observes that investigators quickly discovered that a crime scene, if properly sealed off and investigated, contained a wealth of information useful in revealing preceding criminal actions and perpetrators.

In the United State of America, following Supreme Court rulings in the 1960s in several landmark cases like those for the State of Illinois vs Escobedo, Wainwright vs. Gideon, and Miranda vs. the State of Arizona, the importance of evidence collected from a properly managed crime scene was laid bare (Chisum, 2016). This led to a catalyzed continual reliance on crime scene evidence and the use of forensic science in prosecuting cases. As a direct result, more emphasis was placed on developing a curriculum for the training of investigators on proper management of crime scenes with research being advanced in the development of modern technologies and equipment or instruments for analyzing and solving crime scene riddles (Cunha, Cavalcante & Patel, 2017). This led to an increase in the rates of convictions for crimes that would initially have resulted in a cold case being successfully concluded (Chisum, 2016).

The phrase "crime scene management" refers to the procedures employed to guarantee that all forensic evidence is recovered from a crime scene (Sutton, Trueman, & Moran, 2016). In a small scene, this can be as simple as the first officer's preservation and protection measures, as well as counsel to the victim (Sutton et al., 2016). The required cordons, guards, and protection measures such as tents at a big site. The operations must be organized in such a way that all evidence recovery may

be done in a logical order that assures that no other evidence type is harmed. This must be done straightforwardly, demonstrating to the court the examiner's neutrality.

The importance of enhanced capacity in crime scene management cannot be overstated. Geldenhuys (2020) observed that in some sampled South Africa's townships, officers lost their cases in courts due to reliance on complainants' testimony only and as most judicial systems are based on evidential facts where there is none, there is no case to rule on. In some instances, where there were exhibits collected from a crime scene, Geldenhuys (2020) further noted that cases were lost due to mishandled and contaminated evidence. This, the study attributed to a lack of properly working equipment or instruments and technologies backed with a lack of adequate training and monitoring with periods of evaluation.

In Egypt, Feldman (2015) noted that various challenges faced by investigators during their work as the results of their investigations have serious consequences on the freedom and rights of the accused and victim respectively. In her study on challenges faced by Uganda's police force, Musambayi (2015) also noted external interference and monetary inducements hinder a fair administration of criminal justice.

When an officer uncovers or has reasonable suspicion of a severe occurrence, the incident location must be treated as a crime scene. All sites where victims or suspected offenders are located, as well as any routes they are suspected of taking to or from the scene, are included within the limits of a crime scene (Touroo & Fitch, 2018). In the aftermath of an occurrence, there may be several crime scenes. All individuals should be evacuated from the area, and a record of who was there at the time the location was recognized should be kept. To protect evidence, an inner perimeter must be constructed around a crime scene. Before the arrival of police, no

one should be allowed entry to a crime scene unless it is required for personal protection or emergency medical treatment. The only other exemption is when entering a crime scene is required to preserve evidence from being damaged or destroyed (Lee, 1994). The entry point should not be the same as the path used by a suspected criminal. To keep anybody other than investigators from reaching the crime scene, an outside perimeter must be constructed beyond the inner perimeter. An exclusion zone may be constructed outside the outer boundary to provide investigators with enough room to operate without being disturbed by regular movements or bystanders (Svensson, Wendel, & Nicol, 1965). The perimeter of a crime scene might be marked with tape or by blocking off sections. After the scene has been secured, the first arriving officer must begin a serious incident report.

In Kenya, the Kenya National Disaster Response Plan report of 2018 attributed the increase in unresolved crimes to contamination of evidence at the crime scene and its poor handling and storage, as Mburu, Maina, and Waithaka (2017) noted could be a result of external interference through coercion and bribery. A report prepared by the Directorate of Public Prosecutions (DPP) in March 2019 claimed that less than 8% of cases reported to Kenyan police resulted in convictions thus creating a common belief that perpetrators of serious crimes almost always manage to evade accountability.

Kajiado North sub-County, being in close proximity to the capital city of Nairobi, closely harbours similar crime figures. Crime rates have been on the increase with low convictions due to weak cases presented to the court (Mbaya, 2016). This, in most cases, has been attributed to minimal, or lack of relevant training and a shortage of basic working equipment (Nderitu, 2018). In some more desperate cases, this will include the lack of means of transport to reach the crime scene which eventually may

lead to delay in securing the crime scene and thus loss of crucial time-dependent evidence. In their defence, when put on the spot, police investigators have laid bare that various challenges dog them in their course of duty (Mbaya, 2016).

Muthini (2018) noted that investigators cited external interference as being a major hindrance, others include religious beliefs where due to certain religious beliefs, families may unwittingly and unintentionally contaminate the crime scene thus concealing certain crucial evidence. In case of suicide or rape, family members have acted to hide these facts thus misguiding investigators when defining the extent of their crime scene (Nderitu, 2018). Problems that emanate due to the inability to effectively gather evidence in the criminal investigation through proper crime scene management can have serious consequences such as unpunished offenders, wrongful convictions of individuals, crimes that remain unsolved, and lawlessness among others (Farrell, 2018).

Kajiado North Sub-County, especially the Ngong area, is one of the regions with a sharp increase in the number of crimes and dismissals of court cases due to insufficient and weak evidence (Ondieki, 2017). There has also been increased resource investment in DCI in terms of increased training, technologies, and provision of judicial services. However, despite this, there is a sharp increase in the number of crimes and dismissals of court cases. It is important to understand the current capacity to aid in its enhancement by directing significant efforts to build strong administration in the policing unit. This move will ensure the proper delivery of justice to both the suspect and the victim of the crime. The study sought to establish the capacity of the directorate of criminal investigation departments in crime scene management: a case study of Kajiado North Sub-County.

1.3 Statement of the Problem

According to crime data on the DCI Kenya website for 2015/2016, commercial crime increased significantly from 24, 931cases in 2014/2015 to 37,114 cases at the end of 2016. (KNBS, 2016). This represents a 48.9% rise in crime rates in only three years. However, since 1998, records from the Kenya National Crime Centre, the Director of Public Prosecutions (DPP), and the Judiciary Reviews reveal a rise in the frequency of acquittals owing to a lack of evidence from Scenes of Crimes investigators (IRDU, 2016). One example is the rise in cold-blooded killings of prominent politicians and persons in which evidence was gathered but was ineffective in solving the crimes, resulting in suspects being let off the hook.

On the other side, the Kenya National Disaster Response Plan report from 2016 claims that tampering with evidence at the crime scene is to blame for unsolved crimes, failed prosecution, non-punishment of criminals, and false conviction(s) (RoK, 2016). This might be due to a lack of evidence or contamination of evidence during the transit and/or storage phases of the inquiry. For crime scene investigators, this is a significant issue. Furthermore, the crime scene investigation section is handicapped by a lack of resources and inexperienced staff (Nyakundi, 2015).

Kajiado North Sub-County, due to its proximity to the capital city, experiences security challenges including high crime rates, insecurity, and mismanagement of crime scenes. Many cases have collapsed and suspects are set free over a lack of credible evidence that can secure a successful prosecution (Ogoti, 2018). This, therefore, led the study to question if there was an adequate capacity to manage crime scenes in Kajiado North Sub-County; hence the knowledge gap that this study sought to fill.

1.4 Purpose of the Study

The purpose of the study was to investigate the capacity of the Kajiado North's Sub-County DCI's departments in crime scene management to make recommendations that will improve successful prosecutions of crime.

1.5 Objectives of the Study

The main objective of the study was to investigate the extent to which the Kajiado North's Sub-County DCI departments can deliver what is required in crime scene management. The specific objectives of the study were to:

i. Examine the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub-County.
ii. Determine the adequacy of technological resources used in crime scene management in Kajiado North Sub-County.
iii. Explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub-County.

1.6 Research Questions

The study was guided by the following research questions:

i. What are the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub County?
ii. What are the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub County?
iii. What external and internal areas of improvement are required by the DCI for enhanced crime scene management in Kajiado North Sub County?

1.7 Significance of the Study

The findings from this study are expected to bring forth significant contributions to policy, research, and community. To policy, the research findings can be used by law enforcers and more specifically, those attached to the crime scene investigation department to highlight the areas of improvement, key challenges in their knowledge and skills in the collection, transportation, and storage of crime scene evidence. Secondly, since the study focuses on gaps that investigators face in their line of duty and explores the various factors influencing their performance, and as such, the study will make recommendations that can be adopted to improve policies on crime scene management and collection and storage and presentation of evidence to courts and general improvement of the work environment.

The community will benefit from the study by having improved security around them, and a quick and effective response to crimes happening in their vicinity. Lastly, the study may contribute to the available knowledge of crime scene management. This knowledge will be available to the wider academic community. As such, the knowledge may inform the development of the teaching curriculum besides serving as reference material for criminologists, policymakers, and implementers. This will help them in finding solutions to challenges faced including reasons for the low conviction rates and identify areas of improvement.

1.8 Scope of the Study

According to Miller (2017), the scope of the study explains the extent to which the research area will be explored and specifies the parameters within which the study will be operating on. This study was majorly concerned with investigating the adequacy of the technical training of crime investigation officers in the handling of

crime scenes and evidence analysis establishing if the officers were provided with correct and adequate equipment or instruments and technologies needed to respond to a crime, cordon a crime scene and collect evidence for analysis resulting reliable conclusions and prosecution of offenders beyond a reasonable doubt. The study was conducted between November 2020 and May 2021, covering seven months.

A descriptive research design was used and relied on the information provided by selected informants in the Kajiado Sub-County to establish the capacity of the officers from the directorate of criminal investigations in crime scene management. The study adopted direct interviews and questionnaires. The geographical scope of the study was limited to Kajiado North Sub-County located north of Nairobi county and southeast of Nakuru County. Respondents were drawn from the DCI, officers from the Administration Police, general duty police officers, and heads of administrative units within the Kajiado North sub-County. This is because a wide pool of key informants is relevant as they have a daily encounter with ongoing criminal investigations, case hearings as well as prosecutions or case dismissals. Their opinion was therefore highly likely to reflect the real situation of the preparedness of the director of criminal investigations in crime scene management.

1.9 Delimitations of the study

Theofanidis and Fountouki (2018) define delimitation as those parameters that are within the control of the researcher and that are bound by the scope as well as defines the limit of the study. The researcher therefore deliberately made choices during the study planning to define boundaries such as what to include or exclude in the study. The research only investigated the capacity of the Kajiado North's DCI in the management of the crime scene. The research did not focus on other aspects of criminal investigations outside the crime scene. Other aspects that were likely to

affect crime scene management such as the existence of an effective institutional and legislative framework were not looked at in this study due to the less impact than they would have on the frameworks. However, the objective of the internal and external factors was expected to bring about the relevant institutional and legislative framework challenges that hinder effective crime scene management. The study targeted the crime scene investigators, general investigators, crime intelligence officers, general duty officers, and administrative officers.

1.10 Limitations of the Study

Limitations of the study are those characteristics of design or methodology that can affect the application or interpretation of the results of a study (Creswell & Clark, 2017). The study was done during the time of the Coronavirus (Covid-19) pandemic between 2020 and 2021 that necessitated the closure of offices, social distancing, and travel restrictions. This limited the researcher's ability to collect data promptly and it was not possible to undertake physical group meetings. To overcome this, interviews were undertaken using the online platform Zoom, especially with interviewees above 50 years or those with underlying medical conditions. Another limitation was that some information was unavailable or was too sensitive. To address this challenge, the researcher sought to reassure the respondents of the confidentiality of their identities.

1.11 Research Assumptions

Venero and Davila (2020) state that an assumption is an unexamined belief, an act of faith that does not have empirical evidence. Assumptions, therefore, provide a basis to develop theories and research instruments and therefore influence the development and implementation of the design process. The study assumed that there

were challenges in how police investigators handle crime scenes in their investigation. There were issues with equipping the police officers involved in crime investigation, which impacted the ability to manage crime scenes. There was also an assumption that a low level of training in crime scene investigation contributed to poor management of crime scenes in Kajiado North Sub-County. Another assumption was that the low capacity of the police service to manage the crime scene was linked to the failure to effectively prosecute perpetrators of serious crimes such as homicide.

1.12 Theoretical Framework

The theoretical framework is the structure that can hold or support a theory of a research study (Abend, 2013). The theoretical framework introduces and describes the theory that explains why the research problem under study exists. The study was anchored on Lockard's exchange principle theory and the Crime Scene Reconstruction Theory.

1.12.1 Lockard's exchange principle theory

In forensic science, Lockard's principle holds that the perpetrator of a crime will bring something to the crime scene and leave with something and that both can be used as forensic evidence. Dr. Edmond Lockard was a pioneer in forensic science who became known as the Sherlock Holmes of France. He formulated the basic principle of forensic science as every contact leaves a trace.

Fraser (2020) expressed the principle as follows: Wherever an individual steps, touches, or leaves, even unconsciously, will serve as a silent witness against him. Not only will the fingerprints or footprints, but the hair, the fibres from his clothes, the glass he breaks, the tool mark he leaves, the paint he scratches, and the blood or semen he deposits or collects. All of these and more, bear mute witness

against him. This is evidence that does not forget. It is not confused by the excitement of the moment. It is not absent because human witnesses are. It is factual evidence. Physical evidence cannot be wrong, it cannot perjure itself, and it cannot be wholly absent. Only human failure to find it, study, and understand it, can diminish its value.

Fragmentary or trace evidence is any type of material left at (or taken from) a crime scene, or the result of contact between two surfaces, such as shoes and the floor covering or soil, or fibres from where someone sat on an upholstered chair (Marchand, 2018). When a crime is committed, fragmentary (or trace) evidence needs to be collected from the scene. A team of specialized police technicians goes to the scene of the crime and seals it off. They record video and take photographs of the crime scene, victim/s (if there are any), and items of evidence. If necessary, they undertake ballistics examinations. They check for foot, shoe, and tire mark impressions, plus hair as well as examine any vehicles and check for fingerprints – whole or partial. This theory, therefore, informed important aspects such as external and internal factors to investigators affecting their ability and performance in managing a crime scene and the nature of their training and skills to handle such incidences. However, the theory does not cover aspects such as the technologies and instruments used to collect, examine and preserve material traces of crime scenes, which necessitated the second theory on crime scene reconstruction theory.

1.12.2 Crime Scene Reconstruction Theory

Crime Scene Reconstruction (CSR), also referred to as Crime Scene Analysis (CSA), is a forensic discipline postulated by Gardner (2016) that provides an analytical framework for crime scene analysis and a guideline for forensic investigations. This analysis offers an objective picture that can be used to consider the more subjective information that develops during any criminal investigation.

Crime scene reconstruction theory effectively allows for the evaluation of any statement or investigative hypothesis (either in whole or in part) and provides an objective way to try and decide if the statement or hypothesis is refuted or corroborated. Crime scene reconstruction is accomplished by identifying, through an examination of the evidence and the context in which it is found, specific actions that occurred. This analysis seeks to isolate causal and temporal relationships between the actions.

This process is accomplished through various methodologies (defined sets of procedures). The theory postulates that their methodological collection, storage, and analysis of crime scene data and thus need for professional expertise in forensics and use of modern analytical techniques to ensure reliable results. This theory was therefore useful in this study as it provided a mechanism for ensuring the success of investigations through systemic approaches. However, the theory does not cover training and skills to handle such incidences, which were covered by the first theory.

1.13 Conceptual Framework

In investigating the capacity of Kajiado North's Directorate of Criminal investigations in crime scene management, the management of the crime scene was the dependent variable (DV), which is measured by securing of a crime scene, identification and processing of witnesses, collection and handling of physical evidence, as well as forensic analysis of a crime scene. The independent variables (IV) were; training levels and skills of officers in crime scene management, adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management and external and internal areas of improvement for enhanced crime scene management. The conceptual framework is shown in Figure 1.1.

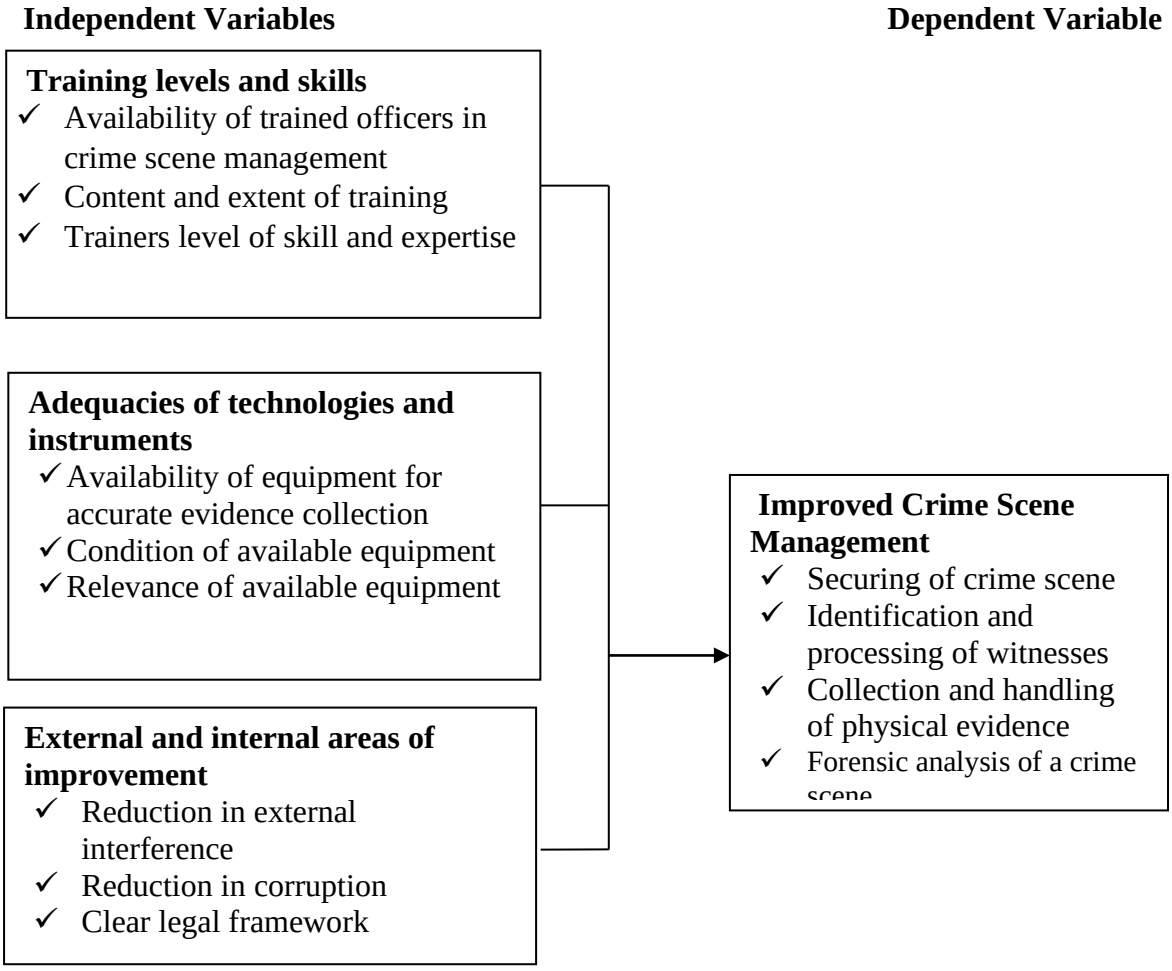


Figure 1.1: Conceptual model for improved crime scene management

The dependent variable (DV) that is, management of crime scenes in Kajiado North was likely to be enhanced by changes in the independent variables such as improved technical training and skills for crime scene investigators, acquisition of technologies and instruments for crime scene investigation, and improved internal and external areas. The reverse is true as well. These variables were measured by assessing the number of crime scene investigators in the geographical region, the contents and extent of training, the available training resources, the level of skills and expertise of the trainer, and the qualification for trainees and in probing for factors influencing investigators during crime scene management.

For training to be effective, forensic personnel should have the necessary instruments or equipment and technologies to enable them to handle the crime scene and evidence that arise thereafter professionally and have the relevant training on how to make use of the equipment in an actual crime scene. These equipments should be relevant and modern as crime evolves rapidly and always seeks to be a step ahead. They are not limited to crime scene kits, for the case in concern, Kajiado North, for investigating officers to arrive at the crime scene in time there must be a ready appropriate mode of transport. Thus, this variable was measured by establishing the available equipment, its condition, and relevance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter considers extensively available material and existing literature on the capacity of police officers in the management of crime scenes. The literature reviewed is from government reports, expert analysts, scholars, and the general work of researchers and security experts. Special focus is laid on literature covering training and skills of police officers in the management of a crime scene, available equipment or instruments and technologies for efficient management and processing of a crime scene, and external and internal areas of improvement in crime scene management, these being critical capacity issues affecting the quality of crime scene management. Finally, the chapter concludes by summarizing the reviewed literature and highlighting the knowledge gaps that this research seeks to address.

2.2 Review of Literature

2.2.1 Training Levels and Skills of Officers in Crime Scene Management

Marylyn and Miller (2017) argue that for efficient and effective crime scene management, several factors need to be in place. These factors lay the foundation for achieving success in the management of crime scenes. This study identified them as proper training of CSI's available, working and relevant equipment and resources, and a conducive work environment free from any so interference with a strengthened and functioning legal framework to direct and dictate the process of crime scene management. For proper development of capacity in crime investigators, the study emphasized that providing an ideal working environment and proper perks is not a sure bet until it is matched with a properly trained, professional, and competent workforce. Further, proper training may involve acquainting the investigative

personnel with effective knowledge regarding the entire criminal justice system, forensic science, nature, types of evidence and evidence collection, standard operating procedures, chain of custody, and witness interviews and interrogation techniques. Though this study covers the variables of interest to the study such as training, and factors that affect crime scenes, it did not look at the adequacy of technologies and instruments and their influence on crime scene management, which was covered in this study.

Jerry (2016) determined that training is the most basic requirement for proper management of a crime scene with crime scene investigators requiring a certain skill-set for efficient performance. This implies an ability to see general patterns in the evidence rather than a focus on specific instances. The study opined that the core aspect of investigators lies in their ability to recognize places to recover materials that could yield evidence and in developing patterns to link up evidence and quickly develop an accurate working theory. Specialized training, backed with experience drawn from handling crime scenes plays an important role in building and developing the sufficient skill base required for handling the most complex crime scenes. However, this study covers training and skills aspects of crime scene management but does not look at technologies and instruments adequacy, which was covered in this study.

Braga, Turchan, and Barao (2019) observed that crime scenes, being as dynamic as the crime itself, require swift but delicate handling to ensure no or minimum evidence is lost, thus requiring a high degree of specialized training. Proper training in crime scene management thus offers a guide on how to respond to various types of crime scenes and how to manage all the available resources for efficient processing. The study highlighted the case of Monica Mathison in Furstenberg, Germany in

which the first officers responding to the crime scene of the burglary, bungled up the crime scene and led to a lack of convictions due to failure to adhere to standard operating procedures and lack of proper training. Though this study covers the training and skills aspects, it did not look at the adequacy of technologies and instruments and the internal and external factors that influence crime scene management, which was covered in this study.

Sally, Roberta, and James (2018) noted that on crime scene investigations, the USA criminal justice department directs that, every aspect of a crime scene should be handled by a relevantly trained technician certified by the FBI. This could imply that a single crime scene may require several professionals with the number of different personnel required at a crime scene being dictated by the seriousness and nature of the crime committed. The more serious the crimes, the more personnel will be involved, and the more likely it is that personnel will be multidisciplinary. In carrying out investigation and evidence collection at the crime scene, investigators need to be aware through training that each piece of evidence collected at the scene is part of a big puzzle and there hardly is an unconnected piece. The study further observes that one process or evidence collected complements the other. It is analogous to a bell if anyone strikes a part of it, the whole bell will sound. It is important therefore that each piece of evidence collected is treated as part of a larger puzzle being unravelled. However, this study only covers the training and skills aspects and does not look at the adequacy of technologies and instruments and factors that affect crime scene management, which was looked into in this study.

Walsh (2015) argues that there can never be an over-emphasis on the requirement of specialized skills at a crime scene. Some scenes are simple and can be processed in the minimal time while others require days to collect evidence samples

and reconstruct to ensure maximum information is obtained from the scene. In a complex scene, if the investigator is unable to detect clues, interpret them correctly, place their relative association on record, submit them to the appropriate expert and handle them in such a manner as to maximize the examination results; a situation can arise where months of hard work do not end with the desired results. This study, nevertheless, only covers the training aspect and does not look at the adequacy of technologies and instruments and factors that affect crime scene management, which was covered in this study.

Kempen (2020) noted that crime scene management training will cover areas on ethics, standard operating procedure (SOP), dealing with initial report/complainant, planning investigations and response to a crime scene, interviewing witnesses and suspects, examining crime scene to define boundaries and collection, securing and preserving physical evidence and how to establish a chain of custody. The study also observed that in South Africa, CSI is first taken through basic police training and law before being introduced to elements of crime scene management - this will include topics on how to define and secure a crime scene, how to determine the number and categories of professionals required for the scene of the particular crime, notes taking, photography, evidence collection and preservation and how to collaborate and present this to prosecutors to ensure successful resolution and prosecution of the crime. Though this study covers the variables of interest to the study such as training and factors that affect crime scenes, it did not look at the technologies and instruments and their influence on crime scene management, which was covered in this study.

Truman and Planty (2018) note that the lack of properly trained investigators has seen prosecutors lose cases that appeared to be straightforward due to technical

glitches occasioned by non-adherence to standards recognized by law. The study further observed that this could be due to a lack of proper professionals to handle the investigative work. For example, In Algeria, a homicide case was lost due to technicalities arising from police officer inefficiencies. This study only covers the aspect of training and skills but does not cover the provision of technologies and instruments as well as internal and external factors, which were considered in this study.

Alanazi (2017) observed that most countries follow this trend, with most African countries sending their senior investigators to the USA's FBI academy for training. Kenya's CSI training is done at the directorate of criminal investigation training school in Nairobi's South B. The study observed that little information is available on the details of training. This study, nonetheless, covers only the training aspect and does not look at the adequacy of technologies and instruments and factors that affect crime scene management, which was covered in this study.

Mwamburi (2016) highlights that training offered at the DCI training school does not sufficiently cover entire fields of crime scene management and does not include a regular upgrade to include modern technologies. She further noted that this has left investigators to play catch up to modern and ever-evolving criminals whilst creating a market for private investigators. This study covers the training aspect and skills aspects and does not look at the adequacy of technologies and instruments and factors that affect crime scene management, which this study looked into.

Omeje and Githigaro (2016) observed that law enforcement agencies are faced with common challenges such as limited or lack of trained personnel handling crime scenes as well as those collecting, transporting, and storing evidence and this may

compromise the quality of prosecution evidence, and by extension, the ability of the courts to convict and sentence offenders. The study, therefore, covers the adequacy of skills aspect and internal and external factors but does not look at how the availability of technologies and instruments can affect crime scene management, which was covered in the study.

Ondieki (2017) argues that Kajiado North Sub-County has amongst the highest crime rates in Nairobi's peri-urban areas. Most of the crimes committed do not secure convictions despite suspects having been arrested. This, as the study observes is a result of poor investigation work being done which in some cases could be inevitable due to understaffing. The study further argues that the quality of work is bound to deteriorate if a single investigator has more than twenty concurrent cases in court with each requiring adequate attention. The study, therefore, only covers the adequacy of training and skills aspect but does not look at external and internal factors that can affect crime scene management, which was covered in the current study.

2.2.2 Adequacies of Technologies and Instruments in Crime Scene Management

Sutton, Truman, and Moran (2017) observed that a fundamental belief in crime scene technicians and forensics investigators, derived from Lockard’s exchange principle is that every contact leaves a trace. This may be the contact of a person with a person, contact of a person with a vehicle or location, or a vehicle with a location. The study further opined that forensic investigators identify those traces, gather and preserve the physical evidence from a crime scene and analyze them with the aid of forensic or scientific techniques to explain what happened, all these requiring certain basic technologies and instruments. This study covers how the availability of technologies and instruments of the investigators influence crime scene management,

but does not look at the aspects of internal and external factors, as well as the adequacy of skills, which was covered in this study.

Mozayani and Parish-Fisher (2017) observe that in a crime scene, evidence can be anything from massive objects to microscopic items, generated as the crime proceeds and recovered later at the scene or related locations. In comparison to other sources of information available to investigators during investigations (such as confessions, testimonies, and video surveillance), physical evidence plays a definitive role in trying to unearth evidence of a crime as other sources of information may suffer from problems of limited reliability and when recognized and properly handled, offers the best prospects for providing objective and scientifically reliable informational evidence about the incident under investigation. This thus calls for the provision of adequate technologies and instruments to enable the proper collection, handling, and processing of evidence for efficient presentation. This study only covers the technologies and instruments aspects and does not look at the adequacy of skills and their training, as well as the factors that affect crime scene management, which this study looked into.

In the USA, a study conducted by Orenstein (2015) observed that states with the highest funding for police had the highest rates of resolution of crimes. This, they opined, could be translated to officers having the means to procure the latest gadget to enable crime resolution or deterrence. Investments like providing body cameras to officers have borne fruits to the extent of limiting the amount of investigation to be carried out as they provide investigators with video evidence of the happenings of the crime. This is evident in the case of George Floyd and Rayshad Brooks who are in the USA cities of Atlantis and Minneapolis. This study, nonetheless, looks at the technologies and instruments aspects only and does not look at the adequacy of skills

and their training, as well as the factors that affect crime scene management, which this study looked into.

In Africa, Sauerman and Ivkovic (2015) in their research commissioned by the South African police service, identified proper remuneration and availability of necessary equipment and backing infrastructure as being the issues raised as vital by the interviewed officers. A similar study conducted by Feldman (2015) in Egypt on the Egyptian CSIs identified available laws and adequate equipment as being the key issues necessary for effective crime scene management. Both these studies look at the aspects of the availability of technologies and instruments and internal and external factors such as laws and policies but do not look at the aspects of training and adequacy of skills which were covered by the current study.

Bundi (2016) noted that the use of forensics and scientific methods to collect and analyse evidence greatly aided in the administration of justice for victims and accused in Kenya. It was their observation that when police investigators are provided with the right technologies and instruments, the effect of this trickle down to results. The study identified the key supportive resource for investigators as being competitive and adequate remunerations, proper working environment, provision of necessary tool kits and equipment for processing a crime scene, provision of fast means of accessing the crime scene, and availability of reliable forensic experts and lab to aid in further identification and analysis of the collected evidential substance. This study, therefore, covers the variables of interest to the study such as training, technologies, and instruments, however, it does not look at the adequacy of skills and their influence on crime scene management, which was covered in this study.

Omeje and Githigaro (2016) note that Kenya being a developing county, has limited resources made available to investigating officers, victims are sometimes asked to chip in to facilitate investigations with a request for fuel and airtime. This has led to only serious crimes being investigated as victims are often faced with having to evaluate the economic sense of seeking justice. Lack of adequate technologies and instruments has also seen investigators lack vital equipment for handling crime scenes as observed. They noted that in an incident, a bag left at Kencom bus terminus, a populous bus terminus in Nairobi city and suspected to be an explosive laid bare the need for provision of safety equipment as crime scene attendants at the scene did not have all the necessary safety gear including protection against radioactive exposure and bio weaponry thus endangering their lives and those of the citizens. The study further observed that in some cases officers lack means of transport to a crime scene, and necessary materials for cordoning a crime scene and collecting evidence such as tapes and gloves, thus compromising the integrity of evidence collected and thus its admissibility in court. This study, looks at the technologies and instruments, and training aspects but does highlight other areas such as internal and external factors that can affect crime scene management, which the study covered.

2.2.3 Internal and External Areas of Improvement for Enhanced Crime Scene Management

Kempen (2020) noted that as most crime scenes occur in real-world situations, far from ideals, response to crime scenes will not be devoid of challenges. The freedom, or lack of it, of suspects, greatly relies on the work done by investigators thus there will always be background forces in play that will always work to influence the outcome of the case. Victims may pressure the investigators to convict certain suspects or lawyers may intimidate the investigators and threaten them with

countersuits in trying to have sway over the net outcomes. Thus, there will always be external factors in play that eventually will determine the kind of ending for a specific case. This study covers the factors that affect crime scenes; however, it does not look at the training and skills and their influence on crime scene management, which was covered in this study.

Orenstein (2015) drawing from the United Nations (UN) recommends that for every 1000 people there should be 2.5 number regular police, this translates to a ratio of 1:450. These figures are decided upon based on scientific techniques to ensure that crime scenes are responded to swiftly to enable resolution and timely delivery of justice. Most developing countries are yet to realize this with it being the only reality in some developed countries. Countries that have achieved the set thresholds enjoy relatively low crime rates and this can be attributed to the quick and timely resolution of crimes thus instilling the general notion that you can never get away with a crime. This study covers the internal and external factors aspects but does not look at how the availability of technologies and instruments and training aspects can affect crime scene management, which was covered in the current study.

Stott Bradford, Radburn, and Savigar-Shaw (2020) argue that the Austria Polizei have a ratio of 1 police investigator per 300 populations, this has a direct result of low crime rates in the county with the highest crime resolution index. Countries that are below the recommended ratio consequently have a low crime resolution index. To mitigate this, some countries have had their general duty officers double as investigators. This, however, has been heavily criticized. The author opines that this approach of lack of specialization yields a calibre of investigators who do not appreciate the importance of laid down procedures and routings and have been cited for treating crime scenes casually and handling evidence in a way that does not

guarantee its sanctity. This study, therefore, covers internal and external factors but does not look at how the availability of technologies can affect crime scene management, which was covered in this study.

Locally, Chepkwony (2015) noted that Kenya has about 150 trained crime scene investigators which are far below the required global standards. This can be blamed for the many cases that are unresolved or have dragged for far too long leading to victims giving up on the pursuit of justice. This has had the effect of encouraging criminals to crimes as barely any arrests are made. The scarcity of investigators has also had the effect of encouraging corruption amongst investigators as they usually have the luxury of responding to crime scenes that have the highest rewards for them. This study covers the internal and external factors but does not look at how the availability of training and skills aspects can affect crime scene management, which was covered in this study.

Ondieki (2017) observed that investigators will broadly have two sets of a power play that will seek to influence how they conduct investigations and generally how they handle a crime scene, one would be from external sources informing of coercion from their seniors, or pressure put by victims, or threats or bribery offers from suspects and at times victims and victims' family or in highly publicized cases, pressure may be from the general public. The other, internal factors, will be self-installed reasoning and beliefs that would alter or influence the course of action of investigators, this could be through religious beliefs, traditions, personal preferences, experience, and mental state. This study covers the factors that affect crime scenes, however, it does not look at the technologies and instruments and training and their influence on crime scene management, which was covered in this study.

Mwamburi (2016) opines that external interference has led to many cases ending without being resolved in Kenya. The study also observes that investigators have dropped out of cases citing external interference and frustrations. This has grown a culture of impunity and generally undermined the work of investigators and their work thus leading to diminished public trust. In the case of the murder of human rights lawyer Willy Kimani, the investigation officer recused himself from the case and was quoted by the local daily citing "immense interference" and direct investigations. This underscores the need for seeking to create a near-ideal working environment for investigators to achieve accurate investigation results and thus improve on resolved crimes. Though this study covers the factors that affect crime scenes, however, it does not look at technologies and instruments and training and their influence on crime scene management, which the current study took into consideration.

2.3 Summary of Review of Literature and Research Gap(s)

The reviewed literature discusses a crime scene and identifies the various types of a crime scene as identified by Sally, Roberta, and James (2018). It highlights the role of crime investigators in managing and processing crime scenes. The literature reviewed further underscores the importance of a crime scene to the successful administration of justice as opined by Marylyn and Miller (2017). The literature further underpins the critical role police first responder to the crime scene plays in determining the course and direction of the investigations (Braga *et al.*, 2019). The literature extends to define crime scene management and highlights the fundamental issues that affect crime scene management, including equipment, training, and other factors as outlined by Sauerman and Ivkovic (2015).

The literature has also shown that successful crime investigations that result in just and timely prosecutions are dependent on a complex combination of factors critical to solving questions of what happened, how, when, and by whom (Feldman, 2015). Timely, secure, and contamination-free collection of evidence is important if conclusive investigations are to be undertaken; thus, enabling investigators to beyond reasonable doubt justify the prosecution of the offenders and deliver justice to the afflicted. For this to happen investigators should be adequately trained and provided with the necessary resources such as modern evidence collection, preservations, and analysis technology and instruments as well as a near-ideal working environment free from external influence that would otherwise render the whole process nought (Miller, 2017).

However, most of the literature is theoretical and normative and not based on actual field studies over time (such as Feldman, 2015; Sauerman & Ivkovic, 2015; Braga *et al.*, 2019). There is limited literature especially in the context of African countries, in Kenya, and more so in Kajiado County. Methodologies also adopted have been mainly qualitative (including Sauerman & Ivkovic, 2015; Miller, 2017), while comparative findings are needed from both qualitative and quantitative analysis, which will be adopted in the study. In addition, there has been no study undertaken to establish the capacity of the office of criminal investigations in crime scene management in Kenya despite the existing realities of increased crime rate and low prosecutions. There was therefore a need to establish the status quo as the country's preparedness in crime scene management has never been more important; hence the relevance of this study.

CHAPTER THREE

RESEARCH AND METHODOLOGY

3.1 Introduction

This chapter discusses the methods that were used to collect data in the study and outlines the research geographical area, research design used, sample design, and methods of data collection and analysis. Both quantitative and qualitative types of research were followed in this study. The aim was to collect and analyse data using various data collection tools. Similarly, the research design intended for this research was a descriptive survey.

3.2 Research Design

Ragab and Arisha (2018) define a research design as the organization of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. This study employed a descriptive survey research design since the researcher sought to collect data from respondents from Kajiado North Subcounty. The descriptive survey was important for this study as information that was deducted from the collected data was used to draw conclusions and recommendations. In addition, data was only conducted once, and no follow-ups were done. Further, this design supports the collection of both quantitative and qualitative data, which were adopted in the study. For this study, the data collected revolved around capacity issues in the Kenya National Police Service (NPS) in crime scene management in Kajiado North Sub-county, Kenya.

3.3 Research Site

According to Mohajan (2018), the research site refers to the geographical region where the target population resides. The study was carried out in Kajiado North Police Division in Kajiado County. The division was purposively selected

because the Kajiado North division (specifically Ngong area) is one of the regions with a sharp increase in the number of crimes and dismissals of court cases due to insufficient and weak evidence (Ondieki, 2017). The high crime rates can be attributed to the growing nature of the location, which attracts criminal activities related to development. There has also been increased resource investment in terms of increased training, and hiring of investigation officers as well as the provision of judicial services. However, despite this, there is a sharp increase in the number of crimes and dismissals of court cases. Kajiado North division with Ngong town as its administrative headquarter is located approximately 22 km southwest of the city centre and is one of the suburbs of Nairobi. As a result, the area is affected by high rates of theft and robbery in addition to other crimes.

According to the 2019 population census, the minor Ngong area covers an area of 42.6 Km^2 and has a population of 12,823 persons. The area has a population density of 653 persons per sq. km which is higher than other areas within Kajiado County. The contributory factors for high crime rates could be low levels of education, lack of entrepreneurial skills, poor marketing systems for farm produce, and inaccessibility to credit due to high-interest rates and collateral requirements.

3.4 Target Population

According to Creswell and Clark (2017), a study population is the complete set of units from which the researcher intends to collect data from to be used to make inferences. The respondents were drawn from Kiserian, Ongata Rongai, Magadi, and Ngong. The target population in this study were crime scene investigators who visually and physically examine crime scenes, general investigators working on general aspects of crime scene cases, criminal intelligent officers who collect, analyse

and interpret crime scene data, general duties officers who work on the general crime scene issues and administration police officers, as shown in Table 3.1.

Table 3.1: Target population

No.	Type of population	Population size
1.	Crime scene investigators	8
2.	General investigators	35
3.	Crime intelligent officers	10
4.	General duty officers	502
5.	Administrative officers (AP)	55
Total		**610**

Source: Kajiado North Sub-County Police Command Nominal Roll

3.5 Study Sample

A sample is a small group of individuals derived from a whole group or accessible population having a common observable characteristic to become the foundation for predicting the primacy of an unknown outcome, situation, or piece of information concerning the population (Creswell & Creswell, 2017). To select a representative sample, simple random sampling was employed on each stratum. This was preferred for lack of sampling bias and accurate representation.

3.5.1 Study Sample Size

Mugenda and Mugenda (2003) observed that sample sizes should neither be too small nor too large. They further opined that for population sizes of less than 1000, a sample of 10% to 30% of the entire population would suffice and in relatively smaller population sizes. In this research, the population size was 610 hence a sample size of 116 (19% of the sample size) sufficed.

As the strata containing some respondents had small population sizes, the researchers interviewed the whole population, as per Mugenda and Mugenda (2003).

For stratum with a population size of above 15, a fraction of the population was determined using the proportionate stratified random sampling, as follows;

$$n_h = \left(n/N\right) x\ N_h$$

Where n_h *– Stratum sample size*

n – Sample size

N – Target population size

N_h *– Stratum population size*

Table 3.2: Sample size and sampling procedures

No.	Stratum	Stratum Population size	Stratum Sample size	Data Collection Instrument	Sampling method
1.	Crime scene investigators	8	8	KII	Purposive
2.	General investigators	35	6	Questionnaire	Simple random
3.	Crime intelligent officers	10	10	KII	Purposive
4.	General duty officers	502	83	Questionnaire	Simple random
5.	Administrative officers (AP)	55	9	Questionnaire	Simple random
Total		**610**	**116**		

3.5.2 Sampling Procedures

When the target population is not from a homogeneous group, Bell, Bryman, and Harley (2015) recommend a stratified random sampling technique. In this study, the entire targeted population was made of heterogonous groups, this study, deployed a stratified simple random sampling method, for the respondents answering the questionnaires. The target population was divided into five different strata which were; crime scene investigators, general investigators, criminal intelligent officers,

general duties officers, and administration police officers. Stratification was done using proportionate allocation to the sample, as the different groups have different duties concerning crime scenes. Moreover, purposive sampling was used to select the key informants deemed to have key information about the study.

3.6 Data Collection

This section covers the whole process of collection of data. Areas covered are the development and piloting of research instruments and checking of instrument's validity and reliability. The procedure for data collection and the research instruments are also given in this section.

3.6.1 Research Instruments

Cooper and Schindler (2009) state that a questionnaire can be defined as a research instrument containing a series of questions for the collection of information from the respondents. The questionnaires were used since they are cost effective and easy to administer and information is submitted anonymously hence increasing honesty from respondents. The questionnaires were administered to the general duty police officers, general investigators, and administration police officers to obtain the general facts about the study.

The questionnaire was developed into four major sections, where the first section asked questions on the general information of the respondents, while the remaining three sections each covered the specific objectives as outlined in section 1.5. Key informant interviews were also conducted with crime intelligence officers and crime scene investigators based in the Kajiado North Sub-County to get that information that could be triangulated with the findings from the questionnaires.

3.6.2 Pilot Testing of Research Instruments

Kombo and Tromp (2016) opine that to guarantee the reliability and validity of research instruments and proper understanding of research variables, it is important to conduct piloting of research instruments. The researcher conducted a pilot research on 10% of the sample size. This was drawn from the Githunguri Sub-County Police command since it possesses similar characteristics as those of the study area. In this interpretation, the reliability of the research instrument was enhanced by grouping together questions that measure the same concept, identifying and striking out redundant ones, and addressing any shortcomings within the research instruments.

3.6.3 Instrument Reliability

According to Cooper and Schindler (2009), reliability is the degree to which a measuring instrument comprises errors that appear conflictingly from observation to observation during any one measurement attempt or that vary every time the given unit under test is measured using the same instrument. The pilot involved a single test treatment; hence the reliability of the test instruments was done using the Cronbach Alpha coefficient to test for the internal consistency of the questions. A reliability coefficient of 0.899 was obtained, which was sufficient for data collection to commence (Mugenda & Mugenda, 2003), as shown in Table 3.3.

Table 3.3: Reliability Statistics Summary

Variable	No. of Items	Cronbach's Alpha
Level of training and skills	14	.824
Adequacies of technologies and instruments used in crime scene management	15	.807
External and internal areas of improvement by the DCI for enhanced crime scene management	7	.885
Overall	36	.899

3.6.4 Instrument Validity

According to Kombo and Tromp (2016), validity is concerned with the question “Am I measuring what I intend to measure?” The validity, therefore, indicates the degree to which an instrument measures what it is supposed to measure. The researcher used face validity, where peer review of instruments and the use of two groups of experts on security matters were done. One group was comprised of security expert academicians while the other comprised of senior police officers in the study region.

The security experts were requested to assess what concept the instrument was trying to measure while the other group was asked to determine whether the set of items accurately represented the concept under study. The concepts here included investigating the capacity of Kajiado North Sub-county DCI to manage crime scenes with a special focus on training and skills, adequacy of instruments and technologies in crime scene management, and external and internal areas of improvement in crime scene management. The researcher also presented the questionnaire and interview guide to the two supervisors for their opinion on whether the questions adequately addressed the research questions or achieved the objectives. The comments, improvements, edits, and suggestions were all integrated into the development and improvement of the questionnaire. The questions were also designed in simple language to enable respondents to answer them without problems.

3.6.5 Data Collection Procedure

The researcher obtained relevant introduction from the institution and permits from the government ministry in charge. The researcher then reported to the Kajiiado North Sub-County police command headquarters before commencing the collection of data. An introductory letter together with the National Commission for Science

Technology and Innovation (NACOSTI) permit accompanying each interview guide was sent to the key informants one week prior to the interview. Primary data was collected through key informant interviews and questionnaires. The questionnaires targeting general duty police officers and administration police were dropped at a central point in all the police stations and respondents who were identified based on their previous involvement in particular crime scenes were given one week to complete and return or have them ready for collection.

3.7 Data Analysis and Presentation

The study obtained both qualitative and quantitative data. For quantitative data, frequencies and percentages were generated with the aid of the statistical software tool Statistical Package for the Social Sciences (SPSS) version 26. Where possible tables, graphs, and charts were used to present the analyzed data findings following the objectives of this research. Qualitative data, conversely, was analyzed using content analysis by developing themes that related to each specific objective and presented using various themes that emerged from the responses.

3.8 Legal and Ethical Considerations

Protecting the rights and welfare of the participants should be the major ethical obligation of all parties involved in a research study (Mugenda, 2008). The researcher took precautions to ensure non-disclosure of research data to parties that would use such data for their purposes. All possible measures were taken to ensure that the respondents' names and particulars were not disclosed. A system of coding the participants' responses was established so that each completed tool could be linked to the key informers without using actual names. Participation in the research was voluntary and subjects were informed that they could withdraw their information

anytime if they felt like doing so. This was communicated before the start of the study. Further, it was agreed that research findings would be shared out with the participants.

Legal and ethical considerations embody the standards and norms for which proper conduct of research is supposed to be aligned. It entails considerations of acceptable and unacceptable behaviour throughout the research process (Bell et al., 2018). First, this study ensured that participation was ultimately voluntary with respondents fully having informed consent for participation. The researcher also obtained study approval from relevant authorizing bodies including the NACOSTI and an authorization letter from the Africa Nazarene University. Lastly, any works of authors used in this study were adequately acknowledged using a standard referencing system and no plagiarism of other scholarly works whatsoever was done. The information provided by the respondents was treated with the utmost confidentiality.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1 Introduction

This chapter presents the findings of the study as well as an interpretation of the findings. The presentation of the findings is based on the response rate achieved, the demographic information and examines the questions as per the specific objectives set in chapter one. Analyses are conducted using SPSS version 26.0 and presented in tables and figures. Content analysis was used for qualitative data, which was done by developing themes that relate to each specific objective and presented using various themes that relate to the specific objectives to validate the findings from the questionnaire.

4.2 Response Rate

The study sought to determine the number of questionnaires and key informant interviews that were returned from the field. A total of 98 questionnaires and 18 key informants were specifically targeted. The specific response rates per category were obtained as shown in Table 4.1.

Table 4.1: Response rate

Target	Sample size	Tool	Response (n, %)	Non-response (n, %)
General investigators	6	Questionnaire	6 (100%)	0 (0%)
General duty officers	83	Questionnaire	77 (93%)	9 (7%)
Administrative police	9	Questionnaire	7 (78%)	2 (22%)
Crime scene investigators	8	KII	6 (75%)	2 (25%)
Crime intelligent officers	10	KII	7 (70%)	3 (30%)
Total	116		103 (89%)	13 (11%)

It was found that a total of 103 respondents returned their responses successfully out of a target of 116 respondents, representing an overall response rate of 89%. The response was sufficient as recommended by Creswell and Clark (2017), that responses of more than 70% can be used to make conclusive findings.

4.3 Characteristics of the Respondents

As shown from the response rate, a total of 90 questionnaire responses were returned and found useful for analysis. The demographic characteristics sought from the study respondents were the gender of respondents, age group, department, highest education level attained by the respondents, and years of job experience. The findings are presented in sub-sections 4.3.1 to 4.3.5.

4.3.1 Gender of Respondents

The gender of the respondents of the study was important since it enabled the researcher to understand the distribution of respondents. The findings obtained on the gender of respondents indicated that 61% of the respondents were males while 39% were female. The findings imply that there were more male security officers than female security officers, showing that the sector is male-dominated. These findings are shown in Figure 4.1.

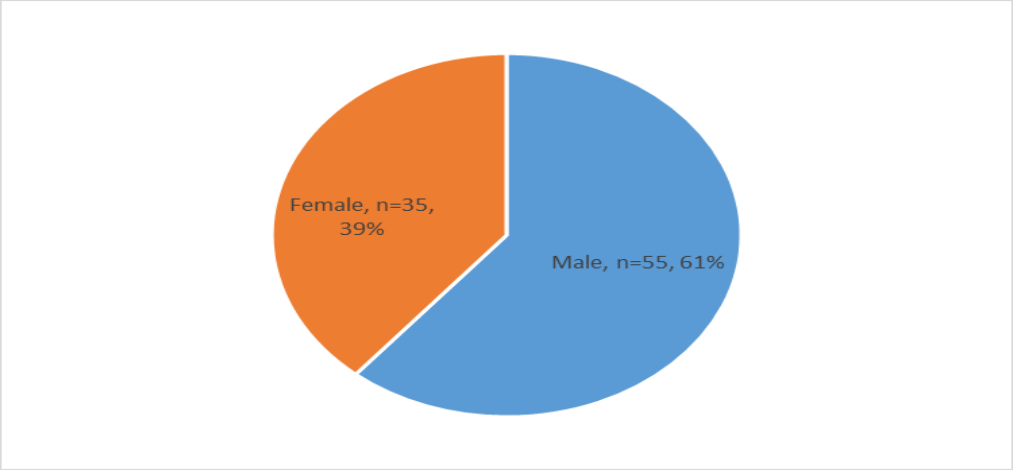


Figure 4.1: Gender of the respondents

4.3.2 Age Group of the Respondents

The study sought to assess the age category of the respondents to determine how the respondents were distributed. It was found that 41% of the respondents were aged 33-47 years, 31% were aged 48-62 years,16% were aged 18-32 years while 12% were above 62 years old. The findings show that most security officers were mid-aged, but there was a good blend in all age groups of security officers. The findings are presented in Figure 4.2.

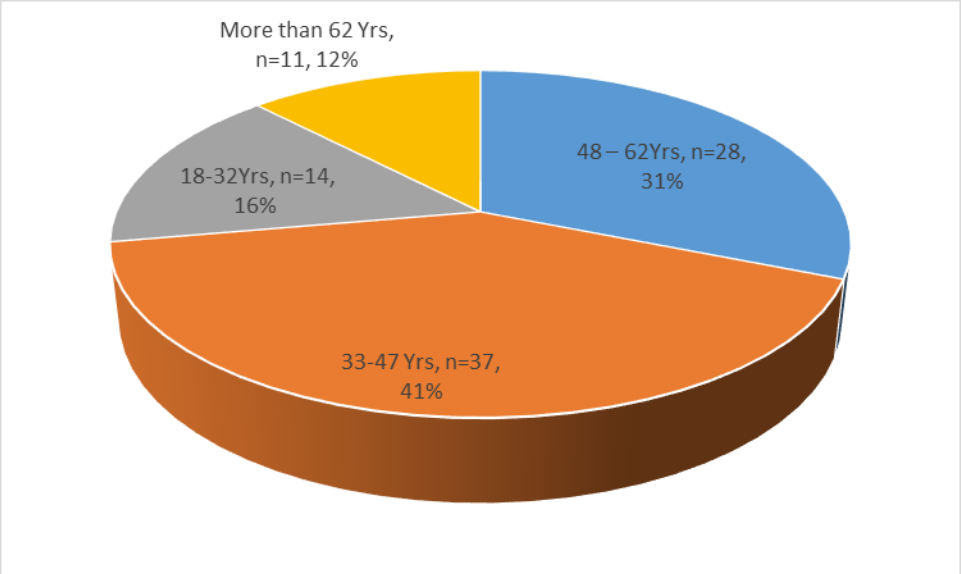


Figure 4.2: Age bracket of the respondents

4.3.3 Department of the Respondent

The study sought to understand the department the respondents belonged to understand which department had the most respondents contributing most responses to the study. The findings presented in Figure 4.3 indicate that 85% of the respondents were general duty officers, 8% were from AP and 7% were general investigators. This can be attributed to the sample size selection method adopted by the study as outlined in chapter three.

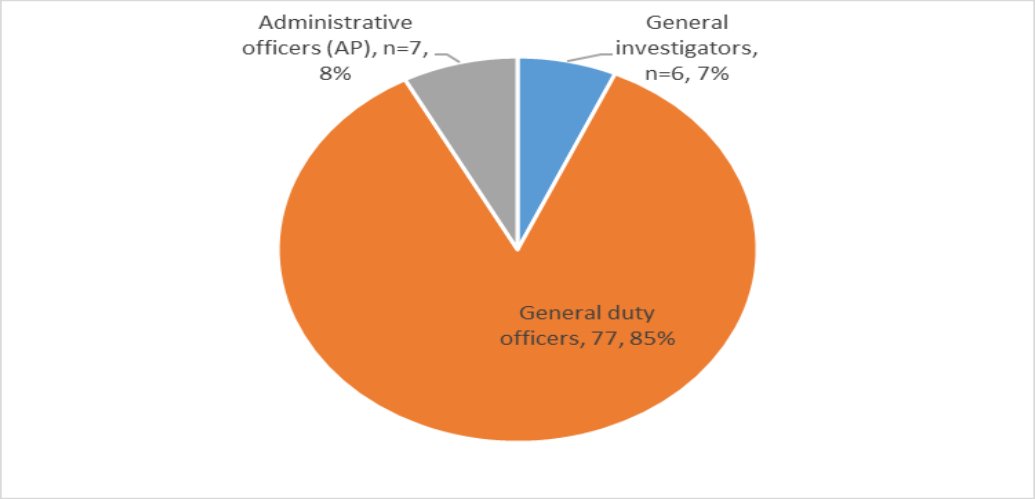


Figure 4.3: Respondents' department

4.3.4 Education Level of the Respondents

The level of education of the respondents was sought in the study to determine the capability of the respondents to answer questions proposed to them. As shown in Figure 4.4, 37.8% of the respondents had attained secondary school level of education, 36.7% had attained university level of education and 25.6% had attained college level of education. This implies that the respondents were educated, and hence did not have problems answering the questions posited to them.

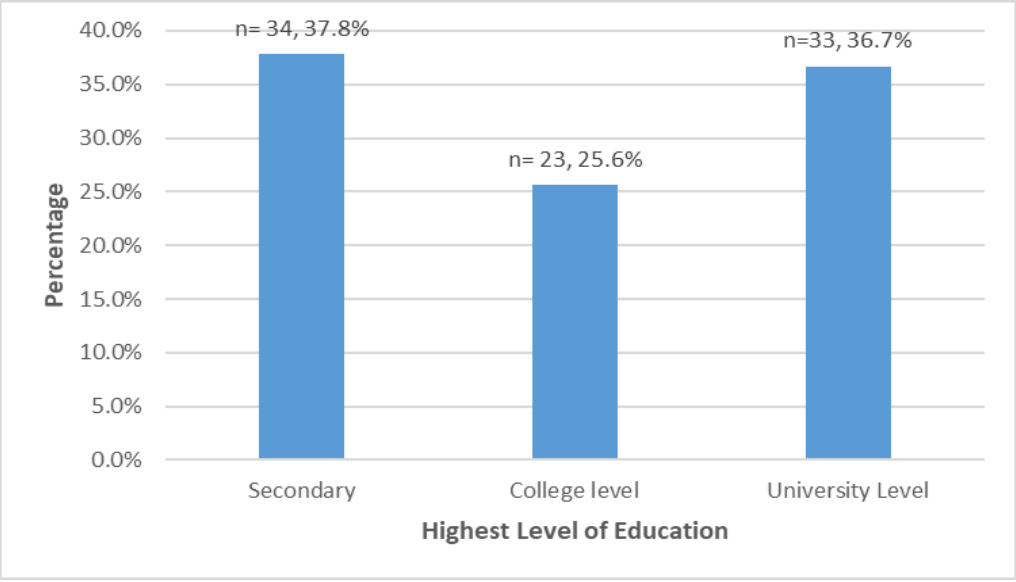


Figure 4.4: Highest level of education attained by respondents

4.3.5 Years of Experience Held

The study sought to determine the number of years the respondents had worked to determine if they had an adequate level of experience or not. Figure 4.5 shows the percentage of respondents who had worked for more than 5 years were the majority, forming 53.3% of the responses, 37.8% of the respondents had worked for over 10 years while 8.9% had worked for less than 5 years. The findings imply that the majority of the respondents had an adequate level of experience in security matters.

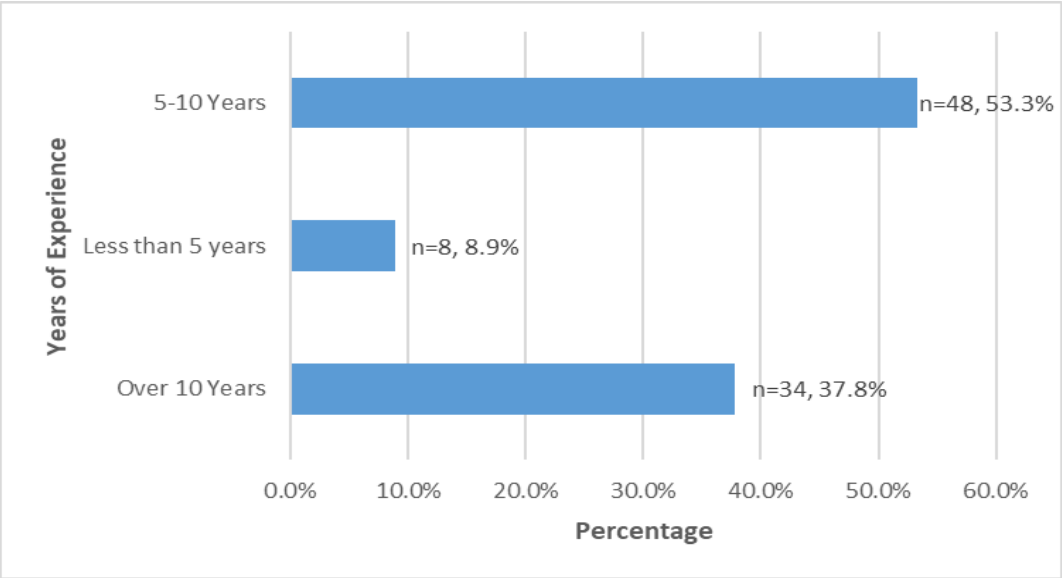


Figure 4.5: Respondents' years of experience

4.4 Presentation of Research Analysis and Findings

4.4.1 Level of Training and Skills

The first specific objective of the study was to examine the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub County. In answering the objective, the study analyzed various questions that are presented in the subsequent sub-sections.

4.4.1.1 Attendance of formal training on crime scene management

The study first analyzed responses relating to whether the respondents had any formal training in crime scene management. The findings obtained indicate that the highest percentage (75.6%) of the respondents had attended some form of formal training concerning crime scene management in Kajiado North Sub-County, while 24.4% of the respondents had not attended any formal training on crime scene management. The findings imply that training on crime scene management is being practised by the government, though it has not reached all the security officers. Table 4.2 shows these findings.

Table 4.2: Formal training on crime scene management attendance

	Frequency	Percent
Yes	68	75.6
No	22	24.4
Total	90	100.0

Source: Researcher (2021).

4.4.1.2 Training after joining the current department

For those who had attended formal training, the study sought to determine if the training was done after joining the current department, or not. The findings shown in Table 4.3 indicate that 77.9% received formal training before joining their current positions, while 22.1% received training while working in their current departments.

Table 4.3: Training done after joining the department

	Frequency	Percent
Yes	15	22.1
No	53	77.9
Total	68	100.0

4.4.1.3 Category of training

The study sought to determine whether the respondents were trained locally or internationally. From the findings shown in Table 4.4, the study found that 79.4% of those who had formal training had been trained locally, with 20.6% getting their training abroad. The findings imply that local formal training was preferred to international training.

Table 4.4: Training done locally or abroad

	Frequency	Percent
Local	54	79.4
Abroad	14	20.6
Total	68	100.0

Source: Researcher (2021)

4.4.1.4 Duration of training

The researcher also sought to determine the duration of training for the respondents. From the findings, 55.8% of the respondents received training between 1 week and 1 month, 14.7% received training for 2-3 months, 17.6% for more than 3 months and 11.8% received training not lasting a week or more. The findings indicate that crime scene management training took long, as shown in Table 4.5.

Table 4.5: Duration of the training

	Frequency	Percent
Less than 1 week	8	11.8
1 week - 2 weeks	19	27.9
3 weeks - 1 month	19	27.9
2 - 3 months	10	14.7
More than 3 months	12	17.6
Total	68	100.0

4.4.1.5 Training and areas of work

On whether the training addressed the areas they encounter during their work, the study found that 90% of the respondents were trained on things they encounter in their line of duty, while 10% said the training covered things outside their work scope, which are presented in the next sub-section. Figure 4.6 shows these findings.

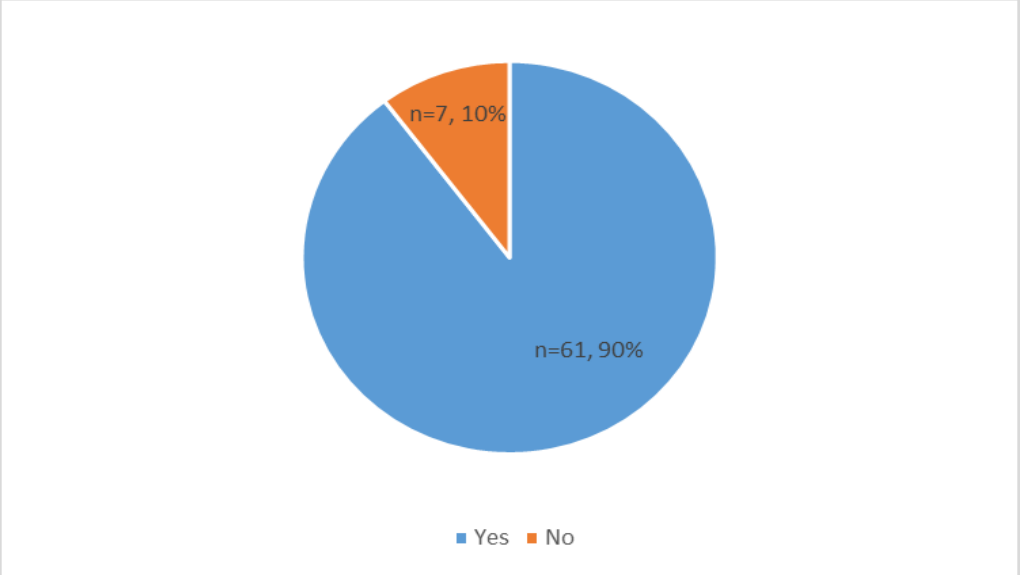


Figure 4.6: Training addressing areas of work

4.4.1.6 Key areas covered during training

The study also sought to determine the key areas the respondents were exposed to during training. Based on the emerging themes, the study found that approach to crime scenes, securing of crime scenes, processing, and documentation, a chain of custody, crime scene exhibit, and packaging, and transportation among others were cited, as shown from the following responses from the respondents and key informants.

> The relevant areas of training on this aspect (crime scene management) revolve around the preservation of digital evidence, preservation of biological evidence, and personal safety at the crime scenes (Source: Crime intelligent officer 1).

> Relevant training in this area includes documentation of scenes and proper knowledge of the law, collection of relevant information at the scene and securing of the scene as well as verification of motor vehicles at the crime scene (Source: Crime scene investigator 1).
>
> I would consider training that encompasses worldwide best practices in crime scene management as a relevant one. This includes coverage in areas such as duties of the first respondents, documentation, and processing of the scene, security officer safety and safety of the public, fingerprints lifting, ballistics, odontology, photography, forensic pathology, toxicology, forensic engineering, and dataloscopy (Source: General investigator).
>
> Some of the areas important in crime scene management that are covered in training include exhibit collection and packaging, motor vehicle numbers restoration, examination of soil and glass, observation of the scene to understand the scene information, casualty evacuation, crime scene reconstruction, and blood spatter patterns (Source: General duty officer).
>
> I was exposed to training on how to approach the scene, protect the scene, do a preliminary survey of the scene, draw a sketch map of the scene, and search for physical evidence (Source: Crime intelligent officer 2).

4.4.1.7 Key areas missing from training

The study also sought to determine what specific areas of training the respondents felt were left out during their training. From the findings, it was determined that integration of technology, equipment management, integration of security guards, and practical lessons were some of the areas the respondents felt were missing in training, as shown from the following responses;

> The use of technology to collect evidence from the crime scene has not been adequately addressed (Source: Crime intelligent officer 3).
>
> I think there is a missing link between security officers and the security guards who are usually the first responders to the crime scenes. There should be ways of integrating information obtained from the security guards into concrete evidence that can be used in a court of law (Source: General investigator).
>
> Equipment management especially on marking and transportation of evidence needs to be looked at in the training. This will enable better use of equipment, as well as provision of equipment that is useful to specific crime scene areas (Source: Crime scene investigator 2).

4.4.1.8 Training and improvement of work experience

On how training had improved the respondents' work experience, the study found that knowledge on securing and preserving crime scenes, crime scene integrity maintenance, professionalism and efficiency in handling crime scenes, and evidence collection that is pertinent to cases being followed among others were cited by the respondents. The following responses were some of the replies given by the respondents;

> As most litigation procedures depend on facts that are based on evidence, the training sharpened my skills in evidence processing until it is presented in court (Source: Crime scene investigator 4).
>
> It has enabled me to manage exhibits that are found at the crime scene. In addition, my investigation capabilities, knowledge of the chain of custody, and professionalism have improved (Source: Crime intelligent officer 5).
>
> It has enabled me to approach any crime scene with caution and care so as not to tamper with any evidence the culprit may have left behind (Source: General investigator).

4.4.1.9 Importance of training and ability to work

The respondents were asked to rate the importance that they associated training in relation to their ability to perform their work. Of all the respondents, 33.3% of the respondents said the training was important in relation to the ability to perform their work. 28.9% said it was very important, 20% said it was extremely important while 14.4% said it was somehow important. Table 4.6 shows these findings.

Table 4.6: Importance of training in relation to ability to perform work

	Frequency	Percent
Not important at all	3	3.3
Somehow important	13	14.4
Important	30	33.3
Very important	26	28.9
Extremely important	18	20.0
Total	90	100.0

4.4.1.10 Importance of work experience and ability to work

On the importance of work experience to the ability to perform daily duties, the study found that the majority of the respondents viewed work experience as extremely important (34.4%), 28.9% identified work experience to be very important and 26.7% identified it to be important. Table 4.7 shows the findings obtained in the study on this aspect.

Table 4.7: Importance of work experience in relation to ability to perform work

	Frequency	Percent
Not important at all	3	3.3
Somehow important	6	6.7
Important	24	26.7
Very important	26	28.9
Extremely important	31	34.4
Total	90	100.0

4.4.1.11 Importance of controlling a crime scene area

The study determined the importance of controlling a crime scene area. The study found that preservation of exhibits, preservation of the dignity of evidence, and avoidance of damage of evidence among others were cited by the respondents, as shown from the following responses;

> It helps in the preservation of exhibits and non-interference with the evidence. This will keep the evidence uncontaminated until it can be recorded and collected (Source: General duty officer).
>
> To preserve the dignity of evidence caused by contamination of evidence and enhancement of the focus principle every contact leaves a trace (Source: Administrative police officer).
>
> It avoids more damage to survivors and their property and avoids deterioration of evidence as well (Source: Crime scene investigator).
>
> A controlled crime scene area will allow an investigator not to miss out on any evidence and hence improve the prosecution of accused persons. This is achieved through searching exhibits and other forensic materials (Source: Crime intelligent officer).

4.4.1.12 Knowledge, procedures for processing a crime, and further training

The study found that 70% of the respondents were not limited with knowledge during handling a crime scene, 55.6% religiously abided by procedures taught when processing a crime scene and 74.4% would seek further training in their field. Table 4.8 shows the findings obtained in the study.

Table 4.8: Knowledge, procedures of processing a crime and further training

		Frequency	Percent
Have you ever been limited with knowledge during handling a crime scene?	Yes	27	30.0
	No	63	70.0
	Total	90	100.0
Do you religiously abide by procedures taught when processing a crime scene?	Yes	50	55.6
	No	40	44.4
	Total	90	100.0
Would you seek further training in your field	Yes	67	74.4
	No	23	25.6
	Total	90	100.0

For those who could seek further training, the study sought to determine the areas where they could seek training in. From the findings, it was observed that collection and preservation of evidence using upcoming technologies, fraud management, blood spatter patterns, exhibit packaging and dataloscopy, general investigations and cybercrime, forensics analysis, biological evidence collection, and photography as well as ballistics, DNA collection, and document examination were identified.

4.4.1.13 Loss of court cases due to failure to follow procedures

The study sought to find out if the respondents had lost court cases due to failure to follow procedures in identification, collection, storage, or presentation of evidence. This was important in measuring their skills in crime scene management.

From the findings, 38.9% of the respondents had lost cases in court due to failure to follow laid down procedures, while 61.1% had not, as presented in Table 4.9.

Table 4.9: Loss of Court Cases Due to Failure to Follow Procedures

	Frequency	Percent
Yes	35	38.9
No	55	61.1
Total	90	100.0

4.4.1.14 Limitation of knowledge in the process of managing a crime scene

The study sought to determine if the respondent had been limited by knowledge in the process of managing a crime scene which led to failure in the collection of evidence from a crime scene. It was found that 68.9% were out of ideas in the process of managing a crime scene that led to the loss of evidence, while 31.1% were not. Table 4.10 presents the findings obtained.

Table 4.10: Limitation of knowledge in the process of managing a crime scene

	Frequency	Percent
Yes	62	68.9
No	28	31.1
Total	90	100.0

4.4.1.15 Availability of ready professional support

The researcher sought to determine whether the respondents had ready professional support such as medical forensics, cyber forensics, and chemical analysis whenever needed and whether it was usually availed upon request. The findings obtained indicate that 35.6% of the respondents said this was done, while 64.4% of the respondents said ready professional support was not availed whenever needed, as shown in Table 4.11.

Table 4.11: Availability of professional support wherever needed

	Frequency	Percent
Yes	32	35.6
No	58	64.4
Total	90	100.0

4.4.1.16 Staffing assessment

The study sought to determine whether the respondents felt that they were understaffed, overstaffed, or adequately staffed. As shown in Table 4.12, it was determined that 55.6% of the respondents said they were understaffed, 35.6% said they were adequately staffed and 8.9% said they were overstaffed.

Table 4.12: Assessment on staffing

	Frequency	Percent
Adequately staffed	32	35.6
Understaffed	50	55.6
Overstaffed	8	8.9
Total	90	100.0

4.4.1.17 Performing a duty outside the job description

Finally, the study sought to determine if the respondents had been asked to perform duties outside their current job description due to inadequate staffing. From the findings, it was found that 79% of the respondents had been forced to perform duty outside their job description as a result of inadequate staffing, while 21% had not. The findings are presented in Figure 4.7.

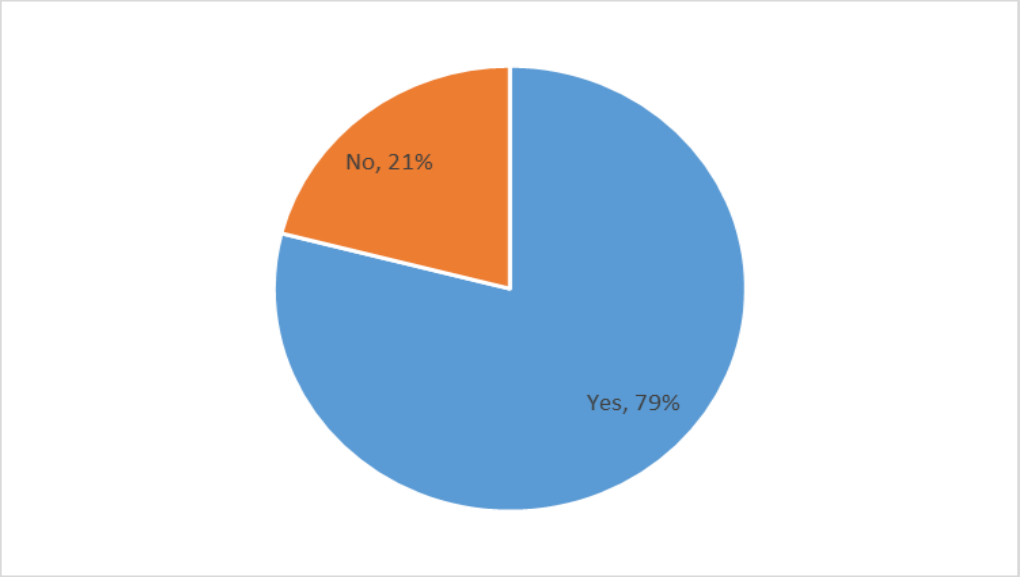


Figure 4.7: Tasks outside work scope due to inadequate staffing

4.4.2 Adequacies of Technologies and Instruments in Crime Scene Management

The second objective of the study was to determine the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub-County. In answering this objective, several questions are analyzed and presented in the subsequent sub-sections.

4.4.2.1 Office accommodation with lockable cabinet

The study sought to determine if the respondents had office accommodation with a lockable cabinet. The study found that 64.4% of the respondents had lockable cabinets in the office, with 35.6% of the respondents (security officers) missing this important equipment in the conduct of crime scene investigations. The findings obtained are shown in Table 4.13.

Table 4.13: Lockable cabinets in the office

	Frequency	Percent
Yes	58	64.4
No	32	35.6
Total	90	100.0

4.4.2.2 Necessary equipment for crime scene management

The study sought to determine whether the provided office space had the necessary wares including personal computer, desk, safe cabinets for storing confidential documents, ample lighting, and internet access among others, or not. As shown in Table 4.14, it was determined that 56.7% of the respondents had the necessary equipment for crime scene management while 43.3% of the security officers did not. Some of the missing equipment included a lack of remote stations which were away from urban centres and did not have access to the crime scene investigation services.

Table 4.14: Existence of necessary equipment for crime scene management

	Frequency	Percent
Yes	51	56.7
No	39	43.3
Total	90	100.0

4.4.2.3 Description of the equipment present

The frequencies and percentages were complimented by the qualitative data from open-ended questions and key informant interview guides. The study respondents were asked to describe the equipment they had that they considered important for crime scene management. As shown from the following responses, desk

computers, internet, safety cabinets, and lockable desks among others were mentioned as follows;

> Since this is an open office, the main thing that is required is lockable desks for every officer, which will ensure that the integrity and confidentiality of the information collected are safe (Source: Crime intelligent officer 7).
>
> The office has desktop computers to help in processing case files. The computers have an internet connection through the office WiFi, therefore enabling sharing of information whenever needed. The storage of information in soft copy is also important as it enables data storage, as manual data can easily be lost. However, to also ensure that hard copies are safeguarded, they are stored in cabinets that are lockable for safety. The main challenge, however, is the availability of space for all files as there are so many cases going on right now (Source: Crime scene investigator, 6).
>
> The provided space is not enough for the storage of all files, which is even more challenged by sharing of computers by more than 20 officers for one computer. This clearly shows why some cases are really slow, as the processing of cases is inhibited by the unavailability of computers as everything is being done digitally in the country (Source: General duty officer).

4.4.2.4 Means of transport to respond to a crime scene and access to vehicles

The study also sought to find out whether the security officials always had a means of transport to respond to a crime scene, had access to unmarked vehicles, whether the vehicles had sufficient fuel, whether the provided vehicles were equipped with radios and other communication equipment, whether they ever failed to attend to a crime scene for lack of transport means and whether they ever lost crucial evidence due to late arrival at the crime scene due to logistical challenges. The study found that 64.4% of the respondents had means of transport to respond to a crime scene, only 35.6% had access to unmarked vehicles, 71.1% said they provided vehicles did not have sufficient fuels, 62.2% said they provided vehicles were not equipped with radios and other communication equipment, 64.4% sometimes failed to attend to a crime scene for lack of transport means and 66.7% of the respondents lost crucial

evidence due to late arrival at the crime scene due to logistical challenges. Table 4.15 shows the findings obtained in the study.

Table 4.15: Means of transport and response to a crime scene

		Yes	No
Do you always have a means of transport to respond to a crime scene?	f	58	32
	%	64.4%	35.6%
Do you have access to unmarked vehicles?	f	32	58
	%	35.6%	64.4%
Do the provided vehicles have sufficient fuel?	f	26	64
	%	28.9%	71.1%
Are the provided vehicles equipped with radios and other communication equipment?	f	34	56
	%	37.8%	62.2%
Have you ever failed to attend a crime scene for lack of transport means?	f	32	58
	%	35.6%	64.4%
Have you ever lost crucial evidence due to late arrival at the crime scene due to logistical challenges?	f	30	60
	%	33.3%	66.7%

4.4.2.5 Basic equipment needed to attend to a crime scene

The study further sought to determine the basic equipment that was needed to adequately attend to a crime scene. The major equipment cited by the respondents included vehicles, gloves, stationery, body bags, audio calls, storage and preservation equipment, camera and surveillance camera, stretchers, arms, any other means of transport if vehicles are unavailable, biohazard bags, first aid kits, markers, crime barricades, tapes, fingerprint lifting powder, exhibits collection paper, exhibits numbers, torch or any other flashlight, protective gears, evidence seals, emergency batteries, blood collection kit, and bodily fluid collection kit.

The study also sought to determine whether there was equipment availed to the respondents every time they needed them and a suitable facility nearby where victims could be medically assessed/examined. As presented in Table 4.16, the study determined that 56.7% said that the minimum equipment was availed to them every

time they needed it, 64.4% said the facility nearby was not suitable where victims can be medically assessed/examined, 68.9% said the medical personnel involved were trained and equipped to gather the necessary medical evidence, especially for victims of sexual assault or rape while 41.1% said that there was equipment that they felt were vital to their job that as was not provided.

In addition, 62.2% of the respondents said they had failed to perform a required task at a crime scene due to a lack of necessary equipment, and 50% had lost the integrity of evidence collected from the crime scene due to a lack of necessary resources for collection and storage, thus leading to evidence being inadmissible to court while 64.4% said the available equipment was not working as required. Table 4.16 shows these findings.

Table 4.16: Equipment and scene management

		Yes	No
Are the minimum equipment availed to you every time you need them?	f	51	39
	%	56.7%	43.3%
Is there a suitable facility nearby where victims can be medically assessed/examined?	f	32	58
	%	35.6%	64.4%
Are medical personnel involved trained and equipped to gather the necessary medical evidence, especially for victims of sexual assault or rape?	f	62	28
	%	68.9%	31.1%
Is there equipment that you feel is vital to your job that is not provided?	f	37	53
	%	41.1%	58.9%
Have you ever failed to perform a required task at a crime scene due to a lack of necessary equipment?	f	56	34
	%	62.2%	37.8%
Have you ever lost the integrity of evidence collected from the crime scene due to a lack of necessary resources for collection and storage, thus leading to evidence being admissible to court?	f	45	45
	%	50.0%	50.0%
Are all the available equipment in working order?	f	32	58
	%	35.6%	64.4%

4.4.2.6 Frequency of experiencing problems with the provided equipment

The study also sought to obtain information from the respondents on the frequency they experienced problems with the equipment provided. From the

findings, it was determined that 43% of the respondents often experienced problems with the available equipment, 35% very often experienced problems, 12% sometimes experienced the problems and 10% rarely experienced the problems. Figure 4.8 presents these findings.

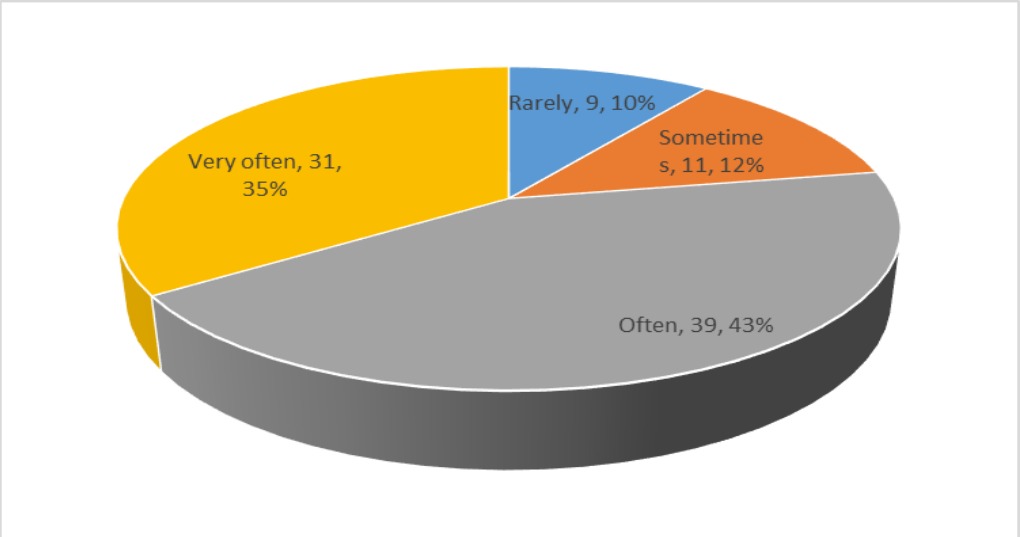


Figure 4.8: Problems with equipment frequency

4.4.2.7 Rating in terms of availability of relevant working equipment

The study finally sought to assess the rating of the department in terms of availability of relevant working equipment, on a scale of 1 to 5, with 1 being the least score and 5 for an excellent score. The study found that 55.6% of the respondents identified the availability of working equipment to be average, 18.9% identified it to be poor, 11.1% said it was good while 8.9% said it was very poor. Table 4.17 shows these findings.

Table 4.17: Availability of relevant working equipment rating

	Frequency	Percent
Very poor	8	8.9
Poor	17	18.9
Average	50	55.6
Good	10	11.1
Excellent	5	5.6
Total	90	100.0

4.4.3 External and Internal Areas of Improvement by the DCI for Enhanced Crime Scene Management

The third objective of the study was to explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub County. In answering the objective, the following subsections are analyzed for informative findings.

4.4.3.1 Factors affecting the respondents' performance

The study sought to determine the factors, both internal and external, that the respondents felt affected their performance. From the findings, the following themes were identified: Micro-management by their supervisors or bosses, false complaints from the public, events such as hostility from the public especially where the affected are from the Muslim religion which requires immediate burial of the bodies in question, especially in murder cases, lack of means of transport which may delay the capability to respond to crime scenes, political interferences, lack of funds to conduct complex procedures, lack of training for all staff and inadequate staffing. The following responses were obtained from the respondents and key informants based on the thematic areas;

> Inadequate staffing - There is inadequate staffing, especially for those specifically assigned to crime scenes. Sometimes you are overworked which hampers your capability to work well and be effective (Source: Crime scene investigator, 4).
>
> Pressure from the public - The pressure from the public for immediate results and the delays in getting results from professional bodies bring a lot of pressure to us who are on the job. This may lead to hurried cases which do not provide sufficient evidence due to limited time, resources, and equipment (Source: Crime intelligent officer, 5).
>
> Pressure from the seniors and colleagues - There is usually pressure from the seniors and colleagues. This is compounded by cases of corruption that have been reported in the past. It is therefore important to address these issues as crime scene management needs independent

minds in order to ensure that cases do not get compromised (Source: Crime intelligent officer, 4)

Untrained or semi-skilled crime scene investigation personnel - Some of the internal factors include negligent crime scene personnel who I may say are ignorant. There are also untrained or semi-skilled crime scene investigation personnel. This is accompanied by a lack of enough crime scene response personnel (only deployed) at the Subcounty level and regions. External factors include poor police public perception (negative) and lack of awareness by the public and police on the existence of crime scene investigation units by field police officers. There is also a lack of awareness by initial crime scene respondents (eyewitnesses) on precautions to observe for the members of the public (Source: Crime intelligent officer, 6).

Lack of equipment - The lack of equipment (external factor) affects my ability to manage the scene properly. Internal factors include overworking and numerous caseloads that affect the ability to concentrate and work cases appropriately (Source: Crime scene investigator, 3).

Poor remuneration - I would say poor pay, poor housing, and poor means of transport as major factors that affect crime scene investigation at a personal level. There is also inadequate staffing, accelerated by the adequacy and relevance of technologies and instruments used in crime scene investigation being poor. This needs a lot of improvement (Source: General investigator).

Distance from testing centres - Collaborations with other players in crime scene management and processing such as government chemist laboratories may require to be brought closer to our -sub-county for ease of access and testing. The distance to these laboratories hampers the efforts to produce accurate and fast results. There is also an issue with adverse weather conditions that are experienced in some parts of Kajiado North sub-county, especially during rainy seasons that have proved a challenge in accessing some areas through the road which is the only available means of movement in the area (Source: Crime scene investigator, 5).

4.4.3.2 Religion and Crime Scene Management

The study sought to determine whether religion ever influenced their work performance or how they collected and treated evidence on a crime scene. The study found that 75.6% of the respondents were affected by religion in the conduct of their investigations, while 24.4% were not affected. This shows that religion did play a major role in the conduct of crime scene investigations, as shown in Table 4.18.

Table 4.18: Religion and crime scene management

	Frequency	Percent
Yes	68	75.6
No	22	24.4
Total	90	100.0

4.4.3.3 Law covering cases of genuine mistakes during the conduction of investigations

The study also sought to determine if there were laws that cover the investigator in the cases of genuine mistakes during the conduction of investigations. From the findings, 96.7% of the respondents were aware of such laws, while only 3.3% were not, showing a general existence of information on laws. Table 4.19 presents the findings obtained in the study.

Table 4.19: Law covering cases of genuine mistakes investigations

	Frequency	Percent
Yes	87	96.7
No	3	3.3
Total	90	100.0

4.4.3.4 Bribes and coercion during investigations

The study sought to find out if the respondents had been offered a bribe or coerced to alter the course of investigations or tamper with the evidence. It was found that 74.4% had not been offered a bribe or coerced to alter the course of investigations or tamper with the evidence, however, 25.6% of the respondents had gone through it. The findings are shown in Table 4.20.

Table 4.20: Bribes and coercion during investigations

	Frequency	Percent
Yes	23	25.6
No	67	74.4
Total	90	100.0

4.4.3.5 Obstruction while in the line of duty

The study also wanted to determine if the respondents had been obstructed while in the line of duty. As shown in Table 4.21, 53.3% of the respondents said they had been obstructed while in the line of duty, while 46.7% had not. This implies that obstruction was common, as it had happened in more than half of the respondents.

Table 4.21: Obstruction in the line of duty

	Frequency	Percent
Yes	48	53.3
No	42	46.7
Total	90	100.0

4.4.3.6 Concealing of evidence due to religious, traditional beliefs

The study further sought to examine if the respondents had been requested by victims or suspects to conceal evidence or operate outside standard procedures for religious reasons, traditional beliefs, or to protect the image. The study found that 94.4% had not been requested to conceal evidence due to such reasons, while 5.6% had been requested, as shown in Table 4.22. The findings show that this was not a common practice in the Kajiado North -sub-county.

Table 4.22: Concealing of evidence due to religious and traditional beliefs

	Frequency	Percent
Yes	5	5.6
No	85	94.4
Total	90	100.0

4.4.3.7 Operation outside procedures due to seniors or peers' requests

The study also aimed to find out if the respondents had operated outside standard procedures due to a request from a peer or senior, and the findings indicate that 65.6% of the respondents had not, while 34.4% of the respondents had done so. The findings obtained in the study are shown in Table 4.23.

Table 4.23: Operation outside procedures due to seniors or peers' requests

	Frequency	Percent
Yes	31	34.4
No	59	65.6
Total	90	100.0

4.4.3.8 Protection of a colleague as a way of adhering to the 'brotherhood code'

The study finally sought to determine if the respondents had ever operated to conceal or alter evidence to protect a colleague as a way of adhering to the 'brotherhood code'. From the findings, 24.4% of the respondents had done so, while 75.6% of the security officers had not. Table 4.24 shows these findings.

Table 4.24: Protection of a colleague as a way of adhering to 'brotherhood code'

	Frequency	Percent
Yes	22	24.4
No	68	75.6
Total	90	100.0

CHAPTER FIVE

DISCUSSION, SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings derived from the results presented in chapter four. The chapter also presents the conclusions in line with the objectives of the study, as well as the recommendations for improved and further research.

5.2 Discussion of Findings

In the conceptual framework the management of the crime scene was the dependent variable (DV), while the independent variables (IV) were; training levels and skills of officers in crime scene management, adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management and external and internal areas of improvement for enhanced crime scene management. The main objective of the study was to investigate the extent to which the Kajiado North's DCI departments can deliver what is required in crime scene management. The specific objectives of the study were to examine the training levels and skills of officers used by the directorate in crime scene investigation, analyse the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management and explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub County. This section discusses the findings under each objective, and also provides a comparison with other studies carried out by researchers in the same subject area.

5.2.1 Level of Training and Skills

On the first research question on examining the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub County, the study found that the highest percentage of the respondents had attended some form of formal training concerning crime scene management in Kajiado North Sub County. These findings are different from those obtained by Marylyn and Miller (2017), who found that proper training was lacking for most security officers, and recommended that proper training may involve acquainting the investigative personnel with effective knowledge regarding the entire criminal justice system, standard operating procedures, and chain of custody among other techniques. Some of these techniques were, however, found to be present in the current study (see Tables 4.2 - Table 4.6 & Figure 4.6).

The study found that most respondents were trained on things they encounter in their lines of duty, such as how to approach crime scenes, secure crime scenes, processing and documentation, chain of custody, crime scene exhibit and packaging and transportation (Qualitative data). These findings are similar to those of Kempen (2020) who found that crime scene management training was essential and covered areas on the standard operating procedure, planning and approaching crime scenes, interviewing witnesses and suspects, and examining crime scenes to define boundaries and how to establish a chain of custody.

It was determined that the integration of technology and lack of equipment were some of the areas the respondents felt were missing in pieces of training by the key informants. In line with the findings of the current study, Omeje and Githigaro (2016) noted that lack of adequate technologies and instruments has seen investigators to lack vital equipment for handling crime scenes as observed. The study further

observed that in some cases officers lacked means of transport to a crime scene, and necessary materials for cordoning a crime scene and collecting evidence such as tapes and gloves, thus compromising the integrity of evidence collected and consequently its admissibility in court.

This study found that knowledge on securing and preserving crime scenes, crime scene integrity maintenance, professionalism and efficiency in handling crime scenes, and evidence collection that is pertinent to cases being followed among others were cited by the respondents (qualitative data). Marylyn and Miller (2017) agree with these findings when the authors reported that for proper development of capacity in crime investigators, the ideal working environment and proper perks are not a sure bet until it is matched with a properly trained, professional, and competent workforce. However, only some respondents in the current study said the training was important in equipping them with relevant skills to perform their work, differing from the findings in the literature.

The study found that preservation of exhibits, preservation of the dignity of evidence, and avoidance of damage to evidence were very crucial in successful crime scene investigations (see Table 4.8). In line with these findings, Sutton *et al*. (2017) agree that forensic investigators need to identify traces, gather and preserve the physical evidence and exhibits from a crime scene and analyze them with the aid of forensic or scientific techniques to explain what happened, all these requiring certain specialized technologies and instruments. However, most technologies were cited to be missing in the present study, differing from Sutton *et al*. (2017) who found that technologies were available for crime scene and forensic investigations.

The study found that most respondents were not limited in knowledge during handling a crime scene, however, most respondents would seek further training in

their field (see Table 4.10). For those who could seek further training, the study sought to determine the areas where they could seek training in. From the findings, it was observed that collection and preservation of evidence using upcoming technologies, fraud management, blood spatter patterns, exhibit packaging and dataloscopy, general investigations and cybercrime, forensics analysis, biological evidence collection, and photography as well as ballistics, DNA collection, and document examination were identified. Kempen (2020) also observed a number of activities that are essential for officers involved in crime scenes, such as note-taking, photography, evidence collection, and preservation and how to collaborate and present this to prosecutors in order to ensure successful resolution and prosecution of the crime, and this could be attained if crime scene officers were adequately trained.

It was found that most respondents ranout of ideas in the process of managing a crime scene which led to the loss of evidence (see Table 4.10). Alanazi (2017) also observed that little information is available on the details of training, which leads to most officials failing to have essential information on how to approach certain situations of crime scenes. Mwamburi (2016) further highlights that training offered at the DCI training school in Kenya does not sufficiently cover entire fields of crime scene management including modern technologies. The current study found that 38.9% of the respondents had lost cases in court due to failure to follow laid down procedures.

The findings obtained indicate that only a third of the respondents said professional support was availed to them whenever needed, with the majority of the respondents missing to get this professional support (see Table 4.11). Though Bundi (2016) identified that professional support in addition to other supportive resources for investigators was missing, however, there were instances where adequate

remunerations, proper working environment, and provision of necessary tool kits and equipment for processing a crime scene were provided. Lack of adequate staff was also identified in Bundi's (2016) study, which is true for the current study as most respondents had been forced to perform duties outside their job description because of understaffing.

5.2.2 Adequacies of Technologies and Instruments in Crime Scene Management

On the second research question of the study on the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub County, the study found that most respondents had lockable cabinets in the office. It was also determined that most respondents had the necessary equipment for crime scene management. Some of the missing equipment included a lack of remote stations and lack of access to the crime scene investigation services. Supporting these findings, Marylyn and Miller (2017) argue that for efficient and effective crime scene management, several factors such as working and relevant equipment and resources, and a conducive work environment free from any sort of interference should dictate the process of crime scene management.

The study determined that desk computers, internet, safety cabinets, and lockable desks were mentioned as available (see Table 4.14). Comparatively, Sauerman and Ivkovic (2015) and Feldman (2015) also insist on the importance of equipment for crime scene management, from simple equipment such as notebooks to complex technologies that aid in crime scene evidence analysis.

The study found that most respondents had means of transport to respond to a crime scene, only a few had access to unmarked vehicles, while majority reported that

the provided vehicles did not have sufficient fuel and sometimes failed to attend to a crime scene for lack of transport means. Truman and Planty (2018) note that the lack of adequately properly trained investigators accompanied with inadequate equipment for crime scene investigations has seen prosecutors lose cases that appeared to be straightforward due to technical glitches occasioned by non-adherence to standards recognized by law. The study further observed that this could be due to a lack of proper professionals to handle the investigative work. The major equipments cited by the respondents as lacking included vehicles, gloves, stationery, body bags, audio calls, storage and preservation equipment, camera and surveillance camera and bodily fluid collection kit among others.

The study determined that most respondents said that only the minimum equipment was availed to them every time they needed it, received low training and that the facility nearby was not suitable where victims can be medically assessed/examined (see Table 4.15). These findings are comparable to those of Omeje and Githigaro (2016) who observed that law enforcement agencies are faced with common challenges such as limited or lack of trained personnel handling crime scenes as well as those collecting, transporting, and storing evidence and this may compromise the quality of prosecution evidence, and by extension, the ability of the courts to convict and sentence offenders. Further, Walsh (2015) argues that there can never be an over-emphasis on the requirement of specialized skills at a crime scene. While some scenes are simple and can be processed in the minimal time while others require days to collect evidence samples and reconstruct to ensure maximum information is obtained from the scene.

From the study found most respondents reported that they had failed to perform a required task at a crime scene due to a lack of necessary equipment, with

others having lost the integrity of evidence collected from the crime scene due to a lack of necessary resources for collection and storage, thus leading to evidence being inadmissible in court (see Table 4.16). Based on these findings, Mozayani and Parish-Fisher (2017) call for the provision of adequate technologies and instruments to enable the proper collection, handling, and processing of evidence for efficient presentation to avoid unnecessary loss of cases in court. In addition, Bundi (2016) noted that the use of forensics and scientific methods to collect and analyze evidence greatly aided in the administration of justice for victims and accused as well in Kenya. It was their observation that when police investigators are provided with the right technologies and instruments, the effect of this trickle down to results.

It was determined that most respondents often experienced problems with the available equipment (see Table 4.17). In addition, most respondents identified the availability of working equipment to be average. In line with these findings, Mbaya (2016) found that most cases have hit a dead-end due to minimal, or lack of relevant training and a shortage of basic working equipment. In some more desperate cases, this will include the lack of means of transport to reach the crime scene which eventually may lead to delay in securing the crime scene and thus loss of crucial time-dependent evidence.

5.2.3 External and Internal Areas of Improvement by the DCI for Enhanced Crime Scene Management

Based on the third research question which was to explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub County, the study found that there was micro-management by their supervisors or bosses, false complaints from the public, discouragement events, and lack of means of transport which may delay the capability to respond to crime

scenes. additionally political interferences, lack of funds to conduct complex procedures and lack of training for all staff and inadequate staffing were common challenges affecting crime scene management. Kempen (2020) also noted that intimidation from the public and police seniors may pressure the investigators to convict certain suspects while lawyers may intimidate the investigators and threaten them with countersuits in trying to have sway over the net outcomes. Thus, there will always be external factors in play that eventually may determine the kind of ending for a specific case. Mwamburi (2016) also opines that external interference has led to many cases ending without being resolved in Kenya. The study also observes that in some instances investigators have dropped out of cases citing external interference and frustrations. This has grown a culture of impunity and generally undermined the work of investigators thus leading to diminished public trust.

The study found that most respondents were affected by religion in the conduct of their investigations (see table 4.18). These findings are in line with those of Muthini (2018) who noted that due to certain religious beliefs, families may unwittingly and unintentionally contaminate the crime scene thus concealing certain crucial evidence. In some cases of suicide or rape, family members have acted to hide these facts thus misguiding investigators when defining the extent of their crime scene.

While it was found that majority of the respondents had not been offered a bribe or coerced to alter the course of investigations or tamper with the evidence, some respondents reported to have gone through it. This has also been documented in a previous study by Ondieki (2017), who observed that investigators will broadly have sets of a power play that will seek to influence how they conduct investigations and generally how they handle a crime scene, one would be from external sources

inform of coercion from his seniors, pressure put by victims, threats or bribery offers from suspects and at times victims and victims' family or in highly publicized cases, pressure may be from the general public. As also postulated by Mburu *et al.* (2017, external interference through coercion and bribery is very common in Kenya. It was observed that less than 8% of cases reported to Kenyan police resulted in convictions thus creating a common belief that perpetrators of serious crimes almost always manage to evade accountability. In the current study, most respondents said they had been obstructed while in the line of duty, showing that this was a common practice in the study area as well.

The study found that the respondents had not been requested to conceal evidence by either their seniors or members of the public. This is in line with the principles laid down by Braga *et al*. (2019) that a crime scene, being as dynamic as the crime itself, requires swift but delicate handling to ensure no or minimum evidence is lost, thus requiring a high degree of specialized investigators. In carrying out investigation and evidence collection at the crime scene, investigators need to be aware that each piece of evidence collected at the scene is part of a big puzzle and there hardly is an unconnected piece. The study further observes that one process or evidence collected complements the other. However, the study noted that there will always be attempts to hide such evidence, which leads to most cases being abandoned along the way.

5.3 Summary of Main Findings

On the first specific objective of examining the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub County, the study found that most officers had attended some form of formal training concerning crime scene management. Of those who had attended formal pieces of

training, most of them received the training before joining their current positions. The study found also that most of those who had formal training had been trained locally, with the training taking between 1 week and 1 month. From the findings, the approach to crime scenes, securing of crime scenes, processing, and documentation, a chain of custody, crime scene exhibit, and packaging and transportation among others were cited. It was determined that integration of technology, equipment management, integration of security guards, and practical lessons were some of the areas that were missing in training.

On the second objective on the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub County, the study found that some officers lacked lockable cabinets in the office, while some did not have the necessary equipment for crime scene management. Some of the missing equipment included a lack of remote stations which were away from urban centres and did not have access to the crime scene investigation services. Most officers lost crucial evidence due to late arrival at the crime scene due to logistical challenges. The major equipment needed as cited by the officers included vehicles, gloves, stationery, body bags, audio calls, storage and preservation equipment, camera and surveillance camera, stretchers, arms, any other means of transport if vehicles are unavailable, biohazard bags, first aid kits and bodily fluid collection kit among others.

Based on the third objective which was to explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub-County, the study found that micro-management by their supervisors or bosses, false complaints from the public, discouragement events, political interferences, and inadequate staffing affected how the security officers responded to

crimes. In addition, the officers were affected by religion in the conduct of their investigations and were aware of laws on crime scene investigations. It was found that most officers had not been offered a bribe or coerced to alter the course of investigations or tamper with the evidence, however, some officers had gone through it in addition to obstruction while in the line of duty and requests to conceal evidence.

5.4 Conclusion

On the first specific objective of examining the training levels and skills of officers used by the directorate in crime scene investigation in Kajiado North Sub-County, the study concludes that formal training on crime scene management was present for most security officers, though the training was done before the officers joined their respective departments. However, some officers lacked this essential training on crime scene management.

On the second objective on the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub-County, the study concludes important equipment such as lockable cabinets, remote stations and logistical equipment were missing, which hampered the process of crime scene investigations.

Based on the third objective which was to explore the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub County, the study concludes both internal and external factors existed that affected how crime scene management was conducted which included that micro-management by their supervisors, political interferences, false complaints from the public and inadequate staffing.

5.5 Recommendations

5.5.1 Training Levels and Skills

On the first specific objective of examining the training levels and skills of officers serving under the directorate in crime scene investigation in Kajiado North Sub -County, the study recommends training for all security the officers who are involved in crime scene management. Training for these officers should be done regularly so that they can be updated with the ever-changing technological world. The study further recommends training in areas that were missing, such as chain of custody, crime scene exhibit and packaging and transportation.

5.5.2 Adequacy of Technological Resources Used in Crime Scene Management

On the second objective on the adequacies of technologies and instruments used to collect, examine and preserve material traces of crime scenes available at the DCI in crime scene management in Kajiado North Sub-County, the study recommends that the government should work towards providing adequate and relevant facilities such as lockable cabinets for all officers involved in crime scene management, in addition to enough vehicles and resources such as gloves, stationery, body bags, biohazard bags, first aid kits and bodily fluid collection kit that were not present for all officers.

5.5.3 External and Internal Areas of Improvement by the DCI for Enhanced Crime Scene Management

Based on the third objective on the external and internal areas of improvement by the DCI for enhanced crime scene management in Kajiado North Sub-County, the study recommends that the crime scene investigation officers should be accorded opportunity to conduct investigations, and should be shielded from false public

complaints and political interferences that hinder their focus on the crimes involved. There is also a need for the promotion of knowledge to the public through awareness creation programmes that bribery and corruption should be avoided, as this affects them in one way or another.

5.6 Areas of Further Research

Based on the gaps inherent in this research, the study recommends that future research should consider the opinions of the public, especially those who have been victims of crime and find out their perception of the capacity of the investigators to handle their cases. The research methodology did not consider their opinions in the conduct of the data collection and sampling process. Secondly, this was a case study of the Kajiado North Sub-County, and the findings cannot be generalized, especially in urban areas. A similar study is therefore recommended in similar as well as different settings, as this will provide comparative results to the current study. Future researchers should therefore consider other -sub-counties within and outside Kajiado County and seek to validate various areas such as why lack of training is inherent, and how to deal with such issues emanating from religion and other factors discussed in this study.

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APPENDICES

Appendix I: Introduction Letter

REQUEST FOR PARTICIPATION IN RESEARCH STUDY

I am a student of the African Nazarene University currently undertaking a graduate research study titled "***The capacity of Directorate of criminal investigations Departments in management of crime scene: A case study of Kajiado north sub–County".*** I have selected you as one of my study respondents due to your in-depth knowledge and understanding of the area of research. Kindly, allow me some time to participate in the interview whose date will be communicated later and under the mentioned topic. If you chose to be my study participants, the information you share during the interview as well as your identity will not be disclosed to anyone whatsoever and confidentiality remains at utmost.

Upon your request, you will also be availed of a copy of the report. Thank you for your cooperation and timely response. For any further communication, feel free to contact me at 0727457661 or 19j03dmgp027@anu.ac.ke

Yours Sincerely,



Muriuki Josphat Mugo

Student

Appendix II: Questionnaire

Title of the Study: Investigating the capacity of Kajiado north sub–County's Directorate for criminal investigations in management of crime scene.

Instruction:

Each section has instructions to guide you in answering the questions under it.

Section One: General Information

Instruction

This section seeks to collect general information about the respondents. Please read each item in this section and fill in or tick in the spaces provided where appropriate. Feel free to skip any question as you please.

1. What is your gender?

   Male [ ] Female [ ] Other [ ]

2. What is your age group?

   18-32Yrs [ ] 33-47 Yrs[ ] 48 – 62YRS [ ] 62 and above [ ]

3. Which department do you come from?.....……..….

   ……..

4. What is your highest level of education?

   (a) Primary [ ] (b) Secondary [ ](c) College level [ ] University Level [ ]

   (specify course) ……...

5. How many years of job experience do you have?

   Over 10 Years [ ] 5-10 Years [ ] Less than 5 years [ ]

Section Two: Level of training and skills

This section seeks to collect information on level of training in crime scene management. Please read each item in this section and fill in or tick in the spaces provided where appropriate. Feel free to skip any question as you please.

6. Have you attended any formal training on crime scene management?

   Yes [ ] No [ ]

a. Was the training done after joining the department? Yes [ ] No [ ]

b. If yes, was the training done locally or abroad?

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c. What was the duration of the training? ……..

d. Did your training address the issues you encounter during your work? ……

e. What were the key areas covered in your training? ……

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f. What do you feel was left out or inadequately covered during training?

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……..…….

g. How has training improved your work experience?

……..…….……

……..……

7. Kindly would you rate on a scale of 1 to 5, 1 being **'not important'** and 5 being **'extremely important'** the level of importance that you associate with training in relation to ability to perform your work?

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8. Kindly would you rate on a scale of 1 to 5, 1 being **'not important'** and 5 being **'extremely important'** the level of importance that you associate to work experience in relation to ability to perform your work?

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9. In your own words, what is the importance of controlling a crime scene area?

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10. Have you ever been limited with knowledge during the course of handling a crime scene? Yes [ ] No [ ]

11. Do you religiously abide by procedures taught when processing a crime scene? Yes [ ] No [ ]

12. Would you seek further training in your field? Yes [ ] No [ ]

13. Which areas would you seek training in?

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……

14. Have you ever lost a case in court due to failure to follow procedures in identification, collection, storage or presentation of evidence?

Yes [ ] No [ ]

15. Have you ever been limited by knowledge in the process of managing a crime scene that led to failure in collection of evidence from a crime scene?

Yes [ ] No [ ]

16. Is there a ready professional support (e.g medical forensics, cyber forensics, chemical analysis) whenever needed? And are they usually availed upon request?

Yes [ ] No [ ]

17. In your own assessment, do you feel that you are understaffed, overstaffed or adequately staffed?

18. Have you ever been asked to perform a duty outside your current job description due to inadequate staffing? Yes [ ] No [ ].

Section three: Adequacies of technologies and instruments used in crime scene management

This section seeks to collect information on available equipment for handling a crime scene. Please read each item in this section and fill in or tick in the spaces provided where appropriate. Feel free to skip any question as you please.

19. Do you have an office accommodation with a lockable cabinet? Yes [ ] No [ ]
20. Does the provided office space have the necessary wares including own personal computer, desk, safe cabinets for storing confidential documents, ample lighting, internet access etc.?
21. Kindly give a description to q20 above

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……..……

……....……

……..……

……

22. Do you always have a means of transport to respond to a crime scene?

    Yes [ ] No [ ]

23. Do you have access to unmarked vehicles? Yes [ ] No [ ]

24. Do the provided vehicles have sufficient fuel? Yes [ ] No [ ]

25. Are the provided vehicles equipped with radios and other communication equipment? Yes [ ] No [ ]

26. Have you ever failed to attend to a crime scene for lack of transport means?

    Yes [ ] No [ ]

27. Have you ever lost crucial evidence due to late arrival at the crime scene due to logistical challenges?

28. What is the basic equipment that you need to adequately attend to a crime scene?

    ……..……..……..

    ……..

29. Are the minimum equipment availed to you every time you need them?

    Yes [ ] No [ ]

30. Is there a suitable facility nearby where victims can be medically assessed/examined? Yes [ ] No [ ]

31. Are medical personnel involved trained and equipped to gather the necessary medical evidence, especially for victims of sexual assault or rape?

    Yes [ ] No [ ]

32. Is there equipment that you feel is vital to your job that is not provided?

    Yes [ ] No [ ]

33. Have you ever failed to perform a required task at a crime scene due to lack of necessary equipment? Yes [ ] No [ ].
34. Have you ever lost the integrity of evidence collected from the crime scene due to lack of necessary resources for collection and storage, thus leading to evidence being inadmissible to court?

    Yes [ ] No [ ].

35. Are all the available equipment in working order? Yes [ ] No [ ]
36. How often do you experience problems with the equipment provided?

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    ….
37. What is your overall rating of the department in terms of availability of relevant working equipment, on a scale of 1 to 5, with 1 being the least score and 5 for excellent score?

    ……..……..

Section four: External and internal areas of improvement by the DCI for enhanced crime scene management

This section seeks to collect information on external and internal areas of improvement by the DCI for enhanced crime scene management. Please read each item in this section and fill in or tick in the spaces provided where appropriate. Feel free to skip any question as you please.

38. What factors, both internal to you and external do you feel affect your performance?

……..…….……

……

39. Has your religion ever influenced your work performance or how you collect and treat evidence on a crime scene? Yes [ ] No [ ].
40. Is there a provision in law that covers the investigator in the cases of genuine mistakes during the conduction of investigations?
41. Have you ever been offered a bribe or coerced to alter the course of investigations or tamper with the evidence? Yes [ ] No [ ].
42. Have you ever been obstructed in your line of duty? Yes [ ] No [ ].
43. Have you ever been requested by victims or suspects to conceal evidence or operate outside standard procedures for religious reason, or traditional beliefs to protect your image? Yes [ ] No [ ].
44. Have you ever operated outside standard procedures due to a request from a peer or senior?
45. Have you ever operated to conceal or alter evidence in order to protect a colleague as a way of adhering to the ‘brotherhood code’?

……..…….……

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Appendix III: Key Informant Interviews Guide

Instruction

This section seeks to collect information on typical administrative operations affecting crime scene management. Feel free to skip any question as you please.

Q 1. What do you consider relevant training and how do you assess the level of training available among crime scene officers? Also, highlight areas of skills improvements needed

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Q 2. How would you rate the level of preparedness in terms of availability, adequacy and relevance of technologies and instruments used? Are you properly equipped to handle any crime scene in your area?

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Q3. What are the internal and external factors that affect your ability to properly manage crime scenes? Do you feel it is important to address these factors? Explain

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Appendix IV: ANU Introduction Letter

AFRICA NAZARENE
UNIVERSITY

12th March, 2021

RE: TO WHOM IT MAY CONCERN

Muriuki Josphat Mugo (**19J03DMGP027**) is a bonafide student at Africa Nazarene University. He has finished his course work and has defended his thesis proposal entitled: - ***"The Capacity of Directorate of Criminal Investigation Departments in Crime Scene Management: A Case Study of Kajiado North Sub-County"***.

Any assistance accorded to him to facilitate data collection and finish his thesis is highly welcomed.

Regards,

Dr. Titus Mwanthi.
Ag. DVC, Academics

Appendix V: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **125628**

Date of Issue: **18/March/2021**

RESEARCH LICENSE



This is to Certify that Mr.. josphat mugo muriuki of Africa Nazarene University, has been licensed to conduct research in Kajiado on the topic: THE CAPACITY OF DIRECTORATE OF CRIMINAL INVESTIGATION DEPARTMENTS IN CRIME SCENE MANAGEMENT: A CASE STUDY OF KAJIADO NORTH SUB-COUNTY for the period ending : 18/March/2022.

License No: **NACOSTI/P/21/9634**

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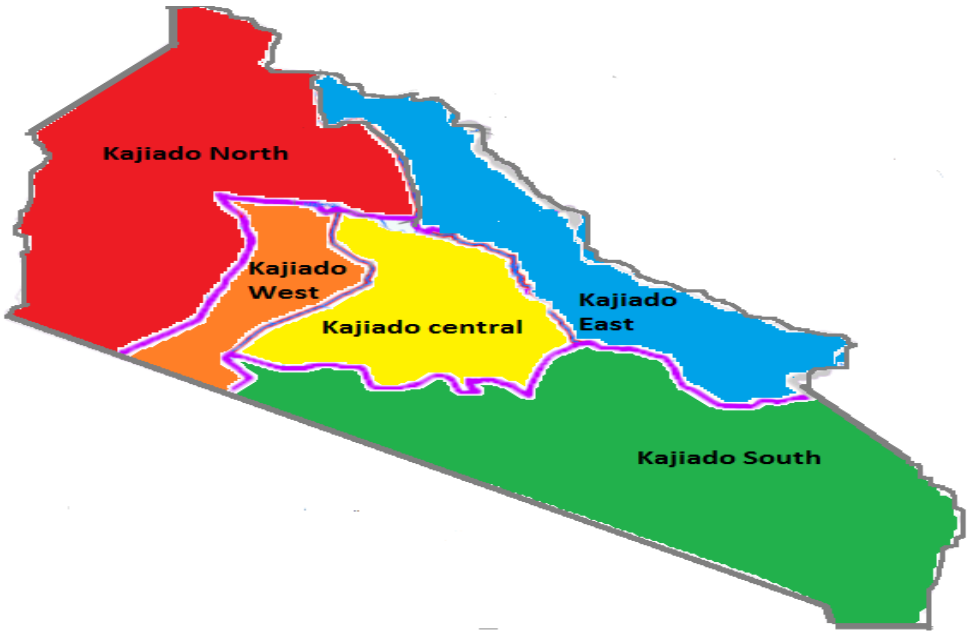
Appendix VI: Map Showing Kajiado North Sub County

Map of Kenya showing the location of Kajiado County



Source: Ministry of Devolution Kenya

Map of showing the location of Kajiado North Sub County in Kajiado County



Source: Kajiado.go.ke