



FORENSIC EVIDENCE AND CRIMINAL CONVICTION IN NIGERIA: ASSESSING THE ADEQUACY OF THE ADMISSIBILITY FRAMEWORK UNDER THE EVIDENCE ACT 2011

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Abstract

Forensic science offers the criminal justice system a means of establishing objective fact with scientific precision. In Nigeria, however, the legal framework governing the use of forensic evidence in criminal proceedings is not adequate. The Evidence Act 2011 (as amended) provides the legal pathway for the court to admit forensic evidence through sections 68 and 84, but these provisions were not designed to govern modern forensic science. This paper therefore examined the rules regulating the admissibility of forensic evidence, the institutional conditions in which that evidence is collected, and the relationship between forensic proof and judicial conviction in Nigeria. A doctrinal methodology was adopted and a comparative reference made to the legal frameworks of the United States and India. The argument of this paper is that the limited impact of forensic evidence on conviction in Nigeria is a product of legislative deficiency rather than scientific inadequacy. The findings revealed that the credential-based admissibility standard under section 68 of the Evidence Act (as amended), the absence of a statutory chain-of-custody regime and systemic institutional misalignment between forensic analysis and law enforcement have collectively undermined the probative potential of forensic evidence. It was concluded that meaningful reform requires a methodology-based admissibility standard, an independent national forensic institution and mandatory forensic investigation in serious criminal proceedings.

Keywords: *forensic evidence; admissibility; judicial conviction; Evidence Act; Nigeria*

INTRODUCTION

Forensic evidence is admissible under the Evidence Act 2011 (as amended).¹ It is used in the criminal justice system to determine whether a defendant has been proved guilty beyond reasonable doubt.² However, it has limited impact on conviction due to inconsistency of judicial approach to expert evidence, poor judicial infrastructure, failure in chain-of-custody compliance and technicality in admissibility rules. All these collectively weaken the probative value of forensic evidence at trial. Forensic science today has advanced into an instrument for establishing objective truth in criminal adjudication across modern legal systems. Despite that growth, the Nigerian criminal justice process has not developed the institutional capacity and legal clarity required to integrate these scientific tools

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¹ Evidence Act 2011 (as amended), ss 68 and 84.

² Ibid., s 135.



into investigative and trial practice. There is no specific legal framework that provides a separate tool that effectively deal with forensic evidence in criminal trials. As a result, courts often confront forensic evidence without clear standards for assessing its reliability, weight and scientific foundation. This uncertainty weakens the evidential value of forensic proof and limits its ability to guide judicial conviction in a consistent and principled manner. These concerns give rise to this paper.

NATURE OF FORENSIC SCIENCE AND FORENSIC EVIDENCE

forensic science refers to the application of scientific knowledge and methods to the investigation of facts in criminal proceedings.³ is an umbrella term that covers a diverse array of scientific and technical fields.⁴ Each of these fields addresses different types of physical evidence. DNA analysis identifies biological material by examining genetic sequences unique to individuals.⁵ Digital forensics recovers and analyses electronic data stored on devices or transmitted over networks.⁶ Ballistic examination analyses firearms, projectiles and gunshot residue to reconstruct the circumstances of a shooting.⁷ Toxicology examines the presence and concentration of substances such as poisons or controlled drugs in biological specimens.⁸ Fingerprint analysis compares friction ridge skin impressions to establish or exclude the presence of an individual at a crime scene.⁹ Each of these fields operates according to its own methodology, and the degree of scientific consensus underpinning each field varies considerably.

Forensic evidence refers to the material, findings or conclusions derived from the application of scientific methods to physical matter recovered in the course of a criminal investigation, which is tendered before a court for the purpose of establishing or disproving a fact in issue. It both the physical item itself and the expert analysis derived from it. A blood sample collected at a crime scene is a

³ P D Julian and others, 'What is the Value of Forensic Science? An Overview of the Effectiveness of Forensic Science in the Australian Criminal Justice System Project' [2011](43)(4) Australian Journal of Forensic Sciences;217-229.

⁴ D Krishnan and S K Joshi, 'Use and Importance of Forensic Science in Criminal Justice Administration' <<https://juniperpublishers.com/jfsci/JFSCI.MS.ID.556004.php>> accessed 1 March 2026.

⁵ R Reynolds and others, 'Analysis of Genetic Markers in Forensic DNA Samples using the Polymerase Chain Reaction' [1991](63)(1) Analytical Chemistry;2-15.

⁶ A Badman and A Forrest, 'What is digital forensics?' <<https://www.ibm.com/think/topics/digital-forensics>> accessed 1 March 2026.

⁷ I Rukhman and A Marzia, 'Advancements and Applications in Gunshot Identification and Forensic Ballistics' [2025](3)(1) Forensic Insights and Health Sciences Bulletin;12-16.

⁸ R J Dinis-Oliveira and others, 'Collection of Biological Samples in Forensic Toxicology' [2010](20)(7) Toxicology Mechanisms and Methods;363-414.

⁹ C J Lennard, 'Forensic Science: A Review of Current Issues and Associated Challenges' [2006](156) Forensic Science International; S2-S3.



physical exhibit. The DNA profile extracted from that sample, interpreted by a forensic scientist and presented in a report, constitutes forensic evidence in the full legal sense.¹⁰

HISTORY OF FORENSIC SCIENCE IN CRIMINAL CONVICTION

a. Early Development of Forensic Science in Criminal Justice

The application of scientific reasoning to the investigation of crime predates both the formal institutions of criminal justice and the discipline of forensic science as it is known today. The first recorded account of science deployed to resolve a criminal case appears in the 13th Century Chinese text written by Song Ci in 1248, which described the resolution of a murder through the systematic comparison of wounds on an animal carcass with the blade of a suspected instrument.¹¹ The text also provided guidance on distinguishing drowning from strangulation, illustrating that the forensic examination of human remains was already understood as a tool of criminal adjudication long before modern chemistry or biology made such examination more rigorous.

In eighteenth-century Europe, systematic forensic chemistry began to take shape. The Swedish chemist Carl Wilhelm Scheele devised a method for detecting arsenous oxide in corpses as early as 1776, and in 1836 the English chemist James Marsh used chemical processes to confirm arsenic poisoning as the cause of death in a murder trial. This provided the first recorded instance of forensic chemistry deployed as evidence in a court proceeding.¹² The physical trace evidence paradigm also took early form. In 1784, in England, John Toms was convicted for murder after a pistol was found in the victim's head wound was matched to a torn newspaper found in his pocket, demonstrating that physical material recovered at the crime scene could trace responsibility back to the suspect.¹³

The systematic institutionalisation of forensic science as a professional discipline with dedicated infrastructure began in the late 19th century. Edmond Locard established the first dedicated crime laboratory in Lyon, France, giving practical expression to his founding principle that every contact between persons or objects leaves a trace.¹⁴ In 1909, Rodolphe Archibald Reiss founded the Institute of Police Science at the University of Lausanne, the world's first school of forensic science, which became the institutional model for forensic education and professional training internationally.¹⁵ The

¹⁰P C Giannelli and others, 'Reference Guide on Forensic Identification Expertise National Academies of Sciences, Engineering, and Medicine' <<https://www.nationalacademies.org/read/13163/chapter/5>> accessed 9 March 2026.

¹¹ C O Idahosa, *The Use of Forensic Science as an Investigative Tool – Whither Nigeria* (Edo State Judiciary, Benin City, 2016) 3.

¹² *ibid* 4.

¹³ *ibid* 5.

¹⁴ Y Fatoki and D Anyasi, 'A Legal Prognosis of the Significance of Forensic Evidence in Criminal Investigation in Nigeria and South Africa' [2025](19)(1) AGORA International Journal of Juridical Sciences;19.

¹⁵ *ibid* 22.



20th century witnessed a series of transformative developments: the standardisation of fingerprint identification, the development of forensic pathology, the introduction of serology and blood grouping, and ultimately the discovery of DNA profiling by Alec Jeffreys of the University of Leicester in 1984. The conviction of Colin Pitchfork in 1988 as the first person identified and convicted using DNA evidence demonstrated the capacity of forensic science to resolve criminal cases with scientific certainty that no prior investigative technique had approached.

The global impact of the Pitchfork conviction was to transform the evidentiary expectations of criminal justice systems. Courts and legislatures were confronted with a question not of whether forensic science was reliable in principle but of whether their legal frameworks were adequate to receive, evaluate and deploy it in practice. The divergent answers given to that question by different jurisdictions explain much of the variation in the forensic evidence jurisprudence that this paper examines. The decisions of the American Supreme Court in *Frye v United States*¹⁶ in 1923 and subsequently *Daubert v Merrell Dow Pharmaceuticals Inc*¹⁷ in 1993 stand as the landmark judicial responses in the common law world. India and Nigeria, as colonial-era common law systems, inherited the older English approach and have since followed different trajectories in adapting it to the demands of modern forensic science.

b. Emergence and Growth of Forensic Practice in Nigeria

Nigeria's engagement with forensic science as an instrument of criminal investigation has been gradual. While forensic science has been part of the global criminal justice landscape for more than a century, Nigeria has not developed any sustained or concerted effort to incorporate forensic investigation into the standard working toolkit of police investigators.¹⁸ This is not because the relevant scientific knowledge has been unavailable, but because the institutional and legislative infrastructure required to deploy it has not been adequately built. The Nigeria Police Force's forensic laboratory was established during the colonial period and has not been substantially modernised since. Its facilities are more concentrated in major cities, leaving the majority of the country's criminal investigations without practical access to forensic laboratory services.¹⁹ The application of forensic science in murder investigations in Nigeria is suboptimal, with cold and unresolved cases accumulating as a direct consequence of the failure to collect, preserve and analyse physical evidence.²⁰ The police's traditional

¹⁶ 558 US 916,

¹⁷ 509 US 579 (1993).

¹⁸ O T Shittu and G A M Saat, 'Murder Investigation in Nigeria: Implication for Forensic Science Application' [2024](9)(6) *European Journal of Social Sciences Studies* 15, 17.

¹⁹ *ibid.*

²⁰ *Ibid.*



method of criminal investigation, comprising interrogation of eyewitnesses, reliance on circumstantial evidence and the extraction of confessions, has persisted long after it was shown to be unreliable.²¹

Other enforcement agencies have developed more specialised forensic capacities in response to the specific demands of their mandates. For instance, the EFCC has invested in digital forensic infrastructure, and its forensic accounting units have been deployed in high-profile financial crime prosecutions.²² Similarly, the NDLEA depends on drug analysis laboratories for every prosecution. These agency-specific capacities are, however, isolated from the general criminal investigation system and do not constitute a coherent national forensic infrastructure.²³ The establishment of the Chartered Institute of Forensic and Certified Fraud Investigators of Nigeria (CIFCFIN) by statute in 2022 represents a legislative acknowledgement of the need for professional governance of forensic practice.²⁴ The CIFCFIN Act creates a certification and regulatory framework for forensic professionals who are members of the Institute.²⁵ However, the Institute's authority extends only to its members, leaving the forensic analysts within the NPF, EFCC and NDLEA outside its regulatory reach unless they individually seek its certification.²⁶ The Lagos State DNA and Forensic Centre, established in 2017 and granted statutory recognition by the Lagos State House of Assembly in 2022, is the first dedicated state-level forensic institution in West Africa and provides a partial model for what a properly resourced forensic facility can achieve at the subnational level.²⁷ Its existence, however, reflects the absence of an equivalent federal institution rather than the presence of a comprehensive national system.

The historical picture that emerges is one of forensic science present in Nigeria's legal landscape but not integrated into its criminal justice processes. The law permits forensic evidence.²⁸ The institutions that should generate it are underfunded, undertrained and institutionally misaligned with the demands of reliable forensic analysis.²⁹ The courts that should evaluate it lack the scientific literacy to scrutinise

²¹I C Egenti, 'Forensic Evidence and Its Use in Nigerian Criminal Investigations' (SSRN Working Paper, 2022) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4273844> accessed 10 April 2026.

²² Business Journal NG, 'EFCC Invests in Digital Forensics to Tackle Emerging Crime Challenges' <<https://www.businessjournalng.com/efcc-invests-in-digital-forensics-to-tackle-emerging-crime-challenges/>> accessed 8 May 2026.

²³ C E Ndubuisi and S C Ndukwe, 'Forensic Evidence in Nigeria's Criminal Justice System: Legal Challenges, Institutional Deficiencies and the Imperative for Policy Reform' [2025](1)(1) International Journal of Criminal Justice Reform;1.

²⁴ Chartered Institute of Forensic and Certified Fraud Investigators of Nigeria (CIFCFIN) (Establishment) 2022, s 1.

²⁵ Ibid, s 2.

²⁶ O C Maxwell and others, 'Role of Forensic Evidence in Criminal Justice System in Nigeria' [2025](9)(7) International Journal of Research and Innovation in Social Science;2394.

²⁷ C E Ndubuisi and S C Ndukwe, 'Forensic Evidence in Nigeria's Criminal Justice System: Legal Challenges, Institutional Deficiencies and the Imperative for Policy Reform' [2025](1)(1) International Journal of Criminal Justice Reform;1-25.

²⁸ Evidence Act 2011 (as amended), ss 68 and 84.

²⁹ Ndubuisi and Ndukwe (n 17).



its methodological foundations. These features are the context within which the rules governing forensic evidence must be understood.³⁰

RULES GOVERNING THE ADMISSIBILITY OF FORENSIC EVIDENCE

a. Statutory Basis for Admissibility

The Evidence Act 2011 (as amended) is the primary legislative instrument that governs the admissibility of forensic evidence in Nigerian criminal proceedings. The Act does not define forensic science or use the term in any of its provisions. It also contains no specific provision for the admission of any specific forensic discipline. However, it does provide the statutory basis through which forensic findings are received or excluded at trial, through the general rules on expert evidence and computer-generated documents.³¹

Section 68(1) of the Evidence Act is the gateway provision for forensic expert evidence. It provides that when a court has to form an opinion upon a point of science or art, the opinions of persons specially skilled in such matters are admissible.³² Section 68(2) designates such persons as ‘experts’.³³ Section 67 establishes the general inadmissibility of opinion evidence and confines its reception to the exceptions in sections 68 to 76 of the Evidence Act 2011.³⁴ This simply means that forensic evidence enters the trial only through the exception in section 68 of the Evidence Act 2011, and only if the witness is shown to be specially skilled or experienced. The Evidence Act does not define special skill in the forensic context, nor does it prescribe any criterion for assessing whether a particular methodology is scientifically valid. Admissibility turns on the characterisation of the witness rather than the reliability of the method.

Digital forensic evidence is regulated separately by section 84 of the Evidence Act. Section 84(1) of the Evidence Act 2011 (as amended) provides that a statement in a document produced by a computer is admissible as evidence of any fact stated therein, subject to specified conditions.³⁵ Section 84(2) of the Evidence Act requires that the computer was in regular use during the relevant period, was operating properly at the relevant time, and that the information was supplied to it in the ordinary

³⁰ Idahosa (n 1).

³¹ K Adegbite, 'Law, Evidence Gathering and Forensic Odontology in Nigeria' (Forensic Practitioners' Compendium, 2014) 2.

³² Evidence Act 2011 (as amended), s 68(1).

³³ *ibid*, s 68(2).

³⁴ *ibid*, s 67.

³⁵ *ibid*, s 84(1).



course of activities.³⁶ The Supreme Court in *Kubor v Dickson*³⁷ affirmed that strict compliance with section 84 of the Evidence Act is necessary before electronic documents can be received in evidence, and section 84(4) of the Evidence Act requires a certificate from a responsible official confirming the conditions of production.³⁸ The framework of this section was designed for conventional business records rather than for the specialised outputs of digital forensic investigation, which may involve the recovery of deleted files, the analysis of metadata, the extraction of encrypted communications or the output of specialist forensic software applications. Applying the section 84 framework to these more complex forms of digital evidence raises questions that the Act does not resolve.

Sections 14 and 15 of the Evidence Act provide the court with a statutory discretion to exclude improperly obtained evidence.³⁹ Section 14 of the Act renders such evidence admissible unless the court is of the opinion that the desirability of admitting it is outweighed by the undesirability of admitting evidence obtained in the manner in which it was obtained. Section 15 of the Act specifies the factors the court shall consider, including the probative value of the evidence and the gravity of the impropriety. These provisions are directly relevant to forensic evidence obtained without lawful authority, or evidence whose chain of custody has been deliberately broken. However, courts have not consistently applied this discretion in forensic evidence cases, with the result that forensic material obtained in breach of constitutional rights may be admitted without adequate scrutiny.⁴⁰

The combined effect of sections 68 and 84 of the Evidence Act is that the law as it provides a statutory basis for forensic evidence, but through general provisions that were not designed with the demands of modern forensic science in mind. There is no gatekeeping standard equivalent to the *Daubert* framework. There is no requirement for methodological peer review, error rate assessment or general scientific acceptance. There are no minimum accreditation requirements for laboratories producing forensic findings that are to be tendered in evidence. The admission of forensic evidence in Nigeria remains a process governed by the credentials of the witness rather than by the scientific validity of the method.⁴¹

b. Relevance, Reliability and Judicial Discretion

³⁶ *ibid*, s 84(2)(a)-(d); *Daudu v. FRN* (2018) 10 NWLR (Pt. 1626) 169.

³⁷ (2013) 4 NWLR (Pt. 1345) 534.

³⁸ Evidence Act 2011 (as amended), s 84(4).

³⁹ *ibid*, ss 14 and 15.

⁴⁰ C M Oforata and others, 'Forensic Evidence and Legal Proof: Bridging the Gap Between Scientific Validity and Judicial Admissibility in Nigeria' [2025](7)(1) *International Review of Law and Jurisprudence* (IRLJ);60-68.

⁴¹ H A Bagudu, 'An Appraisal of the Requirement for the Admissibility of Expert Evidence in Nigeria' [2025](12)(4) *NAUJCPL* 178, 180.



Relevance is the foundational threshold for admissibility under the Evidence Act 2011. The court has held in a plethora of cases that admissibility should be based on relevance.⁴² Once a matter, be it a document or oral evidence, is relevant it is admissible.⁴³ Consequently, for evidence documentary or otherwise, to be admissible, it is sufficient that proper ground of its relevance is laid.⁴⁴ In *Avong v KRPC Ltd.*,⁴⁵ the Court of Appeal said that whether a piece of evidence is admissible or not is dependent on whether the fact to be established by the evidence is relevant to the facts in issue. It is only facts which are relevant to facts in issue or some other facts relevant to the fact in issue that can serve as the foundation for the admissibility of a piece of evidence. Thus, for a fact or piece of evidence to be admissible in evidence, it must be relevant.⁴⁶ A piece of forensic evidence must have a rational connection to a fact in issue before it can be received by the court. A DNA profile that cannot be associated with the crime scene, or a toxicological finding that bears no relation to the offence charged, fails the relevance threshold at the first stage.

Section 76 of the Evidence Act goes further, providing that where an expert's opinion is admissible, 'the grounds on which that opinion is based are also admissible.'⁴⁷ This provision requires the prosecution to place before the court not merely the expert's conclusion but also its methodological basis. A court that receives only conclusions, without the analytical process underpinning them, cannot meaningfully assess the probative weight of the evidence or subject it to adversarial challenge. But courts in Nigeria have repeatedly admitted forensic expert conclusions without scrutinising the methodological foundation on which they rest, in apparent contradiction of the standard that section 76 demands.⁴⁸

The courts' treatment of this issue is illustrated by the trajectory of decisions from *Kasa v State*⁴⁹ to the more recent cases. In *Kasa*, the Supreme Court held that where the only evidence against an accused is a bloodstained exhibit, it ought to be subjected to forensic examination before it can constitute corroborative evidence of guilt.⁵⁰ The court specifically stated that blood stain evidence would not sustain conviction unless examined in a forensic laboratory to determine whether it was human blood and of the same blood group as the deceased.⁵¹ This decision established a standard that is both

⁴² *Torti v. Ukpabi* (1984) 1 SCNLR 214; *Avong v. K.R.P.C. Ltd* (2002) 14 NWLR (Pt. 788) 508;

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ (2002) 14 NWLR (Pt. 788) 508.

⁴⁶ *Ibid.*

⁴⁷ *ibid*, s 76.

⁴⁸ *Bagudu* (n 31) 183.

⁴⁹ (1994) 5 NWLR (Pt. 344) 269.

⁵⁰ *Ibid.*

⁵¹ *ibid.*



analytically sound and consistent with the demands of section 76 of the Evidence Act 2011 (as amended). It requires that physical evidence be given scientific meaning before it can carry probative weight.

That standard was not, however, elevated into a binding rule of universal application. In *Nwachukwu v State*,⁵² the Supreme Court confirmed the admissibility of expert evidence on scientific matters outside the knowledge of the judge but did not prescribe a methodology standard for the reliability of the underlying science. *Egesimba v Onuzuruike*⁵³ and *Abiodun v FRN*⁵⁴ followed the same credential-based approach. These decisions accept the witness's qualifications as the operative criterion for admission, leaving the scientific validity of the methodology unaddressed. Ofomata and others describe this as a legal vacuum in which judges exercise wide discretion to admit or exclude forensic evidence without scientific criteria.⁵⁵ The consequence is that both rigorous and flawed forensic science may pass through the judicial filter, with conviction outcomes depending more on the persuasiveness of the expert witness than on the scientific integrity of the evidence.⁵⁶

c. Barriers to Admissibility

There are several barriers that obstruct the admission of forensic evidence in Nigerian courts. The first is the qualification requirement. Section 68 of the Evidence Act requires that the witness be 'specially skilled' but does not define what that means in the forensic context.⁵⁷ Courts have interpreted this broadly, accepting police officers employed by the investigating agency as qualified forensic experts in a number of cases. This creates an institutional alignment problem: an analyst whose employment places them within the prosecuting authority cannot be described as independent in any meaningful sense, yet the Evidence Act provides no mechanism for assessing or challenging that institutional alignment.

The second barrier relates to the admissibility of forensic reports tendered without their maker. The hearsay rule under the Evidence Act generally excludes out-of-court statements tendered to prove the truth of their contents. A forensic report whose maker is not produced for cross-examination is, on orthodox principles, inadmissible hearsay. Courts have on occasion admitted such reports through intermediary police officers, on the basis that the officer was himself an expert capable of speaking to the findings. This practice was accepted in *Blessing v FRN*⁵⁸, where a drug analysis report was

⁵²(2002) 12 NWLR (Pt. 782) 543 SC.

⁵³(2002) LPELR-1043 (SC).

⁵⁴(2018) LPELR-43838(SC).

⁵⁵Ofomata and others (n 30).

⁵⁶*ibid* 8.

⁵⁷Evidence Act 2011 (as amended), s 68(1).

⁵⁸ (2012) NGCA 6.

admitted through a police officer who was neither its author nor its maker. The decision has been criticised on the ground that an intermediary witness cannot speak to the laboratory conditions, the quality controls or the specific steps of the analysis recorded in the report. The practice therefore undermines the fair trial right to cross-examine the maker of forensic evidence that constitutes the scientific basis for conviction.⁵⁹

The third barrier is the absence of a statutory power to exclude unreliable forensic evidence. Unlike England and Wales, where section 78 of the Police and Criminal Evidence Act 1984 grants courts a clear statutory power to exclude evidence whose admission would be unfair, Nigeria has no equivalent provision. Sections 14 and 15 of the Evidence Act provide a discretion to exclude improperly obtained evidence, but this is a narrower ground than a general fairness exclusion. Courts confronted with forensic evidence that is formally admissible under section 68 but methodologically unreliable have no clear legal basis on which to exclude it, other than a general discretion whose exercise in forensic cases has been inconsistent.

EVALUATION OF FORENSIC TESTIMONY AS EXPERT EVIDENCE

a. Qualification and Competence of Expert Witnesses

The expert witness in a forensic evidence case occupies a dual function. The witness is both the carrier of specialised knowledge that the court needs and the communicator of scientific findings whose reliability the court must assess. These two functions impose distinct requirements on the witness and on the court's evaluation of the testimony. Under section 68 of the Evidence Act, the court's first task is to satisfy itself that the witness is specially skilled in the relevant field.⁶⁰ The courts have interpreted this broadly. In *Nwachukwu v State*,⁶¹ the Supreme Court described an expert as a person who, by reason of training or experience, is qualified to speak with authority on a subject requiring special knowledge. In *Azu v State*,⁶² the Supreme Court stated as follows:

To qualify as an expert under the Evidence Act, the witness must be specially skilled in the field in which he is giving evidence and whether or not a witness can be regarded as an expert is a question for the Judge to decide but the decision must be based on legal evidence before him. Thus, in determining whether a particular witness is an expert witness, the test is the knowledge and experience of the witness and whether the

⁵⁹ M E Ediru, 'Analysis and Identification of Suspected Substance in the Trial of Drug Offences in Nigeria: A Review of *Oyem v FRN*' [2022](4)(1) American Journal of Law;24.

⁶⁰ Evidence Act 2011, s 68.

⁶¹(2002) 12 NWLR (Pt. 782) 543 SC.

⁶² (1993) 6 NWLR (Pt. 299) 303.



evidence of such witness justifies the conclusion that the witness is specially skilled within the meaning of the Evidence Ordinance which means that the witness has special knowledge, training or experience in the matter in question.⁶³

The credentials-based approach that emerges from these decisions focuses entirely on the formal qualifications and experience of the witness. It does not require any assessment of whether the methodology the witness has applied in the specific case is scientifically valid, whether the laboratory producing the analysis met quality assurance standards or whether the specific findings were reached through reliable procedures. This limitation has direct consequences. Bagudu has argued that the failure of the Evidence Act to prescribe any standard for assessing the reliability of the methodology underlying expert opinion evidence creates a framework in which courts may admit forensic findings without understanding the scientific basis for them.⁶⁴ The court that accepted a forensic analyst's credentials as sufficient for admission of DNA evidence, without examining the methodology of extraction, amplification and statistical interpretation applied to the profile, has not in any meaningful sense evaluated the reliability of the evidence it has received. It has evaluated the witness, not the science.

In the United States, the Daubert framework directly addresses this gap.⁶⁵ Rule 702 of the Federal Rules of Evidence requires the proponent of expert evidence to demonstrate to the court that the testimony is based on sufficient facts and data, is the product of reliable principles and methods, and reflects a reliable application of those methods to the facts of the case.⁶⁶ This methodology-based standard requires the court to engage with the science, not merely with the scientist's curriculum vitae. The practical effect is that entire categories of forensic evidence, including certain hair comparison methodologies and some forms of bite mark analysis, have been excluded by American courts as insufficiently reliable under Rule 702. No equivalent category-level scrutiny has occurred in Nigeria, because the statutory framework does not require it.

The institutional alignment of forensic experts with the prosecution is an additional dimension of the problem. The Alliance Law Firm has noted that the mode of calling expert witnesses in Nigeria raises concerns about the objectivity of forensic testimony, because experts are invariably instructed by a party.⁶⁷ In the Nigerian Police Force, forensic analysts are police officers. Their institutional loyalty is

⁶³ Ibid, See also *Ajani v. Controller of Customs* 14 WACA 34.

⁶⁴ Bagudu (n 31) 184.

⁶⁵ 509 US 579 (1993).

⁶⁶ US Federal Rules of Evidence 1975 (as amended to 1 December 2024), Rule 702(a)-(d).

⁶⁷ Alliance Law Firm, 'The Treatment of Evidence of Expert Witnesses by Nigerian Courts: The Need to Review the Mode of Calling Expert Witnesses' <<https://alliancelawfirm.ng/the-treatment-of-evidence-of-expert-witnesses-by-nigerian-courts-the-need-to-review-the-mode-of-calling-expert-witnesses/>> accessed 8 May 2026.



to the force, which is the investigating and prosecuting agency. Rule 706 of the United States Federal Rules of Evidence addresses this by empowering courts to appoint independent experts who owe a duty to the court rather than to any party.⁶⁸ Nigeria has no equivalent provision. The absence of court-appointed forensic experts, combined with the credentials-only admissibility standard and the institutional alignment of police forensic analysts, creates conditions in which the adversarial challenge to forensic evidence is structurally disadvantaged.

b. Forensic Reports

A forensic report is the formal document recording the analyst's findings, methodology and conclusions. It is the primary means by which the results of laboratory analysis are placed before the court. Under the Evidence Act, a forensic report is not self-evidencing. The analyst must be called, must formally produce the report, must state the basis of the opinions recorded in it and must submit to cross-examination. The report supplements and structures the oral testimony; it does not replace it. Section 76 of the Act, which requires that the grounds of an expert opinion be placed before the court, reflects the understanding that a report without methodological explanation is of limited evidential value.⁶⁹ The cross-examination of the analyst is the adversarial mechanism through which the accuracy of the methodology and the integrity of the analysis can be tested. Where the analyst is not called, the court receives the conclusions of the report without the means to evaluate their scientific foundation.

The practice of tendering forensic reports through intermediary witnesses who are not their makers is a departure from this framework that courts have permitted in some cases. The decision in *Blessing v FRN*⁷⁰ is the most frequently cited example. The court accepted a drug analysis report tendered by a police officer who had not conducted the analysis and who could not speak to the conditions under which it was performed. According to Fatai, the probative weight of forensic evidence depends not merely on the accuracy of the analysis recorded in the report but on the quality of the oral evidence given about how that analysis was conducted.⁷¹ Where the analyst does not testify, neither condition can be properly satisfied.

The treatment of forensic reports by Nigerian courts reflects broader judicial inconsistency. At one extreme, courts have treated the conclusions in a forensic report as effectively conclusive, without engaging with the methodology. At the other, courts have adopted a minimalist approach, treating forensic evidence as merely corroborative and capable of being dispensed with where other evidence

⁶⁸ US Federal Rules of Evidence 1975 (as amended), Rule 706(a).

⁶⁹ Evidence Act 2011, s 76.

⁷⁰ (2012) LPELR- 9838 (CA)

⁷¹ T A Fatai, 'Admitting Forensic Evidence in Court' (Forensic Investigators' Society Nigeria, 2023) 4.



is sufficient. The decision of the Supreme Court in *Jua v State*⁷² illustrates the latter. The court held that where exhibits point unequivocally to the guilt of an accused, forensic evidence becomes unnecessary, affirming a conviction based on confessional statements and recovered items without requiring scientific corroboration. This reasoning directly contradicts the principle established in *Kasa v State*,⁷³ which required forensic analysis before physical evidence could serve as corroboration. The co-existence of these two contradictory standards in the same jurisdiction's jurisprudence reflects a systemic failure of legal development that leaves practitioners and courts without coherent guidance.

Ediru's analysis of *Oyem v FRN*⁷⁴ shows that this inconsistency has direct consequences for specific categories of case.⁷⁵ In drug offence prosecutions, the chemical identification of the substance as a controlled drug through laboratory analysis is a mandatory ingredient of the offence. Ediru argues that the Supreme Court's approach in *Oyem* reveals a confusion between formal compliance with the charge and rigorous proof of its ingredients, resulting in the affirmation of a conviction where the scientific identification of the substance was not adequately established through the forensic report process.⁷⁶ The case demonstrates that where forensic report evidence is not subjected to rigorous evaluation by the court, the conviction that follows may be based on proof that is formally sufficient but scientifically insecure.

INVESTIGATION AND TREATMENT OF FORENSIC EVIDENCE

a. Collection of Forensic Evidence

The probative value of forensic evidence is largely determined at the moment of collection. Evidence improperly collected, contaminated at the scene or handled by untrained personnel cannot be restored to reliability by any subsequent laboratory process. The collection stage is therefore critical. It requires that the crime scene be secured, its boundaries defined, access controlled, and evidence identified, documented, photographed and recovered in accordance with procedures that prevent contamination and preserve the material's integrity.

⁷² (2010) 4 NWLR (Pt. 1184) 217.

⁷³ (1994) 5 NWLR (Pt. 344) 269.

⁷⁴ (2019) LPELR-47407(SC).

⁷⁵ M E Ediru, 'Analysis and Identification of Suspected Substance in the Trial of Drug Offences in Nigeria: A Review of *Oyem v FRN*' [2022](4)(1) American Journal of Law;24-38.

⁷⁶ Ibid.



In Nigeria, the Nigeria Police Force is the first responder to crime and the agency responsible for crime scene management in the majority of criminal investigations.⁷⁷ The empirical evidence on police forensic practice at the collection stage is consistently troubling. Osugba and Agbeyi's study of the NPF found that although investigators reported using various forms of forensic evidence, significant challenges including poor training, inadequate funding and political interference limited the effectiveness of forensic investigation in practice.⁷⁸ The respondents in their study identified the absence of state-of-the-art forensic facilities and the paucity of trained personnel as the primary structural constraints. These findings are corroborated by Shittu and Saat's systematic review of studies on murder investigation in Nigeria, which found non-adherence to validated forensic procedures and reliance on confession-based approaches as persistent and systemic features of Nigerian police investigative culture.⁷⁹

Where investigators lack training in forensic evidence collection, crime scenes are not properly secured. Biological trace material is disturbed or destroyed before recovery. Physical evidence is handled without gloves, with no photographic record, placed in unsuitable containers or lost in transit. The consequence is that forensic evidence of potential probative value never reaches the laboratory. According to Egenti, this failure at the collection stage is one of the principal reasons forensic science remains underutilised in Nigeria despite its legal admissibility, arguing that the law already provides a basis for forensic proof but that weak police handling of crime scenes prevents that legal basis from being realised in practice.⁸⁰

The investigative culture of preference for confession compounds this structural problem. Maxwell and others have documented that Nigerian investigators continue to rely predominantly on confessional statements and eyewitness accounts, even though confessions are susceptible to challenge on grounds of coercion and eyewitness accounts are frequently unreliable.⁸¹ This cultural preference actively displaces forensic collection from its proper function as the primary evidentiary step in serious crime investigation. Where investigators view the confession as the objective of the investigation rather than one form of proof among several, the collection of physical trace evidence is treated as secondary and dispensable.⁸² The consequences are borne at trial, where the prosecution that has not

⁷⁷S Osugba and M Agbeyi, 'The Use of Forensic Evidence in Criminal Investigations: A Study of Nigeria Police Force' [2019](5)(2) International Journal of Humanities and Social Science Research;91.

⁷⁸ Ibid.

⁷⁹ O T Shittu and G A M Saat, 'Murder Investigation in Nigeria: Implication for Forensic Science Application' [2024](9)(6) European Journal of Social Sciences Studies;15.

⁸⁰ I C Egenti, 'Forensic Science and its Use in Nigerian Criminal Investigation' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4273844> accessed 10 May 2026.

⁸¹ O C Maxwell and others, 'Role of Forensic Evidence in Criminal Justice System in Nigeria' [2025](9)(7) International Journal of Research and Innovation in Social Science;2394.

⁸² Egenti (n 70).



collected forensic evidence cannot meet a chain-of-custody challenge, cannot corroborate a contested confession and cannot establish facts in issue with objective scientific proof.

b. Preservation of Forensic Evidence

The preservation of forensic evidence encompasses all steps taken after collection to prevent degradation, contamination or alteration before analysis. Biological samples degrade over time, particularly in tropical climates without refrigeration. Digital evidence may be overwritten if not properly acquired and isolated. Physical trace material may be disturbed or altered by environmental conditions or by the actions of persons with access to the storage facility. The quality of preservation determines whether the sample that reaches the laboratory is the same sample recovered at the scene and whether it retains the characteristics needed for reliable analysis.

The absence of adequate storage facilities in Nigeria's police forensic infrastructure is a documented problem. Samples, where collected at all, are frequently stored in conditions that accelerate degradation. Ndubuisi and Ndukwe identify inadequate storage infrastructure as a key institutional deficiency that undermines the reliability of forensic evidence produced in the Nigerian criminal justice system.⁸³ This problem is compounded by the length of the criminal justice process in Nigeria. Cases routinely take several years from arrest to trial.⁸⁴ During that period, biological evidence may degrade to unusability, and digital evidence may be compromised if the storage media are not properly maintained. The extended duration of proceedings therefore directly affects the reliability of the forensic evidence that survives to the point of hearing.

The Administration of Criminal Justice Act 2015 provides limited statutory assistance. Section 15(4) of the ACJA 2015 requires that confessional statements be recorded in writing and may be recorded electronically.⁸⁵ The ACJA 2015 contains no equivalent provision requiring that physical forensic material be collected or preserved according to defined protocols. In the absence of a statutory framework, the obligations imposed on investigators in relation to preservation are purely administrative and unenforceable in a way that affects admissibility. Courts therefore have no legal standard against which to assess whether preservation of a specific sample met the minimum requirements for reliability.⁸⁶

c. Chain of Custody

⁸³ C E Ndubuisi and S C Ndukwe, 'Forensic Evidence in Nigeria's Criminal Justice System: Legal Challenges, Institutional Deficiencies and the Imperative for Policy Reform' [2025](1)(1) International Journal of Criminal Justice Reform;1.

⁸⁴ Ibid.

⁸⁵ Administration of Criminal Justice Act 2015, s 15(4).

⁸⁶ Ndubuisi and Ndukwe (n 73) 14.



Chain of custody is the evidentiary record that traces the movement of a physical exhibit from its collection through every subsequent stage of handling until its presentation in court. Its legal purpose is to enable the court to be satisfied that the exhibit before it is the same item recovered at the crime scene and that its integrity has not been compromised by contamination, substitution or tampering. Nwabudo and Oyama describe chain of custody as the most critical procedural safeguard in forensic evidence management, because it is the sole mechanism through which the authenticity and continuity of physical evidence can be established.⁸⁷

In Nigeria, chain-of-custody failures are a recurring feature of forensic evidence cases. These failures manifest at each critical stage: physical evidence collected at the scene without proper labelling and documentation; evidence transported without tamper-evident packaging; samples handled by multiple personnel in the laboratory without recorded transfers; and material stored awaiting analysis without access controls.⁸⁸ Each gap in the custody record is a point at which the defence may impugn the authenticity of the evidence. Where the gap is serious, it may justify exclusion under sections 14 and 15 of the Evidence Act. Where it is treated as going only to weight, the court must determine what probative value to assign evidence whose integrity is uncertain. Fatoki and Anyasi have observed that the absence of a clear statutory standard for chain-of-custody documentation leaves courts without a principled basis for resolving these questions consistently.⁸⁹

The courts have treated chain-of-custody irregularities inconsistently. Some decisions have enforced the custody requirement strictly, requiring that every link in the chain be formally documented. Others have adopted a more permissive approach, treating gaps in custody documentation as going only to weight and admitting evidence that the prosecution could not fully account for. This judicial inconsistency reflects the absence of a statutory standard against which custody management can be measured.⁹⁰ Where the law provides no clear rule about the consequences of custody failure, courts exercise a discretion that is guided by no principled framework.

Another dimension of the chain-of-custody problem in Nigeria is the institutional structure of forensic analysis. Because the forensic laboratory functions are embedded within the NPF, there is no institutional separation between the investigative function and the analytical function. The same organisation that collects and preserves the evidence also analyses it. This overlap removes a critical check on the integrity of the custody chain. In jurisdictions where forensic laboratories are independent

⁸⁷ M I Nwabudo and O B Oyama, 'Forensic Evidence Management: Chain of Custody Process' [2025](9)(6) International Journal of Academic Accounting, Finance and Management Research;232.

⁸⁸ Ibid.

⁸⁹ Y Fatoki and D Anyasi, 'A Legal Prognosis of the Significance of Forensic Evidence in Criminal Investigation in Nigeria and South Africa' [2025](19)(1) AGORA International Journal of Juridical Sciences;19.

⁹⁰ Nwabudo and Oyama (n 77) 238.



of law enforcement, the transfer of evidence from police custody to laboratory custody is a formal custody handover requiring documentation and verification by both parties. In Nigeria, that transfer frequently occurs within the same institutional chain, without the external oversight that independence would provide.

Ofomata and others confirm that institutional bottlenecks within the Nigeria Police forensic unit, including deficiencies in custody documentation, expert qualification and cross-examination practices, are systematic rather than episodic.⁹¹ These systemic features mean that chain-of-custody failures are not random events attributable to individual officer negligence but structural features of a system that does not require, enable or reward proper forensic evidence management. Until the structural causes are addressed through independent accreditation, standardised protocols and enforceable statutory obligations, chain-of-custody compliance will remain a barrier to the reliable use of forensic evidence in Nigerian criminal proceedings.

FORENSIC SCIENCE AND PROOF BEYOND REASONABLE DOUBT

a. Using Forensic Evidence to Discharge the Burden of Proof

The burden of proof in Nigerian criminal proceedings rests with the prosecution, which must establish the guilt of the accused to the standard of beyond reasonable doubt.⁹² This allocation is derived from the principle enunciated in *Woolmington v DPP*⁹³ and expressed in section 135(1) of the Evidence Act 2011. The constitutional dimension of this standard is secured by section 36(5) of the CFRN 1999 (as amended), which guarantees the presumption of innocence.⁹⁴ The Supreme Court in *Mbachu v State*⁹⁵ confirmed that proof beyond reasonable doubt is satisfied when the prosecution has adduced sufficient credible and admissible evidence to establish all the ingredients of the offence charged. In *Oteki v A-G Bendel State*,⁹⁶ the court clarified that beyond reasonable doubt is not proof beyond all shadow of doubt: the doubt that must be eliminated is a reasonable doubt, not an artificial one.

Forensic evidence, when reliable and properly admitted, is capable of satisfying the standard of proof beyond reasonable doubt with a degree of scientific precision that testimonial evidence rarely achieves. A DNA match derived from a biological sample recovered at the crime scene and associated with the accused, presented through a qualified analyst who explains the methodology, the probability statistics

⁹¹ C M Ofomata and others, 'Forensic Evidence and Legal Proof: Bridging the Gap Between Scientific Validity and Judicial Admissibility in Nigeria' [2025](7)(1) International Review of Law and Jurisprudence (IRLJ);60-68.

⁹² Evidence Act 2011 (as amended), s 135(1).

⁹³ (1935) AC 462.

⁹⁴ Constitution of the Federal Republic of Nigeria 1999 (as amended) Cap C23 LFN 2004, s 36(5).

⁹⁵ (2018) 17 NWLR (Pt. 1649) 395.

⁹⁶ (1986) 6 NWLR (Pt. 24) 648.



and the significance of the match, is amongst the most powerful forms of proof available to a criminal court. The research by Peterson and others, drawn from a study of more than 4205 criminal cases across five American jurisdictions, shows that laboratory analysis of evidence was a statistically significant predictor of conviction at trial, with cases involving laboratory-examined evidence being more than twice as likely to result in conviction.⁹⁷ This empirical finding confirms that forensic evidence, when present and properly utilised, has a material impact on the probability of conviction.

Peterson and others also found that the examination of evidence by a laboratory was a predictor of sentence length, with cases involving laboratory-analysed evidence linked to longer sentences.⁹⁸ This suggests that the impact of forensic evidence on criminal justice outcomes extends beyond the binary of conviction and acquittal: it shapes the court's assessment of culpability in a manner that influences the severity of the sanction imposed. The implications for the Nigerian system, where forensic evidence is frequently absent, are significant. Its absence not only increases the risk of wrongful acquittal but may result in sentencing outcomes that understate the seriousness of the offence because the court lacks the objective scientific proof needed to properly reconstruct what occurred.

In Nigeria, the relationship between forensic evidence and the discharge of the burden of proof is distorted by the investigative culture that privileges confession over physical proof. Maxwell and others have opined that where investigators treat the confession as the primary objective of the investigation, the marginal benefit of forensic evidence collection is perceived as negligible.⁹⁹ This institutional calculus is self-defeating. A confession that is excluded by the court as involuntary, or that is disbelieved because the accused retracts it, leaves the prosecution without the scientific evidence that should have been collected from the crime scene. The result is an acquittal that properly conducted forensic investigation might have prevented. The preference for confession therefore does not merely displace forensic evidence from its proper function: it actively creates conditions in which the prosecution's ability to discharge the burden of proof collapses when confessional evidence fails.

b. Role of Forensic Evidence in Securing Judicial Convictions and Acquittals

The impact of forensic evidence on the outcome of Nigerian criminal trials operates in two directions. It may produce conviction by providing objective scientific proof of facts in issue. It may produce acquittal by raising a reasonable doubt about the prosecution's case, by excluding the accused from the

⁹⁷ J L Peterson and others, 'Effect of Forensic Evidence on Criminal Justice Case Processing' [2012] *Journal of Forensic Sciences*;1-13.

⁹⁸ *Ibid.*

⁹⁹ O C Maxwell and others, 'Role of Forensic Evidence in Criminal Justice System in Nigeria' [2025](9)(7) *International Journal of Research and Innovation in Social Science*;2394.



crime scene, or by demonstrating that the prosecution's forensic evidence is unreliable or improperly obtained.

On the side of conviction, the courts have relied on forensic evidence to secure convictions. For instance, in *State v. Ejiofor*,¹⁰⁰ the courts relied on the forensic evidence of a handwriting expert to ground the conviction of the sixth defendant for theft, and forgery, while the five others were exculpated. Also, court's decisions in drug offence cases have consistently held that the chemical identification of the suspected substance through laboratory analysis is a mandatory ingredient of proof that the prosecution must establish.¹⁰¹ This requirement, when enforced, operates as a forensic evidence prerequisite for conviction: without laboratory proof of the nature of the substance, the elements of the offence cannot be made out beyond reasonable doubt. However, as Ediru's analysis of *Oyem v FRN* demonstrates, the courts have not always enforced this requirement with the rigour it demands.¹⁰² The pattern of inconsistent enforcement allows convictions to be secured in some cases on the basis of forensic proof that would not withstand rigorous scrutiny.

On the acquittal side, forensic evidence was also used to exculpate the defendant of murder *Rabiu v State*.¹⁰³ Thus, forensic evidence, where properly applied, has proven instrumental in resolving criminal cases. But where such evidence is mishandled or incorrectly assessed, it has the risk of misleading the court into convicting an innocent person. This is illustrated by the American case arising from the murder and rape of Nancy De Priest at a Pizza Hut restaurant in Austin, Texas.¹⁰⁴ Chris Ochoa, a colleague of Richard Danziger, entered a guilty plea to the murder and implicated Danziger in the rape through a confessional statement that had been obtained by coercion. The forensic case against Danziger rested entirely on a single hair recovered from the restaurant, which was said to match his. Critically, a semen sample retrieved from the crime scene was never subjected to testing. Both men received life sentences. It was only twelve years later that a letter written by Achim Marino from prison revealed that he, and not the two convicted men, had committed the offence. DNA analysis subsequently confirmed that the biological material at the scene matched Marino, not Danziger.

This illustrates the need for clarity in regulatory frameworks in the use of forensic science in criminal proceedings because according to Blackstone, it is better to let 10 criminals go scot free than convict

¹⁰⁰ 1983 (1) NCR 86.

¹⁰¹ M E Ediru, 'Analysis and Identification of Suspected Substance in the Trial of Drug Offences in Nigeria: A Review of *Oyem v FRN*' [2022](4)(1) American Journal of Law;24-38.

¹⁰² Ibid.

¹⁰³ 1980 (2) NCR 117.

¹⁰⁴ E B Herbet and others, 'Flawed Evidence: A Recipe for Wrongful Conviction in Nigeria' [2025](8)(2) Strathmore;123-146.



1 innocent person.¹⁰⁵ Herbert and others have expressed their concerns regarding the use of flawed evidence in criminal proceeding thus:

Some evidence by forensic experts in criminal cases may either be overstated or understated, with the expert withholding evidence or opinion that might support the defendant's case; or exaggerating or twisting the important evidence pointing to the guilt of the suspect. Unintentional errors and some purposeful misconduct are common with forensic analysis, and when these happen, a person's life could be significantly and unjustly affected by a wrongful conviction of such a person.¹⁰⁶

The logic of forensic acquittal is that scientific exclusion of the accused from the crime scene should provide a principled basis for reasonable doubt. Yet Nigerian courts do not consistently treat forensic exclusion evidence as determinative. Courts have upheld the admission of physical exhibits, such as weapons recovered at crime scenes, without forensic analysis confirming their connection to the offence, relying instead on testimonial evidence about their recovery and provenance.¹⁰⁷ This approach deprives the accused of the forensic safeguard that scientific analysis would provide. It also means that conviction may rest on recovered items whose evidentiary significance has not been scientifically established.

Garrett's study of constitutional regulation of forensic evidence in the United States documents the scale of wrongful conviction produced by invalid forensic science testimony.¹⁰⁸ The FBI hair comparison audit, which examined decades of cases in which microscopic hair comparison evidence had been presented, found that analysts had overstated the significance of their findings in a large proportion of the cases reviewed.¹⁰⁹ Garrett argues that where forensic evidence is presented in a manner that distorts its scientific meaning, the conviction based on it violates the accused's constitutional right to due process, because it rests on proof that is formally sufficient in appearance but scientifically inaccurate in substance. This argument applies with equal force to Nigeria, where section 36(5) of the Constitution guarantees conviction only on the basis of properly established proof. Where forensic evidence is admitted without scrutiny of its reliability, and conviction follows, the constitutional guarantee has been formally observed but substantively undermined.

¹⁰⁵ W Blackstone, Commentaries on the Laws of England (1765).

¹⁰⁶ E B Herbet and others, 'Flawed Evidence: A Recipe for Wrongful Conviction in Nigeria' [2025](8)(2) Strathmore;123-146.

¹⁰⁷ C M Ofomata and others, 'Forensic Evidence and Legal Proof: Bridging the Gap Between Scientific Validity and Judicial Admisibility in Nigeria' [2025](7)(1) International Review of Law and Jurisprudence (IRLJ);60-68.

¹⁰⁸ B L Garrett, 'Constitutional Regulation of Forensic Evidence' [2016](73)(3) Washington and Lee Law Review 1147, 1155.

¹⁰⁹ *ibid* 1156.



COMPARATIVE ANALYSIS AND LESSONS FOR NIGERIA

a. Position of the Law in the United States of America

The United States has the most extensively litigated forensic evidence admissibility framework in the common law world. Its transformation was driven by the Supreme Court's decision in *Daubert v Merrell Dow Pharmaceuticals Inc.*¹¹⁰ which established that trial judges must act as gatekeepers, evaluating the scientific validity of expert methodology before admitting it. The Daubert standard assesses whether the methodology has been tested and peer-reviewed, whether a known error rate exists and is acceptable, and whether it is generally accepted in the relevant scientific community. These criteria address the scientific quality of the evidence, not merely the credentials of the witness. The standard was subsequently codified in Rule 702 of the Federal Rules of Evidence, which requires the proponent of expert evidence to demonstrate that testimony is based on sufficient facts and data, produced by reliable principles and methods, and reliably applied to the facts of the case.¹¹¹

Thus, the American standard is methodology-based whereas the Nigerian standard under section 68 of the Evidence Act 2011 is credential-based. This distinction has direct consequences for the quality of forensic evidence admitted and evaluated at trial. Rule 706 provides additionally for the appointment of court experts who owe their duty to the court rather than to any party.¹¹²

b. Institutional and Procedural Framework in India

India's evidentiary framework shares significant features with Nigeria's, as both systems inherited their evidence law from the colonial common law tradition. Section 45 of the Indian Evidence Act 1872 provides that when the court has to form an opinion on a point of science or art, the opinions of persons specially skilled in such matters are relevant facts.¹¹³ The structural parallel with section 68 of the Nigerian Evidence Act is direct. Both provisions rest admissibility on special skill, without prescribing a reliability standard for the underlying methodology. Where India has advanced beyond Nigeria is in the procedural architecture established by the Code of Criminal Procedure (CrCP) 1973. Section 293 of the CrCP provides that any document purporting to be a report under the hand of a designated government scientific expert may be used as evidence in any inquiry or trial, with both parties retaining the right to summon the expert for cross-examination.¹¹⁴

Mishra and Singh's analysis of forensic evidence in Indian courts identifies a growing body of judicial precedent that has shaped the admissibility and weight of specific forensic disciplines through

¹¹⁰ 509 US 579 (1993).

¹¹¹ US Federal Rules of Evidence 1975 (as amended), Rule 702.

¹¹² Rule 706(a) and (b).

¹¹³ Indian Evidence Act 1872, s 45.

¹¹⁴ Code of Criminal Procedure 1973 (India), s 293; s 293(4).



sustained engagement with the methodology question. In *State of Uttar Pradesh v Rajesh Gautam*,¹¹⁵ the Supreme Court emphasised the importance of forensic evidence in ensuring a fair trial and the necessity of proper procedures in collecting and analysing evidence.¹¹⁶ The Forensic Science Laboratories in India operate under specific guidelines that dictate standards for evidence collection, analysis and reporting. Adherence to these guidelines is essential for maintaining the quality and integrity of forensic investigations: a report adhering to the guidelines attracts the admissibility protection of section 293 of the CrCP, while a departure from those standards may be exposed in cross-examination. This system ties procedural admissibility to substantive scientific quality in a manner that Nigeria's current framework does not achieve.

The Bharatiya Nagarik Suraksha Sanhita (BNSS) 2023¹¹⁷ mandates forensic investigation for offenses punishable by seven years or more, placing the onus on the state to have forensic experts collect evidence at the scene and mandatorily document the process via video. This strengthens the role of forensic evidence over subjective investigation.

c. Lessons for Nigeria

The comparative analysis of the American and Indian frameworks yields three categories of lesson for Nigeria. They include the following:

1. On the statutory admissibility standard both jurisdictions demonstrate that a credentials-only threshold for expert evidence, without a methodology reliability standard, produces inconsistent judicial outcomes and creates conditions in which invalid forensic science may reach the trier of fact unchallenged. Nigeria therefore requires a statutory gatekeeping standard, incorporated into a reformed Evidence Act, requiring the proponent of forensic evidence to demonstrate that the methodology underlying the expert's opinion is scientifically valid, has been tested, and meets criteria of reliability derived from the settled position of the relevant scientific community.
2. On procedural architecture, section 293 of the Indian CrPC offers a directly applicable model. Nigeria should enact a statutory provision designating forensic disciplines whose reports are admissible under defined conditions, including a clear provision for the right to summon and cross-examine the maker.

¹¹⁵ (2003) 9 SCC 481.

¹¹⁶ K Mishra and A Singh, 'Forensic Evidence in Indian Courts: Analysing the Role of Investigating Agencies in Justice Delivery' [2024] (4)(2) International Journal of Civil Law and Legal Research;141.

¹¹⁷ The Bharatiya Nagarik Suraksha Sanhita, 2023 is the main legislation on procedure for administration of substantive criminal law in India.



3. The third lesson is about institutional infrastructure. Both the American and Indian jurisdictions confirm that statutory reform without institutional investment can produce incomplete improvement. Nigeria therefore requires independent, accredited forensic laboratories operating under defined quality assurance standards and separated from law enforcement agencies.

CONCLUSION AND RECOMMENDATIONS

This paper submits that the limited impact of forensic evidence on conviction in Nigeria is not a failure of science. It is a failure of legal provisions. The Evidence Act 2011 (as amended) provides formal authority for admitting forensic evidence but was not built to govern modern forensic science. It measures the witness without testing the method, admits the conclusion without scrutinising the analysis, and tolerates custody failure without imposing a principled consequence. These legislative deficiencies are compounded by an investigative culture that has not reoriented away from confession-preference, and by a judiciary that lacks the scientific literacy to thoroughly evaluate forensic methodology. This has given rise to a criminal justice system in which forensic evidence is legally present but poorly utilised. Thus, until the legislature redesigns the admissibility framework around scientific reliability, establishes independent forensic institutions and mandates forensic investigation as a statutory duty, convictions in Nigeria will continue to rest on grounds that are formally sufficient but scientifically insecure.

It is recommended as follows:

1. The National Assembly should enact a Forensic Science Act establishing a mandatory methodology-based admissibility standard and requiring pre-trial demonstration that any forensic method has been peer-reviewed and carries a known error rate. The Act should further empower courts to appoint independent forensic experts drawn from a statutory register of accredited practitioners who owe a duty solely to the court.
2. The Evidence Act 2011 should be amended to require that forensic reports be produced only by the analyst who conducted the analysis, with full disclosure of raw data and quality control records to the defence no fewer than twenty-one days before trial. Sections 14 and 15 should be expressly extended to exclude forensic evidence whose methodological unreliability causes its prejudicial effect to outweigh its probative value.
3. The Federal Government should establish by statute an Independent National Forensic Science Institute, operationally separate from all law enforcement agencies, with authority to accredit laboratories and maintain a public register of certified analysts.
4. The ACJA 2015 should be amended to insert a Part prescribing minimum procedural requirements for forensic evidence collection, preservation and chain-of-custody management at every stage. Non-compliance should constitute a disciplinary offence.



5. The National Assembly should enact a provision requiring forensic investigation in all criminal proceedings where the maximum penalty is seven years' imprisonment or more. The investigating agency should also be mandated by law to disclose a forensic investigation report to the defence before trial. Where no report is produced and no adequate explanation offered, a court should be entitled to treat the uncollected evidence as likely material to the defence.