

**EFFECTIVENESS OF MURDER PROFILATION PROCEDURES BY NATIONAL  
POLICE SERVICE OF KENYA: A CASE OF KIHU MWIRI FARMERS.**

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REQUIREMENTS FOR THE DEGREES OF MASTER OF PSYCHOLOGY OF THE  
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## DECLARATION

This report is my original work and has not been presented for a degree in any other university.

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## **DEDICATION**

I dedicate this work to my beloved Daughter Marlyn Kakenya Ole Saei and my grandmother who is my counsellor, Anna Ngitungoi Leparmarai who is in her mid-eighties and still gives me guidance on moral issues that propel the social support and understanding of the community moral values and virtues for a better future generational guidance.

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## **ABBREVIATIONS AND ACRONYMS**

CID	:	Criminal Investigations Department
DCI	:	Directorate of Criminal Investigations
NPS	:	National Police Service
SD	:	Standard deviation

## ABSTRACT

Kenya has experienced series of unsolved murders. There has been a series of murders over various land buying companies like Kihiu Mwiri Farmers Company. The concerns have been growing with time since Kihiu Mwiri murders started in 2001 with the killing of the Ben Gumbi and have continued to eight directors. Law enforcement have undertaken investigations to gather evidence on the basis of available murder procedures. However, there has been difficulties in successful prosecution of perpetrators though the Kihiu Mwiri murders continue. It seems difficult for the police to successfully profile those behind the Kihiu Mwiri murders, just as in the case of other previous mysterious murder cases. This research sought to examine the effectiveness of murder investigations procedures at the profilation of murder perpetrators in Kihiu Mwiri murders; identify challenges facing implementation of murder procedures during criminal profilation; and to recommend measures necessary for successful investigation of murder cases and profiling of murder perpetrators. The study adopted a case study research approach. It used qualitative and quantitative research methods. Snowball sampling technique was used to select sample size of 20 Kihiu Mwiri shareholders and purposive sampling for 31 murder investigators. Descriptive statistics was used to analyse quantitative data. This study focused on Kihiu Mwiri murders alone and left out other murders which are also un-resolved. Results showed that the factors studied were very significant to profilation of suspects and successful investigations of murder.

**Keywords:-** Kihiu Mwiri, murder profiling, investigations

## **CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY**

### **1.1 Background of the Study**

In Kenya, cases of mysterious murders, wrong convictions, un-successful prosecutions and murder suspects going scot-free, are on the increase, defacing the whole criminal justice system of the country in delivering benefits of modernity (Mueller, 2005; Musila, 2008). A considerable number of murder cases are not closed, perpetrators are not apprehended and justice is either denied or delayed (Mueller, 2005; Rossmo, 2005). Most murder investigations in Kenya involve unsorted police inquiry files, which are often messy, inconclusive, devoid of facts, analysis, refinement and editing (Mueller, 2005; Mutonya, 2010).

Unfortunately, most murders in Kenya from the time of the assassination of Tom Mboya, J. M. Kariuki, Pio Pinto, Dr. Ouko, Julie Ward through Dr. Mbai, Mutula Kilonzo to Former Prime Minister's son, Fidel Castro Odinga and Otieno Kajwang' have remained mysterious and most cases have no single suspect convicted to date (Gimode, 2007; Mutonya, 2012; Nyakundi, 2015). Most of these murder cases have the police promising to investigate them and that "all would be done to bring the murderers to book" (Mutonya, 2012). In various cases of most unsolved murders, an accusing finger is pointed at the government in general, and at the police specifically (Muhula, 2007). Investigations into the recent mysterious deaths of Senators Mutula Kilonzo and Otieno Kajwang' and Former Prime Minister's son, Fidel Odinga have been shrouded in darkness with reported suspicions of poisoning, sample tampering and lack of transparency, leaving unanswered questions (Nyakundi, 2015). The most recent series of murder mysteries in Kenya that is hitting the newspaper headlines is the murders of directors and staff of companies known as Mbo-i-Kamiti and Kihui Mwiri Farmers Company Limited. The companies have been a theatre of vicious confrontations and death (Weru, 2011).



The Mbo-i-Kamiti killings began with poisoning of Wagicio Ngatha in 1990s, yet no convictions have been made since 2000 (Wainaina, 2013). The High Court in March, 2011 gave orders to Mbo-i-Kamiti to evict people settled on the Twiga Farm and to demolish structures built on the land (Weru, 2011). Since the inception of the Mbo-i-Kamiti company, six directors and other officials like lawyers and accountants have been killed in cold blood (Wainaina, 2013; Van Rinsum, 2014). The murders are termed by the police as not ordinary and well planned (Wainaina, 2013). The attempts by the company in 2012 to dispute the 2011 High Court ruling met politically supported suppression with bullets sprayed at the farm residents from aircraft and bulldozers demolishing houses (Van Rinsum, 2014). The political nature of the cases linked to the series of murders complicates investigations through “overwhelming force and repeated abuse of power by authorities” (Van Rinsum, 2014). Attempts to investigate the matter are curbed by killing of those thought to be holding evidence (Wainaina, 2013). The Mbo-i-Kamiti was recently dissolved after distribution of one acre to each shareholder. The mystery of murders related to Kihui Mwiri Company continued to hit headlines until late 2015.

Kihui Mwiri Farmers Company Limited was a land buying company started in 1971 in Muranga South by majority of Kihui Mwiri age set who were age-mates of President Kenyatta. The aim of forming the company was to buy land from departing white settlers. The company had a total of 6200 shareholders and 1300 acres of land (Wainaina, 2015). The shareholders however discovered that their land was being shared out to some influential people in government who were non-shareholders and shareholders were not benefiting from it as intended. Some of the selfish company directors sabotaged the objectives of the company.

Since 2013, eight directors of the company have been mysteriously killed (Kosgei, 2015). The killings started in 2001 with the shooting of company director Mr. Benson Gumbi

who was killed in coffee plantation on his way to company meeting (Wainaina, 2015). In 2014, three directors, Mr. Newton Muhoro, Mr. Job Mwangi and Mr. James Kimaru were picked from Thika hotel by men who posed as police officers and have not been seen to date. Two directors, Mr. Chrispas Wanyoike and Mr. Chege Mwangi were shot dead near Kabati in Murang'a by men in a motorbike. In January, 2015 Mr. Wilfred Gichana, a director, was killed by a gang at his home. On May 10, 2015 the company vice chairman Mr. Peter Kuria was shot dead at his home in Grey Stone and in June, 2015 Mr. Paul Kaharu was shot dead at Majengo in Thika by killers riding on motorcycle (Maichuhie & Gikandi, 2015). Company chairman, Mr. Paul Kariuki was abducted in July 2015 and his car found burnt down in Limuru (Kosgei, 2015).

Lack of conviction indicate problems in investigations and profiling of murder perpetrators (Rossmo, 2005). Rossmo (2005) argues that there are subtle dangers and snares that can derail murder and affect the process of profiling. Douglas and Burgess (1986) identify murder profiling process as involving: evaluation of act of murder; comprehensive evaluation of specific details of murder scene; victim analysis and evaluation of preliminary reports. If any of these stages are not done properly, offenders may get away with murder (Balemba, Beauregard & Martineau, 2014).

Research shows that procedures of analysis of murder act are dependent on investigators' ability to conduct inquiry, training and knowledge to manage complex investigations and skills required to meet objectives (Osterburg & Ward, 2014). Investigators' intelligence and reasoning ability are required for successful profiling. Osterburg and Ward (2014) note that investigator curiosity and imaginative mind as well as being sceptical of the obvious and being inquisitive is important in profiling. Mental short cuts lead to biases in investigations (Rossmo, 2005). According to Cory (2001) some events that may lead to suspects may be left out by murder investigators. Excessive zeal and substantial attempt to

incriminate a suspect may also lead to misconduct and non-adherence to murder procedures by investigators (Ashworth & Redmayne, 2010; Beauregard & Martineau, 2012). It has been identified that education, training, experience and equipment are important elements in profiling (Fisher & Fisher, 2012; Morton, 2014; Ostenburg & Ward, 2010; Pepper, 2010). Morton (2014) emphasize the need for investigator's understanding of psychopathy in serial murders.

Murder scene evaluation stage of profiling requires use and integration of scientific methods, physical evidence and deductive reasoning (Horswell, 2004). The quality of murder scene response and analysis for successful profiling can be affected by factors like education, training, religion and investigations equipment (Fisher & Fisher, 2012; Horswell, 2004). White (2010) emphasizes the importance of competency and experience, coupled by precautions to avoid misconception in murder crime scene evaluation. Dror and Cole (2010) notes that psychological influences are contributing factors in forensic pattern recognition during profiling. These influences that affect perception, judgment and decisions of murder investigators are identified as emotional context, expectation and motivation (Dror & Cole, 2010). Scene conditions and environmental circumstances around the murder scene may also affect profiling (Gardner, 2011). The investigator must be skilled and experienced enough to know detection avoidance strategies of murder perpetrators (Beauregard & Bouchard, 2010). Interference with crime scene can also mislead investigators.

Murder victim analysis approaches also have effects on profilation (Karmen, 2012). Chan, Frei and Myers (2013) identify victim characteristics such as race, gender, weapon used, offending process and victim-offender relationship in murder profiling. Bosco and Zappala (2010) emphasize the need for investigators to examine the effects of victim and offender age in murder profiling. Investigators should have ability to analyze test results and examine samples taken from victims to help in application of murder procedures to profile

murder suspects. The investigators are required to adhere to murder procedures to void sample contamination as was alleged during investigations of Senator Mutula Kilonzo's death (Ombati, 2015).

Data mining is identified by Schmitz (2012) as important in analysis of spatial information in murder profiling, with a focus on mobile data as part of evidence needed for prosecution of murder cases. Krane (2012) highlight the importance of electronic data analysis skills in DNA profiling. Shaw and Chen (2014) show that profiling suspect's background using available data plays a role in correlating unique chemicals in murders involving poisoning. Rossmo (2014) emphasize the role of data analysis skills in geographic profiling in murder investigations involving combined encounters of encounter, attack, murder, and body disposal sites. Data helps to link criminal history to crime scene behaviour (Trojan & Salfati, 2011).

Examination of preliminary police report is important in offender profilation process (Douglas & Burgess, 1986). The police in Kenya are known for cover-ups of murders and seem helpless in uncovering murder suspects (Standard Team, 2011; Mwangi, 2015). Mwangi (2015) reveals that the police "colluded in staging an outrageous cover-up in a frightening indictment of law enforcement in Kenya". Better approaches to murder reporting are necessary for murder investigators to avoid shoddy police work in examining and writing preliminary report (Witherspoon, 2014).

This research sought to examine the usefulness of murder procedures and the profiling of criminals with a focus on Kihui Mwiri murders. It also sought to identify challenges facing implementation of murder procedures and to recommend measures to address the situation.

## 1.2 Problem Statement

There have been difficulties in successful prosecution of perpetrators of the Kihiu Mwiri murders (Kosgei, 2015). It seems difficult for the police to successfully profile those behind the Kihiu Mwiri murders just as in the case of previous mysterious murder cases. It is obvious that there are challenges in implementation of murder procedures during profilation since there is no successful prosecution since the murders began (Wainaina, 2013). The main questions that require objective answers in relation to Kihiu Mwiri are: what factors make police investigators jeopardize or fail to investigate and prosecute murder cases? Are the murder profilation procedures themselves a hindrance? Do the investigation officers apply murder profilation procedures as required in investigating murder cases?

Previous research put much blame on investigators than on murder profilation procedures (Egger & Doney, 1990; Foster, 2008; Nicol, et al,2004). Foster (2008) in his qualitative study on perception of Stephen Lawrence Inquiry identified lack of resources, incompetence, detectives' defective perceptions and initial mistakes at murder scene as some of the causes of murder profilation problems. Egger and Doney (1990) associate failure to successfully profile murder perpetrators to the problem of 'linkage blindness' which refers to failure of the investigators to link the murder to the perpetrator. Nicol, et al (2004) note that the most cited area of weakness in murder investigation process is record-keeping procedure and content.

The problem of Kihiu Mwiri murder investigation failures could be blamed on various factors related to investigators or the procedures at murder profilation. It was important to establish the actual factors which influence the success or failure of application of the murder procedures at profilation and the extent to which they influence murder profilation. There was need to understand the challenges associated with factors and ways of addressing them to avoid murder profilation problems.

### **1.3 Justification**

This research is important because it seeks to address the core concerns on the issue of escalating murders, un-concluded cases and offenders going unpunished with a focus on Kihiu Mwiri murders. It sought to address the mysterious murders that have become a phenomenon in Africa and specifically in Kenya where murders and assassinations occur followed by inconclusive or questionable investigations (Oscar Foundation, 2006).

This research identified challenges in murder investigations and examine usefulness of murder procedures at profilation. It was justified because it sought to provide policy and theoretical foundations towards implementation of murder investigation procedures and successful profilation of murder perpetrators in the Kenyan context. It also innovatively applied principles of forensic psychology to the understanding of murder investigations, in order to unravel the problem addressed. It was hoped that the research would contribute to enhancement of knowledge and skills in the area of murder investigations and prompt prosecution and conclusion of cases.

It aimed to make recommendations on measures that should be taken to improve murder profilation. The findings would be used to inform policies and legal direction on murder profilation practice. It shed light on murder investigations research and practice, and highlight factors that should be addressed in order to achieve meaningful murder investigations and successful murder profilation.

### **1.4 Purpose of the Study**

The purpose of this study was to find out the usefulness of murder profilation procedures for the identification of suspects by the National Police Service of Kenya.

## **1.5 Objectives of the Study**

### **1.5.1 General Objectives**

To study the murder procedures at profilation of murder perpetrators with a focus on Kihiu Mwiri Farmers Company Limited.

### **1.5.2 Specific Objectives**

- i. To determine the effectiveness of murder investigation and murder profilation procedures in Kihiu MwiriCompany;
- ii. To identify theconstraintshindering effective investigation of murder cases at Kihiu Mwiri company;and
- iii. To documentappropriate measures for achieving successful murder investigation and profilation at Kihiu Mwiri company.

## **1.6 Research Questions**

- i. How effective are murder procedures at profilation?
- ii. How do factors affecting effectiveness of murder profilation procedures correlate with each other
- iii. What are the constraints facing the implementation of murder procedures during profilation?
- iv. What measures are necessary for successful murder investigation and profilation?

## **1.7 Significance of the Study**

The significance of this research is twofold. First, it highlights how the factors that influence murder profiling lead to success or failure in murder profiling thus giving insights into what underlies profiling. Secondly, to give insight to the understanding of the challenges facing implementation of murder investigations procedures at criminal profilation and recommend ways of addressing the challenges within the legal framework.

## **1.8 Scope of the Study**

This research was examining usefulness of murder investigations procedures and challenges facing their implementation. It focused on murder profiling. The research entailed investigation procedures at profiling as used by the security services of Kenya and private investigating firms. The study focused on the National Police Service of Kenya. This means that department of focus will be the Directorate of Criminal Investigations (DCI) headquarters and Murang'a District Directorate of Criminal Investigations (DDCI) offices. Respondents from Kihuu Mwiri Farmers Company Limited formed about 67% of all respondents and were drawn from Murang'a County. They gave information on the underlying factors behind the persistent murders in the company. The research was concerned with murder investigations procedures as applied to Kihuu Mwiri and will leave out other forms of investigations procedures that are not specific to the case.

## **1.9 Limitation**

Limitations to this research were the high level of privacy of police documents and the sensitivity of murder investigations, especially the Kihuu Mwiri murders. Respondents were cautious and sometimes evasive on investigation factors regarding the high profile murders at the company which required utmost confidentiality. Another limitation was availability of evidential data to the researcher, which is often treated as confidential. This was expected to affect the examination of actual investigation materials.



## **CHAPTER TWO: REVIEW OF LITERATURE**

### **2.1 Introduction**

The chapter reviews literature relevant to the study and presents both theoretical and conceptual framework for the research. It presents the nature and structure of the National Police Service in respect to investigation.

### **2.2 The National Police Service of Kenya**

The National Police Service of Kenya is a creation of the Constitution of Kenya, 2010. It comprises of the Kenya Police Service, the Administration Police Service and the Directorate of Criminal Investigations. The service is headed by the Inspector General deputized by two deputies and the Director of Criminal Investigations.

The Directorate of Criminal Investigations, DCI, is composed of various departments including Anti-bank Fraud Unit, Flying Squad, Special Crime Prevention Unit, Anti-Terrorism Unit, Anti-Narcotics Unit, Ballistics Unit, Bomb Squad, Forensic Department, Cyber Forensic and Kanga Squad. Murder investigations fall under serious crimes and may call for participation of officers from different DCI units depending on the nature of murder. Branches of DCI are devolved to county, sub-county and station levels. With detectives at station level are under command of the officer commanding police station (OCS) while the sub-county or police division command is under district criminal investigations officer (DCIO). The DCIO reports to county criminal investigations officer (CCIO) who reports to the Director of Criminal Investigations.

The National Police Service Act No. 11A of 2011 empowers the Directorate of Criminal Investigations to carry out criminal investigations including collection and provision of criminal intelligence; performance of investigations on serious crimes like homicide, narcotic crimes, human trafficking, terrorism, economic crimes, piracy, organized crime,

and cyber-crime among others; maintenance of law and order . Legal investigation procedures and mandate used are available in the Criminal Procedure Code , Cap 75 Laws of Kenya, the Evidence Act Cap 80 Laws of Kenya, the Security (Amendment) Act 2014 and the National Police Service Act, 2011.

Despite the laws there are problems that have brought up blames related to profiling of murder suspects and investigation of murder. The DCI lacks of equipment such as modern forensic laboratory which frustrates murder investigations (Kithuure, 2013). Training of DCI officers in investigations is thought to address the issue of standards and adherence to them when it comes to crime investigations; though reforms in the police has seen the corporate entities like IBM and Safaricom coming to help the police by providing tools to aid investigations, problems are seen to persist (Wanjiku, 2014). The investigation procedures which are anchored on the Law of Evidence (CAP 80), Criminal Procedure Code (CAP 75) and the Security Amendment Act 2014, are regarded as impediments to investigations and a breach human rights.

### **2.3 Murder Procedures at Profilation**

Douglas and Burges (1986) identified seven main procedures of profilation applicable to murders. They are: murder act evaluation procedures; murder scene evaluation procedures; murder victim analysis procedures; preliminary report evaluation procedures; data mining procedure; medical examiner's autopsy protocol evaluation procedures; and offender profile development procedures. Additional procedures applicable to profilation of murder suspects are interrogation and interview procedures (Douglas & Burges, 1986). The five main murder profilation procedures are discussed below in relation to factors that influence their use in profilation. Figure 1 shows the murder profilation procedure.

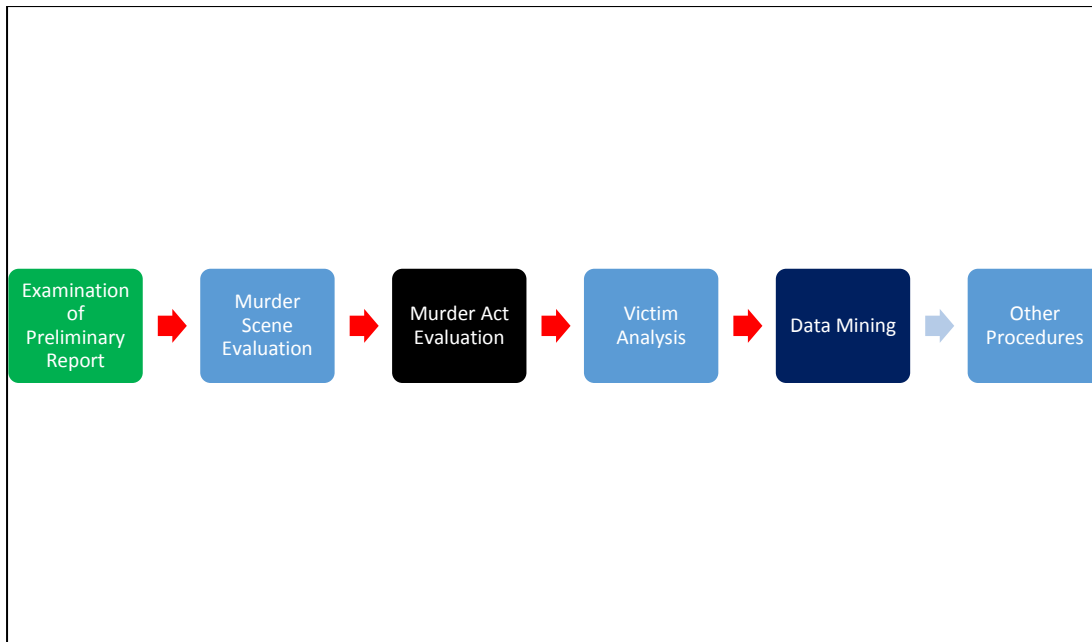


Figure 1: Murder profilation procedures (*Source: Author*)

### 2.3.1 Examination of Preliminary Police Report

Preliminary police report is the first official documentation of murder. It contains bare facts of the murder incident, and it initiates law enforcement function (Stering, 2004). Examining the preliminary report gives a logical order in which the murder is reported to have happened. It contains the first description of details of the murder (Stering, 2014).

Ability to take note of important elements of the murder from the preliminary report is vital (Stering, 2004). The investigator should be able to detect both leads and loopholes in the report. Any incidence of cover-up at this stage should be detected (Mwangi, 2015).

### 2.3.2 Murder Scene Evaluation Procedures

Murder scene evaluation procedures integrate scientific methods, physical evidence and deductive reasoning (Horswell, 2004). They include response procedures, scene protection procedures, observation procedures, pattern recognition procedures, evidence collection methods, among others. Factors like education, training, religion and investigations

resources can affect the quality of murder scene response and analysis (Fisher & Fisher, 2012; Horswell, 2004). Competency and experience, coupled as well as measures to avoid misconception are important for successful murder scene evaluation (White, 2010). One aspect of murder profiling that can be influenced by investigators' psychological stance is forensic pattern recognition (Dror and Cole, 2010).

Perception, judgment and decisions of murder investigators can be influenced by investigators' emotional context, expectation and motivation (Dror& Cole, 2010). Profiling of murder suspects can also be influenced by murder scene conditions and environmental circumstances (Gardner, 2011). It is required that the investigator should be skilled and experienced so as to understand detection avoidance strategies used by murder perpetrators so as not to be misled (Beauregard & Bouchard, 2010). Figure 2 illustrates murder scene evaluation procedures.

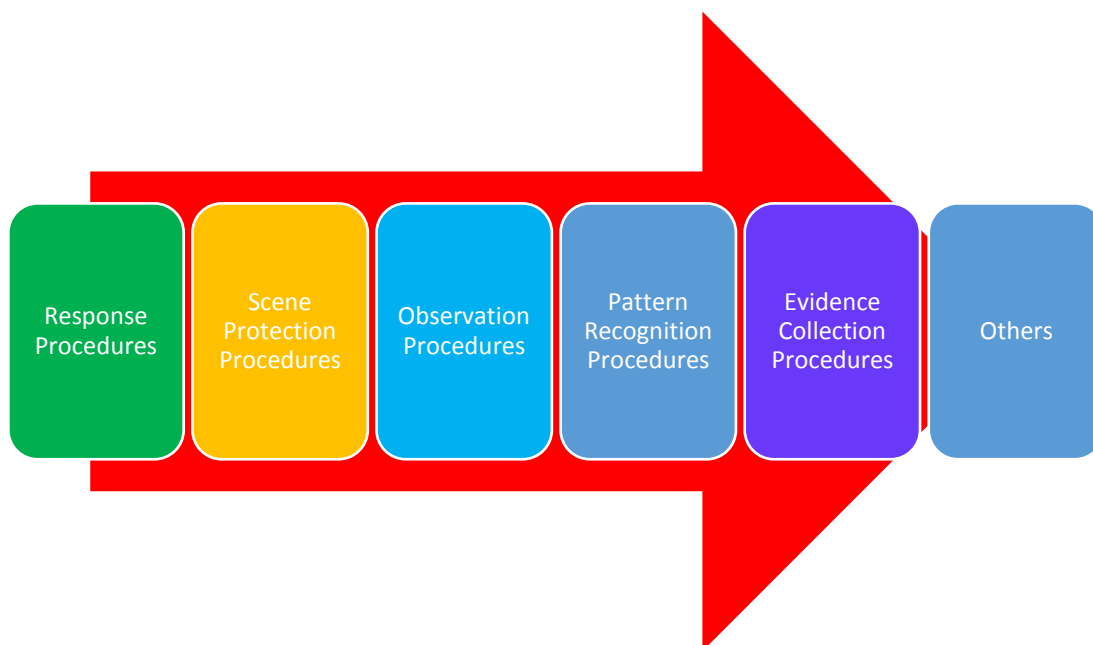


Figure 2: Scene evaluation procedures (*Source: Author*)

### **2.3.3 Murder Act Evaluation Procedures**

These procedures guide evaluation of act of murder itself while the nature of murder call for various approaches relevant to its investigation. The procedures include murder type identification procedures, methods of examining the killing process, among others (Cory, 2001).

Murder act evaluation is dependent on ability of investigator to conduct inquiry, training and knowledge in managing complex investigations and skills required to meet objectives (Osterburg & Ward, 2014). Successful murder act evaluation call for investigator's intelligence and reasoning (Osterburg & Ward, 2014). Mental short cuts lead to biases in investigations (Rossmo, 2005). Excessive zeal and substantial attempt to incriminate a suspect may also lead to misconduct and non-adherence to murder procedures by investigators (Ashworth & Redmayne, 2010; Beauregard & Martineau, 2012). Proper education, training, experience and resources are vital elements in murder act evaluation (Fisher & Fisher, 2012; Morton, 2014; Osterburg & Ward, 2010; Pepper, 2010).

### **2.3.4 Victim Analysis Procedures**

These are procedures used to analyze murder victims. They include victim identification procedures, sample examination and protection procedures, sample testing procedures, among others. Chan, Frei and Myers (2013) identify victim characteristics as race, gender, weapon used, offending process and victim-offender relationship. It is important for murder investigators to examine victim and offender age when profiling (Bosco & Zappala, 2010). Investigators should be able to analyze test results and to examine samples from victims to facilitate successful profilation of murder suspects. They should stick to murder profilation procedures to avoid sample shortfalls that fail the profilation process (Ombati, 2015).

Training in victim analysis is important for successful use of the procedures in profilation. Factors like religion, age, gender and experience can influence investigator’s extent of use of the victim analysis procedures (Ask, Granhag & Rebelius, 2011). Handling murder victim could be restricted by religion; also one may not be experienced in murder victim analysis and this may affect profilation (Clarke & Eck, 2014). Figure 3 illustrates victim analysis procedures.

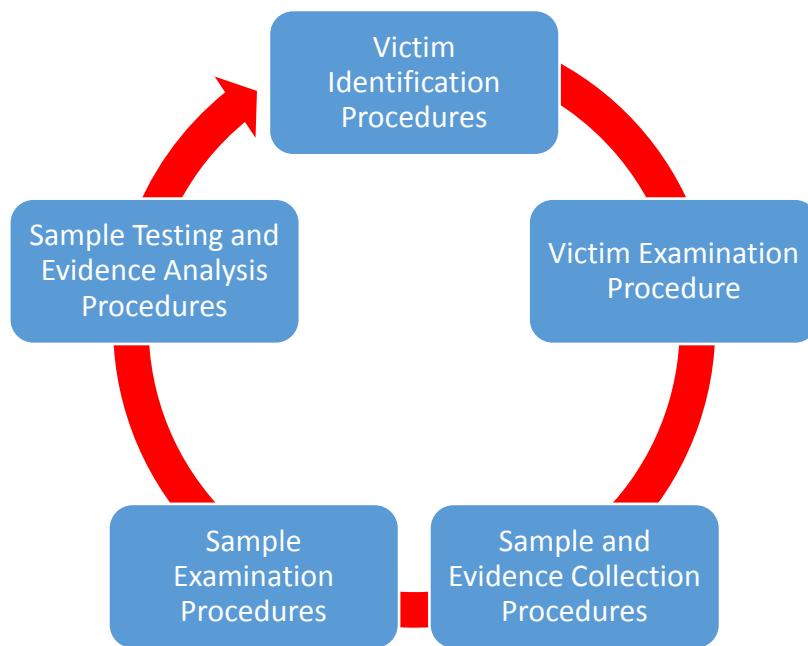


Figure 3: Victim analysis procedures (Source: Author)

### 2.3.5 Data Mining Procedures

These are procedures that guide the process of collection of data relevant to the murder and that point to the perpetrator. The procedure include background information collection approaches, correlation procedures, data analysis methods, DNA profiling procedures, etc. (Krane, 2012; Rossmo, 2014). Table 1 details data mining procedures.

Table 1:1 Data mining procedures (*Source: Author*)

	Data mining procedure
1.	Background information collection e.g. age, gender, race, etc
2.	Correlation procedures
3.	Data analysis methods
4.	DNA profiling procedures

Schmitz (2012) identifies data mining as important in analysis of spatial information in murder profiling. Electronic data analysis skills are important in DNA profiling (Krane, 2012). Shaw and Chen (2014) show that the use of available data to profile suspect's background helps in correlating unique chemicals in murders involving poisoning. Data is vital in understanding criminal history of a suspect to crime scene behaviour (Trojan & Salfati, 2011).

Training, education and experience of murder investigators in data mining and analysis is important in imparting skills and knowledge for correlating information and is a key to successful profilation (Milne & Bull, 1999).

### **2.3.6 Review of Factors affecting Investigators 'Use of Murder Procedures at Profilation**

A number of researchers have studied murder profiling (Baker & Procise, 2014; Bartol & Bartol, 2012; Bennell, et al, 2013; Fletcher, 2014; Fujita, et al, 2013; Hutton, 2014; Wilson & Alison, 2013). A good deal of previous research has identified factors affecting successful application of murder procedures at profiling (Chan, Frei & Myers, 2013). Other researchers focus on types and classification of murder profiling procedures (Bennell, et al, 2013; Taylor, et al, 2012; Vettor, Woodhams & Beech, 2013; Wilson & Alison, 2013).

Literature review will deal with investigator characteristics affecting successful profilation of murder and the murder procedures at profilation.

Previous research identify factors like investigator education, training, experience, work pressure, deployment, gender and background as factors that influence murder profilation (Fisher & Geiselman, 1992;Greenwood, et al., 1997; Innes, 2002;Milne & Bull, 1999; Wells et al, 2000).

## **2.4 Training, Experience and Education**

Most researchers agree that education and training play a big role in shaping investigators use of murder procedures at profiling (Fisher & Geiselman, 1992; Milne & Bull, 1999). Wells et al (2000) notes that training and experience of investigators are important in helping investigators to predominantly focus on methodology and reliability of evidence in reducing fallibility of investigations being blamed on procedures. Akin to training, is level of education, creativity and reasoning ability of investigators (Greenwood, et al., 1997; Innes, 2002).

### **2.4.1 Training**

Training sharpens investigator's knowledge and skills to be able to do professional profiling (Milne & Bull, 1999). It emphasizes on key areas to be focused on in murder profiling and equips investigators with necessary tools solve cases (Wells et al, 2000). Without good training, even talented investigators may miss the point in murder cases that are often elusive (Innes, 2002).

Multidisciplinary training for serial murder investigators is recommended (Morton, 2014). Roycroft, Brown & Innes (2013) recommends better training for investigators to be able to improve management of investigations. Stelfox and Pease (2013) highlight the importance of cognition and detection as mental model of conceptualization of the act of



murder. Though each of the researchers contributes to one or more aspect of profiling of murder perpetrators based on the act of murder, they fail to test the effectiveness of the approaches. It is important to know the extent to which training and knowledge and ability to conduct inquiry are effective in profiling murder perpetrators. However, training sometimes hinders the ability to think outside the box which is necessary in murder investigations and profiling (Roycroft, Brown & Innes, 2013). Therefore investigators have to be cognisant of the fact that innovative thinking that goes beyond training is necessary for successful profiling (Morton, 2014).

#### **2.4.2 Education**

Just like training, education forms the foundation of understanding concepts. It gives the basis for admission of investigators into their work, showing the level of intelligence of the investigators (Milne & Bull, 1999). Education is key to good reasoning that is vital to murder profiling and investigations (Greenwood, et al, 1997). Education, competency and precautions to avoid misconception in murder crime scene evaluation as of importance in ensuring effective application of murder procedures at profilation (White, 2010). Balemba, Beauregard and Martineu (2014) studied 350 murder scenes using police data and latent class analyses followed by in-depth analysis of unsolved murder cases and found out that it is important for investigators to be educated in the two types of murder in the unsolved category: forensic aware and non-forensic aware. Forensic aware murderers are hard to profile in that they conceal the evidence. Yu, Wen and Liu (2013) studied the murder scene analysis and correlated the detective speculations on the act of murder as based on investigator education, understanding and observation of the scene. They highlight the importance of education as a foundation to correct observation and as a determinant of effectiveness of profiling.

These studies left out educational challenges faced by investigators in murder investigations. They did not evaluate the effectiveness of the aspects of education in improving murder profiling. Though reasonable level of education is necessary to be able to carry out investigation tasks, it may not be instrumental linking the suspect to the murder (White, 2010). Education is viewed to be important in equipping one with analytical skills but may not improve one's curiosity or thinking beyond obvious fact (White, 2010).

### **2.4.3 Experience**

Experience equips murder profiling officers with practical skills and understanding of investigation in a given environment (Bennell, et al, 2013). It exposes investigators to real-life situations and is important in regard to how skills are applied in solving murders (Vettor, Woodhams & Beech, 2013). Experience helps to avoid mistakes that a novice may do and increases efficiency, accuracy, understanding and analysis of murders (Bennell, et al, 2013). Investigator experience and competence in procedures like examination of victim characteristics such as race, gender, weapon used, offending process and victim-offender relationship are important in carrying out murder profiling (Chan, Frei & Myers, 2013). There is need for investigators to be experienced in examining the effects of victim and offender age in murder profiling (Bosco & Zappala, 2010).

Murderer-victim interaction is important in understanding profiling. Salfati et al (2014) used victim and offender analysis procedure on a sample of 30 offenders, 283 victims and 235 crime scenes in South Africa. Their findings show that experience in analysis of murderer-victim interaction may be influential in investigator's understanding of stability or instability of offending patterns. They note that experience and knowledge of the mode of offence planning and nature of violence by murder perpetrators can show investigators the degree of consistency in serial murders, with patterns of violence consistent across the series.

Hanlon, et al (2013) used victim-offender relationship classification procedure to classify 77 murderers into affective/impulsive and predatory/instrumental classes depending on analysis of their victims. They found out that experience in understanding how the measures of intelligence of murderers performing strategically planned murders relate to that of those who do affective/impulsive murders and that proper understanding of the classes of offender-victim interactions can help in objective application of murder procedures at profiling. Adjorlolo and Chan (2015) used instrumental/expressive offender dichotomy to analyze murders and found it valid in profiling and has implications in prioritization of murder suspects. Instrumental class refers to where gains from the victim are more important to the offender than the victim himself/herself (Salfati, 2000). However, experience has been blamed for contributing to rigidity and to investigators being closed to new ideas and changes in rapidly evolving world of modern murders (Salfati, 2000).

## **2.5. Work Pressure, Deployment and Rank**

There has been research on work related factors like work pressure, rank, deployment and nature of assignment in relation to application murder investigation procedures at profiling (Chibnall, 2013; Greenwood, et al., 1997; Innes, 2002; Nicol et al., 2004). Youngers and Rosin (2005) relate investigations problems to workload, staffing and procedures.

### **2.5.1 Work Pressure**

Researchers agree that police work involve a lot of pressure (Innes, 2002; Nicol, et al., 2004). The pressure from decisiveness and effectiveness of police authority is an important factor in criminal investigations (Knutsson, 2004; Smith and Flannagan, 2000). Public and media attention is another pressure point which is characterized by public demand that perpetrators are promptly captured and brought to justice (Bayley, 1994). The need for accuracy is activated under conditions of accountability when a person is held personally

responsible for its case and it results in another cause of pressure (Lerner & Tetlock, 1999; Sedikides, et al, 2002; Tetlock, 1992).

Work pressure is an important factor in influencing murder profiling. Michel, et al (2010) used a meta-analytical review to examine framework and theoretical model of work based on 178 samples of 1080 correlations to indicate that work pressures such as work load, time demands and nature of support are antecedents of work conflicts. The research identifies various aspects of work pressures and how they connect to conflicts at work and performance. Though the research highlights the relationship between work pressure, performance and family conflicts, it was not specific to murder investigations and profiling work and did not touch on major aspects of investigator work pressure.

### **2.5.2 Deployment**

Appropriate deployment and promotion are regarded as motivating factors and are related to job performance and hence to investigator's successful profiling (Nicol et al., 2004). Deployment cognisant of investigator's abilities, training and experience produces better results compared to one that does not observe the factors (Chibnall, 2013). Wrongly deployed investigators may not feel they fit into the roles given and may not give the best, thus affecting investigations (Chibnall, 2013).

### **2.5.3 Position at workplace**

Police at workplace commonly referred to as "Rank" of police officer also affects murder profiling. An officer of low rank may not have good motivation to handle some cases; while those of higher ranks may feel intimidated to handle the details of murder investigations and profiling (Knutsson, 2004). Profiling of sensitive murder cases may intimidate junior officers due to power plays and interests into the case (Knutsson, 2004). Again high ranking officers may be more comfortable with management and administration

compared to the nitty-gritty of murder profiling; and may not be motivated to do thorough work (Knutsson, 2004).

## **2.6. Social Factors**

These include gender, age, marital status, family background and religion. Investigator gender, age and marital status are tied to either success or failure of murder profiling (Clarke & Eck, 2014; Ask, Granhag & Rebelius, 2011). These are known to introduce biasness on the part of investigators. Each of the five factors are reviewed in the following subsections.

### **2.6.1 Gender**

Gender is known as key factor in influencing murder profiling (Ask, Granhag & Rebelius, 2011). A female investigator profiling murder of female in family-based murder may be biased to think that it was done by male partner, even though this is usually the case, it is not always the case. The issue of gender effects may be due to the investigators' formative years or past experience. Gender-based childhood trauma may incline an investigator against a particular gender (Ask, Granhag & Rebelius, 2011).

Victim and offender gender also plays a role in investigator understanding victim-offender interactions in murders. Horning, Salfati and Labuschagne (2014) investigated the role of Interpersonal Model of murder profiling in differentiating gender-based serial murders in South Africa and noted that understanding of offender behaviour patterns can be identified in how the offender deals with the victim as a person, an object or a vehicle. They define "victim as person" to represent a case where intent is to make the victim or his/her dependants suffer (Canter, 2000; Salfati & Canter, 1999); "victim as an object" to represents where focus is in tangible gains with offender-victim relationship limited (Salfati, 2000); "victim as a vehicle" to represent where victim is construed as a conduit to realize specific

needs in which case interaction is extensive and victim vulnerable (Canter & Youngs, 2009). Their findings show that investigator understanding of victim as object/vehicle interactions is predominant requirement in most murders. Offender victim interaction can be profiled to offer understanding of offender gender-related interpersonal styles (Salfati, 2000).

On the study of influence of gender on profiling, Farrel, Keppel and Titterington (2011) used exploratory approach to study 10 serial murderers in the U.S.A. and observe that female serial murderers are more elusive class of people to study and that their offender and offence characteristics are often underestimated. Thomson and Ricard (2009) used patriarchal power relations as a framework to study the role of women in serial murder teams and found it useful in demonstrating the role of radical females in the teams. Farrel, Keppel and Titterington (2013) studied reliability of both Kelleher and Kelleher and Hickery's classification models of murder investigation procedures and demonstrated that offender motivation alone is not a conclusive basis for profiling murders involving female suspects. They recommend integration of offender-victim relationship as an important element of investigator's understanding and profiling of female offenders.

### **2.6.2 Marital Status**

In a similar way, marital status affects murder profiling. An un-married person may not have the wide experience and knowledge of matters surrounding homicides (Ask, Granhag & Rebelius, 2011). Married investigator may be influenced by factors surrounding his/her marriage and may affect murder profiling. One in abusive marriage may be fast to conclude that murder was done by a partner of same orientation as the abusive one (Clarke & Eck, 2014).

Effects of marriage were studied by Grzywacz, Joseph and Marks (2000). They used ecological theory to expand conceptualization of work and marriage and to identify

correlates of multiple dimensions of work-marriage spill-over using a sample size of 1,986 respondents in the U.S.A. Their analysis indicates that work such as murder investigation and profiling are influenced both positively and negatively by marriage and family. They found out that work pressure and marriage disagreements are associated with negative spill-over and less positive spill-over. Such spill-overs may influence the profiling especially in murders. This research was, however, general to work, but was not specific to murder investigation and profiling.

Forthofer et al (1996) applied data from United States National Comorbidity Survey to assess the extent to which marriage spill-over produce work problems and work loss. They found out that marital distress is positively correlated with work problems especially in people in their first ten years of marriage. They recommend interventions aimed at preventing marital problems so as to avoid related work problems. Though this work was not specific to murder investigations, it shows that marriage distress can result into problems of investigation work.

### **2.6.3. Age**

Age is also a factor that may lead to young investigators shying away from or not doing in-depth investigations of murders involving older people and vice versa (Clarke & Eck, 2014). Age is also regarded as an indication of maturity and thus an investigator's age may affect his/her handling of murder profiling. Literature of age is intertwined with that of experience as it is commonly assumed that age factor correlates with experience. Effects of age was researched by Berg, et al (1998). They studied ability to analyze and describe problems of a sample of 373 respondents including 124 young people, 118 middle-aged adults and 131 older adults. The research strategies involved alteration of cognitions, actions and regulating, among others. Their results show that age and context affect problem-solving strategies used. The research highlights the role of age in investigative problem-solving. It

however needed to have been specific to murder investigators, to clearly inform on age as a variable.

In another study, Kocsis, Hayes and Irwin (2014) used survey approach on a sample of 400 respondents from various age groups of detectives ranging from senior, middle-aged, trainee and young recruits on skills required for violent crime profiling and found out that there is inverse relationship between age, experience and profile accuracy. This research dwelt more on psychological profiling skills but did not cover other profiling skills needed in murder profiling.

#### **2.6.4. Family Background**

Another factor that plays a role in determining success of murder profiling is investigator's family background (Youngers & Rosin, 2005). An investigator from a single parent family may be biased towards profiling of murders affecting single parent families (Youngers & Rosin, 2005). Also, those from polygamous families may be influenced by their formative experiences and may have effect on their handling of murders related to such families (Youngers & Rosin, 2005). An investigator from a strictly religious family may be biased in profiling murders involving religious conflicts.

A study by Michel, et al (2010) identifies family as a source of work stressor as parental demands, number of dependants, family support, family climate and personality aspects like neuroticism and internal locus of control. These factors influence family-work characteristics and hence influence investigators job performance.

#### **2.6.5. Religion**

Also, strict observance of religion may lead to investigator note wanting to do some procedures of murder profilation or even going to some places in the process of profiling murder suspects (Youngers & Rosin, 2005). According to Applegate, et al (2000) research



has not clearly established relationship between religious affiliation and investigations of murder and punishment. They however note that fundamentalist Christians tend to be more punitive than non-fundamentalist ones. The study used survey approach to demonstrate how compassionate and fundamentalists aspects of religious beliefs are correlated to judgement preferences. Results of the research show that religion influences investigative and correctional attitudes. The research was more biased to correction than murder profiling. Various religions have conditions on handling the dead. Most religions advocate for respect for the dead and thus consider autopsy and other forms of investigations as disturbing to the deceased (Rosenblat, 2010). However, an investigator may be biased in regard to murders suspected to be ritualistic by nature (Garret, 2004).

#### **2.6.6. Other Factors Related to Investigator that Affect Profiling**

The success of investigation is pegged on the investigator and argues that investigators must have ability to conduct inquiry, training and knowledge to manage complex investigations and skills required to meet objectives (Osterburg and Ward, 2014). In order to connect the investigations procedures to effective investigations, they argue that the investigator should be intelligent and have reasoning ability; be curious and imaginative having scepticism of the obvious and inquisitive mind; and be observant and able to memorize clearly. Mental short cuts may lead to biases in investigations (Rossmo, 2005). According to Cory (2001) some events that may lead to suspects may be eliminated in crime investigator's thinking. Excessive zeal and substantial attempt to incriminate a suspect may also lead to misconduct and non-adherence to investigation procedures by investigators (Ashworth & Redmayne, 2010; Beauregard & Martineau, 2012). UNOIOS (2009) it's noted that investigations require highest personal integrity.

In order to determine if a crime has been committed, the investigator must understand the criminal law and aspects of the criminal act and should have copies of evidence law, penal and criminal procedure codes (Osterburg and Ward, 2014). These guidelines help investigators not to haste into conclusion of investigations or succumb to organizational, political or cognitive pressures which may result in injustices (Stelfox & Pease, 2005). Murder profiling procedures are defined within the police, institutional and legal framework (David, 2006). Legal framework of police duties, laws of evidence and criminal procedure code. It is therefore important to review the procedures at profilation.

## **2.7 Theoretical Framework**

This research relied on both conspiracy and revenge theories to study the Kihiu Mwiri murders.

### **2.7.1 Conspiracy Theory**

Conspiracy theories point an accusing finger at two or more people or groups of people or an organization for causing cover-up by secretly planning an act and deliberate action which is illegal or harmful. Young and Nathanson (2010) identify characteristics of conspiracy as: composed of groups, not separate individuals; has illegal or sinister objectives; not beneficial to society as a whole; orchestrated acts are organized; and secret planning.

Conspiracy theories reveal real but hidden power relations in social groups (Nefes, 2013; Nefes, 2012). Barkun (2003) notes that the theories explain events as a result of a secret plot by “exceptionally powerful and cunning conspirators to achieve malevolent end”. Barkun (2003) groups conspiracy theories into event, systemic and super conspiracy theories. In event conspiracy, the conspiring forces focus energy on limited, well-defined objectives while systemic conspiracy has broad goals in controlling a country, region or the world. In super conspiracy multiple conspiracies are linked together. Chip (2004) groups characteristics of conspiracy theories into three: they claim to explain what institutional

analysis cannot; they achieve the explanation by classifying the world into “forces of light ” and “forces of darkness” and trace evil back to the conspirators and their agents; the theories are regarded as special, secret knowledge, unknown or unappreciated by others. Chip (2004) indicates that conspiracy theorists believe that they can penetrate the plotters’ deceptions.

Walker (2013) developed a typology of five aspects of conspiracy theory. They are: “enemy outside” with mobilization done outside the community, scheming against the community; “enemy within” conspirators within the system, indistinguishable from ordinary people; “enemy above” involving powerful people manipulating the system for their own gain; “enemy below” showing that the lower cadres are breaking constraints to overturn the social order; “benevolent conspiracies” where forces of light work behind the scene to improve the situation”. Rothbard, Murray classify conspiracy into shallow and deep conspiracies (Marcus, 2013). He argues that shallow conspiracy theorists focus on those who benefit and conclude that they conspired in covertly influencing events; while deep conspiracy theorist uses their suspicion to dig into the matter by seeking out reputable and verifiable evidence. This is important in investigations, especially in murders like the Kihiu Mwiri ones.

### **2.7.2 Revenge Theory**

Gollwitzer, Meder and Schmitt (2011) explored “comparative suffering” and “understanding hypothesis” theories of revenge. They argue that revenge is taken as a message to the offender. They argue that the idea of seeing the offender suffer restores emotional balance to the universe. Their intention is that victims of wrongdoing can learn of an offender’s misfortune feel satisfied whether they are responsible for the misfortune or not. “Understanding hypothesis” explain that offender suffering is not enough to achieve satisfactory revenge. Theory explains that the avenger intends to send

message to the offender to make direct connection between retaliation and initial behaviour. Gollwitzer, Meder and Schmitt (2011) suggests that revenge can only succeed when offender understands why the act of vengeance has occurred. They argue that unacknowledged revenge feels no better than no revenge at all. They note that revenge entails a message; if not delivered, it cannot re-establish justice.

However, Stillwell, Baumeister and Del Priori (2008) argue that despite the avengers feeling that their revenge restored justice, the recipients of revenge feel it is excessive and may hit back, leading to endless cycles. McCullough, Kurzban and Tabak (2010) argue that revenge is popular to people because vengeance serve more as warning to group of people than responding to a particular offence. They argue that revenge serves cultural benefits leading to more cooperative and productive societies; so revenge is as a result of failed cooperation. Revenge theories can be used to explain Kihui Mwiri murders which are believed to be cycle of revenge murders.

## **2.8 Conceptual Framework**

Successful application of murder procedures at profilation can be conceptualized as influenced by investigator related factors and his understanding and successful use of murder procedures at profilation. Figure 4 illustrates the conceptual framework.

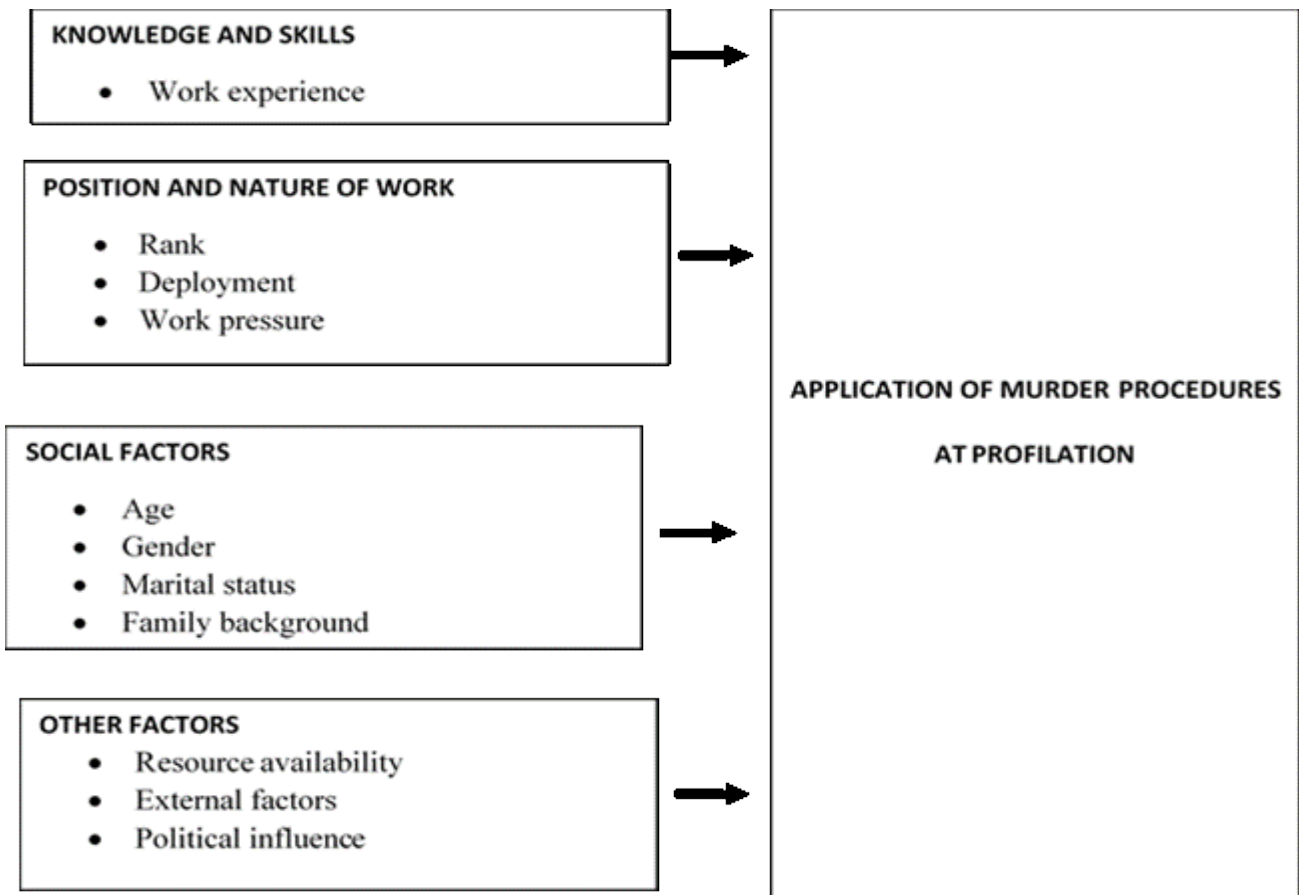


Figure 4: Conceptual framework of the study (*Source: Author*)

### 2.8.1 Relationship of Independent and Dependent Variables

Research variables in this study were categorized into two: independent and dependent variables. The dependent variable was application of murder procedures at profilation while the confounding variables were the factors influencing successful application of murder procedures at profilation.

### 2.8.2. Knowledge and Skills

Knowledge and skills is conceived to be as a result of education, training and experience. Training sharpens investigator’s skills in order to be able to apply murder profilation procedures in carrying out successful profilation (Milne & Bull, 1999) and

emphasizes on key areas to focus on (Wells, et al, 2000). Education is important in improving reasoning ability of murder investigators to avoid misconception and common pitfalls (White, 2010). Experience perfects investigator's application of skills and exposes him/her to practical profiling of murder to improve efficiency and accuracy (Vettor, Woodhams & Beech, 2013).

### **2.8.3. Position and Nature of Work**

This includes factors like officer's rank, deployment and work pressure. Investigator's rank may be linked to how comfortable he/she is with his work and how effective he/she may be. Low ranked officers may feel intimidated with complex investigations or may also be motivated by the same, depending on scenario (Knuttsen, 2004). Appropriate deployment is regarded as motivating factor and is related to job performance and hence to investigator's successful profiling (Nicol et al., 2004). Work pressure is connected to performance and success of murder profilation; the higher the pressure the lower the performance and vice-versa (Mitchel et al, 2010).

### **2.8.4. Social Factors**

Social factors related to investigators that have effects on murder profilation are marital status, family background, gender and age. Marital status of investigator may influence how he/she profiles murders related to marriage (Ask, Granhag & Rebelius, 2011). Investigator's family background can influence his/her conception of murders associated with family types and problems e.g. murders in polygamous families (Youngers & Rosin, 2005). Gender of investigator can influence the nature of investigation by investigator of similar gender or who has some psychological problems with particular gender (Horning, Salfati & Labuschagne, 2014).

There is inverse relationship between age, experience and accuracy in profiling (Kocsis, Hayes & Irwin, 2014). Religion of an investigator may make him/her be biased in regard to murders suspected to be ritualistic by nature and thus lead to poor profiling (Garret, 2004). Religious zeal for justice may motivate investigators towards accurate profilation and thus may not leave loopholes (Garret, 2004).

#### **2.8.5. Other Factors**

Resource availability- lack of resources can lead poor profilation and vice versa. External factors like political influence may jeopardize investigation and lead to cover-up or may pressure investigators to be efficient and produce timely results.

## **CHAPTER THREE: RESEARCH METHODOLOGY AND DESIGN**

### **3.1 Introduction**

The chapter presents research methods which were applied in conducting the research. The researcher used the mixed research method. This chapter details the following: research design, research variables, location of the study, target population and sample size, sampling technique, research instruments, validity and reliability, data collection, data analysis and logistical and ethical considerations.

### **3.2 Research Design**

The study adopted a case study research approach. The research used qualitative and quantitative research methods (Mugenda & Mugenda, 1999). The questionnaire was quantitative using Likert scale rating. The use of both research methods made the research more feasible and authentic. Both complemented each other. Target Population and Sample Size. The target population for the study was the Kihiu Mwiri management and shareholders; and the Kihiu Mwiri murder investigators, totalling to 6200. A sample size of 20 shareholders and 31 investigators were studied.

### **3.3 Location of the Study**

The study was located at DCI headquarters in Nairobi and also in Murang'a County where the company is located and majority of shareholders reside.

### **3.4 Target Population**

Target population was two-fold: police investigators involved in the cases of Kihiu Mwiri murders and Kihiu Mwiri shareholders and managers. Population of police investigators was 100 while that of shareholders and managers were 6200.

### **3.5 Sampling Techniques**

The researcher applied survey research type with both stratified random sampling technique to sample Kihiu Mwiri shareholders and purposive sampling for police



investigators (Mugenda & Mugenda, 1999). The researcher used snowball sampling technique to sample Kihui Mwiri respondents, because only a few people to be interviewed were known but were used to lead the researcher to others and purposive sampling to DCI respondents. Table 2 shows sample of respondents.

Table 3.1. Sample of Respondents

	Target Population	Sample Size
Police investigators respondents	100	31
Kihui Mwiri shareholder respondents	6,200	20
Sub-total	6,300	51

### 3.6 Research Instruments

The researcher used questionnaires, interview schedules and interview guide to help in data collection (Mugenda & Mugenda, 1999). The questionnaires used had closed ended questions with Likert rating of 1-5. The interview schedule on the other hand was completed by the researcher. It contained questions that were developed by the researcher and were orally administered to the respondents; the researcher then recorded the response in writing during the face to face interview.

### 3.7 Validity and Reliability

In qualitative research, reliability refers to consistent, accurate and predictable research; while validity refers to research quality. Validity is concerned with the degree to which measuring method is devoid of error and if the research measured what was intended (Mugenda & Mugenda, 1999). The researcher ensured that the design of the questionnaires could not lead to biased responses. The questions were made specific and to the point, to help

respondents answer rightly. The researcher conducted in-depth literature review to guide the research.

### **3.8 Data Collection Techniques**

This study collected data using questionnaires, interviews. Data collection focused on usefulness of murder procedures at profilation, thus primary data was important (Mugenda & Mugenda, 1999). Also, secondary data accumulation was done to supplement empirical data. Before gathering data the specialist sent basic letters to the inspected respondents and respondent associations to look for consent to direct research. Every respondent was required to acquaint himself or herself with the examination questionnaire and was required to assent and confer himself/herself to the necessities of the questionnaire.

### **3.9 Data Analysis**

Sorting of data and in formation was done during data analysis. Qualitative data was organized according to the various emerging themes. The researcher processed the quantitative data by coding and using various statistical methods such as descriptive statistics for data analysis. Quantitative data was analysed using descriptive statistics applying Statistical Packages for Social Sciences (SPSS). Central tendency statistics with mean, median, standard deviation and significance levels were useful for highlighting statistical significance of the results.

Mean of responses was used to indicate the general level of respondent positions and to show where majority of responses fell in regard to particular relationship between independent and dependent variables (Sekaran, 2003). Standard Deviation (SD) was used to show the degree of variability of responses in regard to how the independent variables related to the dependent variables. A low value of Standard Deviations indicates low variability of responses thus indicate level of agreement concerning the relationship of variables (Sekaran, 2003).

Significance levels indicate whether the responses meet the confidence limits of social research. It indicates whether the level of relationship between particular independent variable and dependent variable met 95% confidence limit and if the z-statistics value was significant (Mugenda & Mugenda, 1999).

### **3.10 Logistical and Ethical Considerations**

The researcher used ethical rules of Social Research Association (2003) to guarantee moral issues in this research were considered. It guaranteed that data and information gathered are utilized just for motivation behind accomplishing research objectives. Sensitive data like private and confined records and data was dealt with as their grouping required.

## CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

### 4.1 Introduction

This chapter presents analysis of data and techniques used. Data presentation was done using tables, graphs such as bar and column graphs, as well as pie-charts.

### 4.2 Socio-demographic Information

This section presents the distribution information of police and shareholders on social demographics.

#### 4.2.1 Age and gender of respondents

Most of the police respondents (16.1%) who participated in the Kihiu Mwiri survey were 32 years old followed by those aged 30 and 26 years old at 12.9% (Figure 5). About 65% of the police respondents were over 30 years old, with the oldest police being 45 years. About 48% of them were youth aged between 22 to 30 years old (Figure 5).

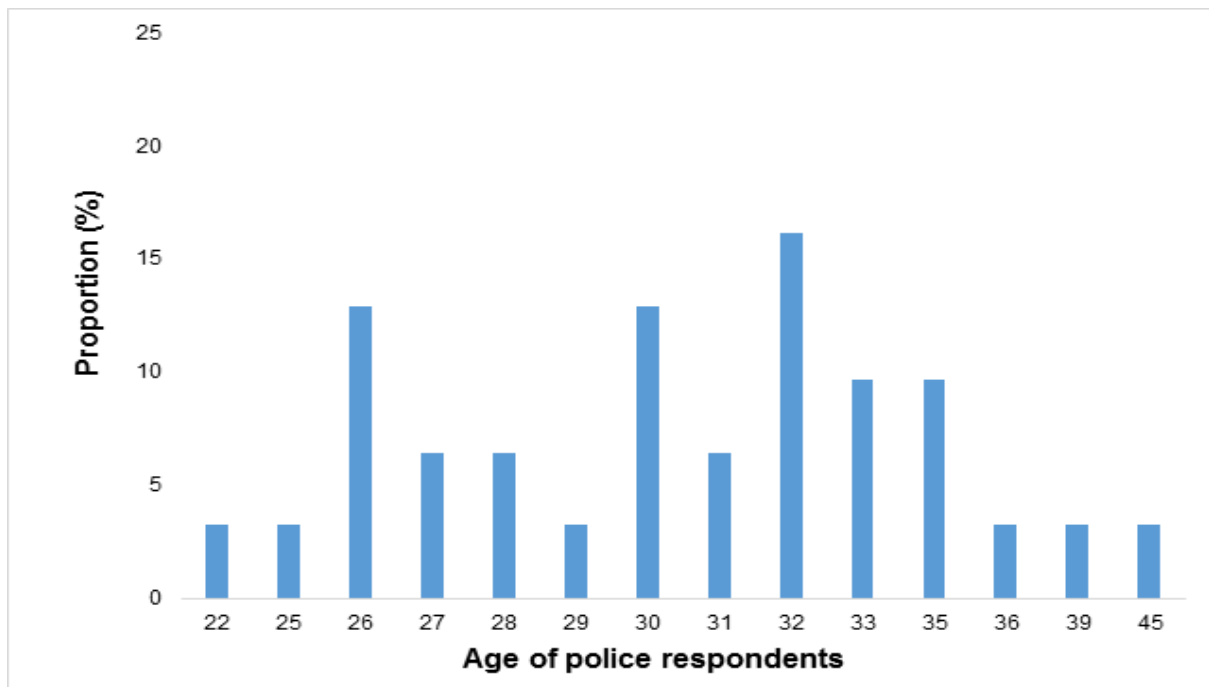


Figure 5: Age distribution of police respondents at Kihiu Mwiri Company

On the contrary, there were no youthful shareholder respondents in Kihiu Mwiri Farmers' company. The youngest shareholder respondent was 32 years old and only 25% of the respondents were aged between 32 and 50 years. The largest proportion (75%) were aged between 50 and 80 (Figure 6).

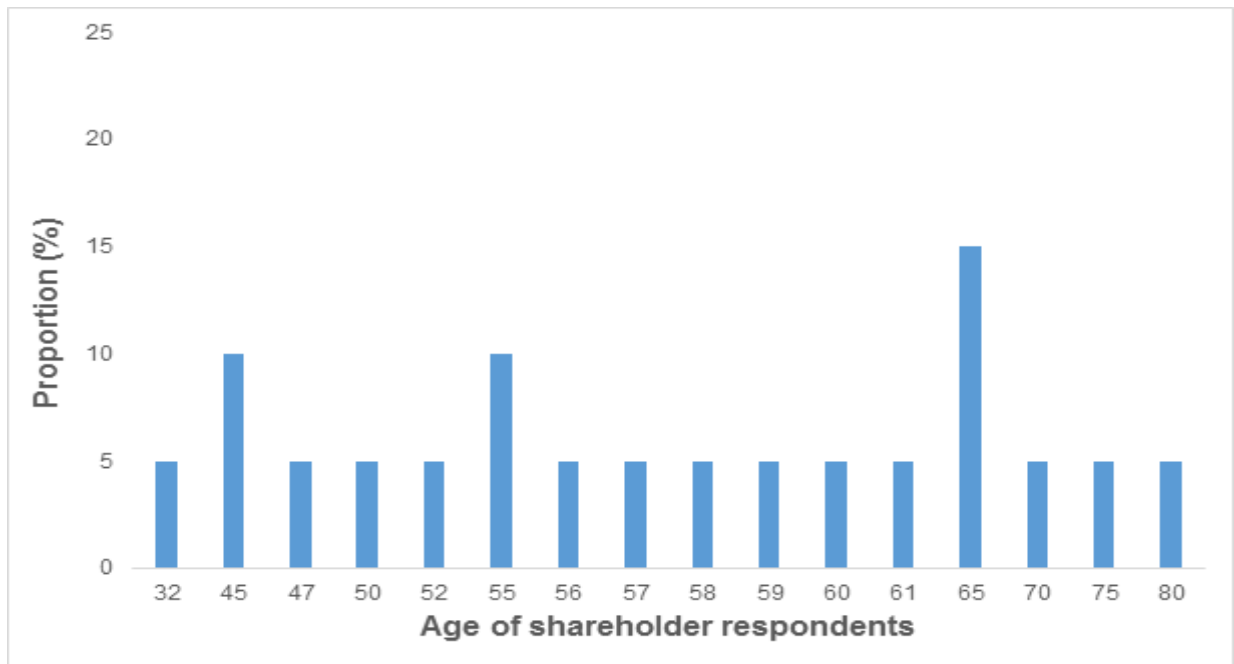


Figure 6: Age distribution of shareholder respondents at Kihiu Mwiri Company

Overall, the age distribution of the police and shareholder respondents did not differ significantly between the males and females ( $\chi^2$ , 13 = 12.886, NS, two-tailed) and  $\chi^2$ , 15 = 15.139, NS, two-tailed, respectively. This signified that both youth and middle-aged male and female police, as well as middle aged and old shareholder respondents participated in this study. Out of the 24 male police respondents who participated in this study, 75% of them were aged between 30 and 45 years while 28.5% of the 7 female respondents fell under this age group. However, the proportion of the male police respondents was 77% compared to 23% females (Figure 7), while the proportion of male and female shareholder respondents was 60% and 40%, respectively (Figure 8).

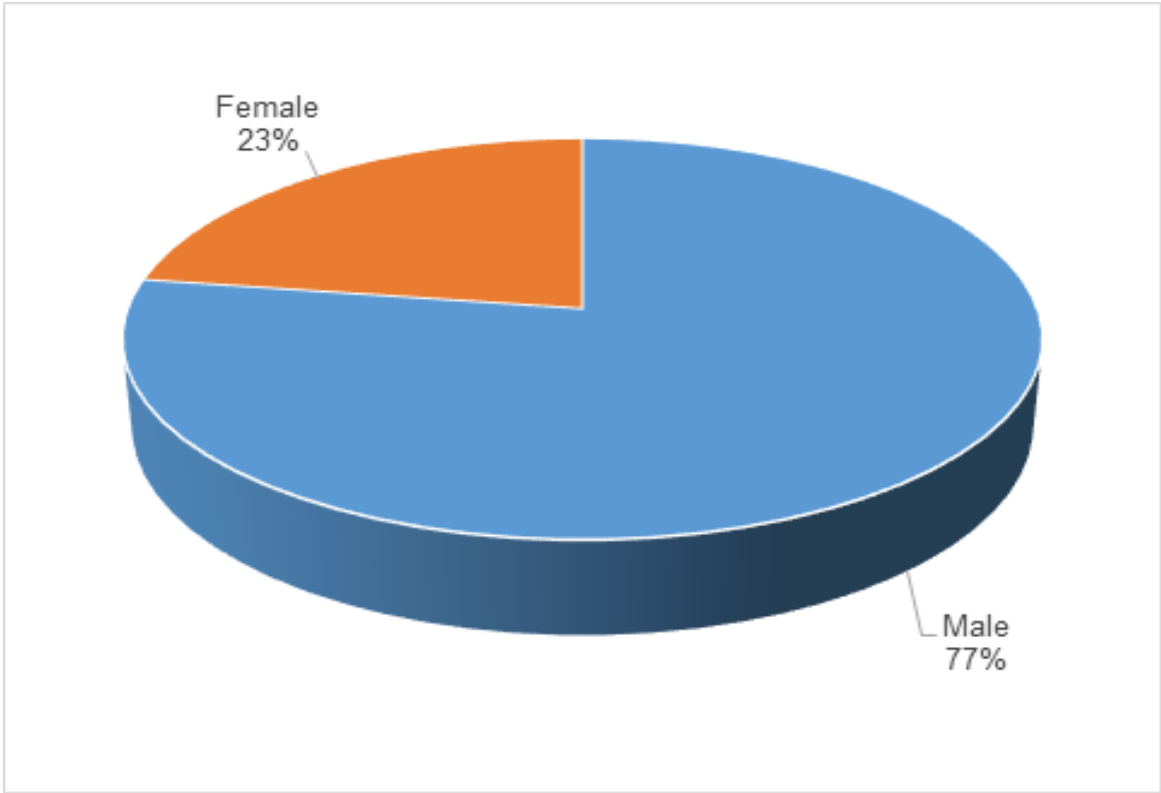


Figure 7: Police respondents' disaggregation by gender at Kihiu Mwiri Company

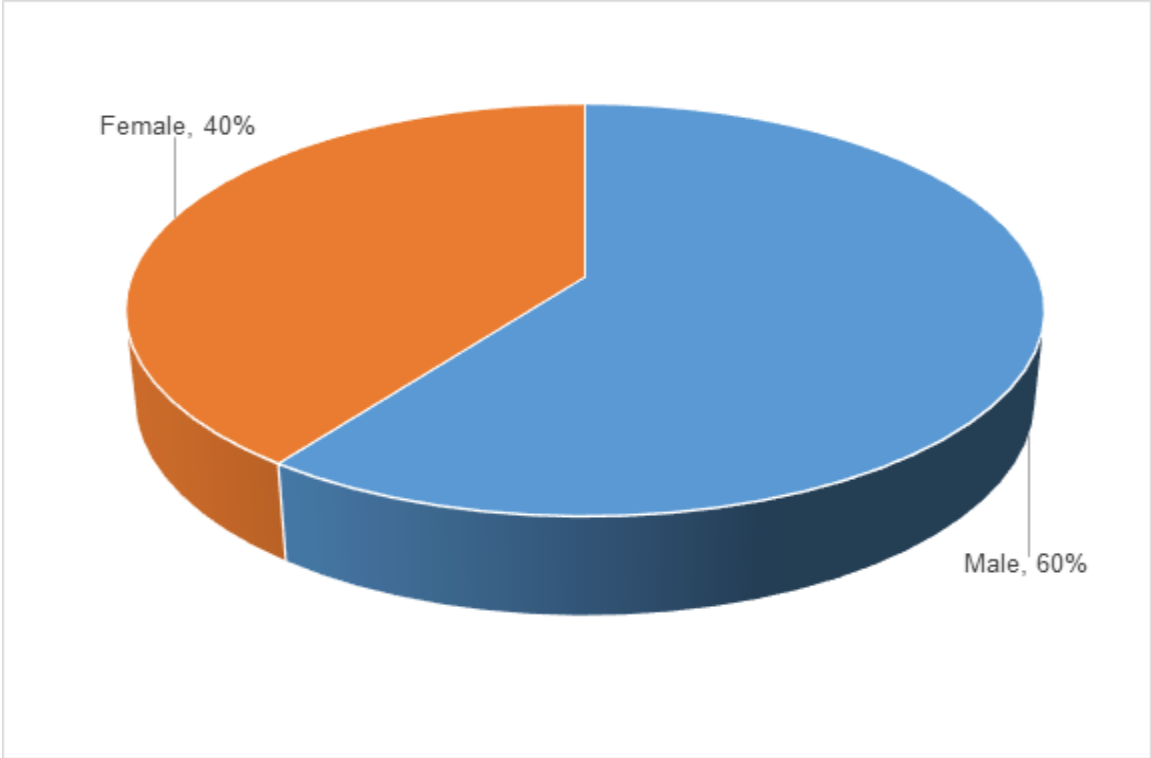


Figure 8: Shareholder respondents' disaggregation by gender at Kihiu Mwiri Company

#### 4.2.2 Position of respondents at workplace

Most of the police respondents were inspectors and constables at the proportions of 45% and 36%, respectively (Figure 9). The proportion of the corporal respondents was twice that of the senior sergeants, at 6% and 3%, respectively (Figure 9).

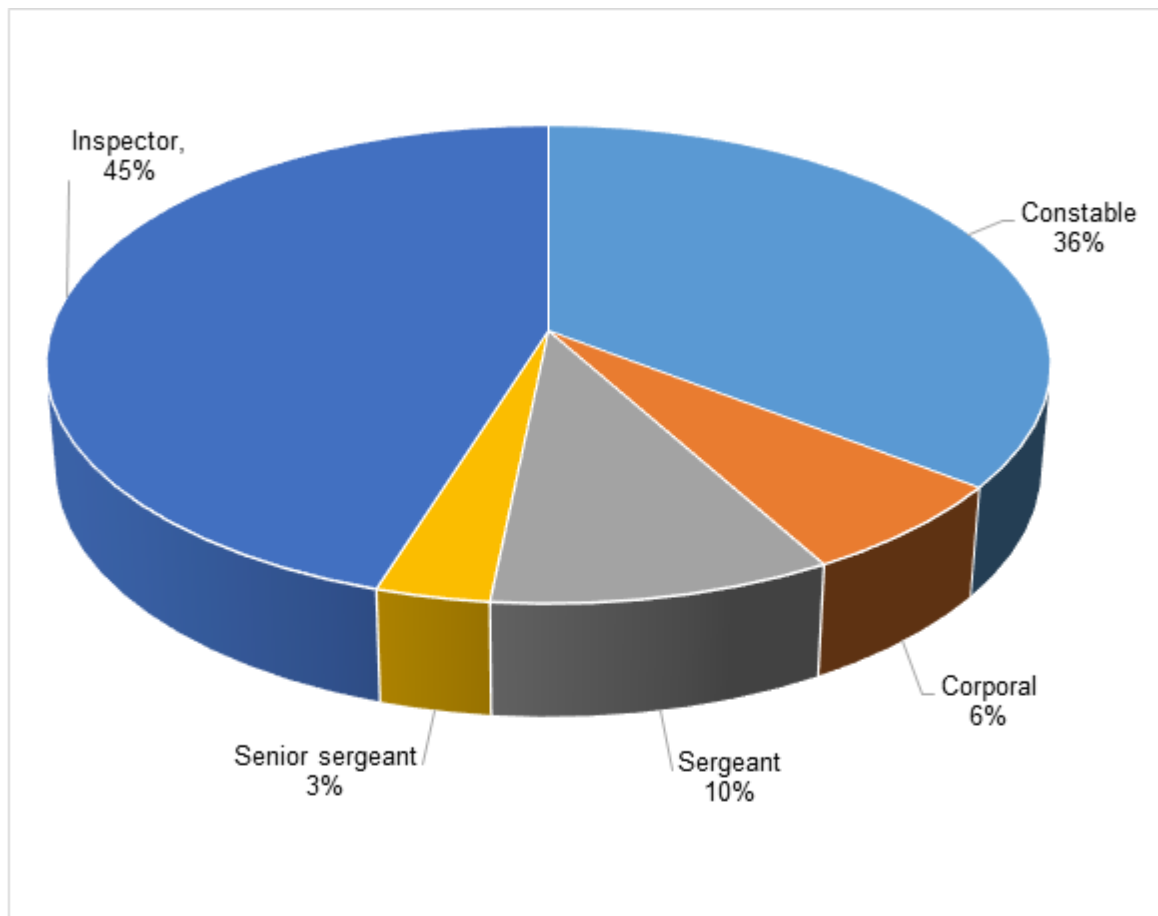


Figure 9: Positions of police respondents at Kihuu Mwiri Company

About 60% of the shareholders were ordinary members of Kihuu Mwiri Company while 40% of them were managers (Figure 10).

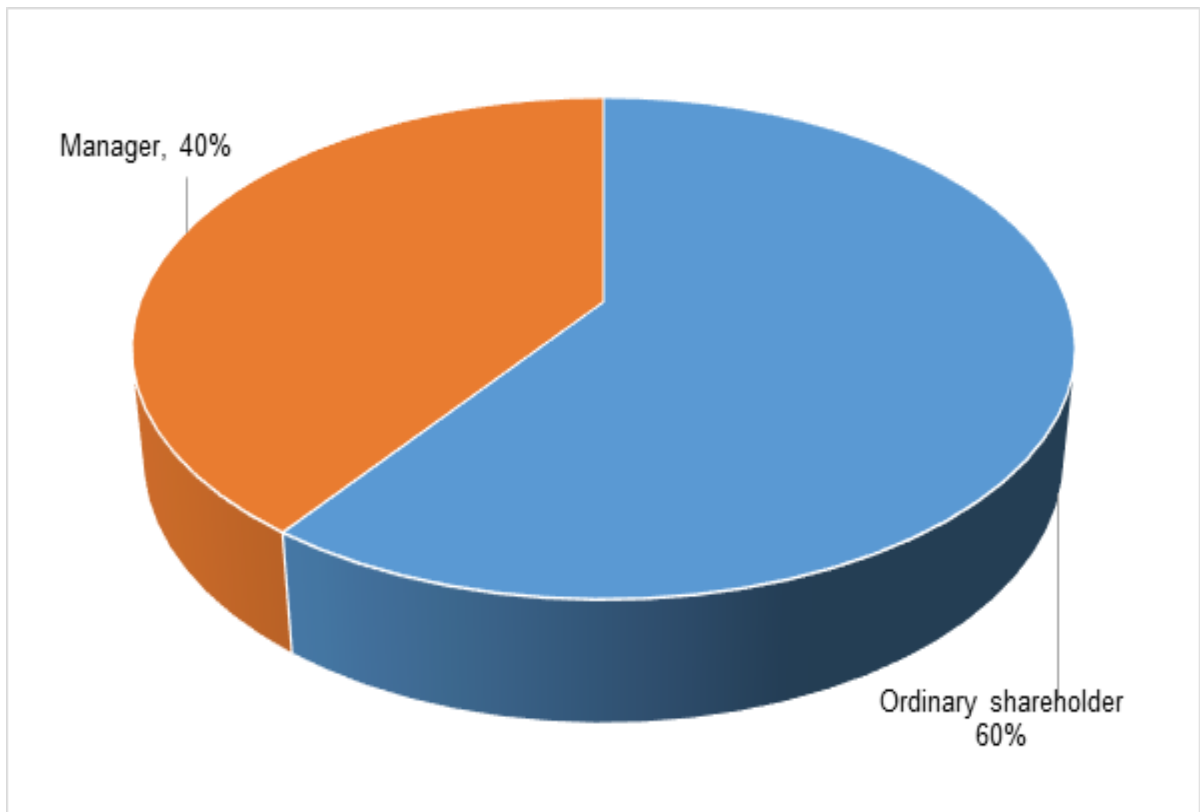


Figure 10: Positions of shareholder respondents at Kihiu Mwiri Company

#### 4.2.3 Marital status of respondents

About 84% of the police respondents of the Kihiu Mwiri survey were youth who were not married (Figure 11). Only 10% of them were married while unfortunately, 3% of them had either married and divorced their wives or separated with them (Figure 11).

#### 4.2.4 Religion of respondents

Over 87% of the police respondents of the Kihiu Mwiri survey were Christians while another 10% were Muslims (Figure 12). Another small number of 3% indicated that they were either Traditionalists or Earthiest (Figure 12).



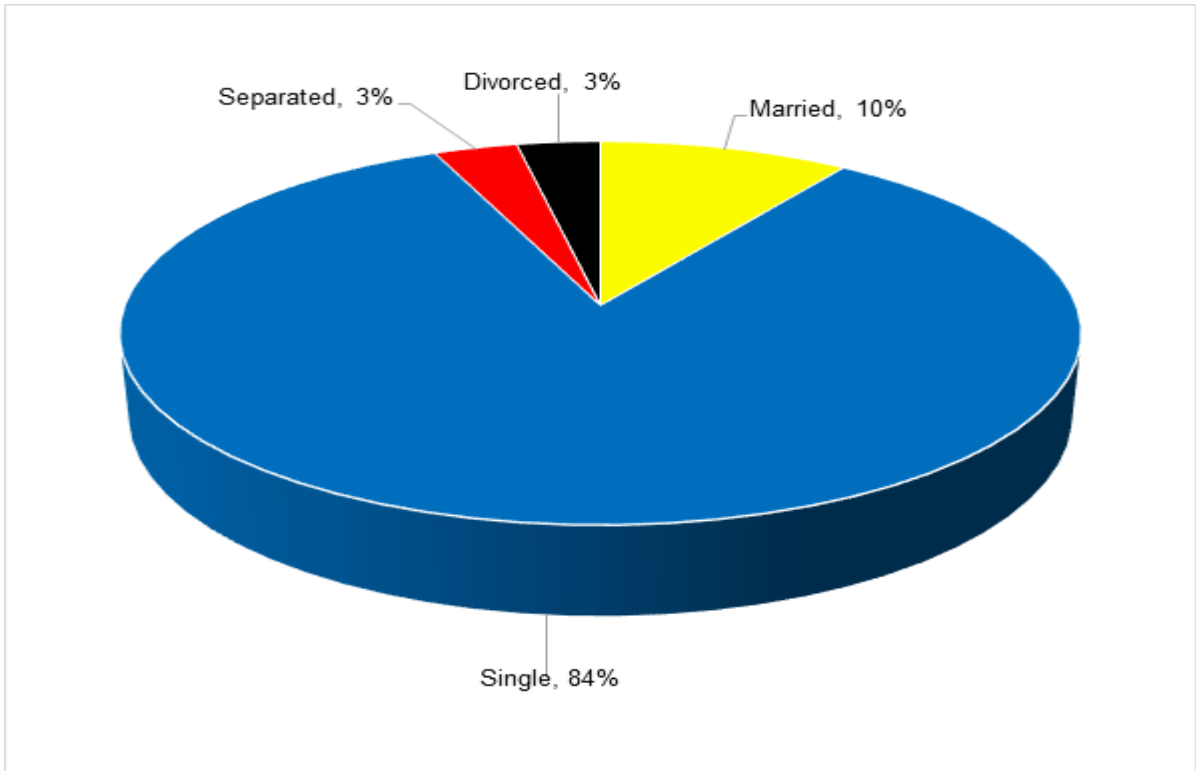


Figure 11: Marital status of police respondents at Kihiu Mwiri Company

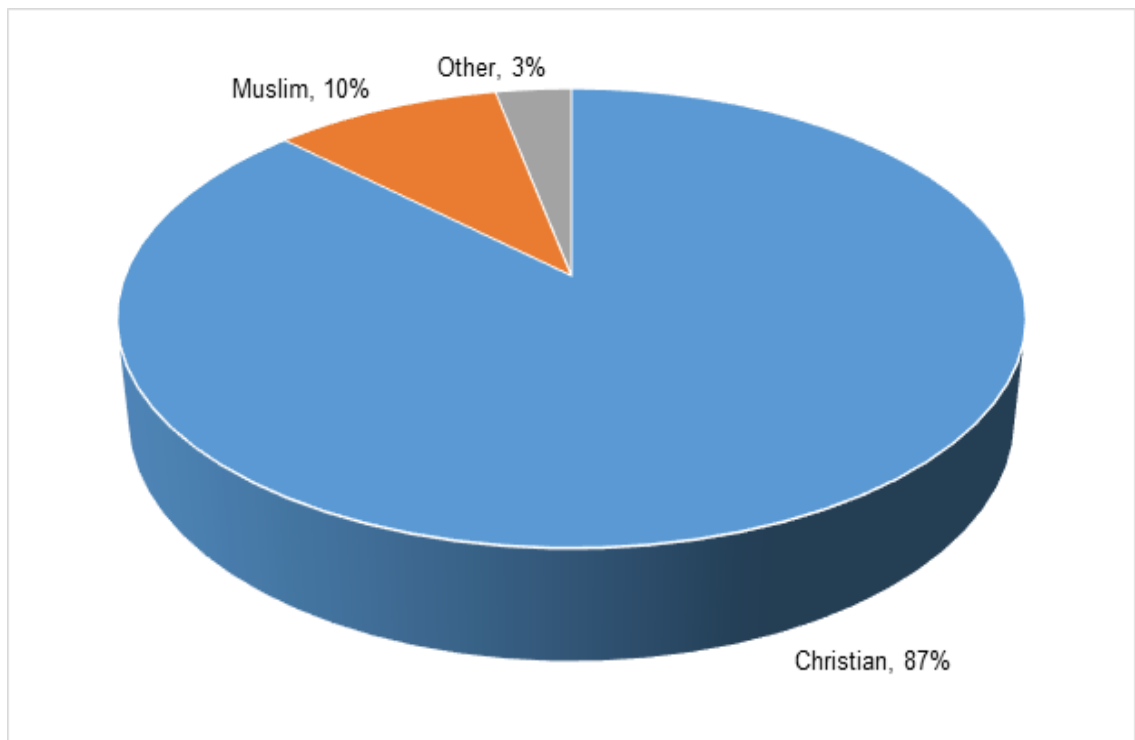


Figure 12: Religions of police respondents at Kihiu Mwiri Company

#### 4.2.5 Family Background

Most of the police respondents (58%) came from monogamous family backgrounds where their fathers were married to only one wife (Figure 13). Another 23% were from polygamous families while 19% were from single parent families (Figure 13).

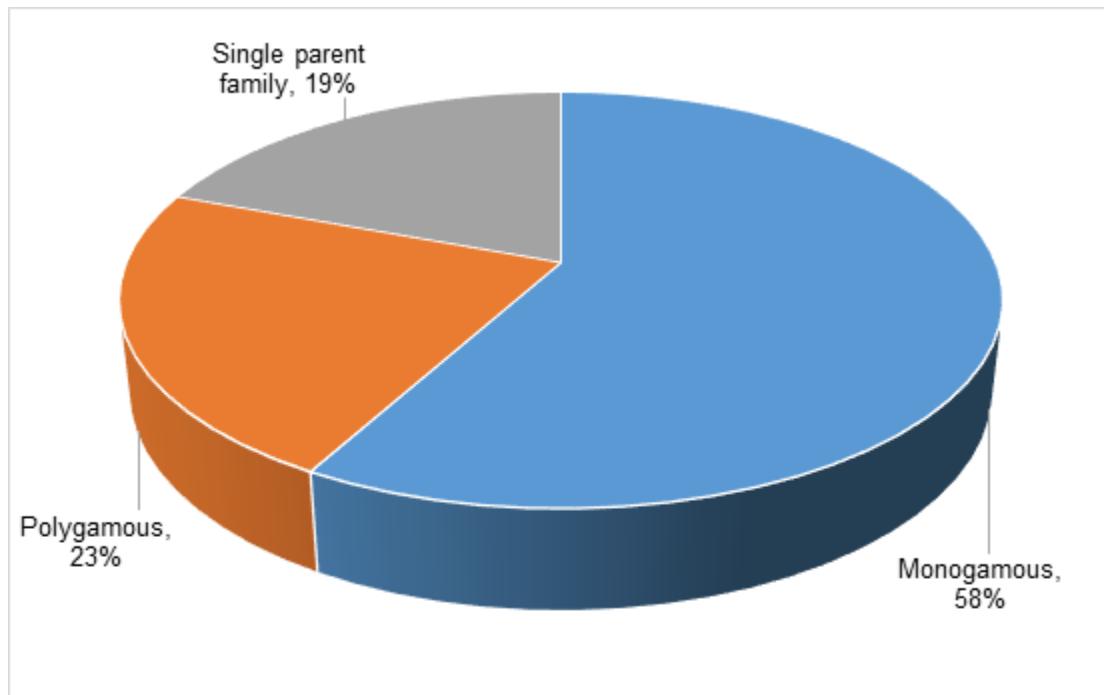


Figure 13: Family background of police respondents at Kihiu Mwiri Company

#### 4.2.6 Deployment departments of police respondents

Over 74% of the police respondents work in Forensic sections including ballistics, document forensics etc. 16% of the police respondents indicated that they were deployed in Criminal Records Office (CRO), while 10% were in Criminal investigation section (Figure 14).

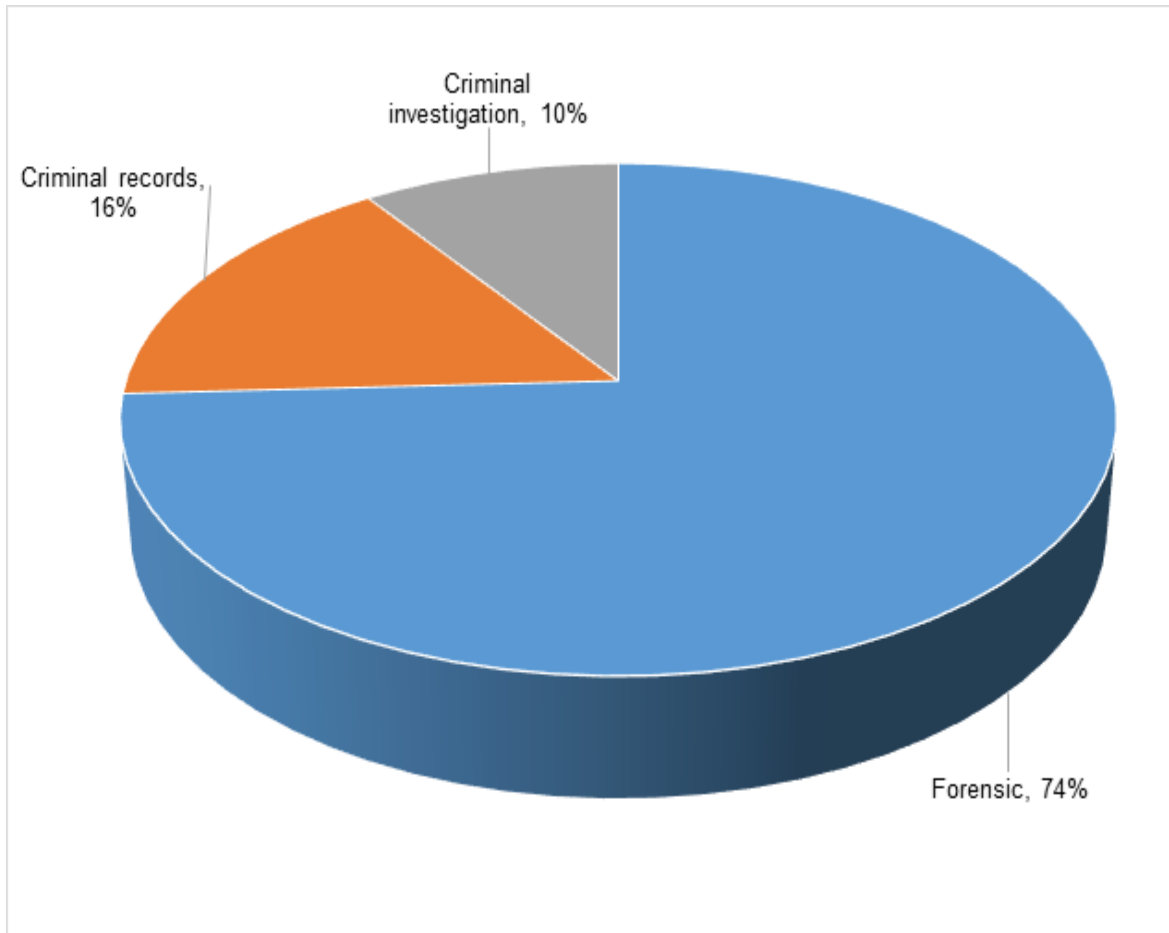


Figure 14: Deployment areas of police respondents at Kihiu Mwiri Company

#### 4.2.7 Work experience of respondents

Figure 15 illustrates experience of police respondents in murder investigations. About 10% of the police respondents had only 2 years of work experience (Figure 15). About 74% of them had a work experience of between 3 to 5 years while another 10% had worked for 6 to 10 years. Only 10% of them had over 10 years' experience (Figure 15). On the contrary all the shareholder respondents had worked at Kihiu Mwiri for over 10 years (Figure 16). About 55% of the shareholder respondents had a work experience of 10 to 20 years while another 45% had worked at the company for more than 20 years (Figure 16).

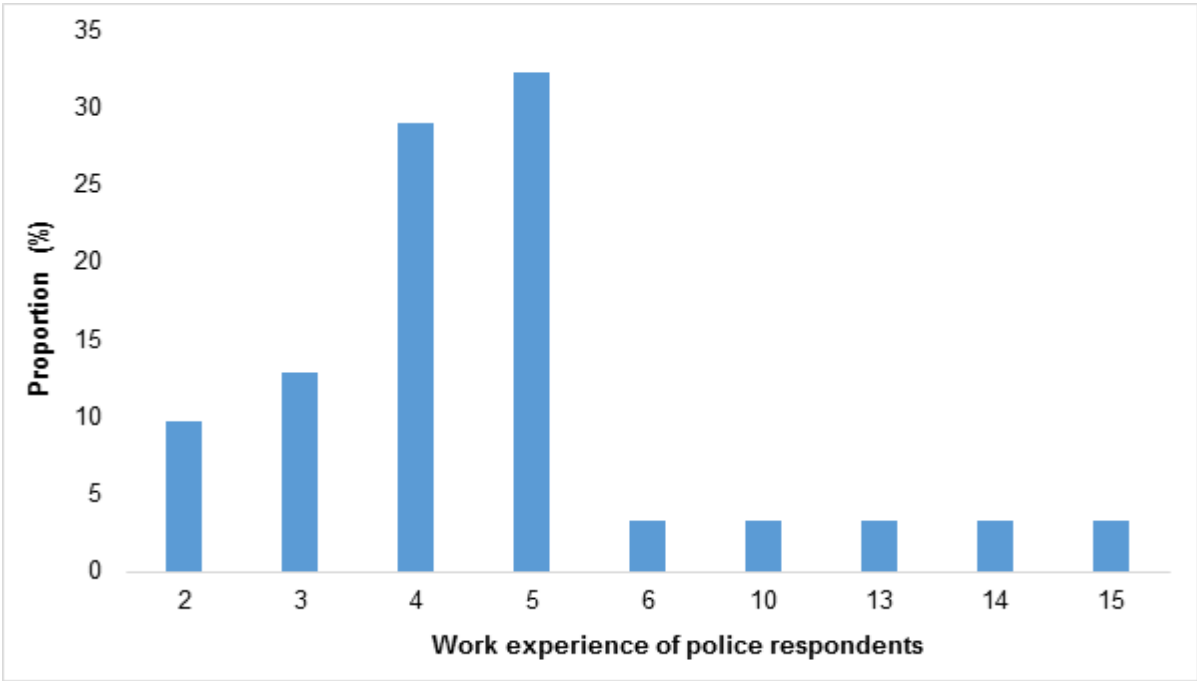


Figure 15: Work experience of police respondents at Kihiu Mwiri Company



Figure 16: Work experience of shareholder respondents at Kihiu Mwiri Company

### 4.3 Effectiveness of murder profilation at Kihiu Mwiri Company

#### 4.3.1 Effect of work experience and gender

In order to determine the effectiveness of murder profilation procedures at Kihiu Mwiri Farmers' Company, several hypotheses were postulated and then tested using appropriate inferential statistics. This section details the results of such analysis.

#### *Hypotheses*

H<sub>0</sub>: There is no significant difference between the work experiences of male and female police respondents who participated in the Kihiu Mwiri survey

H<sub>A</sub>: There is significant difference between the work experiences of male and female police respondents who participated in the Kihiu Mwiri survey.

Table 4.1: Independent Samples t-Test for work experiences between male and female police respondents in Kihiu Mwiri survey

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig .	t	df	Sig . (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	2.003	0.168	1.702	29	0.099	2.321	1.364	-0.467	5.11
Equal variances not assumed			2.617	25.606	0.015	2.321	0.887	0.496	4.146

As shown Table 4.1, the mean work experiences of male and female police respondents were not significantly different,  $t(29) = 1.702, p \geq 0.05$ , two tailed. Thus, although the work experience of the male respondents was higher ( $m=5.75$ ) than that of the females ( $m=3.43$ ), the difference was not significant.

**Hypotheses**

H<sub>0</sub>: There is no significant difference between the work experiences of male and female shareholder respondents who participated in the Kihiu Mwiri survey

H<sub>A</sub>: There is significant difference between the work experience of male and female shareholder respondents who participated in the Kihiu Mwiri survey.

Table 4.2: Independent Samples t-Test for work experiences between male and female shareholder respondents in Kihiu Mwiri survey

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig . (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Equal variances assumed	0.369	0.551	-0.523	18	0.607	-1.5	2.869	-7.527	4.527
Equal variances not assumed			-0.54	16.726	0.596	-1.5	2.777	-7.366	4.366

As shown in Table 4.2, the mean work experiences of males and female shareholder respondents were not significantly different,  $t(18) = -0.523, p \geq 0.05$ , two tailed. Although the

work experience of the female respondents was higher (m=23.0) than those of the males (m=21.5), the difference was not significant.

### 4.3.2 Effect of experience and position at workplace

#### *Hypotheses*

H<sub>0</sub>:  $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$  or there is no significant difference between the work experiences of constables, corporals, sergeants, senior sergeants and inspectors who participated in the Kihiu Mwiri survey

H<sub>A</sub>:  $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5$  or there is significant difference between the work experiences of constables, corporals, sergeants, senior sergeants and inspectors who participated in the Kihiu Mwiri survey

Table 4.3: Mean work experiences of various positions of police respondents

Position of police respondent at workplace	Mean	Std. Deviation	N
Constable	4.64	3.075	11
Corporal	12.50	3.536	2
Sergeant	4.00	.000	3
Senior sergeant	5.00	.	1
Inspector	4.93	2.759	14
Total	5.23	3.273	31

Table 4.4: One-Way ANOVA test for work experiences between the positions of police respondents at the workplace

Source	Type III		Mean Square	F	Sig .	Partial Eta Squared
	Sum of Squares	df				
Corrected Model	115.445 <sup>a</sup>	4	28.861	3.643	.017	.359
Intercept	483.562	1	483.562	61.040	.000	.701
Position at workplace	115.445	4	28.861	3.643	.017	.359
Error	205.974	26	7.922			
Total	1168.000	31				
Corrected Total	321.419	30				

a. R Squared = .359 (Adjusted R Squared = .261)

As shown in Table 4.4, there was a significant difference  $F(4,26) = 0.017, p \leq 0.05$ , two-tailed) between the work experiences of the constables, corporals, sergeants, senior sergeants and inspectors who participated in the Kihui Mwiri survey.

### ***Hypotheses***

$H_0: \mu_1 = \mu_2$  or there is no significant difference between the work experiences of managers and ordinary shareholders who participated in the Kihui Mwiri survey

$H_A: \mu_1 \neq \mu_2$  or there is significant difference between the work experiences of managers and ordinary shareholders who participated in the Kihui Mwiri survey



Table 4.5: Mean work experiences of various positions of shareholder respondents at Kihiu Mwiri Company

Position of participant in Kihiu Mwiri company	Mean	Std. Deviation	N
Shareholder	21.50	7.280	12
Manager	23.00	4.276	8
Total	22.10	6.164	20

Table 4.6: One-Way ANOVA test for work experiences between the positions of shareholder respondents at Kihiu Mwiri Company

Source	Type III Sum of Squares	df	Mean Square	F	Sig .	Partial Eta Squared
Corrected Model	10.800 <sup>a</sup>	1	10.800	.273	.607	.015
Intercept	9505.200	1	9505.200	240.638	.000	.930
Position	10.800	1	10.800	.273	.607	.015
Error	711.000	18	39.500			
Total	10490.000	20				
Corrected Total	721.800	19				

a. R Squared = .015 (Adjusted R Squared = -.040)

As shown in Table 4.5, although the mean length of work experience was higher for the managers (m=23) than for ordinary shareholders (m=21.5) there was no significant difference  $F(1, 18) = 0.273$ , ns, two-tailed) between the work experiences of the shareholder respondents at Kihiu Mwiri Company (Table 4.6).

#### 4.3.3 Relationship between the position of police respondents and their opinion on effectiveness of murder investigations

##### *Hypotheses*

$H_0$ : There is no relationship between the position of police respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively.

$H_A$ : There is relationship between the position of police respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively.

Table 4.7: Chi-Square Tests on police positions and their opinion on effectiveness of murder investigation

Pearson Chi-Square	19.299 <sup>a</sup>	12	.082
Likelihood Ratio	12.745	12	.388
Linear -by-Linear Association	.069	1	.793
N of Valid Cases	31		

There was no significant relationship between the position of police respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively ( $\chi^2$ , 12 = 19.299, NS, two-tailed). Although there was no significant relationship between the position of police respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively, the participants views were dynamic. All the corporals strongly disagreed that the murder cases are investigated effectively (Figure 17). Similarly, all the

inspectors had a related view but they only disagreed that the cases are investigated effectively. However, the constables, sergeants and senior sergeants held a different opinion from that of the corporals and inspectors, where they either agreed or strongly agreed that the murder cases at Kihiu Mwiri Company are investigated effectively (Figure 17).

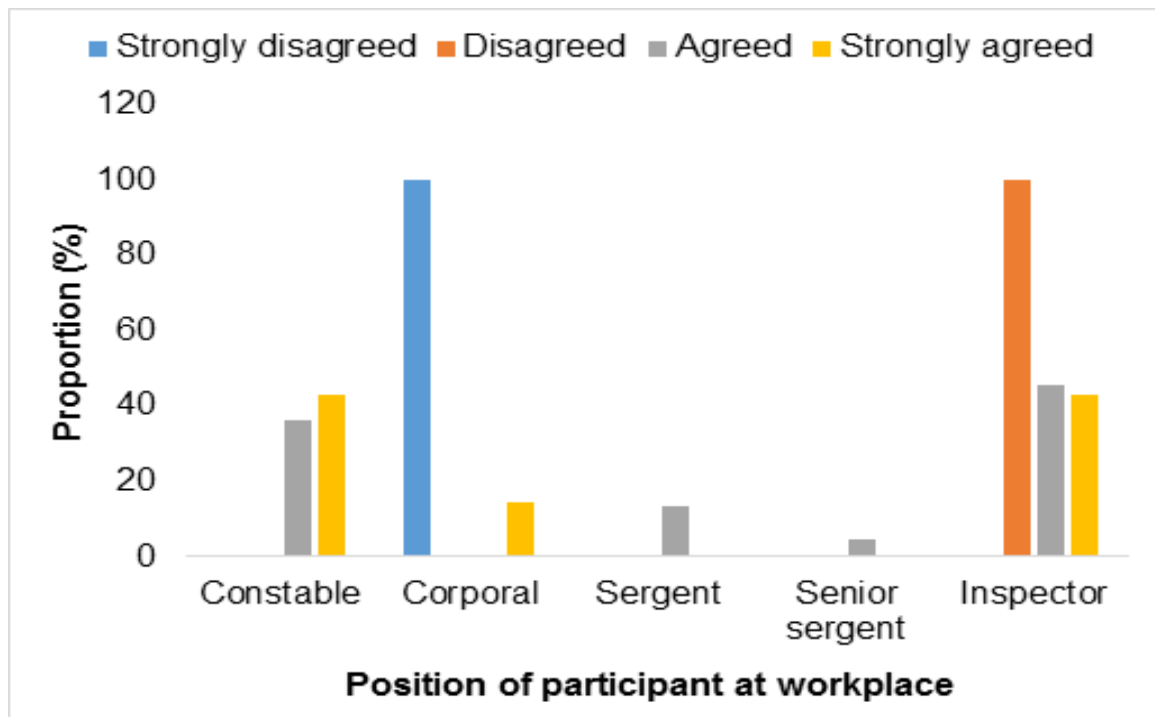


Figure: 17. Police opinion on the effectiveness of murder investigation at Kihiu Mwiri Company

### *Hypotheses*

H<sub>0</sub>: There is no relationship between the position of shareholder respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively.

H<sub>A</sub>: There is relationship between the position of shareholder respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively.

Table 4.8: Chi-Square Tests on shareholder positions and their opinion on effectiveness of murder investigation

Pearson Chi-Square	4.464 <sup>a</sup>	3	.215
Likelihood Ratio	4.543	3	.208
Linear-by-Linear Association	1.950	1	.163
N of Valid Cases	20		

As shown in Table 4.8, there was no significant relationship between the position of shareholder respondents and their opinion that, murder cases at Kihiu Mwiri Company are investigated effectively ( $\chi^2, 3 = 4.464, NS, two-tailed$ ). The managers and the ordinary shareholder had similar views on the effectiveness of murder investigation at Kihiu Mwiri (Figure 18)

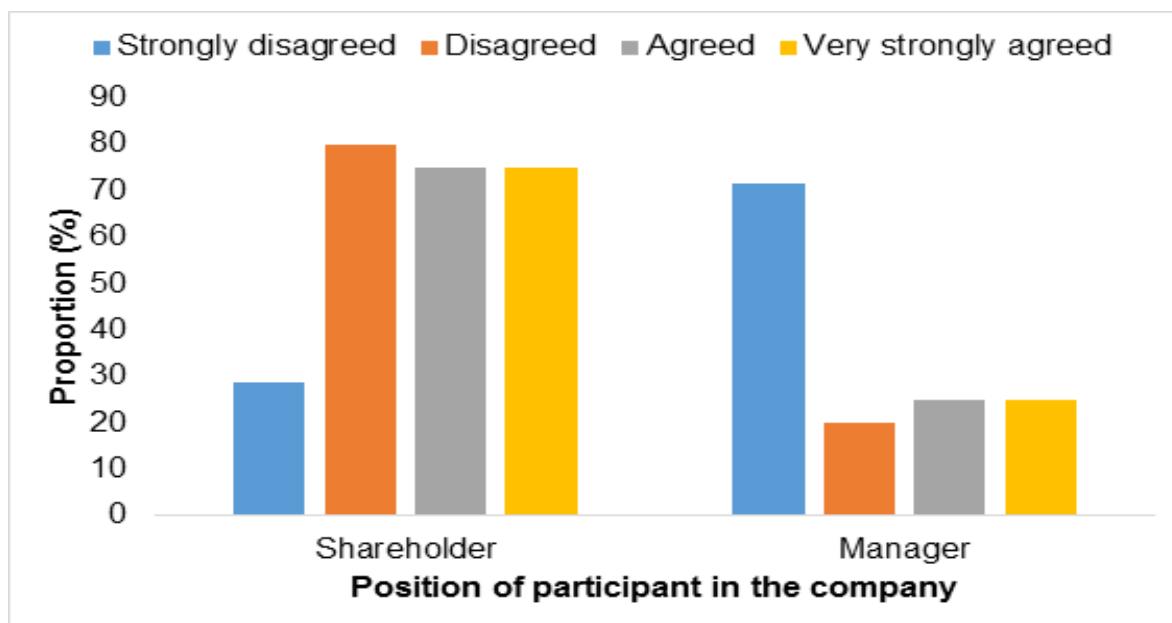


Figure 18: Shareholders' opinion on the effectiveness of murder investigation at Kihiu Mwiri Company

### *Hypotheses*

H<sub>0</sub>: There is no relationship between the position of police respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up.

H<sub>A</sub>: There is relationship between the position of police respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up.

As shown in 4.9, there was no significant relationship between the position of police respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up ( $\chi^2$ , 16 = 19.468, NS, two-tailed). The opinions of murder cover ups were dynamic across the various positions, with the inspectors strongly disagreeing that there is cover up, contrary to the constables (Table 4.10)

Table 4.9: Chi-Square Tests on police positions and their opinion on cover up of murder cases

Pearson Chi-Square	19.468 <sup>a</sup>	16	.245
Likelihood Ratio	21.740	16	.152
Linear -by-Linear Association	4.621	1	.032
N of Valid Cases	31		

Table 4.10: Proportion (%) of participant's opinion on cover up of murder cases

Position of participant	Strongly			Very strongly	
	disagreed	Disagreed	Agreed	agreed	agreed
Constable	0	27	20	56	40
Corporal	0	9	0	0	20
Sergeant	0	0	0	22	20
Senior sergeant	0	0	0	0	20
Inspector	100	64	80	22	0

### *Hypotheses*

H<sub>0</sub>: There is no relationship between the position of shareholder respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up.

H<sub>A</sub>: There is relationship between the position of shareholder respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up.

As shown in Table 4.11, there was no significant relationship between the position of shareholder respondents and their opinion that, murder cases at Kihui Mwiri Company are covered up ( $\chi^2, 3 = 1.345, NS, two-tailed$ ).

Table 4.11: Chi-Square Tests on shareholder positions and their opinion on cover up of murder cases

Pearsons Chi-Squares	1.345 <sup>a</sup>	3	.719
Likeli-hood Ratio	1.718	3	.633
Linears-by-Linears Association	.892	1	.345
N of Valid Cases	20		

#### 4.4 Constraints hindering effective investigation of murder cases at Kihiu Mwiri

##### Company

Both the police and shareholder respondents identified a number of constraints or challenges facing the implementation of murder profilation procedures at Kihiu Mwiri Company. Out of the 31 police respondents who participated in this study, 45% of them mentioned inadequate resources as the greatest constraint that is hindering effective investigation of murder cases at Kihiu Mwiri Company (Table 4.12).

Table 4.12: Constraints hindering effective investigations of murder cases at Kihiu Mwiri

Constraint	Proportion of respondent who cited the constraint	
	Police (N = 31)	Shareholders (N=20)
Inadequate resources	45	0
Limited time	35	0
Political interference	32	25
Failure to volunteer information	29	35
Limited technology	13	0
Inexperienced investigators	10	0
Lack of cooperation of concerned parties	10	10
Ineffective communication among concerned parties	10	5
Corruption	10	35
Ethnic profiling	6	0
Limited personnel	3	0
Insufficient reports by investigators	0	45
Subsequent murder of witnesses	0	60

The other major constraints cited by over 30% of the police respondents are; limited time to conduct thorough investigations and political interference. On the contrary, the shareholders did not mention inadequate resources and limited time as constraints on this



matter. They, however, agreed at an equal proportion (10%) with the police respondents that lack of cooperation from the government, company's top management and other concerned parties was a major constraint (Table 4.12). As highlighted in table 4.12, other main constraints mentioned by the respondents but by a lesser proportion included failure to volunteer information (29% of police and 35% of the shareholders), and limited technology (13% of police respondents only. While 45% of the shareholder respondents felt that insufficient reports prepared by the investigators constrained the process of effective investigation of murder cases at Kihiu Mwiri, none of the police respondents held a similar view (Table 4.12). Detailed analyses of the main mentioned by the respondents is provided below:

#### **4.4.1 Subsequent murder of witnesses as a constraint on murder investigations**

Out of the 20 shareholder respondents who participated in this study, over 60% of them mentioned that there has been subsequent murders of the witnesses who volunteer to cooperative with the investigators (Table 4.12). More of the ordinary shareholders (60%) than the managers (40%) held this view (Figure 19).

#### **4.4.2 Insufficient reports by investigators as a constraint to investigations of murder cases**

Over 45% of the shareholders mentioned insufficient reports by investigators as a main constraint hindering effective investigation of murder cases (Table 4.12). About 60% of the ordinary shareholders mentioned this constraint while 40% of the managers held a similar view (Figure 20).

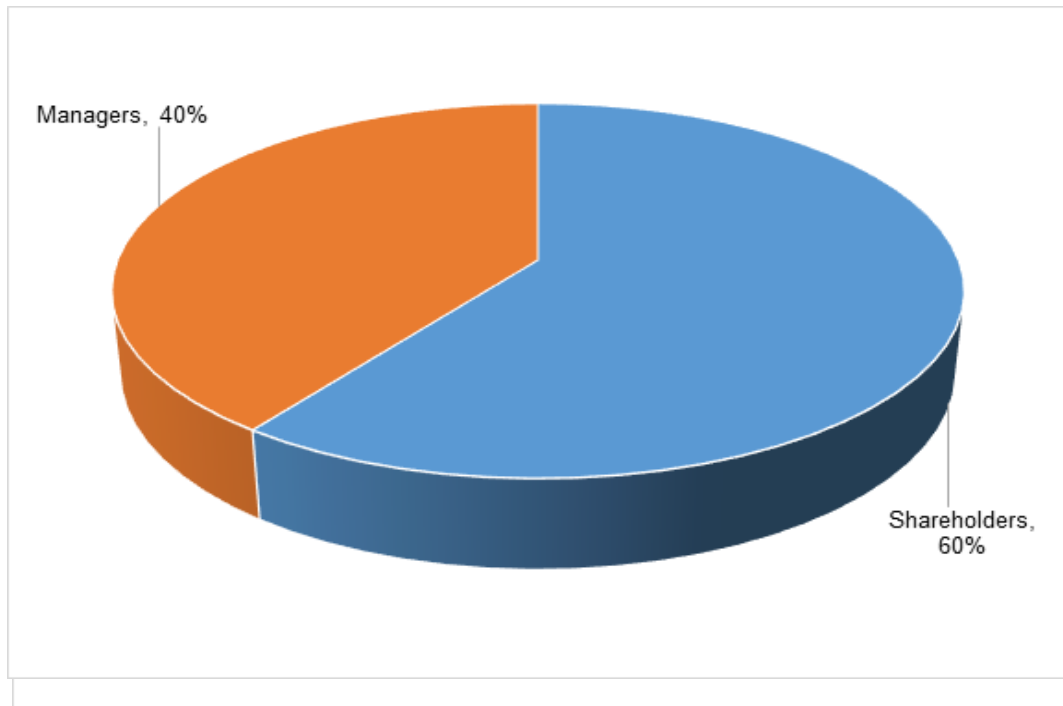


Figure 20: Shareholder respondents who mentioned insufficient reports by investigators as a constraint to effective investigations of murder cases

#### 4.4.3 Inadequate resources as a constraint affecting murder investigations

Inadequate resources was cited by the police respondents as a major constraint hindering effective investigation and profilation of murder cases at Kihiu Mwiri Company (Table 4.12). Their views differed significantly across the police departments ( $\chi^2, 2 = 8.107, p \leq 0.05$ , two-tailed). Out of the respondents who mentioned this factor as a constraint, 50% of them worked in the Forensic Department, 29% in Criminal records and 21% in Criminal investigations (Figure 21).

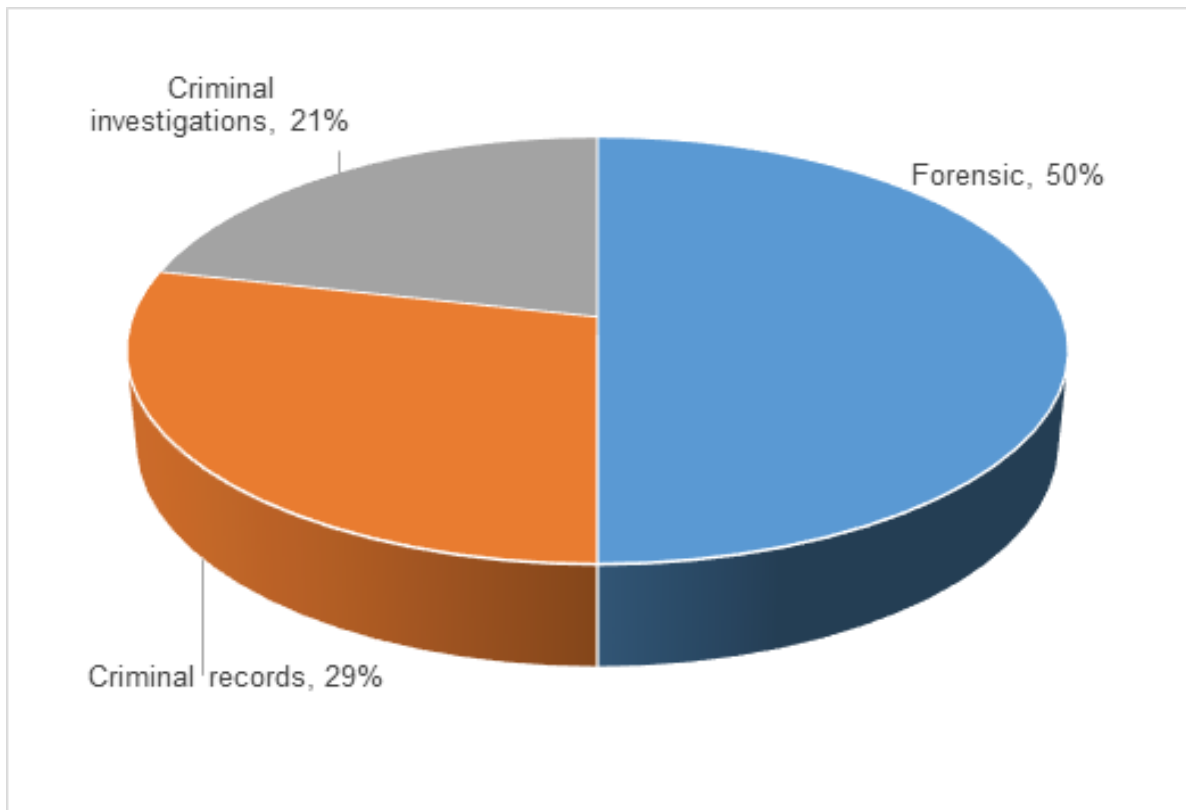


Figure 21: Police respondents from different departments who mentioned inadequate resources as a constraint to effective investigation of murder cases

#### 4.4.4 Limited time as a constraint affecting murder investigations

While the constraint of limited time for investigation was mentioned by 35% of the police respondents, none of the shareholders held a similar view (Table 4.12). Even within the police respondents, only the constables, sergeants, and inspectors mentioned limited time as constrained that is hindering effectiveness investigations of murder cases at Kihiu Mwiri Company (Figure 22). However, the view of time being a constraint that is affecting murder investigations at Kihiu Mwiri Company did not differ significantly across the various positions of police respondents ( $\chi^2, 4 = 8.790, NS, \text{two-tailed}$ ).

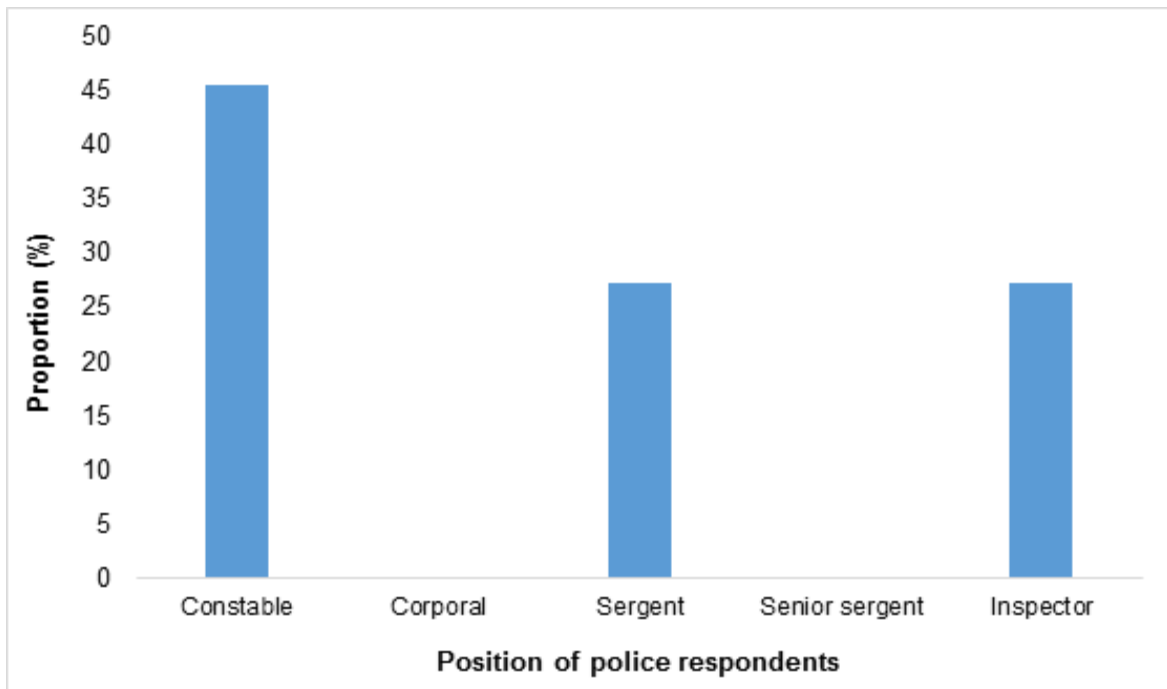


Figure 22. Police respondents who mentioned limited time as a constraint of murder investigation

#### 4.4.5. Failure to volunteer information as a constraint affecting murder investigations

Failure to volunteer information was mentioned by both the police (29%) and shareholders (35%) as a main constraint hindering effective investigations of murder cases (Table 4.12). This view was not significantly affected by the religious beliefs of both the police and shareholder respondents ( $\chi^2, 2 = 2.598, NS, \text{two-tailed}$ ).

#### 4.4.6. Political interference as a constraint affecting murder investigations

Political interference was mentioned by both the police (32%) and shareholders (25%) as a main constraint hindering effective investigations of murder cases (Table 4.12). Among the police respondents, Forensic Department was more affected by political interference than any other department (Figure 23).

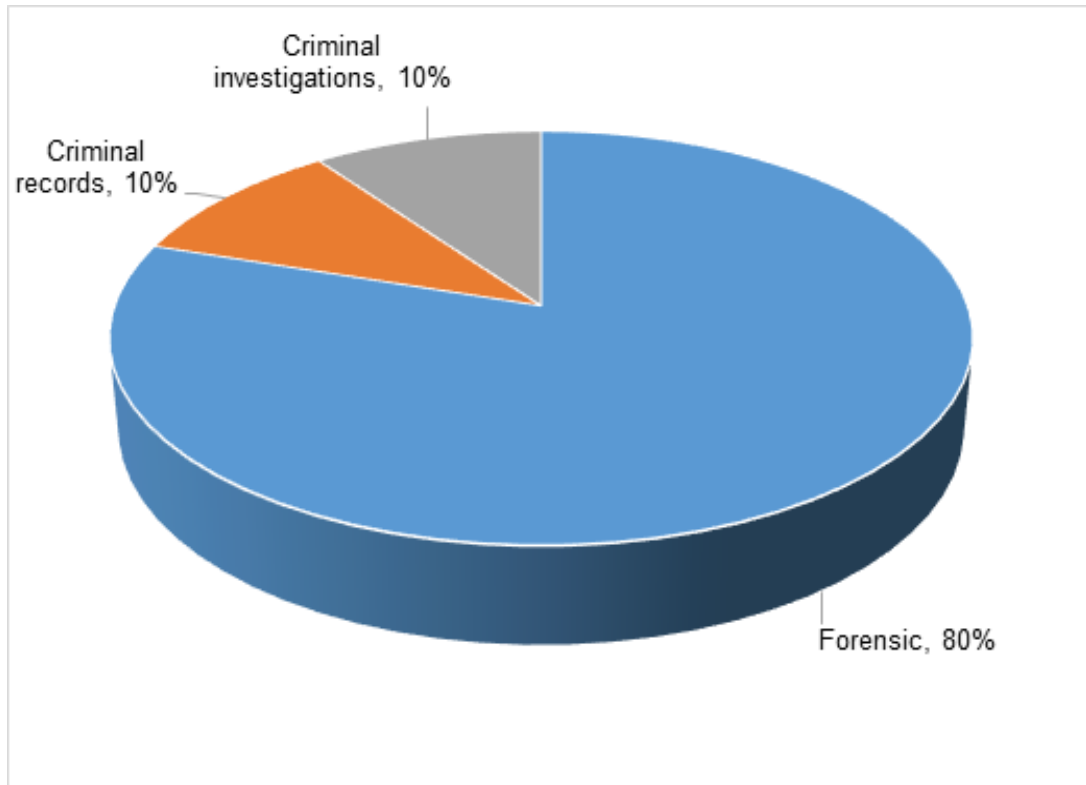


Figure 23: Police respondents from different departments who mentioned political interference as a constraint to effective investigation of murder cases

#### 4.4.6. Corruption as a constraint affecting murder investigations

While corruption was mentioned by 35% of the shareholder respondents, only 10% of the police respondents mentioned it as a major constraint that is hindering effective investigation of murder cases at Kihiu Mwiri Company (Table 4.12). This constrained was mostly mentioned by the managers (71%) of Kihiu Mwiri Company (Figure 24).

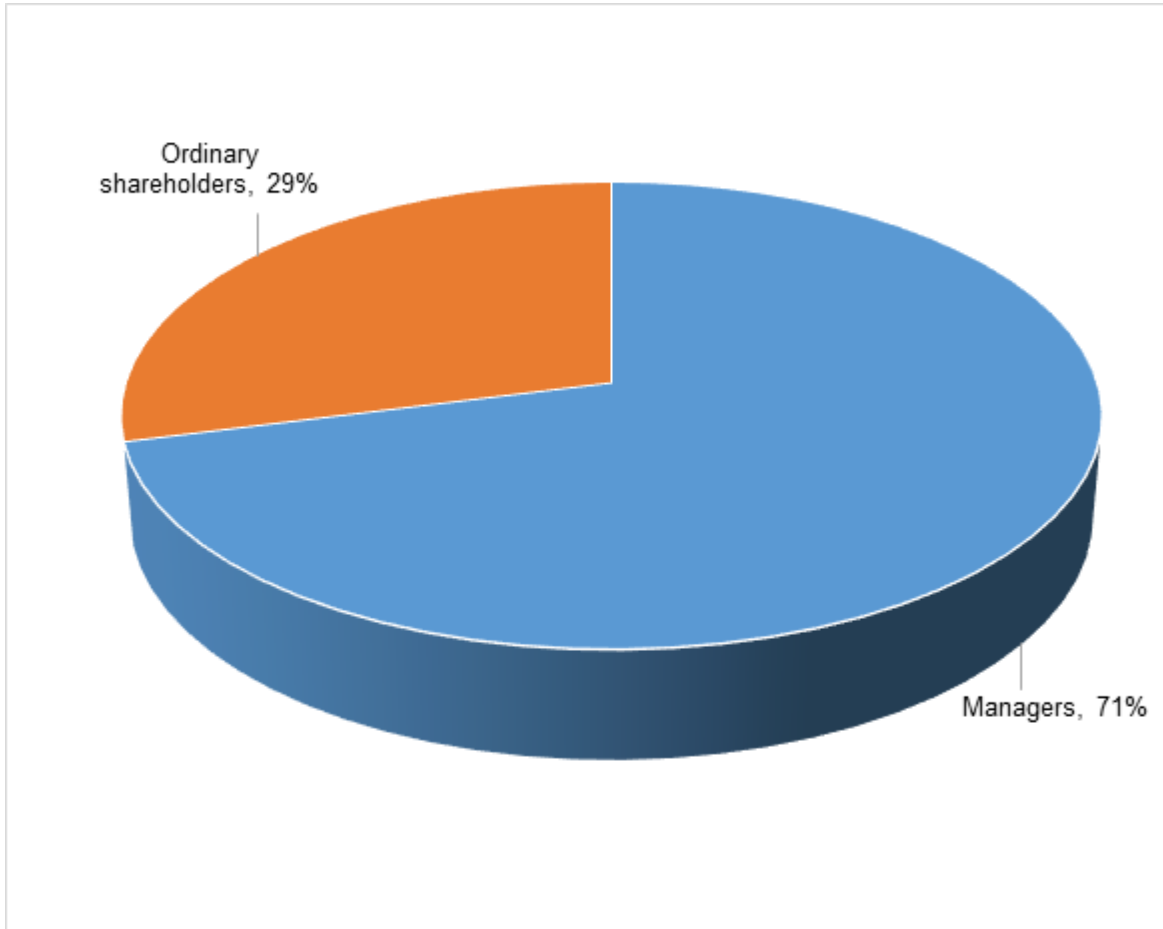


Figure 24: Shareholder respondents who mentioned corruption as a constraint to effective investigations of murder cases

#### **4.5 Appropriate measures for achieving successful murder investigation and profilation at Kihiu Mwiri Company.**

The respondents suggested a number of interventions that could be adopted to achieve successful investigation and profilation of murder cases at Kihiu Mwiri Company. The proposed measures are tabulated below

Table 4.13: Measure for achieving successful investigation of murder cases at Kihiu Mwiri Company

Proposed measure for improving investigations of murder cases	Proportion of respondent who cited the constraint	
	Police (N = 31)	Shareholders (N=20)
Conduct investigations in a professional manner	19	65
Protection of investigators and witnesses	29	50
Enact and implement stringent laws against protractors of investigations	0	50
Provision of adequate resources	42	0
Capacity building of the investigators and their institutions	39	0
Provision of ample time to conduct thorough investigations	0	10
Involvement of all relevant stakeholders	0	10
Involvement of private security firms	0	5

#### 4.5.1. Professionalism as an appropriate measure for improving investigations of murder cases.

Over 65% of the shareholder respondents proposed that conducting investigations in a professional manner would improve investigations of murder cases at Kihiu Mwiri Company (Table 4.13). This view was also held by 19% of the police respondents. This suggests that some police officers are quite aware that some of their colleagues do not conduct murder

investigations in a professional manner. The view of professionalism as an appropriate measure for achieving effective investigation of murder cases was mostly proposed by the ordinary shareholders (Figure 25).

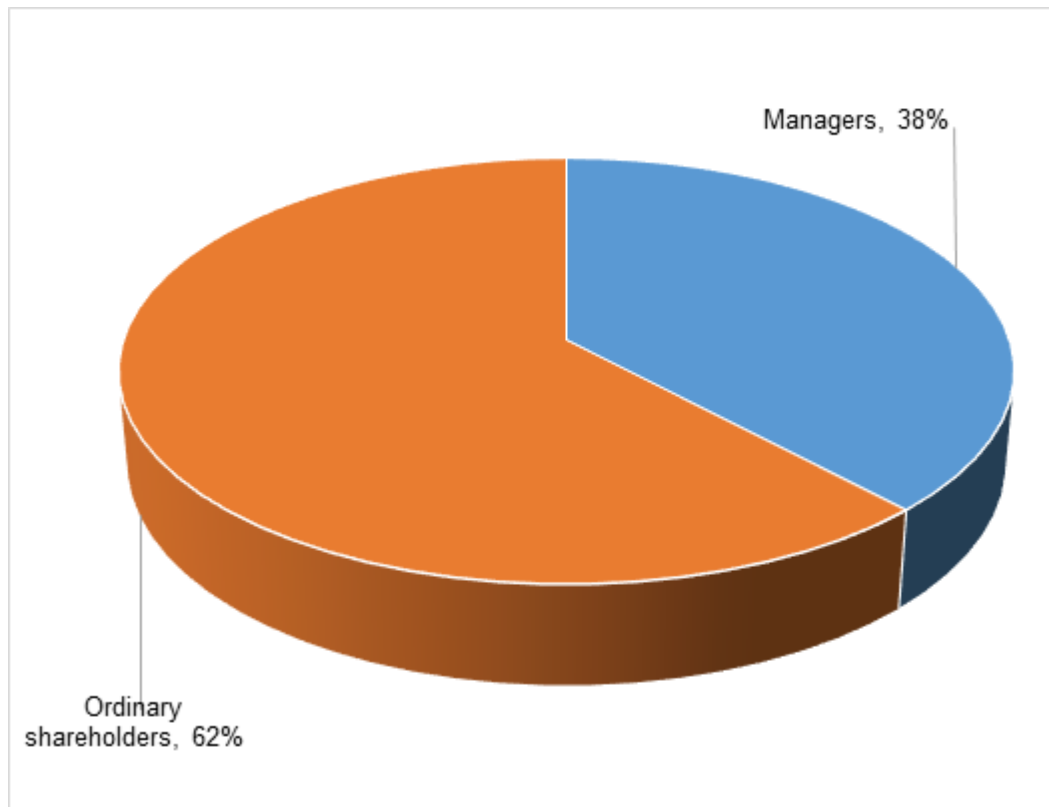


Figure 25: Shareholder respondents who mentioned professionalism as an appropriate measure for effective investigations of murder cases

#### **4.5.2 Protection of investigators as an appropriate measure for improving investigations of murder cases.**

This view was shared by both the police and shareholder respondents. Over 50% of the shareholders suggested this measure while 29% of the police respondents seconded it (Table 4.13). For the shareholders who proposed this measure, about 70% of them were ordinary shareholders (Figure 26).



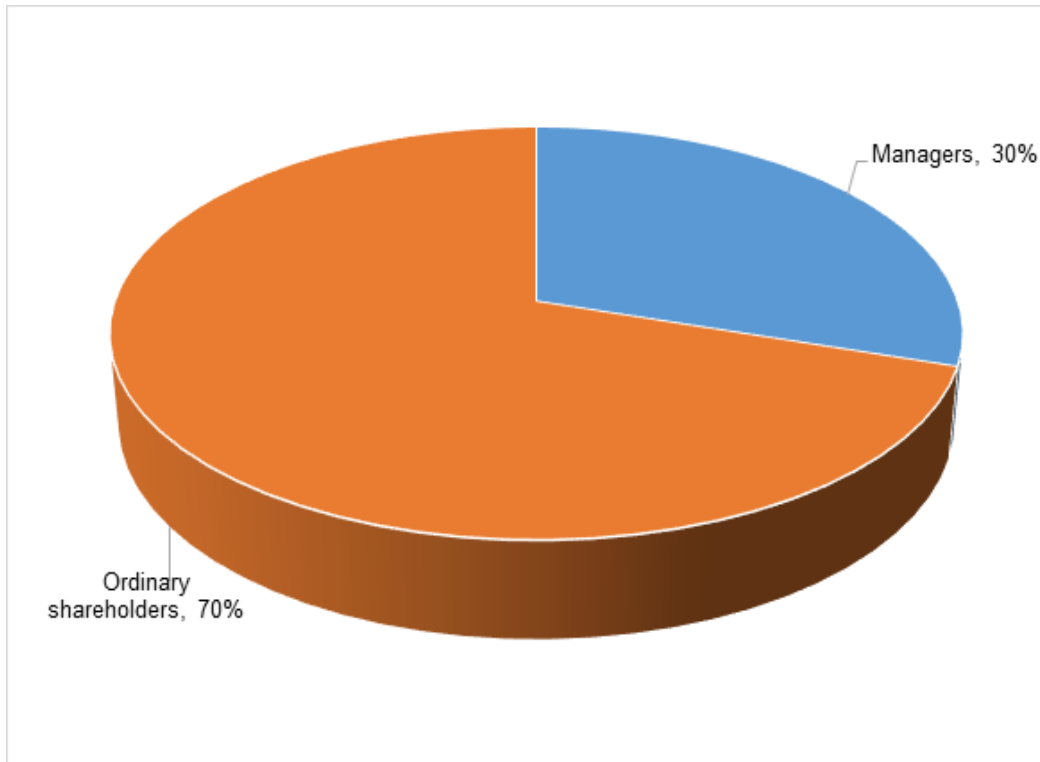


Figure 26: Shareholder respondents who mentioned protection of investigators and witnesses as an appropriate measure for effective investigations of murder cases

The other appropriate measures that were either proposed by the police respondents alone or the shareholders alone included the following:

- i. Enact and implement stringent laws against protractors of investigations. This would involve amendment of the legal framework governing investigations, specifically Evidence Act, Cap 80 Laws of Kenya;
- ii. Involvement of all relevant stakeholders to tackle the problem of murders. This would involve sensitizing members of the public on the importance of recording statements on the information they have. It would also include involvement of religious leaders;
- iii. Provision of ample time to conduct thorough investigations; and
- iv. Involvement of private security firms.

## **CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1. Introduction**

This chapter summarizes the results of the research, presents discussions, conclusions and recommendations.

### **5.2. Summary of Findings**

The findings of descriptive statistics research show that all the factors studied were statistically significant in determining how effective murder procedures at profilation of Kihiu Mwiri murder suspects were. Test results of the five profilation procedures show that there were statistically significant differences of in mean ratings of the procedures by police respondents and Kihiu Mwiri shareholders for act of murder procedures, review of preliminary report and victim analysis procedures at 95% confidence level. There were not significant differences in mean ratings for murder scene evaluation procedures.

Results show very strong positive correlation between pairs of characteristics studied. There was very strong positive correlation of Pearson correlation coefficient of 0.8 and above between murder scene evaluation procedures and victim analysis procedures; investigator approach to information collection and obsession with follow-up investigations; knowledge of investigations and training in investigations; and investigator's religion and approach to information collection. Strong positive correlation was found between data mining and analysis procedures and murder scene evaluation procedures; data mining and analysis procedures and victim analysis procedures; age and knowledge in investigations; and investigators' understanding of criminal law and keenness to details.

Kihiu Mwiri respondents strongly agreed that procedures of murder act analysis, review of preliminary report and victim analysis are important in profilation of suspects in

murder cases. They agreed that data mining about suspects and crime scene examination procedures are important in the process of profilation. The mean of ratings of the profilation procedures by police respondents were lower compared to those of Kihiu Mwiri shareholders. The Kihiu Mwiri shareholders strongly agree that there was cover-up during the investigation of the cases at Kihiu Mwiri and that the murders were not investigated well. Police responses to this was generally in disagreement. Whereas the Kihiu Mwiri shareholders had opinion that investigators did not follow procedures in the cases, the police generally had opinion that procedures were correctly followed.

The constraints affecting effective implementation of murder profilation procedures identified by respondents included: Limited personnel, ethnic profiling, inexperienced investigators, lack of cooperation of concerned parties, ineffective communication, corruption, limited technology, failure to volunteer information, political interference, limited time, inadequate resources, insufficient reports by investigators and subsequent murder of witnesses. The suggested solutions included recommendations to: increase budget allocation and facilitation; improve investigations/forensic equipment and facilities; amend the legal framework governing investigations; digitize investigations to enhance efficiency and effectiveness; improve work conditions; and sensitize members of the public on the importance of recording statements.

### **5.3. Discussions**

Results of this research show that gender, deployment, marital status, training and experience were important factors in determining how effective murder procedures at profilation. This corroborates findings in previous literature concerning array of factors such as gender (Ask, Granhag & Rebelius, 2011), age (Kocsis, Hayes & Irwin, 2014), rank (Knutsson, 2004), deployment (Chibnall, 2013), religionsuspects (Youngers & Rosin, 2005), family background (Michel, et al., 2010), marital status (Clarke & Eck, 2014), education and

experience (Wells et al., 2000). This research examined the extent to which each of the factors in addition to other factors influence effectiveness of murder profilation. Previous research focused into how the factors influence investigations.

### **5.3.1 Effectiveness of Murder procedures at Profilation**

The murder procedures identified and examined in this research were five. Their effectiveness were rated by respondents as shown: act of murder analysis procedures ( $z=22.274$ ; mean=3.355); murder scene evaluation procedures ( $z=20.422$ ; mean=3.355); victim analysis procedures ( $z=17.017$ ; mean=3.419); data mining procedures ( $z=18.799$ ; mean=3.194); and review of preliminary reports ( $z=19.128$ ; mean=3.065). This means that the respondents agreed to the importance of investigators' understanding and practice of the procedures to effectively profile murder suspects. The results confirm findings of: Sterling (2004) who noted the importance of reviewing preliminary report as initiator of law enforcement action; Horswell (2004) who emphasized the importance of aspects of murder scene examination procedures such as response, scene protection, observation and pattern recognition procedures; Cory (2001) who studied aspects of murder act analysis procedures such as murder type identification procedures and the killing process examination procedure; among others.

Results found out that training, education and experience are important in determining investigators' effective application of profilation procedures. This supports the findings by Wells et al (2000) who found out that training, education and experience of investigators help investigators to effectively apply procedures to profile suspects. The results show that respondents strongly agreed that training in investigations ( $z=18.259$ ; mean 3.710), knowledge of investigations ( $z=18.251$ ; mean 3.645), knowledge of procedures ( $z=20.142$ ; mean=4.065) and skills to manage complex investigations ( $z=16.529$ ; mean=3.226) are significant in determining effectiveness of murder investigations at profilation stage. These

results confirm the findings that experience, education and training play a big role in shaping investigators use of murder procedures (Fisher & Geiselman, 1992; Milne & Bull, 1999).

### **5.3.2 Correlation of Characteristics**

Results show very strong positive correlation between murder scene evaluation procedures and victim analysis procedures. The results compare with findings of Salfati, Horning, Sorochinski and Labuschagne (2015) who found relationship between victims and crime scene in the context of African serial murders. Amerini, et al (2015) also found similar results in a case study of scene manipulations. The results also show that investigator approach to information collection and obsession with follow-up investigations are very strongly positively correlated. These results confirm the findings of Davis and Leo (2016) who examined investigative errors and found correlation between approach and obsession with follow-ups.

Investigators' knowledge of investigations and training in investigations were found to have strong positive correlation. Husserl (2012) found a positive relationship between training knowledge of investigators. Alison (2013) also found similar findings with detective training, selection and practice. Investigator's religion and approach to information collection were also found to be strongly and positively correlated (Youngers & Rosin, 2005).

Strong positive correlation was found between data mining and analysis procedures and murder scene evaluation procedures; data mining and analysis procedures and victim analysis procedures; age and knowledge in investigations; and investigators' understanding of criminal law and keenness to details. Similar findings were obtained by Douglas and Burgess (1986) and Salfati (2013).

### **5.3.3 Constraints affecting effective investigation and profilation of murder cases**

The findings show that the challenges facing the implementation of murder profilation procedures were: Limited personnel, ethnic profiling, inexperienced investigators, lack of cooperation of concerned parties, ineffective communication, corruption, limited technology, failure to volunteer information, political interference, limited time, inadequate resources, insufficient reports by investigators and subsequent murder of witnesses. These results corroborate the findings of Lepard, et al (2015) who studied serial murders involving cases of missing persons.

### **5.4. Conclusions**

From the findings, it is concluded that murder procedures at profilation are important for effective profiling. There is significant relationship between investigators' understanding, knowledge and practice of profilation procedures and effectiveness of suspect profilation. The results found out that gender, deployment, marital status, training and experience had significant relationship with effectiveness of the procedures of murder profilation. It is also concluded that there is very strong positive correlation between murder scene evaluation procedures and victim analysis procedures; knowledge of investigations and investigators' training; investigators' age and knowledge of investigations; and religion and investigators' approach to information collection.

The research was limited to Kihiu Mwiri Farmers' Company and did not focus on other companies such as Mbo-i-Kamiti that also had similar serial killings. A comparative approach could have given better insights. Future studies should focus on more than one case and give comparison with other scenarios locally and internationally.

### **5.5. Recommendations**

The following recommendations were made for practice of murder profilation, policy and future research.

### **5.5.1 Recommendation for Practice**

- i. The DCI should improve investigations/forensic equipment and facilities to foster investigations. There should be better equipment to help in data mining, preliminary report preparation, modern scene and victim analysis tools; among others;
- ii. Efficiency and effectiveness of profilation of murder suspects should be improved through digitization process;
- iii. Work conditions should be improved to ensure that work pressures and limitations do not lead to problems in profilation of murder suspects;
- iv. Necessary training should be conducted to investigative officers on continuous basis to sharpen their skills and keep them up to date with new techniques and technologies; and to avoid biases.

### **5.5.2 Recommendations for Policy and Regulation**

- i. Regulations governing murder investigations should be updated to respond to current needs. It was recommended that Evidence Act Cap 80 Laws of Kenya be amended;
- ii. The policy of independence of the investigative arm of police should be exercised to avoid interference by influential persons and politicians;
- iii. There should proper budgetary policy to allow adequate funding of the investigative function of the police for effective murder profiling and investigations; and
- iv. There should be strategies, programs and policies to educate the public and create awareness about the need to give information by writing statements of what they know about murder cases.

### **5.5.3 Recommendations for Future Research**

- i. Future research should seek to examine how exactly the factors examined in this research influence effectiveness of murder profilation. This research examined the level of influence but did not go in-depth into how exactly the influence occurs;

- ii. The present research focused on Kihiu Mwiri murders. Perhaps a focus on more than one company such as Mbo-i-Kamiti and other comparable cases nationally and internationally for in-depth insights.



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## APPENDICES

### APPENDIX I: RESEARCH INSTRUMENTS

#### Questionnaire I: Kihiu Mwiri Respondents

#### PART A: SOCIO-DEMOGRAPHIC INFORMATION

Name (Optional) .....

Age ..... Gender (Tick  $\surd$  one) Male  Female

Your Position at the Company: (Tick  $\surd$  one)

Ordinary Shareholder  Official

Number of years you have been at the company: .....

#### PART B: QUESTIONNAIRE

1. To what extent do you agree that Kihiu Mwiri murders have been effectively investigated? (Tick  $\surd$  one)

5= Very strongly agree

4= Strongly Agree

3= Agree;

2= Disagree

1= Strongly disagree.

2. To what extent do you agree that there is conspiracy to cover up Kihiu Mwiri murders?

5= Very strongly agree

4= Strongly Agree

3= Agree;

2= Disagree

1= Strongly disagree.

3. In your opinion, to what extent do you agree that investigators of Kihiu Mwiri murders stick to murder procedures when profiling murder suspects?

5= Very strongly agree

4= Strongly Agree

3= Agree;

2= Disagree

1= Strongly disagree.

4. Kindly rate the usefulness investigators' understanding and practice of the following aspects of murder procedures in relation to Kihiu Mwiri murders.

	Aspect of murder procedures at profilation	Extremely Effective (5)	Very effective (4)	Effective (3)	Somewhat Effective (2)	Not Effective (1)
1.	Act of murder analysis procedures					
2.	Murder scene evaluation procedures					
3.	Victim analysis procedures					
4.	Data mining and analysis procedures					
5.	Review of preliminary reports procedures					

5. List some of the challenges that have been experienced in relation to Kihiu Mwiri murder investigations.

.....  
.....  
.....

6. List your recommends for the improvement of investigations aimed at identifying Kihui Mwiri murder perpetrators?

.....  
.....

THANK YOU.

**Questionnaire II: Police Respondents**

**PART A: SOCIO-DEMOGRAPHIC INFORMATION**

Name (Optional) .....

Age ..... Gender (Tick  $\surd$  one) Male  Female

Rank .....

Marital Status (Tick  $\surd$  one) Single  Married  Divorced  Separated

Religion (Tick  $\surd$  one) Christian  Muslim  Hindu  Others (specify)

Your family background Monogamous  Polygamous  Single Parent

Deployment Department/Section .....

Criminal investigation experience (in years).....

**PART B: QUESTIONNAIRE**

1. To what extent do you agree that Kihiu Mwiri murders have been effectively investigated? (Tick  $\surd$  one)

5= Very strongly agree

4= Strongly Agree

3= Agree;

2= Disagree

1= Strongly disagree.

2. To what extent do you agree that there is conspiracy to cover up Kihiu Mwiri murders?

5= Very strongly agree

4= Strongly Agree



3= Agree;

2= Disagree

1= Strongly disagree.

	Aspect of murder procedures at profilation	Extremely Effective (5)	Very effective (4)	Effective (3)	Somewhat Effective (2)	Not Effective (1)
1.	Act of murder analysis procedures					
2.	Murder scene evaluation procedures					
3.	Victim analysis procedures					
4.	Data mining and analysis procedures					
5.	Review of preliminary reports procedures					

3. Kindly rate the usefulness investigators' understanding and practice of the following aspects of murder procedures in relation to Kihiu Mwiri murders.

4. To what extent do you agree that the following investigator related factors have contributed to nature of murder investigation and profiling in relation to Kihiu Mwiri?

Kindly rate as:

5= very strongly agree;

4= Strongly agree;

3= Agree;

2= Disagree;

1= Strongly disagree.

Tick your choice of rating for each factor in the right hand column of the table below.

Group of factors	Factors	Tick one				
		1	2	3	4	5
Investigator biasness	Mental shortcuts					
	Excessive zeal and substantial attempt to incriminate					
	Means of information collection from crime victims					
	The superficial attention given to crimes by investigators					
	Investigator caught up in routine actions and procedures					
	Ways by which information is obtained by means of particular investigator actions					
	Investigations approach to information collection					
	Investigator obsession with doing follow-up investigations of crimes whose solutions are impossible to reach					
Police Organizational Characteristics	Separation of functions of investigators					
	Staffing and procedures					

	Investigative unit internal organizations and co-ordinations					
Training, skills and knowledge	Investigations training					
	Knowledge in investigations					
	Skills to manage complex investigations					
Personal Qualities of Investigators	Intelligent					
	Ability to reason					
	Keen to details					
	Ability to conduct inquiry					
Investigator Legal understanding	Investigator must understand the criminal law					
	Knowledge of investigations procedures					
Investigator Work Pressures	Organizational e.g. workload, interests					
	Political					
	Cognitive pressures					
Social factors	Gender					
	Age					
	Family background					
	Religion					
Work related factors	Deployment					
	Rank					
	Work assignments					
Work pressures	Organizational e.g. workload, interests					
	Political					
	Cognitive pressures					

5. A part from the factors in the table, list any other factors which in your opinion affect implementation of criminal investigation procedures in your area of duty.

.....  
.....

6. List the challenges that Kihiu Mwiri murder investigators have experienced during their investigations.
7. What measures would you recommend to improve the quality of investigation of Kihiu Mwiri murders?

.....

.....

THANK YOU.

## APPENDIX II: RESEARCH PERMIT REQUEST



**UNIVERSITY OF NAIROBI**  
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES  
FACULTY OF ARTS  
**DEPARTMENT OF PSYCHOLOGY**

Telegrams: Varsity Nairobi  
Telephone: 318262  
Fax: 3245566  
Telex 22095 varsity Ke Nairobi, Kenya

P.O. BOX 30197, 00100  
NAIROBI  
KENYA

12<sup>th</sup> May 2016

**From: Chair Department of Psychology**

**To: WHOEVER IT MAY CONCERN**

**RE: REQUEST FOR RESEARCH PERMIT**

This is to inform you that **Ms. Martinella Ashuka Leparmarai** of Registration Number **C50/72231/2014** is a postgraduate student studying for the degree of Master of Psychology (Forensic Psychology). The student would like to be given a research permit.

Please be kind to assist her if you do not mind.

**Dr. Luke Odiemo**  
Chair  
Department of Psychology

## APPENDIX III: RESEARCH AUTHORIZATION



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 3310571, 2219420  
Fax: +254-20-318245, 318249  
Email: dg@nacosti.go.ke  
Website: www.nacosti.go.ke  
when replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/16/87871/12239**

Date:  
**3<sup>rd</sup> August, 2016**

Martinella Ashuka Leparmarai  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Effectiveness of murder profilation procedures and successful profiling of suspects by National Police Service: Case of Kihiu Mwiri Farmers Company,*" I am pleased to inform you that you have been authorized to undertake research in **Murang'a and Nairobi Counties** for the period ending **2<sup>nd</sup> August, 2017.**

You are advised to report to **the County Commissioners and the County Directors of Education, Murang'a and Nairobi Counties** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
**BONIFACE WANYAMA**  
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner  
Murang'a County.

**COUNTY COMMISSIONER**  
**MURANG'A COUNTY**

The County Director of Education  
Murang'a County.

The County Commissioner  
Nairobi County.

**COUNTY COMMISSIONER**  
**NAIROBI COUNTY**  
P. O. Box 30124-00100, NBI  
TEL: 341000

National Commission for Science, Technology and Innovation is ISO 9001:2008 Certified





## APPENDIX IV: RESEARCH CLEARANCE PERMIT


**THIS IS TO CERTIFY THAT:** **Permit No : NACOSTI/P/16/87871/12239**  
**MS. MARTINELLA ASHUKA LEPARMARAI** **Date Of Issue : 3rd August,2016**  
**of UNIVERSITY OF NAIROBI, 20895-202** **Fee Received :Ksh 1000**  
**NAIROBI,has been permitted to conduct**  
**research in Muranga , Nairobi Counties**

**on the topic: EFFECTIVENESS OF**  
**MURDER PROFILATION PROCEDURES**  
**AND SUCCESSFUL PROFILING OF**  
**SUSPECTS BY NATIONAL POLICE**  
**SERVICE: CASE OF KIHU MWIRI**  
**FARMERS COMPANY**

**for the period ending:**  
**2nd August,2017**


  
**Applicant's Signature**


  
**Director General**  
**National Commission for Science, Technology and Innovation**



**CONDITIONS**

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.**
- 2. Government Officer will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice**

  
**REPUBLIC OF KENYA**

  
**NACOSTI**  
**National Commission for Science, Technology and Innovation**

**RESEACH CLEARANCE PERMIT**

**Serial No.A 10509**

**CONDITIONS: see back page**

**APPENDIX V: RESEARCH AUTHORIZATION FROM THE MINISTRY OF  
EDUCATION (MURANG'A COUNTY)**



MINISTRY OF EDUCATION  
STATE DEPARTMENT OF BASIC EDUCATION

Email: cdemuranga@gmail.com  
Telephone: 060 2030227  
When replying please quote

COUNTY DIRECTOR OF EDUCATION,  
P.O BOX 118 – 10200,  
MURANG'A.

Ref: MGA/CTY/GEN./64/VOL.II/139

DATE: 16<sup>th</sup> September, 2016

Martinella Ashuka Leparmarai,  
P.O. Box 28801-0100,  
**NAIROBI.**

**RE: RESEARCH AUTHORIZATION**

The County Education office is in receipt of your request and authority letter from the National Commission for Science, Technology and Innovation, reference no. NACOSTI/P/16/87871/12239 dated 3<sup>rd</sup> August, 2016 to carry research on "**Effectiveness of murder profilation procedures and successful profiling of suspects by National Police Service: Case of Kihiu Mwiri Farmers Company in Murang'a County.**"

Authority is granted to carry out research in **Murang'a County** - for a period ending **2<sup>nd</sup> August, 2017.**

L.K. KARUNTIMI  
COUNTY DIRECTOR OF EDUCATION  
**MURANG'A**

