

**FORENSIC EVIDENCE: A CRITICAL COMPONENT OF THE NIGERIA CRIMINAL
JUSTICE SYSTEM**

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**A LONG ESSAY WRITTEN AND SUBMITTED TO THE FACULTY OF LAW,
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CERTIFICATION

I, **AIZE ESE ISIBOR**, with Matriculation Number **LAW2002880**, hereby certify that apart from references to other persons' works which have been duly acknowledged, the entire work is a product of my research, and this project has neither in whole nor in part been presented for another degree elsewhere.

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APPROVAL

We certify that this project was written and completed by **AIZE ESE ISIBOR**, with Matriculation Number **LAW2002880** in partial fulfilment of the requirements for the award of a Bachelor of Laws (LL.B) degree.

ABSTRACT

The core of proof in criminal trials is that the accused must be proved to be the perpetrator of the crime beyond all reasonable doubt. In most cases, this is anchored on the evidence of an eye witness, however in the presence of none what becomes the fate of the victim. It appears that criminals have adopted a sophisticated scheme to commit crimes, it is therefore appropriate for our legal system to adopt a effective mechanism to ensure that crimes are proven and one way of attaining this is the use of Forensic. However the Nigerian legal system has remained redundant, primarily because criminal convictions are based on police reports, which sometimes lack credibility, as well as reliance on circumstantial evidence.

This approach is a major setback to an efficient criminal justice system. The use of forensic science has been effectually deployed by other jurisdictions in combating crimes, while it is still an evolving trend in Nigeria.

This study appraise the significance of forensic science in the Nigerian legal system with the aim of achieving a fair, just and robust criminal justice system that would strengthen the administration of justice in Nigeria. It also examine the relevancy and application of forensic evidence in Nigerian legal system.

This study will adopted the doctrinal approach of research relying on existing principles and works of great authors and its findings will establish the essence for proper utilization of forensic science in order to restore the dignity, dependability and efficiency of the criminal justice system in Nigeria.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background of the Study

Globally, science is expanding at an ever increasing rate and improving on all frontiers with virtually every field of study tapping into scientific development for great gains; the legal industry is certainly not left behind . Today in the pursuit of justice, the judicial system across various jurisdiction have harnessed the potency in forensic science to gather evidence to prove the guilt or otherwise of an accused person . In law, forensic science is invaluable in the pursuit of justice. This is because the proof of crimes is very delicate transaction having at its centre the innocence or guilt of an accused person . The law recognizes the importance of forensic evidence in prosecuting criminal cases. When scientific methods are rigorously used without bias or prejudice they can provide tangible evidence in uncovering and proving the crime.

Forensic science is a multidisciplinary subject use for probing crime scenes and gathering evidence to be used in the prosecution of offenders in a court of law. Forensic evidence refers to information gathered through scientific techniques such as blood analysis, DNA testing and ballistics that is used in legal proceedings . It is a science that is largely concerned with the proving of criminal offences. It begins at the crime scene and ends in the courtroom. According to Etin-Osa, the resolution of civil and criminal cases using scientific data and other available

evidence is the focus of forensic science . Forensic science is concerned with finding out what happened in the usually recent past. One basic idea upon which all forensic science is ultimately based is the Locard's Principle which simply states: Every contact leaves a trace . According to Dr. Erzinoolioglu in his book;

The burglar who touches a window pane with his bare hands leaves his fingerprint behind, the prowler who steps on the flower-bed leaves tracks and carries some soil away on his boots, the robbers who smashes a window carries minute fragments of glass on his clothes, the murderer may be contaminated by his victim's blood, the victim may retain in his hand some fibres from the murderer's clothes pulled out during the struggle.

Crime detection and investigation is the pivot of the criminal justice system . It is so important that where it is absent, tardy or shoddily executed, it may lead to several consequences including delay in the administration of justice, victimization of innocent citizens and provision of a leeway for guilty offenders to escape punishment in the absence of confessional statement. This engenders lack of faith in the criminal justice system and increased quest by citizens to shun justice mechanisms and resort to self help. Criminal prosecution has advanced from law enforcement agents questioning persons in the vicinity of a crime to using science to figure out what happened and who is potentially responsible. In order for a person to be found guilty of a crime, some sort of evidence needs to be shown or found that can prove their guilt. There are different kinds of evidence and forensic evidence is one of the most important varieties. In many cases, situations can involve the word of one person or group against the word of another and it can be difficult for any judge or jury to make a fair decision on which side to believe based purely on their words, this is where forensic evidence comes in to sort such difficulty. Crimes

especially heinous crimes are committed on a daily basis in Nigeria with majority of the perpetrators walking away scot free thinking of their next crime with confidence of never to be caught. It is most disturbing to know that the perpetrators leave clues at the crime scenes to enable the investigators trace them, yet they get away with their crimes . Unfortunately the ancient world lacked forensic practices which naturally made it easier and aided criminals to escape punishment. Saddening, while the world had moved forward in welcoming and embracing forensic in carrying out criminal investigations, the Nigeria Police Force still remains trapped in the ancient world, thus torture, forced confessions, blackmail of suspects continue to be the practice. In *Sogbanmu v COP* the West African Court of Appeal opined that the expression “Administration of Justice” is not limited to the hearing of cases whether civil or criminal in court but rather that it includes preliminary steps taken to the hearing of the cases. However the question has always been what are the preliminary steps applied in our criminal justice system because overtimes it has be seen that our legal system have never accorded forensic science as a resort. It is against this backdrop, that this work advocate for the proper utilization of forensic science in order to restore the dignity, dependability and efficiency of the criminal justice system in Nigeria with a view to reducing the incidence of human right abuses, extra-judicial killing of suspects, incarceration of innocent persons and the discharge of criminals.

1.2 Statement of Research Problem

In a country like Nigeria where criminal activities have been reported to be on the increase and the government seems helpless in part due to the sophistication in terms of how such crimes are perpetrated, the need for modern approach of criminal investigation continue to beckons . A body of reports by security experts has associated cases of unresolved crimes that dot the Nigerian criminal justice system to the absence of forensic approach, this forensic gap has rendered justice

quite prolonged and unproductive . The criminal justice system is championed with the responsibility for the administration of justice in any legal system . However it seems that the Nigeria legal system is not abreast with the technological advancement of crimes. The success of any system of criminal justice administration depends on the level of efficient performance of responsibility imposed by law on agencies involved in criminal justice delivery . Oftentimes, when crimes are reported to the police the first resort is to arrest innocent bystanders and eye witnesses. This is because we have become so familiar with the traditional methods of investigation by relying on confessional statement and eyewitness testimony which has overtime proven to not only being ineffective but also grossly inadequate for combating the emerging inventions violating the law. The end product of this traditional method is that, there is no form of scientific collection and evaluation of evidence from crime scene and victims of crime that almost conclusively point to the true perpetrator of the crimes, afterward the crime scene is contaminated and there continue to be a rise in criminal activity. These issues therefore constitute the problems which this study aims to address.

1.3. Research Questions

- a) What is the nature of forensic science?
- b) What is the relevance of the application of forensic science in the Nigerian criminal justice system?
- c) What is the status of forensic evidence in the Nigeria criminal justice system?
- d) What is the status of forensic evidence in other developed jurisdiction?
- e) What are the factors hindering the application of forensic science in Nigeria and what is the way forward?

1.4 Aim and Objectives of the Study

The aim of the study is to examine the relevance of forensic science on the dynamic of criminal investigation in Nigeria. The specific objectives of the work includes:

- a) To examine the nature of forensic science in crime investigation.
- b) To examine the relevance and uniqueness of forensic science as an investigative tools.
- c) To evaluate the status of forensic evidence in the Nigerian criminal justice system.
- d) To evaluate the status of forensic evidence in foreign jurisdiction.
- e) To examine the factors militating against the use of forensic science as a method of investigation of crimes within the Nigerian law enforcement agencies as well as the Nigeria Criminal Justice System.

1.5 Scope and Limitations of the Study

The study focuses specifically on the proper utilization of forensic science within the criminal justice system in Nigeria. It also investigate the extent to which forensic science has been utilized, identify the obstacles and the challenges faced and proposes recommendations for improvements. This study borders on the synergy between forensic science, criminal investigation and justice. It examines legal responses to investigation in Nigeria and the use of modern methods in the form of forensic science in the course of investigation, it compares this with what is obtainable in other jurisdiction. It further identifies some of the challenges associated with the use of forensic science in Nigeria.

Limitation: The limitations encountered in the course of research were in terms of accessibility to local texts on the subject, as the concept of forensic science is not only foreign to our legal system but also in the academic field, based on this factor an evaluation of success attain on the subject matter will be based on foreign jurisdiction

1.6 Significance of the Study

Forensic is regarded as one of the fundamentals of the criminal justice system. The need for the application of this science in criminal investigation arose because our society has been undergoing drastical societal changes at a very rapid pace . Over the years there has been an observable paradigm shift from the old mode of criminal investigation to a modern approach, criminal elements are also adept to sophisticated methods and as such there is an increasing need for forensics. It is vital owing to the fact that when scientific methods and approach are used there is not much possibility for any bias or injustice . Regardless of the severity of a criminal case, it has been proved that forensic continues to be a reliable workhorse for criminal investigation and the results of forensic investigation can make the difference between acquittal and conviction in the court of law .

No society is completely free or void from the menace of crimes but an effective legal system remains a robust combat weapon to curb these crimes. Based on the Locard's Principle: Every contact leaves a trace, thus forensic science help to link the trace back to the contact. The significance of this study with peculiarity to our legal system is to proffer a better approach toward investigation of crime with the end result of abating the number of wrongful detention, conviction and false confession. A strong functioning forensic science framework will not only

reduce the commission of crime but also enhance public confidence in the criminal justice system.

1.7 Research Methodology

This study will primarily employ the doctrinal methodology. This approach involves a systematic examination and analysis of existing legal material, statutes, case law and legal literature on the subject matter. References will also be made to articles, books and online publications in providing the contributions of several authors on the subject.

1.8 Chapter Overview

Chapter One give a brief background of the study of forensic science as an investigative tool, statement of the research problem, research questions alongside the aim and objectives of the study. The chapter also features scope and limitations of the study, significance of the study and the research methodology applied.

Chapter Two entails conceptual, theoretical framework and literature review of forensic science. It contains the definition of forensic, history and development of forensic science, branches of forensic science, the Nigerian criminal justice system and the component of the Nigeria criminal justice system.

Chapter Three focuses on the posture of forensic evidence in Nigeria, with reference to the Nigerian legislation and the response of the court. This chapter also features the significance of forensic science as an investigative tool.

Chapter Four undertakes a comparative analysis of forensic evidence in other developed jurisdictions in order to evaluate the success obtained in other jurisdictions. The chapter also

examines the fallibility of the eyewitness testimony and confessional statement, cold cases and cases of wrongful conviction resolved via forensic evidence and factors affecting the utilization of forensic evidence in the Nigerian legal system.

Chapter Five entails a summary of findings, recommendations and conclusion of the study

CHAPTER TWO

CONCEPTUAL, THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

In ancient times the search has been on for an infallible means, an irrefutable piece of evidence that would stigmatize the offender and enable him to be identified . The main investigation tools used to identify perpetrators have been the observation and interpretation of physical evidence. It was until the 19th century that science was rigorously applied to these tools.

Police traditionally devote considerable time and effort to searching for eyewitnesses to crimes as a lead to identifying a suspect . These efforts frequently bear little fruit and many criminal cases are filed pending further leads. Oftentimes there is a silent witness that can be a critical lead to identifying a suspect and linking him to the crime , forensic evidence carefully gathered and scientifically analyzed can be an important step leading to the arrest and conviction of a suspect. Equally important, such evidence can be unequivocal and can eliminate suspect who otherwise might be the focus of continuing investigative effort.

2.1 Definition of Terms

2.1.1 What is Forensic?

The word Forensic is derived from the latin adjective Forensis meaning “of or before the forum”. During the time of the Romans, a criminal charge meant presenting the case before a group of public individuals in the forum, both the accused of the crime and the accuser would give speeches based on their side of the story . The individual with the best argument and delivery would determine the outcome of the case, basically the person with the sharpest forensic skills would win . In modern use, the term Forensics in place of “Forensic Science” is now so closely associated with the scientific field. Forensic Science is the application of scientific methods and technique to matter under investigation by a court of law. In simplest term, any science used for the purpose of law is forensic science. Forensic science is the application of scientific knowledge and methodology for the resolution of legal questions and problems for individual and society .

2.1.2 History and Development of Forensic Science

In ancient times, the manner of death was naturally assumed by where and how the victim was found . For example, a man found in a body of water would naturally have drowned, while a body found lying broken and bloodied along the side of a road would have naturally fallen and possibly been dragged by a horse. The development in forensic science has not been uniform throughout the world . The concerns to establish methods for detecting crime and criminals has been in existence since ancient times, but at first they were isolated practices. They gradually developed into independent research methods. However there are some records that account for the operation of forensic science in the ancient times.

The first written account is attributed to the book of Xi Yuan Li (translated as *Washing Away of Wrongs*) written in China in 1248 by Song Ci (1186 – 1249) a director of justice, jail and supervision during the Song dynasty. Song Ci introduced regulations concerning autopsy reports to court on how to protect the evidence in the examination process; he devised methods for making antiseptic and for promoting the reappearance of hidden injuries to dead bodies and bones (using sunlight and vinegar under a red- oil umbrella), for calculating the time of death allowing for weather and insect activity, described how to wash and examine the dead to ascertain the reason for death. At that time the book had described methods for distinguishing between suicide and faked suicide. The book became the first form of literature to help determine the cause of death . In one of Song Ci's accounts the case of a person murdered with a sickle was solved by an investigator who instructed each suspect to bring his sickle to one location, he realized it was a sickle by testing various blades on an animal carcass and comparing the wounds, flies attracted by the smell of blood eventually gathered on a single sickle. In light of this, the owner of the sickle confessed to the murder. The book also described how to distinguish between a drowning (water in the lungs) and strangulation (broken neck cartilage) and described evidence from examining corpses to determine if a death was caused by murder, suicide or accident. Song Ci's was the bedrock of other discoveries which spread from century to recent date.

In 1813, Spaniard Matthieu Orfila, a chemistry teacher in Paris, published "*Traite de poisons or Toxicogies Generals*" The book is the first scientific study of how to detect poisons and this earned Orfila the title of "Father of Forensic Toxicology". The forensic scientist is also known for the numerous cases he solved through this approach, particularly the notorious Lafarge murder case. In this case, a french woman Madam Lafarge was accused of poisoning her husband with arsenic and was on trial. Chemical test conducted after the death were inconclusive

but during the trial Orfila had the body exhumed and found traces of arsenic in the man's organs . This grounded her conviction. In 1879, Frenchman Alphonse Bertillon began working on an elaborate system of measurement which includes length of right ear and breadth of head, his system was used widely to identify criminals .

The discovery that fingerprints were unique to each Individual and could provide identification of a particular individual urged the state of forensic crime investigation to the forefront in 1788 when Dr Nathaniel Grew published an illustrated anatomy book in which he claimed that "the arrangement of skin ridges is never duplicated in two persons" . Subsequently Henry Falls was curious whether or not fingerprint remained the same despite efforts made to erase such fingerprints. He experimented with volunteers, introducing pumice stone, sandpaper and even acids to determine if fingerprints would appear different after new skin growth, they didn't. Unfortunately, both men tried without success to get police forces around the world interested in such discoveries. It wasn't until later discoveries by Sir Francis Galton that police authorities around the world recognized fingerprint identification system.

Another milestone stone is the discovery of blood group in 1901, while researching blood cells, a University of Vienna Professor, Dr. Karl Landsteiner discovered that the cells fell into different groups . These groups are eventually labelled as type A, B, AB and O . In 1910, Albert Osborn published "Questioned Document" a classic in handwriting analysis. Osborn became the greatest handwriting expert of the early 20th Century . In 1915, Leon Lattes, a professor at the institute of forensic medicine in Turin, develops a method for pinpointing blood types from dried blood. With this technique, Lattes exonerated an accused murderer by testing bloodstains on his coat . In 1920s, using microscope, US Army Colonel Calvin Goddard perfected the technique for identifying markings left on bullets by the gun from which they were shot. In 1985, English

researcher Alec Jeffery discovers that each person has unique DNA . DNA in other words can be used like fingerprinting . Over the next 16years, the use of DNA test revolutionizes forensic medicine.

The purpose of the historical excursion is to show that forensic science is neither a fad nor a new thing. It has been around for hundreds of years. In essence, forensic as we have today is not an invention of our modern days but is deducible from development over the years, but the development of a nation have overtime determined the extent to which this knowledge is grasped.

2.1.3 Branches of Forensic Science

It is worth noting that forensics cuts across wide spectrum of disciplines, this is why there are many branches of forensic science. These branches plays a significant role both in criminal and civil law. Below are some of the various types of forensic science:

a. Forensic Anthropology

It is a field of physical anthropology that deal with skeletal remains, skeletonized bodies and bones , sometimes the crime are so brutal that it becomes quite difficult to identity the victims, here forensic anthropology comes into the picture. When the body of the deceased become unrecognizable due to mutilation, burning or natural degradation, forensic anthropology helps in their identification by face reconstruction. They examine the dead remains of humans and animals and give an estimattheir identification by face reconstruction. They examine the dead remains of humans and animals and give an estimated time of death.

b. Forensic Odontology/Dentistry

This branch of forensic science is concerned with the proper handling of examination and evaluation of dental evidence which will be presented in court as evidence . Forensic odontologist can derive evidence from teeth as to the age and the person whom the teeth belongs. Forensic Odontologist can also trace an offender using his bite marks left on the victim or the one the victim left on him or bite marks on object found on the crime scene.

c. Forensic Pathology

This is concerned with the study of the cause of the death. Forensic pathologist perform autopsies/post mortem examination to determine the cause of death . Their report usually contains an opinion about the process, injury or disease that directly results in series of event which led to the death of a person. They also report on the manner of death, the circumstances surrounding the cause of death.

d.. Forensic Entomology

This branch of forensic science is concerned with the application and study of insect and other arthropod biology to criminal matters Forensic entomologist are primarily engaged in death investigation. In death investigations, forensic entomology uses the study of development stages of insect to calculate how long a body has been exposed by identifying which insect the larva is when the body is found. They are also used to detect drugs and poisons, determine the location of an incident, find the presence and the time of the infliction of wounds.

e. Forensic Toxicology

It entails the study of how toxic chemicals affect humans, animals and any kind of poisonous substance involved in the crime mystery. Sometimes it becomes quite difficult whether the death is caused by overdose or it is a planned murder . In such cases, toxicology helps in analyzing the

cause of death by examining blood, urine, food and beverages that the deceased had before his demise.

f. Forensic Psychiatry

This area of study is used to determine the competence of an accused person to stand trial to facilitate adjudication process. A forensic psychiatrist would determine whether an accused person is actually insane and therefore incompetent to stand trial .

g. Forensic Archaeology

Forensic archaeologist are engaged by investigative agencies in locating evidence at a crime scene using the skills normally used on archaeological sites to uncover evidence from the past . They locate, excavate buried remains, buried items from a victim of the crime which may be of evidential value.

h. Forensic Ballistics

A forensic ballisticians can determine the specific weapon used to fire a bullet, the distance between the weapon and the target, the bullet impact. He can also determine whether a certain firearm or tool was used in the commission of a crime .

i. Forensic Psychology

A forensic psychologist is often engaged by the court to assess the state of mind of an accused person at the time he committed the offence in question . They also help in the training of police and providing law enforcement with criminal profiles.

j. Forensic Footwear Evidence

Footwear evidence is probably the most abundant form of evidence at a scene of crime . Forensic footwear expert identifies the make and model of the shoe which made an impression. He compares it with the suspects shoes or other footwear evidence in a database. Good examination of footwear impression can help link a specific piece of footwear to a footwear imprint.

k. Forensic DNA & Fingerprinting

Cases that involves unanimity of identity, testing the parentage, identifying the dead or missing, sexual assault, decomposed body and skeletal remains are solved using the DNA fingerprinted method . As no two people can share the same set of fingerprint, they are the most reliable evidence and thus are used in the investigation and identifying culprit. Apart from fingerprints, DNA profiling is another forensic technique that is used in criminal investigation. This is a technique employed by forensic scientist to identify individuals based on their respective DNA profile . The evidence that are used in DNA analysis are hair, skin, semen, urine, blood and saliva. In cases where the body is found burnt and it is not possible to get the skin, blood or saliva samples, in such cases the body remains can also be used.

2.1.3 The Nigerian Criminal Justice System

Crime and justice are important and difficult public policy in governance. In democracy, we struggle to strike a balance between maintaining public order and protecting individual freedom . The criminal justice system is a system of institutions and practice of government whose main focus is to mitigate and deter crime, uphold social control and sanction individuals that violate the set laws of a specific state with rehabilitation and criminal penalties . In 1967, the American

President Commission on Law Enforcement and Administration of Justice described the criminal justice system as an apparatus that the society uses to enforce the standards of conduct necessary to protect individuals and the community. Therefore, the Nigeria criminal justice system is the network of government agencies, institutions and processes established to prevent, investigate, prosecute and punish crimes while ensuring justice, fairness and protection of human rights as mandated by the Constitution of the Federal Republic of Nigeria and the Administration of Criminal Justice Act 2015. The Administration of Criminal Justice Act 2015 provides the framework for the establishment and operation of the Nigeria criminal justice system. This criminal justice system have set goals which among others are: doing justice, controlling crime and preventing crime . To achieve these goals of criminal justice, certain kind of organization have been formed. These organizations are regarded as the component of the Nigeria criminal justice system. These are: The Police, The Court and The Corrections. These organization are examined below:

a. The Nigerian Police

The police present the entry point into the criminal justice system either through reports from the public or on its own investigation and surveillance . The role of preserving law and maintaining peace and order which is one of the major function of government is majorly carried out by police officers in their roles of detecting and preventing crimes . Even though it is everyone's business to maintain peace, the focal point lies on the police force. The police department is the first body that any offender comes into contact with. The Nigeria Police force is established under Section 3 of the Police Act . Section 4 of the Act provide among others that the police shall be employed for the preservation of law and order, the protection of life and property and the enforcement of all laws and regulations. This body initiates the administration of justice by

sieving allegations and complaints made by the public to determine if there is probable cause or reasonable suspicion before issuing a summons, conducting an arrest or transmitting the case for prosecution in the courts . When a crime is committed, it is the responsibility of the police to investigate and identify the suspected criminals and collect sufficient evidence necessary to prosecute the case . If an investigation is poorly carried out, it hampers the administration of criminal justice and negatively affect the whole system .

This investigative power of the police entails the discoveries of whether, who, how, where and when an offence was committed . This investigation can take the form of inquiring into a matter systematically or to make a suspect the subject of a criminal inquiry , this is where the application of the requisite forensic knowledge comes in. When a crime is committed, the scene of crime is rich with trace evidence that could be analysed to identify the author of the crime. Fingerprint found at a crime scene may link an offender to a crime, blood semen and other body fluids which are usually spilled after a violent crime may be analysed, individualized and therefore may be used to link a suspect to a crime. Moreover, hairs, fibres paint, glass, metal, humans bone fragment, gunshot residue, found at the scene of crime may also be used to link a suspect to a crime. However in Nigeria, police officers are poorly trained and basically equipped with flashlights, batons and other improvised devices . They rely on victims to provide them with writing materials and vehicles to visit crime scenes, finally on arrivals at such crime scene most young persons in the vicinity of the crime scene are arrested and tortured to extract confessional statement . This practice has overtime deterred many persons from giving information to the police because at the end they either become the suspect or they are reported to the suspect. Even object and materials obtained from crime scenes are dumped in police stations due to inability to adequately analyze them. When these materials are tendered in court

their utility as evidentiary tools are hampered by the limited exposure to forensic science, thus the efficacy of the investigation apparatus of the police is determined by its ability to extract confessional statement from suspects . It must be noted that alongside with the police there are also other enforcement agencies whose responsibility is to promote peace and order in the society. They include; The Economic and Financial Crime Commission (EFCC), The Independent Corrupt Practice and other related Offences Commission (ICPC),

b. The Court

After the conduct of investigation, the next stage in the administration of criminal justice is the prosecution and punishment of offenders. This process involves the participation of key agents like Judges, Prosecutors and Defence Lawyers.

Whenever a person is charged with a criminal offence, he shall unless the charge is withdrawn be entitled to fair hearing in public within a reasonable time by a Court or tribunal . In the administration of criminal justice in Nigeria, the fundamental principle is that an accused person is innocent until proven guilty by a competent court of law . This right places the burden of proving the guilt of the defendant on the prosecutor. The standard of proof required in criminal trials in Nigeria is proof beyond reasonable doubt and it is the duty of the prosecution to so prove , as such it is required to adduce evidence to rebut the statutory presumption of innocence in favour of the defendant. The prosecutor usually make use of the output from the law enforcement agencies which are thereafter processed through the process of trial. The findings of the police in the course of investigation are usually tendered as exhibits in this regard.

To ensure the success of the judicial process, ideally the agents of the judicial process must apply the principles of natural justice, equity and good conscience. They must ensure that the constitutional provisions which safeguards the fundamental rights of an accused person are upheld.

c. The Nigerian Correctional Service

The output of the trial process where found guilty becomes the responsibility of the Nigeria Correctional Service. The Nigerian Correctional Service is provided for by the Nigerian Correctional Service Act, 2019 . The Act repealed the Prison Act 2004 and established the Nigeria Correctional Service with two main faculties:

1. Custodial Service: To administer and supervises individuals or persons remanded in custody
2. Non-custodial service: To oversees non-custodial measures like community service, probation, parole and similar procedures.

The primary role of this body is to safeguard the inmate in custody, reform and rehabilitate offenders, facilitate their integration into society.

Applying forensic science to our criminal justice system will definitely set the criminal justice system at its peak. Forensic science provides various possibilities that can assist in trailing and arresting perpetrators of criminal acts by agents of the criminal justice system. The role of forensic science is changing from an auxiliary role to the playmaker in many categories of criminal investigation, providing rapid, unbiased and reliable information on crime and suspects .Nigeria is facing several security challenges, the country is challenged by widespread

violence, criminality and insurgency. Nte laments that every time crimes are committed, Nigerians are told that the authority, notably the President or Governor has ordered the police to fish out the perpetrator, but to the hopes of citizens, such statements lead to a lot of waiting and expectation among victims and relations . This calls for the need for a systematic analysis and evidence-based investigation by the law enforcement institutions alongside scientific experts to make optimum use of forensic science efforts in crime prevention, investigation and control in Nigeria. One interesting case, among others, that substantiate the importance of forensics in tracing murder cases, which took place in June 2018 is the ordeal of Laurean Onye and Yusuf Yahaya Abubakar and the effort of the Nigeria Police in identifying and arresting the murderer is narrated by the Vanguard newspaper ; News broke out of the gruesome murder of a 22-year-old former student of Federal Government College Owerri, Lauren Onye, who was found dead in the home of her boyfriend, Navy Lieutenant Yusuf Yahaya Abubakar, on Friday May 4 2018, at the Nigeria Navy Barracks in Borokiri area of Port-Harcourt, Rivers State. Many suspected her boyfriend was behind the murder, but they had no inkling he was equally a victim. Two days after she was killed, some naval officers forced their way into her boyfriend's apartment after they received information from one of Onye's friends, known as Joy, that she had been killed by her boyfriend and that her corpse was lying in his apartment. Joy alerted the naval authorities in Rivers State that she received a text message from Onye's boyfriend, Abubakar, who also asked her not to call him back, revealing that he killed Onye during an argument over their relationship. Vanguard further gathered that a team of IRT operatives were deployed to Borokiri in Port Harcourt, Rivers State; they visited the scene, conducted interviews around Abubakar's neighbourhood. The operatives also visited his bank they discovered that in spite of Joy's story that Abubakar was leaving the country and his phone lines switched off, someone was still

withdrawing money from his account. It was further discovered that some of the withdrawals took place in Lagos while a larger part of it took place in Benin, Edo State. The operatives also found out that Abubakar wasn't the person making the withdrawals, rather the photograph of the person caught by the cameras at the ATM machines in Lagos and Benin had striking resemblance with Abubakar's former houseboy, Thaddaeus Jaja, who was seen by neighbours around Abubakar's apartment few days before the murder was discovered. Three weeks later, one of the informants spotted him in Borokiri and he was arrested. During interrogations, he confessed killing Abubakar and his girlfriend because he was angry with him for not paying him the money Abubakar owed him. He also burnt Abubakar's corpse in a bush to prevent anyone from linking him to the crime. He told us that he was the person who wrote and sent the text message to Joy while he went to Lagos to withdraw the money from Abubakar's account because he wanted to create an impression that Abubakar was on the run.

In this case despite the less application of forensic science, the police were able to achieve such result, imagine a scenerio where forensic science is effectively applied, as such would have led to a more speedy investigation through hidden evidence left on the crime scene by the perpetrator. Therefore the relevance of forensic science is one which cannot be undermined in our criminal justice system.

2.2 Theoretical Framework of Forensic Science

Forensic science is grounded in several key theories and principles that guide its application in criminal investigations and legal proceedings. This theoretical Framework basically entails

principles or concepts that guide the application of scientific methods and technique in the analysis and interpretation of evidence. They are:

a. Theory of Exchange (Locard's Principle): This principle was stated by french scientist Edmond Locard (a pioneer in Criminology and Forensic Science). According to Locard, when two objects come into contact with each other, there is exchange of certain particles in between them no matter how minor the exchange are : Every contact leaves a traces. For example, in hit and run cases, the blood of the victims is transferred in that part of the vehicle which hits the victims and the skin and clothes may be found on the vehicle parts. These traces are very helpful for investigation purposes as these traces are identified by the expert and linked to its original source, resulting in the decisive linkage of the criminal with the crime scene and the victim. This law forms the basis of scientific crime investigation.

These principles is validated in all cases where there is a contact such as fingerprints, tyre marks, foot marks, hair sample, pieces of clothing etc. DNA analysis is a straight application of this principle where any such items are under analysis which was believed to be held by the perpetrator.

b. Theory of Individuality: This is also known as the Principle of Uniqueness . According to this principle no objects in this universe are exactly the same and identical . Every object is unique in itself, anything and everything involved in a crime is unique. Most common example is the human fingerprints, they are unique, permanent and prove individuality of a person. Even twins born of the same mother have unique distinction that differentiate them. Law enforcement official therefore link the unique feature of a crime to a particular suspect. Fingerprints, foot prints, toolmark obtained from the crime scene are studied and analyzed on the Principle of Individuality.

c. Theory of Comparison: This theory involves comparing evidence found at a crime scene with known samples to determine if they share common characteristics. Forensic comparison techniques such as comparing bullet casings or shoe prints are used to link evidence to a suspect or crime scene.

d. Theory of Reliability: According to this principle, forensic evidence is reliable for the courts because they are based on science and whenever they are tested, the result is the same. For example, DNA examination done in any part of the country, the result will be the same.

e. Theory of Progressive Change: This theory posits that everything changes with the passage of time and nothing remains constant. This principle highlights the importance of prompt investigation and preservation of evidence at a crime scene, as evidence can be altered significantly over time, affecting the integrity and reliability of the forensic analysis. This theory ensures reliable results as the character of any object does not remain strictly permanent; it is always being modified under the impact of outward changes taking place in its surroundings.

2.3 Literature Review of Forensic Science as a Critical Component of our Legal System

Forensic science is a vast, fascinating field with numerous authors contributing to its development and understanding. Over time, different authors have given a glimpse of their perception of forensic science in the criminal justice system.

Val McDermid, known for her crime fiction novel *Forensic: What the bugs, burns, print, DNA and more tell us about crime*, posited that forensic scientists can unlock the mysteries of the past and help serve justice using the messages left by a corpse, a crime scene, or the faintest of human traces. Val McDermid said that the face of justice we know today has not always been judicious.

The notion that the criminal law should be based on evidence is a relatively recent one. What changed that was the growing understanding that the scene of a crime held all sorts of useful information and that branches of science were emerging which could read that information and present it in a courtroom . In the words of Pete Arnold (A crime scene specialist which was featured in his book) – The crime scene is a silent witness.

In the works of Stuart H James and Jon J Nordby , they view forensic science as the systematic application of scientific principles and methods to matters of law especially criminal investigations. It bridges natural sciences and the legal system, turning physical evidence into reliable court admissible information. They stress that it is not merely a collection of laboratory test, it is a practical, problem solving discipline that translate trace evidence into information useful for investigators, attorneys and courts.

In Richard Saferstein's work, he upheld that science and technology reduce uncertainty about particular facts thereby facilitating the decision making process. In the current legal system, success in the courtroom requires as much scientific acumen as it does legal knowledge. He further stated most lawyers and judges are scientifically unaware if not uninformed, they are unequipped and underprepared by training and experience to handle the complexities of scientific evidence.

Mc Ewen in 2010 found that forensic science process is utilized for criminal examination purposes for extricating the proof of wrongdoing, identifying the primary constituents of the wrongdoing, identifying the suspect, affirming the declaration of the guilty party and justifying the blameless. It incorporates creating legal data sets with the goal that criminal examination are done speeding up. Furthermore, various association like Computerized Unique Finger Impression ID framework (AFIS) Consolidated DNA Record Framework (CODIS) and Public

DNA File Framework (NDIS) have been set up with the goal that information base connected with wrongdoers and legal profiles are created to carry out criminological examination are at global and public levels.

Lastly Pragati Ghosh in 2018 submitted that forensic science is remembered for the Indian proof demonstration 1872 and viewed as a master proof. In the case of Pantangi Balaran Venkata Ganesh v. Province of Andhra Pradesh, the departed was shot and killed by the denounced and the co-blamed. The witness confirmed that the attacker was wounded during the firing and that the accuser was wearing a pink shirt at the time of the attack. Upon examination, the police recovered the pink shirt which was smudged with blood patches. The police accepted it as a piece of proof and sent it to the criminological lab for DNA testing to identify the guilty party. The accuser was found to be guilty based on the other evidence and the result of the DNA test that the police obtained.

Therefore forensic science remains a very vital key for unlocking deadlock cases. This was exemplified in the case of Kirk Noble Bloodsworth v State of Maryland. In 1984, a nine-year-old girl was found dead in a wooded area, having been sexually assaulted, strangled, and beaten with a rock. Bloodsworth was arrested based on an anonymous call telling police that he was seen with the victim that day and an identification made by a witness from a police sketch shown on television. The description of the perpetrator was a 6 feet, 5 inches tall white man with curly blond hair, a bushy mustache, skinny, and tan. Bloodsworth was six feet, had red hair, and was well over 200 pounds. At trial, five witnesses testified that they had seen Bloodsworth with the victim. However, two of these witnesses had not been able to identify Bloodsworth during a line-up but had seen him after the crime was committed on television. Though there was no physical evidence connecting him to the crime, in 1985 Kirk Noble Bloodsworth was convicted of the

murder and sexual assault of a nine-year-old girl and was subsequently sentenced to death. On appeal, Bloodsworth's conviction was overturned by the appellate court two years after his original conviction and he was retried and was then sentenced to two life terms as against the original death sentence. Later in the early 1990s, Bloodsworth learned about DNA testing and the opportunities it could provide to prove his innocence and subsequent exoneration. In 1992, the prosecution after much ado finally agreed to DNA testing for Bloodsworth's case. The victim's shorts and underwear, a stick found at the scene, and an autopsy slide were compared against DNA from the victim and Bloodsworth. The DNA lab determined that testing on the panties excluded Bloodsworth and replicate testing performed by the FBI yielded the same results. Upon this overwhelming evidence, Bloodsworth was exonerated and released from prison in June 1993 and pardoned in December 1993. He had spent almost nine years in prison, two of those years facing execution. Hence, one might say that medical examination plays a significant role in supporting analytical exercises by identifying the suspect and providing evidence of a crime. As a result, forensic science is a very useful branch of investigation that aids in case inspection by revealing the perpetrators and victims of crime as well as their methods.

Conclusion

It therefore flows from the above that for any criminal justice system to strive effectively, forensic science cannot be neglected or undermined. The concept of forensic science is not one that will fade away with time but it has come to stay with new discoveries being found everyday. The question that arises is how well has forensic evidence been deployed in the Nigerian legal system? The next chapter will review the position of forensic evidence in Nigeria.

CHAPTER THREE

FORENSIC EVIDENCE IN NIGERIA

3.0 Introduction

The use of Forensic evidence, a key component in forensic science in criminal justice system globally has transformed crime investigation. Forensic evidence plays a crucial role in the criminal justice system providing scientific means to support or challenge accusations, confirm facts and contribute to solving crimes . The use of forensic evidence in investigations and trials has steadily gained popularity as an effective and powerful tool for seeking truth and justice . The term “Forensic evidence” therefore encapsulates the quality of scientifically generated information as accepted proof of material facts before the court . Alternatively, forensic evidence can be holistically defined as the application of science within legal proceeding. However the ability of this information to influence the determination of the defendants guilt or innocence is premised on its conformity to the provisions of the evidentiary rules of court .

In this chapter, the aim is to review the position of the Nigerian legal system with respect to the use of forensic evidence and the significance of forensic evidence in any legal system. In the light of the above, it will be pertinent to explore the role of forensic evidence in the Nigeria criminal justice system, examining recent legislative development and the response of the court.

3.1 The Position of Nigerian Legislation.

According to S A Waliki and others in their work , they highlighted that forensic science has become the backbone of criminal investigation around the world in terms of supporting law enforcement agencies in the collection and analysis of evidence before its presentation in court. They noted that with this sophisticated technology, the accuracy of legal proceeding increases substantially reducing the burden of witness testimony on which the court has to rely but which sometimes end up being incorrect .

It is deeply concerning that despite the technological advancement of the modern era, Nigeria still lacks a comprehensive legislation regulating forensic evidence. This omission in the legal framework, particularly within the realm of criminal law, highlights a critical oversight. One fundamental fact that Nigerian legislators fail to understand is that law is organic, it develops with time and adapts to societal changes and needs. It expands its scopes to cover what was left uncovered and what was never covered in the first place, if any piece of legislation is to remain useful, it must as far as is reasonably practicable be responsive to the needs and challenges facing the society that it is designed to serve.

There is no particular law dedicated solely for the provision of the application of forensic evidence in the practice of law and criminal law. The law which have come closest to addressing forensic evidence is the Evidence Act. Even though, the Nigeria Evidence Act 2011 provides for the framework for the admission of evidence, its ambit does not comprehensively extend to the practice of forensic science or to the applicability of forensic evidence in Nigerian court. However certain provisions within the Act do facilitate the application of forensic evidence. The Evidence Act is the principal legislation governing the admissibility of evidence in a court of law in Nigeria. Generally, the opinion of a person regarding the existence or non-existence of a fact is irrelevant and inadmissible in court as provided by Section 67 of the Evidence Act. However forensic evidence particularly that offered from the exploitation of expert capabilities is very much received under the law as a different category, in the sense that the expert opinion of what an analyst thinks is the cause or probable cause of a crime is an exception. This is based on the fact that the Act provides that when;

The court has to form an opinion upon a point of foreign law, customary law or custom or science or artthe opinions of persons specially skilled in the above areas are admissible .

Notably, the persons that are so specially skilled in the aforementioned fields are called Experts . Additionally, the supreme court in *Omisore & Anor v. Aregdele Besola & ors* described an expert witness as one who has made the subject upon which he speaks a matter of particular study, practice or observation and he must have a particular and special knowledge of the subject. In the light of the above, some of the evidence derived from forensic science are not facts. This is especially where the nature of the evidence is not one that is perceived by any of the senses. There is a need for a forensic expert to be called by a party in order to aid the court form an opinion on the scientific nature of the evidence before it. This provision differentiates forensic evidence from general opinion evidence and affirms that it is admissible provided it comes from a qualified expert .

Apart from the Evidence Act, there are a few other legislation whose provision relate to the practice of forensic evidence in the Nigerian court system. One of these is the Nigerian Cybercrime Act of 2015. Part 3 of the Act, provides for cybercrime offences. It particularly made it clear that forensic evidence is a necessity. In Section 4(1)(d).of the Cybercrime Act, the Act establish and maintain a National Computer Forensic Laboratory and coordinate utilization of the facility by all law enforcement security and intelligence agencies. The explanation that can be given for this is that like every other offence information remains instrumental in proving and disproving the guilt or innocence of cybercrime perpetrators, given this reality, information forms part of the sum total of the evidence that is tendered before the court of law, the Cybercrime Act has make provision for such arrangement .

Another law that gives credence to the application of forensic evidence is the Administration of Criminal Justice Act 2015. The Act came to remove the traditional practice that required the extraction of confessional statement from suspects by law enforcement agencies and replace it with what we call the Judges rule. The implications of this is simply that the Nigeria enforcement agencies are by this law mandated to resort to forensic investigative mechanism to be able to trace, identify, apprehend and prosecute perpetrators of crimes in the Nigerian court system . This makes it crystal clear that traditional means of criminal investigation though still relevant is inadequate in its ability to investigate, apprehend and prosecute criminals. Hence, the Act resorts to the modern and most innovative mechanism called Forensic Science as the only adequate means . It is noteworthy to mention that the Supreme Court has given credence to the foregoing provision of the law in *Godwin Chukwuma v FRN* . The apex court in this case affirmed the conviction of the appellant based on the forensic evidence that was made available to the court by the forensic expert who tested the illegal substance adjudged to be cannabis sativa found in his possession.

Notably, Lagos State has enacted a forensic legislation known as the Lagos State DeoxyriboNucleic (DNA) and Forensic Centre Law (2022). The law established the Lagos State DNA and Forensic Centre to support criminal investigations, law enforcement and preservation of evidence for the judicial system. The Lagos State Assembly passed the bill establishing the centre in 2022 recognizing the importance of forensic evidence in criminal investigations and prosecutions. The Lagos State Government established the centre to enhance police investigations, facilitate speedy identification, conviction of perpetrators of crime and exoneration of innocent persons.

3.2 Response of the Nigerian Courts

The value ascribed to forensic evidence in criminal proceedings can be accessed from judicial precedents. In the Nigerian courts, forensic evidence has become one of the most essential tools for establishing a fact or proving a guilty person as well as exonerating an innocent person. Forensic evidence has also increased the precision and credibility of judicial outcomes through decreased reliance on circumstantial evidence and eye witness accounts which can both be fallible . In this regard, forensic evidence plays a crucial role in providing dispassionate and scientifically validated evidence to assist the judiciary in making fair and equitable judgment . A case that highlights the contextual importance of forensic DNA analysis and science in general to Nigeria's criminal justice system is the case of *Uchechi Orisa v The State* where the supreme court discharged and acquitted the appellant for failure of the prosecution to relate a bloodstain to the appellant. It was the position of the court that in this age of advanced technological knowhow, a DNA analysis could have easily solved the question as to whether the bloodstain was from the appellant body.

In *Queen v Michael Akpan* The appellant was accused of burglary through a broken louvre, there was a fingerprint impression and a person of experience and training compared it with the appellant fingerprints. He gave evidence of sixteen similarities and testified that he excluded the possibility of the impression on the louvre being that of any other person. The trial judge satisfied himself from visual examination of the exhibits put in by the witness, that the fingerprint on the louvre was identical with the fingerprints of the appellant taken by the Police and convicted him. On appeal, the court held that the conviction based solely on the similarity of the fingerprints was good.

In the case of *Kunle Shonubi v People of Lagos State* the facts of the case was that in January 2007, one Wilma Steen came back from shopping with her friend and found her daughter Miss Annuimeke Steen in her bath with tap running and the bath full of water. She raised an alarm which attracted a call for help of security men on ground. It was alleged that Kunle Shonubi murdered the deceased contrary to Section 319(1) of the Criminal Code of Lagos State . The police evidence on the gathering of scientific materials for the analysis stated that the cause of the death was strangulation with bruises seen Indicating violent struggle and use of a broadside band used on the neck. PW6(the expert witness) gave his credentials, he testified that he carried out preliminary test in Nigeria for some parts while he sent the second part to London including the accused shirt, CCTV and DNA of the deceased fingernail clippings because the equipments for the analysis were not available here in Nigeria, he stated that he used the analysis received to mismatch the one done in Nigeria to get the result and each time he did it same result was reached.

In *Chukwudi Ugwanyi v Federal Republic of Nigeria* , the appellant in this case who was arrested on the 16th day of November 2000, was charged before a Federal High Court for the unlawful possession of 26 kilograms of Indian hemp also known as cannabis sativa, a narcotic drug similar to cocaine and heroin and thereby committed an offence contrary to and punishable under section 10H of the National Drug Law Enforcement Agency(Amendment) Act No. 15 of 1992. The appellant entered a no guilty plea, led evidence without calling any witness or tendering any document. Two witnesses who are both officers of the National Drug Law Enforcement Agency testified for the prosecution, salient among the exhibits tendered by the prosecution are twelve wrapped cellotaped bundles recovered from the appellant, certificate of testing analysis and request for scientific aid. The exhibit on the drug analysis report turned out

positive; indicative of the fact that the dried leaves in the appellant's luggage is Indian hemp. The appellant was thereafter sentenced to fifteen years imprisonment. Dissatisfied with the judgment, the appellant lodged an appeal in the Court of Appeal, Sokoto Division. The court had no difficulty in confirming the judgement of the trial court. The appellant further appealed to the Supreme court and the major ground of appeal was whether there was evidence before the trial court to prove beyond reasonable doubt that the substance allegedly recovered from the appellant was indeed Indian hemp also known as cannabis. The court before giving its judgement observed that the laboratory issues a report which can either be positive or negative. It is that report the prosecution acted on to prove its case against the suspect. The Supreme Court on Friday, the 23rd day of March 2012, held that both the trial court and the court of appeal were right in holding that the prosecution discharged the burden placed on them by law. The appeal was accordingly dismissed.

The concept of forensic evidence has also be adopted in resolving rape cases . In *Nseudoh v The State* the appellant was accused of raping the 7-years old girl on multiple occasions, the prosecution presented five witnesses including the victim who testified as PW1 and a medical doctor PW4 who confirmed the partial rupture of the victim's hymen. The trial court found the appellant guilty and sentenced him to 10 years imprisonment without an option of fine. The appellant appealed, he arguing that the prosecution failed to prove penetration, a crucial element of rape and that the trial court was biased in relying on the unsworn evidence of PW1. The court of appeal unanimously dismissed the appeal, holding that the prosecution had proved the case beyond reasonable doubt and that the trial court was right to rely on the evidence of PW1 which was corroborated by medical evidence. Also in *John v The State* the appellant John allegedly raped a 12-year old girl, the victim testified that John forcefully had sex with her and she bled

profusely, she reported the incident to her mother and the village head which led to the arrest of the accused. A medical report attested to the fact that there was a penetration of the girl's vagina, the prosecution presented evidence including the victim's testimony and the medical report and John was convicted. John appealed arguing that the prosecution failed to prove the case beyond reasonable doubt. The Court of appeal dismissed the appeal affirming the trial court's judgement. The court's decision was based on the credibility of the victim's testimony and the corroborating medical evidence.

However forensic evidence in Nigeria have not enjoyed a universal preference. In murder cases, although medical evidence is desirable in establishing the cause of death in a case of murder, however it is not essential or a sine qua non in a situation where there are facts sufficient enough to show the cause of death to the satisfaction of the court . Even when medical evidence is tendered to prove the cause of death in homicide cases, the value of such evidence is usually diminished because of a lack of proper identification of the corpse as that of the deceased person, thus the postmortem examination carried out by the expert and the finding presented offers no relevant evidence due to this lacuna in this causation link, this position was exemplified in the case of *The State v Omada Edobor* . In this case the appellant was charged with the murder of his sister Ivie Edobor on the same day that she accompanied the accused to the village, the accused argued that the deceased died of stomach ache, but PW2 told the police that the deceased was hail and hearty when she left with the accused. Subsequently the police received some information about the death of the deceased, as a result of this information, they succeeded in tracing the pit latrine where the deceased was buried. Later the body was exhumed and one Dr. Aideyan (PW1) performed a post mortem examination at the grave side. Consequent upon the doctor's report, the accused was arrested and charged with the murder of the deceased. The

doctor held that the death was due to fracture of skull and brain damage, the fracture could have been caused by a violent impact such as a blow or being hit by a stick. The trial court relied on this evidence to secure the conviction of the accused. On appeal, the conviction was set aside on the ground that nobody verified that the grave from which the body was exhumed was the one in which the deceased was buried, and also that the body on which the head injuries were found were those of the deceased. As nobody was called by the prosecution to prove these crucial facts, the injuries found on the head of the body examined by the doctor could not be traced to the deceased. As such omission had created without doubt a gap in the chain of circumstances surrounding the death of the deceased.

Another hindrance that have affected a proper utilisation of forensic evidence, is its subjection to technicalities. Like every other form of evidence, forensic evidence will be valid and admissible only if it fulfills the standard of the Evidence Act. In the sense that the admissibility of such evidence is contingent upon several criteria, reflecting the need for reliability, relevance and adherence to legal standards. Forensic evidence must be directly related to the issues at hand in a case to be considered admissible. The Nigeria legal system emphasizes the importance of relevance and materiality, ensuring that the evidence contributes meaningfully to establishing facts in the case. Forensic evidence is often rooted in scientific methods, it has to meet standards of reliability and scientific validity. As a result, courts in Nigeria are cautious about admitting evidence that lack scientific rigors emphasizing the need for methodologies and techniques that are widely accepted within the scientific community. It is of importance that the integrity of forensic evidence be maintained. Evidence are to be well protected and not tampered with during collection, analysis and storage. It is necessary to ascertain the authenticity of the evidence presented, also the role of expert witnesses regarding forensic evidence cannot be undermined as

the credibility and competence of the expert witness plays a pivotal role in the admissibility determination. It was in the light of the above that the counsel for the accused in the case of *Isah Adamu v The State* argued that the medical report being a public document issued by a government owned and managed general hospital, only its certified true copy and no other copy is admissible in evidence which must comply with the conditions of certification. While adherence to stringent criteria is essential, judges should however weigh the probative value of the evidence against potential prejudicial effects, ensuring a fair and just trial because judicial proceedings is a multifaceted process that demands a careful balance between scientific validity, legal standards and the overall pursuit of justice .

3.3 Significance/Relevance of Forensic Evidence in Criminal Justice System

The significance of the use of forensic evidence in the administration of criminal justice system cannot be over-emphasized, this is because without the use of forensic evidence the courts will fail in connecting criminals to their crimes. Every country on the planet has had to wrestle with how best to deal with the darker side of humanity and forensic science remains critical to the efficiency and effectiveness of the criminal justice system. The significance of forensic evidence in criminal Investigations include:

a. Effective Criminal Investigation

The main contribution that forensic science makes to the criminal justice system is the generation of intelligence to assist investigation: the provisions of actual evidence to convict the guilty or

exculpate the innocent represents a very significant parts of it's role . This amounts to the eradication of crime generally or bringing crime to its barest minimum.

Police departments are often reasonably certain that a particular individual is responsible for a crime but may remain unable to establish guilt by legally admissible evidence . Forensic science bridges the gap between this reasonable certainty and the proof of such guilt . The knowledge of forensic science allows an investigative team to scout a crime scene for evidence. These materials are often compared to others found at other locations like the suspect's personal property or residence to find a link which proves culpability. Bridging the evidentiary gap is vital to a successful criminal prosecution because arriving at a crime scene without any shred of evidence or clues can be very frustrating . This is more so when the said police force is in an environment where there is pressure to perform and produce results. This is largely responsible for mass arrest, arrest by proxy and extraction of confessional statement from accused persons under duress .

b. Collection and Preservation of Evidence

Forensic experts ensure that evidence is managed to the best of their ability to prevent it from being contaminated, destroyed or used . Regular evidence testing involves thinking about the preservation and transportation of evidence from the scene of the crime to the forensics or laboratory and finally to the court . The effective collection and preservation of forensic evidence plays an important role in supporting the credibility and integrity of the criminal justice system.

c. Clarification of the Victim's and Perpetrators Identity

This is one of the attributes of forensic science. The gruesome nature of a crime or an accident may interfere with easy identification of the victim . In such cases, forensic science becomes

very useful in identifying the victims particularly through the use of DNA analysis. The perpetrators of crimes leave clues regarding their identity at a crime scene . These clues could come in the form of fingerprints, hair particles and blood splatter which are easily analysed with the aid of forensic science. The relevance of forensic evidence under this context was greatly appreciated in State v Smith the murder case of Genai Coleman – a forty year old teacher who was killed in a suburb of Atlanta (USA) in the summer of 2008. Genai Coleman had been waiting to pick up her teenage daughter at a transit station, when a man approached her, shot her in the chest and stole her car leaving her body behind in the station. Witnesses provided description of the man, a surveillance camera from a nearby gas station also captured a video of a man matching the description. When authorities later located the stolen car, they found a cigarette butt under the driver’s seat, authorities tested the saliva on the cigarettes stub for DNA, they compared the results to profiles of persons convicted of felonies in a DNA database, the sample matched man with a prior drug conviction, his name was Donald Smith. Surprisingly, Donald told them that the man in the video was his identical twin brother Ronald. Further fingerprints analysis was carried out on the twin brother and on the basis of this evidence, it was found that Ronald (the twin brother) was the culprit, he was arrested, charged and brought to trial.

d. Resolving Deadlock Cases

Hope has been regained through the application of forensic science to the criminal justice system . The outcomes of the court have improved overtime and thanks to the methods and technique developed in the field of forensic science. In the case of John Davis v. State of Mississippi the petitioner was convicted of rape and sentenced to life imprisonment by a jury in the Circuit Court of Lauderdale County, Mississippi. The rape occurred in the evening of December 2 1965, at the victim’s home in Meridian, Mississippi . The victim in this case

identified her ex-boyfriend as the man who put a pillow over her face and then violently raped her. The victim was positive that she had gotten a clear view of her attacker. The case looked straightforward for the prosecution because Davis had a history of abuse with the victim and his only defence was his mother's testimony that he had been at home sleeping at the time of the attack. Subsequently, the DNA test revealed that Davis was innocent. The actual perpetrator was someone who resembled Davis.

e. Certain crimes though committed in secret require corroboration to procure a conviction . The journey to acquire corroborative evidence can be quite onerous despite being equally vital as it may make a difference between an acquittal and a conviction. Forensic evidence suffices as the bridge to the gap and provide corroborative evidence in terms of semen analysis, DNA analysis of skin tissue found beneath the fingernails etc.

Conclusion

This chapter has examined the probative value of forensic evidence in Nigeria. However, it remains a fact that forensic evidence though appreciated, but it is yet to be taken advantage of by the Nigerian legal system; Specifically, the authenticity and accuracy of objective scientific evidence

CHAPTER FOUR

COMPARATIVE ANALYSIS OF FORENSIC IN OTHER JURISDICTION

4.0 Introduction

Although the interface between criminal investigation, justice and science is complex, it still offers one of the most formidable bulwark against false accusation and wrongful conviction. Having examined the present state of Nigeria as it relates to the enactment of forensic law and the position of their judicial system, it is important to take a comparative analysis of other countries as it pertains to their posture of forensic evidence. This is in order to show how far these other countries have gone to accept the important role that forensic science plays in criminal investigations and therefore the need to enact laws relating to forensic science in order to ensure effective administration of forensic science in our jurisdiction. This chapter finds amongst other things that countries that have an advanced system of forensic science in the administration of criminal justice also have a robust legal framework.

We shall examine specific jurisdiction namely the United Kingdom, the United States of America and Rwanda. The United Kingdom and the United States of America were selected because of the use of forensic science in their criminal justice system as well as the robust nature of their

forensic science legislations, Rwanda was selected because it is an African country with an history similar to Nigeria and has taken great developmental strides in relation to the application of forensic science and the legislation of forensic science in it's criminal justice system.

4.1 Forensic Evidence in Foreign Jurisdiction

4.1.1 Forensic Evidence in the United States of America

The United States of America(USA) is one of the leading countries as far as the use of forensic evidence in fighting criminality is concerned, the utility of forensic evidence in the criminal justice system is well appreciated in USA. In USA, there are over 400 forensic laboratories and one of the most famous is the Federal Bureau of Investigation (FBI) which processes evidence from FBI investigation and from violent crimes submitted by the U.S law enforcement agencies free of cost. At the state level, all states maintain a crime lab system, though there have been limited efforts at coordination and regional planning between states, also many country labs are independent of statewide system . In a census conducted by the Bureau of Justice Statistics (BJS) in 2020, it was found that 326 publicly funded forensic crime laboratories and multilabs system received more than 3.3 million request for service and requests for controlled substances analysis accounted for a third (3%) of all requests that crime lab received in 2020. Although the forensic laboratories in the US Is faced with it's own issues such as increasing complexity of evidence, greater demands put on labs, the increased use of scientific evidence in courts which leads to more scrutiny being placed upon labs and more demand for analyses of evidence in courts, these laboratories put in their best to be effective in resolving certain legal puzzle faced by parties to a proceedings, including aiding the adjudicator of a case to reach a conclusion in certain issues

before it. Furthermore, the US have invested in independent forensic laboratories in the federal, state and municipal levels. Some of these laboratories are separated from law enforcement agencies and this reduced the risk of bias.

The US also have provisions lending support to the use of forensic evidence, one of such is it's Federal Rules of Evidence (FRE) it contains elaborate provision on the use of forensic evidence. These can be found in Article VII tagged "Opinions and Expert Testimony" particularly Rule 702 clearly tend support to the use of forensic evidence in the United States. It is headed " Testimony by Expert Witnesses" and it provides thus:

A witness who is qualified as an expert by knowledge, skill, experience, training or education may testify in the form of an opinion or otherwise if:

- a. *The expert scientific, technical or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.*
- b. *The testimony is based on sufficient facts or data.*
- c. *The testimony is the product of reliable principles and methods and*
- d. *The expert has reliably applied the principles and methods to the facts of the case.*

This rule facilitate a liberal admissibility of forensic evidence. Prior to this time, during the 20th century as science advanced, the legal system attempted to develop a coherent test for the admissibility of scientific evidence. The first notable development occurred in 1922 with the issuance of the landmark decision in *Fyre v United States* . The *Fyre* case involves a murder trial in which the defendant sought to demonstrate his innocence through the admission of a lie detector test that measures systolic blood pressure. The court rejected the evidence. The *Fyre* decision held that the detector test was unreliable because it has not gained general acceptance in

the relevant scientific community. For many years, the Frye test was cited in both civil and criminal cases but it was applied most frequently in criminal cases, the general acceptance test was the dominant standard for determining the admissibility of novel scientific evidence at trial. Subsequently in 1975 the Federal Rules of Evidence were promulgated to guide criminal and civil litigation in federal courts. In place of the Frye's requirement of general scientific acceptance, mere assistance to the trier of fact appeared to be "the touchstone of admissibility under Rule 702" .

In 1993, in *Daubert v Merrell Dow Pharmaceutical Inc* . the supreme court finally clarified that Rule 702, not Frye controlled the admission of expert testimony in the Federal courts. *Daubert* was a civil case brought by two minor children and their parents alleging that the children's serious birth defects had been caused by their mother prenatal ingestion of Bendectin, a prescription drug marketed by the defendant pharmaceutical company. In support of a motion for summary judgement, the drug company submitted an affidavit from a qualified expert who stated that he had revised all the literature on Bendectin and human birth defect and had found no study showing Bendectin to be a human teratogen (or an agent that can cause malformation of an embryo or fetus). The plaintiffs countered with experts of their own, each of whom concluded that Bendectin could cause birth defects. Their conclusion were based on animal studies that found a link between Bendectin and malformations. The district court held that the expert testimony proffered by the plaintiffs was inadmissible because their scientific evidence was not sufficiently established to have general acceptance in the field to which it belonged. The court of appeal, citing Frye test affirmed the judgement of the district court declaring that expert opinion based on a methodology that diverges significantly from the procedures accepted by recognized

authorities in the field cannot be shown to be generally accepted as a reliable technique. The supreme court reversed the judgment, holding that the trial court had applied the wrong standard in assessing the expert testimony proffered by the plaintiffs. In construing and applying Rule 702, the Daubert court ruled that a trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant but reliable. The court rejected the Fyre test, noting that the drafting history of Rule 702 made no mention of Fyre and a rigid general acceptance requirement would be at odds with the liberal thrust of the Federal Rules and their general approach of relaxing the traditional barriers of opinion testimony.

4.1.2 Forensic Evidence in United Kingdom

The United Kingdom is the world's leading country as far as the use of forensic evidence in fighting criminality is concerned. It has a lot of statutes that contains elaborate provisions on the use of forensic evidence, these includes; The Police and Criminal Evidence Act 1984, Criminal Justice and Public Order Act 1994, Criminal Evidence (amendment) Act 1997, Criminal Justice Act 2003 and Serious Organized Crime and Police Act 2005, they all work jointly to ensure that forensic evidence yield the desired result. On the admissibility of expert evidence, Section 30 of the Criminal Justice Act 1988 makes it very clear that expert evidence is admissible.

The UK dedication to the application of forensic evidence is seen in the enactment of the Forensic Regulator Act 2021 and the Forensic Regulator Code 2023. In. 2007, the Forensic Science Regulator (FSR) was established and tasked with ensuring the reliability of forensic science in the criminal justice system in England and Wales. To give the regulator a legal backing the Forensic Science Regulator (FSR) Act 2021 was enacted. The Act sets out the regulator's

statutory powers along with the regulator's duty to prepare and publish a code of practice about the carrying on of forensic science activities in England and Wales. Apparently, the FSR Act 2021 gave the forensic science regulator statutory powers to set and enforce quality standards in forensic science.

The Act empowers the regulator to investigate any person whom he reasonably believes to carry on activities that has substantial risk of adversely affecting any investigation or impeding or prejudicing the course of justice in any proceedings . The code introduced under the Act enhances and formalized the regulatory framework that was already in place before the Act became law in England and Wales. It requires each forensic unit to operate an effective Quality Management System (QMS) and to achieve and maintain accreditation to a suitable international standard and include compliance with this code in the schedule of accreditation . It is imperative to point out that despite the efforts put in place by the parliament in England and Wales, the FSR Act 2021 and the FSR Code 2023 Code are not comprehensive law regulating the use of forensic evidence in court, instead they form part of a broader ecosystem of laws, regulations and judicial precedents that collectively govern forensic evidence, while the codes does not cover all forensic science activities, it makes providing for a significant number and it is also subject to review over time .

4.1.3 Forensic Evidence in Rwanda

Rwanda's advancement in forensic science began with the establishment of the Rwanda Forensic Laboratory (RFL) in 2016, which was later renamed the Rwanda Forensic Institute (RFI) as an independent entity under the Ministry of justice . The institute is equipped with cutting edge

technology and staffed by professional skilled in various forensic disciplines. RFI was established to meet the evolving needs for fair justice administration in Rwanda. Recognizing the importance of a state of the art laboratory and specialized forensic scientists, the government of Rwanda invested significantly in forensic science from 2011 onward, in 2016 it became the Rwanda Forensic Laboratory (RFL) and then the Rwanda Forensic Institute (RFI) .

Prior to this time, in cases like disputed paternity, Rwanda had to collect samples and send it to Germany which took about a year and was costly. Now Rwanda is rendering DNA testing and forensic services to more than 10 African countries marking a shift from importing such services to becoming regional hub. RFI now serves not only Rwanda but also countries such as South Sudan, Nigeria and Seychelles under partnership agreements. Rwanda specialists travel to these nations and the samples gotten are then analysed in Kigali .

The Country's leadership in forensic science is further emphasized by hosting the African Forensic Science Academy (AFSA) the first formally registered forensic science academy in Africa, established in December 2022, AFSA represent forensic professionals across the continent . The Rwanda Forensic Institute has announced that it has processed and submitted 50,000 forensic reports in the past three years, underscoring the increasing demand for forensic services in the Country and beyond. Dr. Charles Karangwa, the Director General of RFI revealed this during an interview on Rwanda Broadcasting Agency (RBA) "Waramutse Rwanda" talk show on Monday September 23, 2024 . He emphasized the pivotal role RFI has played in Rwanda's justice system. RFI reputation for delivering reliable forensic service has attracted attention from others African nations. Dr. Karangwa noted that Rwanda's ministry of justice has received 12 formal requests from various African countries including Botswana, Nigeria, Cameroon, Congo Brazzaville and Guinea Conakry seeking RFI's expertise. "One of the things

that pleases us is the increasing willingness of individuals – lawyers, judges and others in the legal field to seek forensic evidence for their cases” he added.

He also mentioned the ongoing efforts to introduce a legislation that will mandate the use of technology- based evidence in court proceedings. Dr. Karangwa shared another example of RFI’s impact on the justice system, involving a tragic case where a man killed his own child. The forensic evidence collected by RFI play a key role in securing justice for the victim .

4.2 The Fallibility of Eyewitness Testimony and Confessional Statement

The continuous clamor for the utilization of forensic evidence is premised on the fact that eye witness testimony and confessional statement are insufficient for proper administration of the criminal justice system. There is no gainsaying the fact that forensic evidence provided a better opinion compared to the traditional eyewitness testimonies and confessions which are seldom falsified . It is unbelievable that with the advancement of technologies for forensics in crime investigation, the Nigerian Police Force to a great extent still relies on traditional investigative techniques for criminal investigation. Nigeria security personnel are largely dependent on eye witness testimonies or confessions and in most cases, a combination of the two is considered a systematic and exhaustive investigation . These two major investigative tools are characterized by defect which have negatively affect our criminal justice system over the years.

Eyewitness testimony is based on human discernment which is malleable to erroneous identification . It has been revealed that inaccurate eyewitness testimonies have constituted one of the main causes of wrongful conviction in the courtroom. As per the data provided by “The Innocence Project “More than 356 people have been exonerated by DNA testing who were

wrongly convicted in USA alone. It is estimated that, out of all these cases, more than 72% were due to eyewitness misidentification . In one of the notable cases, an innocent person (named Ronald Cotton) served 10 years in prison due to an eyewitness testimony provided by the victim, Jennifer Thompson. Also the Nigeria Supreme Court gave judicial cognition to this point in the case of *People of Lagos State v Umaru* where it quoted and relied on Kingmill Moor J thus:

‘It is necessary that in all cases where the judgement depends substantially on the accuracy of an identification, that attention should be called in general terms to the fact that, in a number of instances, such identification has shown to be erroneous, thus the possibilities of mistake in the case before it and the necessity of caution. Nor do we think such warning should be limited to cases where the identification is that of only one witness. Experience has shown that errors can occur where two or more witnesses have made positive identification.

Also the duration of the criminal process is another factor that affects the accuracy of eyewitness testimony. This problem is prevalent in the Nigeria justice system where the wheel of justice grinds slowly. Most criminal matters got protracted in court for years due to factors such as administrative bottleneck and protracted court adjournment among other reasons . Where this is the case, the witnesses in the case may have died, relocated or due to human mental frailty may not accurately recall the crime incident when they are eventually called to testify. This would affect the lucidity and veracity of their testimony. In the worse case scenario, it could lead to a wrongful conviction if such evidence is relied upon.

While on the other hand of confessional statement, a confession is a statement recognizing all facts essential for the conviction of a crime . The court’s has often held in a plethora of cases that

a confessional statement is the most credible evidence to ground a conviction . The court place much reliance on such statement that it outweighs other evidence that could establish the innocent of the defendants. However the extraction of confessions statement based on the Nigeria Police tradition is a result of pressure exerted on suspect during interrogation, this has challenged the authenticity of such confessional statement, suspect admit culpability for an offence to escape police pressure and brutality. In Nigeria, it is not uncommon for police to use torture and ill-treatment on suspects. There are reported cases of police shooting suspects on the foot, beating and hanging them from the ceiling for long periods to extract information and confession . Others forms of torture include flogging suspects with whips, beating them with batons and machetes, issuing death threat, inserting sharp object into suspects genitals, inflicting burns on suspects with cigarette lights, giving them psychological and mental torture by starvation among other illegal and inhumane tactics . An Amnesty International report spanning ten years recorded over five hundred instances of Nigeria security forces employment of torture to extract confessional statement from suspects . The question then becomes with the surrounding circumstances what is the authenticity of such statement? In most cases suspect will just have to give in in order to escape such torture and this will result in wrong conviction. Furthermore, several studies of erroneous conviction in the UK and USA have shown that about twenty to thirty percent of cases appraised involved false confession and false confession when relied upon as evidence during criminal proceedings usually leads to the conviction of the innocent .

4.3. Cold Cases and Cases of Wrongful Conviction Resolved via Forensic Evidence

a. States v Charles On March 12, 1981, a 26-year-old white female nurse was walking along a road near Houma La. Looking for help after her car broke down when she was accosted and raped by a black man. He grabbed her by the neck and dragged her from the road to the side of some buildings. After the rape, she ran away and was picked up by a police officer, who took her to Terrebonne General Hospital and then went to look for the perpetrator. At the time, Clyde Charles, a black 27-year-old shrimp fisherman, was leaving a bar in Houma La., where he had been with his brother Marlo. The police officer spotted Clyde, whom he had seen hitchhiking just an hour before the rape and had ordered off the road. He picked up Clyde and brought him to the hospital where the victim identified him as her assailant. Clyde was tried by an all-white jury of 10 women and 2 men, the prosecution's evidence included the victim's identification and her testimony that the rapist called himself "Clyde." A criminalist testified that two Caucasian hairs on Clyde's shirt were microscopically similar (but not conclusively identical) to hair from the victim's head. The police officer testified that Clyde had been wearing a dark jogging jacket with white stripes when he saw him outside the bar, corroborating the victim's description of her assailant's dark jogging suit with stripes. The officer also testified that Clyde had been wearing a red cap and blue jacket tied around his neck when he saw him hitchhiking. A red baseball hat and blue jean jacket were found near the scene of the rape. On June 22, 1982, the jury found Clyde guilty of aggravated rape. He was sentenced to life in prison at Louisiana's State Penitentiary at Angola. Clyde appealed his case twice, in 1982 and 1987, and lost. Then in 1990, when he learned about DNA evidence, he and his sisters began writing letters requesting a test of the evidence in his case. For years, their requests were ignored, blocked, or denied by state and federal officials, however Clyde and his family kept writing. Eventually, the Innocence Project took his case. The state, under tremendous pressure from the Innocence Project and with media

attention from frontline, finally granted Clyde post-conviction DNA testing in May 1999. The results of the test eliminated him as the perpetrator of the crime, and he was released on December 17, 1999. Four months later, his brother Marlo was arrested after DNA tests implicated him in the rape of the nurse.

b. Brandon Moon v City of El Paso and others

A woman was sexual assaulted in her home and claimed that Moon was her attacker. A man with a stocking mask and a gun forced her into her bedroom where she was raped. After the attack, the victim drove to a local store where she asked an employee to call the police. She was subsequently taken to the hospital and examined. The victim's physician observed sperm on slides prepared from the vaginal washings. The day after the attack, the victim was shown a photographic array that included Moon's picture. She told the police that Moon looked like the perpetrator but that she could not be sure. Later that day, police obtained a warrant and arrested Moon. The next day, the victim viewed a line-up and identified Moon as the rapist. After trial by jury, Moon was convicted of rape and sentenced to seventy-five year imprisonment. Moon sat in prison for the next seventeen years teaching himself the law and the science of deoxyribonucleic acid (DNA) evidence because he knew he had to fight for his innocence. Moon continued to proclaim his innocence, but it was not until 2001 that Moon found new hope. That year, the El Paso Public Defender was appointed to represent Moon. With the help of his attorney, the court required additional DNA testing. The results excluded Moon as the culprit on all samples, the laboratory found two new male profiles, one located on the comforter where the assault took place and one located in the victim's bathroom, it was later discovered that the woman's ex-

husband was the culprit. In December 2004, Brandon Moon was exonerated and officially released from prison in 2005 after the DNA tests proved his innocence.

c. Earl Washington v Commonwealth of Virginia

Earl Washington, a mentally challenged black man, was convicted of rape and murder in 1982, Washington was sentenced to death and just days before his execution, he was exonerated because of DNA evidence. The parties agreed to DNA testing on the biological evidence. The DNA test revealed that the semen did not match Washington's DNA. But despite the new evidence, Washington was faced with a new challenge. Under Virginia law, a defendant only has twenty-one days after sentencing to present new evidence, with this new evidence presented just days before Washington's scheduled execution, Governor Wilder changed Washington's status to life imprisonment. Washington remained in prison for six more years until Governor Gilmore granted Washington a complete pardon for the capital murder conviction in 2000.

d. Operation Minstead

Delroy Grant was a serial rapist and burglar feared to have targeted more than 1,000 people aged between 68 and 89 in South London, Kent, and Surrey over two decades. Grant was dubbed the 'Night Stalker' by the media because he carried out his heinous crimes in the dead of the night – targeting women who lived alone. He often gained entry through open windows which he sometimes removed entirely. One of the reasons that Grant went undetected between 1992 and 2008 was because of his forensic awareness. He never left a fingerprint at the scene of a crime and covered a wide area, so the randomness of his crimes was difficult to predict. He would also

stalk his victims beforehand to get familiar with their movements and property. Grant was known as a charismatic man who cared for his disabled ex-wife so his societal profile wasn't one you might connect to such despicable crimes. But, he was finally caught in 2009, when DNA was collected from 10 of the crime scenes – mostly from pensioners who agreed to undergo medical examinations and he was sentenced to life in prison with a minimum of 27 years.

The case is notable for the long delay in justice and the role of DNA evidence in solving a cold case. The police missed a chance to catch Grant in 1999 when they mistakenly eliminated him from their list of suspects due to a clerical error. As a result, he was able to continue his attacks for another 10 years, during which he committed 146 more offences, including 23 sexual assaults.

e. The Rape and Murder of Marion Croft

Marion Crofts was a 14-year-old school girl who was raped and murdered in Aldershot, Hampshire, on 6th June 1981. She was cycling to a clarinet lesson when she was attacked by a man near a canal. Her body was found in the bushes nearby and her clarinet case was thrown into the water. The killer left traces of his DNA on her body and clothing, but the police couldn't identify him at the time. The case remained unsolved for 21 years until advances in DNA testing enabled the police to obtain a full DNA profile of the killer in 1999. Using the semen found on Marion's left sock and jeans, the police entered the profile into the national DNA database, but, unfortunately, there were no matches. However, in 2001, a former soldier named Tony Jasinskyj was arrested for assaulting his wife in Leicester. He was swabbed for DNA and his profile matched the one from Marion's murder, he had lied about his whereabouts on the day of the murder. He denied killing Marion and claimed his DNA had been planted at the crime scene. But, because of the presence of his DNA, he was convicted of rape and murder in 2002, and sentenced to life in prison.

4.4. Challenges of the Forensic Evidence in Nigeria

a. Lack of Comprehensive Legislation

A comprehensive legislation serves the purpose of addressing and regulating a particular area of concern or social need in a detailed, coherent and structured manner . This is what forensic evidence and forensic science generally lack in Nigeria, there is no comprehensive legislation regulating the application of forensic science and use of forensic evidence. This is the argument put forward by Sonja Bitzer and others in their work. They argue that it is a lucid challenge that a legal framework concerning the practice of forensic science vis-à-vis forensic evidence under the Nigerian legal system is lacking . Their submission is quite apt because the absence of a comprehensive legislation within our court system is adverse. More so this reveals the reluctant approach that is shown by the Nigerian law makers towards new things so as to take advantage of the innovations that science and technology is introducing to legal space. There is need for a comprehensive law that will attend to the peculiarity of operation of forensic evidence.

b. Lack of Forensic Laboratories

It is impossible to fruitfully discuss forensic evidence without talking about forensic laboratories, the hub from which these species of evidence are being produced . These are specialized facilities where scientific analysis are conducted on evidence related to criminal investigations and legal proceedings. These labs employ experts and utilize advanced techniques to examine physical, biological, chemical and digital evidence thereby aiding law enforcement, legal professionals and courts in adequately determine facts relevant to cases.Q

It is unfortunate to note that Nigeria lacks adequate working forensic laboratories. Despite efforts

made by extant laws which directly or indirectly make provisions for the use of forensic evidence in reaching the justice of a case, there is a limited number of forensic laboratories in Nigeria . Although efforts are also being made to establish new forensic laboratories such as that established in Lagos State and that recently established by the NDLEA in Abuja and Enugu along with the upgrade of the old NDLEA forensic laboratory in Lagos , there is still need for the establishment of more laboratories on the country. What is more? The few forensic laboratories currently in existence will be bombarded with the herculean task of analyzing a large amount of samples. This can be very tedious for the employees in such laboratories.

c. Unavailability of Adequate Technology The primary aim of scientific investigation is to transform suspicion into a reasonable level of certainty regarding either guilt or innocence . Until recently, Nigerian courts were largely dependent on non-scientific evidence due to lack of sufficient technological resources. The field of forensic science in Nigeria has not yet been fully integrated and often times neither the judge, the lawyer, nor even the police fully grasp the advancement and extensive promising potential of this science and the integration of new technologies, methodologies, modalities and research . This becomes an issue in the application of forensic science in crime investigation in Nigeria.

d. Lack of Skilled Forensic Professional

It is commendable that the government and the Ministry of Education have recently introduced forensic science as a course of study in some Nigerian universities. However this development has inevitably brought with it a set of challenges that must be addressed to ensure it's effective implementations . One key challenges is that there is need for a state of the art equipment as the course required a practical aspect to augment the theoretical aspect. However it is unfortunate that universities do not have the equipment to train their students in forensic science . The

implication of this therefore is that students can be admitted and later graduate yet void of the understanding of the intricacies and complexities of forensic science. They are largely taught the theoretical aspect without any practical experience , it suffices to state that forensic evidence is too delicate a subject to be taken lightly. Even currently the criminal justice system is also plagued by a dearth of forensic experts. This has adversely affected the development of forensic science in Nigeria.

e. Inadequate Training of Police Officers The Nigerian Police lack proper training and capacity development on how to forensically investigate murder cases . The process involved in the collection and processing of forensic evidence are very delicate and requires well trained officers at all stages. In most cases the first responding officers lack the requisite training on how to manage the crime scene to avoid contamination by the general public. Recognizing this fact, the Nigerian government and the Nigeria Police Force (NPF) have come up with several programmes aimed at enhancing forensic training and capacity development . These include the upgrades of the Nigerian Police Criminal Database to boost forensic investigation by the Inspector General of Police, emergency approval of the fund for the emergency procurement of digital tracking devices to combat criminality across the country by Nigeria President among others. Little or no result has been achieved as training results are not measured, even if they are applied, given the poor state of infrastructure and lack of appropriate equipment, such training will amount to nothing. Some of the reasons adduced for suboptimal performance of the Nigeria Police Force is corrupt practice which has eaten deep into the fabric of the institution for decades . Funds earmarked for training and capacity development are at times diverted for personal use. Police corruption is unfortunately a major hindrance to positive contributions and change initiatives.

f. Lack of Training of Judicial Officers Second to forensic experts as far as forensic evidence is concern, is the judicial officers knowledge concerning this concept which cannot be ruled out. Judicial officers in this sense entails the judges who preside over the matter, the state counsel also known as the prosecutors and the defense lawyer. These personnel need proper training to enable them to adequately perform their duties. It is undisputable to state that the use, practice and applicability of forensic evidence in Nigerian court system will be much easier if all parties involved are trained to understand what forensic evidence is all about . Most judges from the Area/District court to the Supreme court, state counsels and defense counsels may not possess sufficient knowledge about forensic evidence . Similarly, some lawyers might have been shut up or blind to the mystery of science that they have not had the opportunity to rely on forensic evidence for any reasons. All they know is traditional evidence obtained by traditional means. Meanwhile we cannot also deny the fact that some might have actually use or involve in case where forensic evidence was relied but did not know what it was all about and so had to rely on forensic experts throughout the trial. The lack of trained judicial officers therefore pose as one of the major challenges to the application of forensic evidence in the Nigerian court today.

g Crime Scene Contamination When a crime scene is contaminated then the authenticity of the evidence collected becomes questionable. Unlike some other jurisdictions such as the USA, Canada etc where they have trained forensic experts who can manage contaminated crime scene to still get original and authentic evidence as if it were not contaminated . Most Nigerian enforcement and investigatory personnel know little or nothing about management of crime scene to avoid contamination by the public, for instance the murder case of Chief Ajibola Idowu Ige and Nigeria Former Minister of Justice and Attorney General would have been traced and the perpetrator brought to book but for the distortion and contamination of forensic evidence and the

scene of the crime, such vital information could not be found at the crime scene. Additionally forensic experts do not come to the crime scene on time and this poses a great challenge to the authenticity of the evidence later collected because it always creates room for crime scene contamination before their arrival .

h. Poor Funding by Government The reason why Nigeria still have a deplorable forensic system is the fact that the government have refused to be financially committed to such course and even the few laboratories are not adequately funded by the Government. In order for forensic science to attain it's expected result, funds are definitely a prerequisite and this the Nigeria government have failed to do. As a result, since inception Nigeria has not been sufficiently able to reap the many beneficial fruits on the tree of forensic evidence . The fact that even the few laboratories are not well equipped with the necessary equipment to function in accordance to world best practices reflects the government poor commitment to this project.

Conclusion It is obvious that the reason why the Nigeria criminal justice system have not granted proper recognition and utilization of forensic evidence is because we are not abreast with the relevancy of forensic evidence compared to other jurisdiction as seen above, while confessional statement and eyewitness testimony are also important tool however their accuracy is incomparable to forensic evidence.

CHAPTER 5

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Summary The study revealed that the Nigeria criminal justice system is saddled with the responsibility of prevention, investigation and persecution of crime. This system consist of the Nigerian Police, the Court and the Correctional system. In carrying out this responsibility this system employs several techniques. However due to the sophisticated nature of the crimes committed over time, there is a need for an effective technique that can tackle crime at its advanced stage and forensic science based on its credibility remains very crucial to crime prevention and investigation especially in this 21st century. However it is seen that not only is our legal system far from the utilization of this technique but our criminal justice system prioritize the traditional technique of eyewitness testimony and confessional statement which has proven to be fruitless and erroneous most times as against the accuracy of forensic evidence.

Furthermore, a perusal of Nigerian statutes and our judicial system revealed that forensic evidence have only gained slight recognition and is not adequately provided for in our jurisdiction. This is because priority has been placed on eyewitness testimony and confessional statements which has resulted in a redundant criminal justice system. The legislation in place contains a vaguely worded provisions that do not stipulate the rules of admissibility to regulate the highly technical aspect of forensic evidence. On the other hand, the analysis of confessional statement and eyewitness has resulted in wrongful conviction of the innocent and miscarriage of justice.

Comparatively, foreign jurisdictions such as United States of America, United Kingdom (England and Wales) and Rwanda reflected an enormous dedication to forensic evidence in their criminal justice system. These jurisdictions have robust legal system in forensic evidence and this has aided not only an effective administration of their criminal justice system but also exoneration of wrongful conviction via forensic evidence.

It was further discovered that Nigeria's failure to fully embrace forensic science is plagued by some challenges such as lack of comprehensive legislation, lack of forensic laboratories, unavailability of adequate technology, lack of skilled professionals, inadequate training of police officers, lack of trained judicial officers, crime scene contamination among others. These challenges are the obstacles that have robbed the Nigerian Legal system from benefiting from the fruit of forensic evidence. Therefore these challenges must be eradicated before an effective criminal justice system via forensic evidence can be established.

5.2 Recommendations

It is a concern that Nigeria has prosecuted crimes for over 65years with only sporadic use of forensic science as a primary tool. The Nigerian government, police and judicial system have had farless success creating an atmosphere that encourage forensic science to flourish . Unfortunately while the current criminal justice system is characterized by the traditional system of establishing evidence such as eyewitness testimony and confessions, criminals are getting more intelligent and scientific . It is therefore pertinent that the system embraces the new approach, which has proven to be reliable as shown in other developed jurisdictions such as the UK, USA, Canada,

Rwanda etc. The proper utilization of forensic evidence in Nigeria is however hinged on the following;

1. Enacting a comprehensive legislation to regulate the use of forensic evidence is crucial to guaranteeing the integrity and reliability of the process. From what was discussed earlier in this work that although Wales and England do not have an all comprehensive legislation guiding the use of forensic evidence in court, the FSR Act 2021 and the FSR Code 2023 make compliance with forensic quality standards mandatory. Nigeria can enact a similar legislation so as to ensure that forensic science used in investigation and trial meet rigorous and scientifically validated standards . Alternatively, the legislators can expand the already existing statute. The Evidence Act should be expanded to become more detailed and modern and put priority on the use of forensic evidence in view of the obvious lapses other forms of evidence possess .

2. The government especially at the federal and state levels should make it a priority to establish functional forensic laboratories with world class facilities and equipment to meet the global best practices in the effective utilization of forensic evidence in criminal investigation. It has been suggested that a minimum of one standard, functional forensic laboratory should be set up in every state in Nigeria . This will take a longer implementation period but should nonetheless be Nigeria's long term goal. An immediately feasible recommendation is that one state of the art forensic laboratory is established in each of the six geographical zones . Also forensic laboratories should be made independent from law enforcement and prosecutorial agencies in order to enhance fairness.

3. Adequate funding by government is key for forensic to yield the desired result. The subsistence of a forensic system among other things is dependent on how much funds are appropriated for such purpose. This is because funds will be needed for training of experts,

establishment of laboratories and purchase of adequate state of the art equipment. Therefore it is recommended that adequate provision be made by the government for the inclusion of such expenditure in the national budget or a specific fund is created for such purpose.

4. Forensic experts should not just be equipped with theoretical part of forensic science without a adequate practical knowledge of forensic. Forensic training should be conducted for the police and forensic science courses should be included as a mandatory requirement for recruitment into the Nigeria Police. The police should be adequately trained in crime scene evaluation and the use of forensic technique and technology in investigation. Police officers should be taught how to handle crime scene evidence to avoid contamination and ensure chain of custody is not compromised as this can affect the admissibility of the evidence in court . In a nutshell, criminal investigators should be trained in the use of forensic science in carrying out their functions.

5. Also judicial officers should be granted adequate training in forensic science. Judicial officers must not be left out in these training, Judge, prosecutors and defence lawyers must undergo trainings in forensic science to enable to carry out their function of justice administration effectively. Legal practitioners must recognize that forensic evidence is not solely for the prosecution to present; it can also be challenged. In cases where there is a possibility that the defendant did not commit the alleged crime and where the evidence does not link the defendant to the crime, defence lawyers should actively counter such forensic evidence sought to be tendered . For instance, in the American case of *Harrington v. Richter* , the Supreme court emphasized the importance of the defence attorney engaging an expert to support their case and refute the prosecution's expert testimony. This is very key because as much as forensic evidence is used to reach the conclusion that a crime was committed by a person, it can also be used to raise a doubt as to the commission of a crime by a defendant .

6. Nigeria should embark on collaborative effort with countries like the United States of America and UK to assist in it's forensic technology advancement and the tackling of crimes .

7. Just like England and Wales, an independent regulator can be empowered to make regulations regarding forensic activities in Nigeria. This is important because an independent regulator ensures standardized forensic practices, quality control, impartial oversight and public trust in forensic handling.

8. There should be a National Database that stores biological and fingerprint information of citizens accessible to those crime fighters agencies for easy comparison when a sample is collected at a crime scene.

9. There should be mass sensitisation and education of the public on how to conduct themselves and not interfere with crime scenes. They are to immediately inform the police and not in anyway contaminate a crime scene.

10. Inter-agency cooperation should be fostered to ensure forensic information sharing and utilization.

5.3 Conclusion

This work revealed the recent posture of the Nigeria legal system in response to forensic evidence as an investigative tool and obviously it is evident that there is need for a shift. This is

not to downplay the relevancy of traditional methods such as confessional statement and eye witness testimony but on a scale of balance the accuracy, effectiveness, competency of forensic is incomparable to none. This is not to say that these traditional methods should be discarded but in addition to these, forensic evidence should be included and set up with utmost priority.