



# Role of Forensic Evidence in Criminal Justice System in Nigeria.

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#### **ABSTRACT**

Criminal investigation is an important part of the entire criminal justice system, such that its absence may lead to delays in the administration of justice, stalled trials, victimization of innocent citizens, and encouraging the escape of offenders from paying for their misdeeds. The current alarming rate of crime and its attendant increase in sophistication have called for the use of forensic evidence. It is a technique designed to either identify the perpetrator or to connect them to the crime with certainty.

This paper examines the roles that forensic evidence plays in crime investigations. It examines judicial approach and evaluates the challenges inhibiting effective application of forensic evidence by courts in crime prosecution, and advances proactive measures for effective judicial application of forensic evidence. The design used in this research is the survey research design, and the sample size of this study is a total of one hundred and twenty personnel of law enforcement, the judiciary, citizens, and victims. The study adopted Statistical Package for Social Sciences (SPSS), which involves the use of frequency and percentage.

The paper identifies the limitations of the current legal framework and recommends the deployment of forensic and other scientific instruments, devices, or platforms in the criminal investigation process, and runs training programs on forensics for all officers of the law. This is to guarantee the reliability of evidence to be relied upon by the courts in the just determination of criminal matters.

**Keywords:** Forensic Evidence, Criminal Investigation, Criminal Justice System, Legal framework

#### INTRODUCTION

The Criminal Justice System (CJS) is a fundamental piece of any enlightened country to guarantee equity, reasonableness, the rule of law, and order, and the organization of a democratic framework. According to Tosin et al. (2017), the CJS is a system that is made up of numerous bodies, groups, institutions, or agencies that have been given the responsibility of ensuring social agreement and widespread compliance with the law, determining whether or not an individual is guilty of breaking the laws of the society, and determining the appropriate punishment for such an individual. Notwithstanding such obligation, the CJS is likewise answerable for the consideration and recovery of people saw as at fault of overstepping the regulations and to whom recommended action is dispensed. Scientific science incorporates the utilization of physical and natural sciences for the examination of common or criminal cases. It is utilized for multivariate purposes, for example, examining criminal wrongdoings like assault, murder, and drug follow and common cases as willfully destroying the natural habitat. It involves utilizing cutting-edge tools like DNA testing, fingerprint profiling, and narco tests to identify the facts surrounding the crime and the suspect. Forensic methods of investigation play a crucial role in the investigation process and offer practical solutions to the current criminal situation.



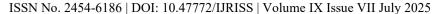
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While focusing on the role that forensic evidence plays in the delivery of the criminal justice system, it is used as a powerful tool to examine crimes and suspects, ensure that cases are resolved according to genuine evidence, and that no innocent person is punished. The scientific examination techniques and proof are supported by the overseeing collections of various nations like Colorado, the US of America, Canada, and Australia (Shubhi and Ishita, 2021). For instance, the Automated Fingerprint mark Distinguishing proof Framework (AFIS) is utilized by the Government Department of Examination (FBI), the US to explore criminal cases by utilizing cutting edge innovations. The proof and verifications that are assembled, analyzed, and delivered by utilizing Measurable methods are all the more promptly adequate by the Courtrooms. Scientific proof has been ordered into various parts like Oral Proof, Narrative Proof, Essential proof, and Legal Proof that assume an imperative part in the examination cycle. The study found that forensic investigations are very helpful because they re-create the crime scene to identify the remnants and track the implications of the illegal substances. Legal examinations additionally help in recognizing the person in question and getting information about the reasons/direct of wrongdoing.

### UNDERSTANDING THE CONCEPT OF CRIMINALISTICS/FORENSIC SCIENCE

Forensic Science or Criminalistics is the connection between Lawful investigations and subjects of Science, Physical science, and forensic Science. In order to interpret crime scenes, gather evidence, and provide the crucial information necessary for a law enforcement agency or a judge to make a decision, it aims to provide answers to grave puzzles that remain unsolved and are of legal interest (Vikram, 2022). There are numerous branches of forensic science, and as society evolves, there is an endless amount of room for expansion in both the number and study of these branches. Here are some subfields of forensic science:

- **1. Trace evidence analysis:** As the name suggests, this is the most common and frequently used branch of Forensics. Trace evidence is found when two objects, materials, or persons come in contact; some trace between the two will be exchanged. This is the theory being trace-evidence analysis of fingerprints, tyre marks, foot prints, to mention but a few.
- 2. Biological evidence analysis: The body of a human or animal contains many fluids and is not limited to just blood, urine, or saliva. Whenever there is bodily harm in a crime scene there is a very high probability of biological evidence availability on the crime scene. Though the general effort of the perpetrator would be to erase or contaminate the evidence, Criminalistics comes to the rescue. For example, the use of Luminol chemical shows latent traces of blood.
- **3. DNA evidence analysis:** Another branch of Forensic Science, which works hand in hand with Trace and Biological evidence analysis, is DNA evidence analysis. This branch uses the unique genetic markers to identify the presence of a person at a crime scene by extracting the DNA tracker from the property of the person left behind at a crime scene, like hair, nail, blood, saliva, seminal fluids, and others. The learned scientists and technicians extract the DNA trackers from the obtained evidence and compare the same from individuals expected to be present at the crime scene as per the course of law during a trial.
- **4. Forensic psychology analysis:** Just as the modus operandi of committing crimes has innovated and increased over time, so has the importance of psychological evaluation of the human brain in crime investigation. This branch of Criminalistics has certain techniques which are detailed below:
- a. **Psychological profiling:** the detailing and studying a person's background to understand the personality is done thru profiling of his personal history like childhood behavior, family background, education, occupation, health, marriage, emotional and moral life, alcohol or substance use or abuse, religious beliefs, cultural nuances, interpersonal and social relationships, to mention but a few.
- b. **Mental status examination:** Psychiatric disturbance, abnormality in understanding, orientation, memory, speech, mood swings, thought process, judgment, and other behavioral aspects are assessed.
- c. **Psychological assessment:** This assessment helps the Forensic Scientist understand the personality traits, attitudinal tendencies, moral values, beliefs, and behavioral patterns of the individuals to assess their tendency to commit crimes. This assessment aims to find out the presence or absence of certain personality disorders that can lead to criminal behavior, along with revealing tendencies of a person to lie, fake, manipulate, and put





themselves in a good or bad light, and so on, especially in a standard social situation.

- d. **Polygraph:** This is a test measuring physiological responses by asking questions which induce stress on the respondent by verifying the veracity of statements of suspects, witnesses in criminal proceedings.
- e. Brain Electrical Oscillation Signature Profile (BEOS): Developed by Dr. Mukundan based on the concept of Experiential Knowledge (EK). EK is the memory acquired when an individual participates in or witnesses or is fully involved in an event (Crime) which becomes an experience. Probes related to the crime activate memory (EK) related to the experience of committing the crime, causing significant electrical changes in the brain.
- f. Narco analysis: It is an invasive technique in which sodium pentothal, a drug, is injected into the subject to induce a semiconscious state and disinhibition, and he is interviewed on the details of the crime. Sodium Pentothal removes conscious control and makes the person disinhibited. It makes him more relaxed, comfortable, open, free, and conversant. Microanalysis is conducted at an operating theatre with the necessary facilities for life support, wherein the psychologist injects the drug and retrieves vital physiological parameters, and the forensic psychologist conducts the interview.
- **5. Ballistics:** Some forensic scientists specialize in the field of ballistics testing. Ballistics is a science that involves the study of the flight path that a bullet takes as it travels to its target. Trained ballistics specialists can glean a tremendous amount of information about the type of weapon that was used, the path of the bullet, and more through the examination of the bullet itself. Guns produce a specific pattern of wear and grooves on bullets as they are fired, and this pattern is unique. By examining the bullets and test-firing weapons, an investigator can often identify the type of firearm used, determine where it was fired from, or even match the bullet with a specific weapon.
- 6. Cyber Forensics: It is the art and science of applying computer science to aid the legal process. Although plenty of science is attributable to computer forensics, most successful investigators possess a nose for investigations and a skill for solving puzzles, which is where the art comes in. Thus, it is more than a technological and systematic inspection of the computer system and its contents for evidence or supportive evidence of a civil wrong or a criminal act. Computer forensics requires specialized expertise and tools that go above and beyond the normal data collection and preservation techniques available to end-users or system support personnel. One definition is analogous to "Electronic Evidentiary Recovery, known also as ediscovery, requires the proper tools and knowledge to meet the Court's criteria, whereas Computer Forensics is simply the application of computer investigation and analysis techniques in the interests of determining potential legal evidence." Another is "a process to answer questions about digital states and events". This process often involves the investigation and examination of computer systems (s), including, but not limited to, the data acquisition that resides on the media within the computer. The forensic examiner renders an opinion based on the examination of the material that has been recovered. After rendering an opinion and report, to determine whether they are or have been used for criminal, civil, or unauthorized activities. Mostly, computer forensics experts investigate data storage devices, which include but are not limited to hard drives, portable data devices (USB Drives, External drives, Micro Drives, and many more).

# Loopholes in the Traditional Investigative Techniques in Nigeria

It is unfortunate in this time of cutting-edge legal wrongdoing analytical strategies, the Nigeria Police Force still to a great extent rely upon conventional analytical procedures for wrongdoing examination. Forensic science offers a better option for catching, apprehending, and serving criminals with justice in a society where the rate of crime is rising alarmingly, where crimes are no longer committed in the conventional manner, and where criminals' operations have become more sophisticated. Two of the main advances in criminal examination has been the improvement of fingerprinting and DNA profiling. The Nigerian case is pitiful, despite the fact that this has been working flawlessly in advanced nations like the United States and Britain to the arrest and conviction of millions of criminal suspects. Albeit the Nigerian Police are accepted to have been prepared up to this logical level, the test is that the Central Government isn't securing the instrument for the police to show their work. When it comes to a criminal investigation, forensic evidence is a superior option to



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typically falsified eyewitness testimonies and confessions. The Nigerian Police is known for social affairs admissions from associates following the application with power and outrageous torture. Typically, eyewitnesses are staged to provide tainted and fabricated evidence against a suspect. The outcome of this is that during arraignments, essentially all the confession booth articulations are tested on grounds of police compulsion and the unchallenged ones unreasonable the organization of equity in Nigeria. The proof comprises legitimate evidence introduced to the court as witnesses, records, archives, objects, and different means, with the end goal of organization of equity in the official courtroom. For proof to be legitimate in court, it must be sensible, tenable, authentic, normal, pertinent, and material. In Nigeria, eyewitness testimonies and confessions lack the aforementioned characteristics. It is a major concern that Nigeria has survived the past 59 years of criminal prosecution without fully utilizing forensic science as a fundamental tool. The nation has not used and amplified the advantages and possibilities of Scientific Science. Sadly, while the conventional strategies for verification, observers' records, and admission describe the current law enforcement framework, the crooks are presently becoming smart and more logical. Because it has proven to be reliable in other developed nations like Australia, the United States, the United Kingdom, Canada, and even South Africa, it is pertinent that the system adopts this new approach. When compared to conventional proofs, forensic evidence is the most trustworthy and reliable.

#### **Improving Forensic Investigative Techniques in Nigeria**

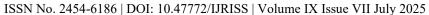
In Nigeria, crime investigators and forensic scientists require adequate training. Presentation of scientific science in Nigerian higher institutions will improve the preparation of specialists in the field of criminological science, raise awareness, spike interest, and furthermore lead to specialization and skill in the field of criminology. In Nigeria, there is an urgent need to establish well-funded forensic laboratories because the few that are already there do not have the necessary basic equipment, chemicals, or staff. In a thickly populated country like Nigeria, with a disturbing expansion in the crime percentage. Nigeria currently ranks among the world's most terrorized countries and has the sixth highest crime rate. Every kind of sophisticated crime and attack is a constant problem in Nigeria. Forensic laboratories ought to be established in at least one location in each of Nigeria's six geopolitical zones for the purposes of investigating and combating these crimes. This would be of great assistance in There ought to be legislation enacted by the government to accommodate forensic science and ensure that it is admissible in court. In a nation like Nigeria, there is no regulation controlling legal science application and requirements. Indeed, even the Proof Demonstration, Corrective Code, and Criminal Code do not establish a legally based similarity in criminal or general regulation. The nation ought to learn from its African neighbor, South Africa, or from other created nations like Australia and the United States of America. These nations have a regulation that essentially provides food for scientific research. The law enforcement area in association with the Service of Data ought to guarantee that legitimate awareness is given to society corresponding to how crime locations can be addressed. It will be explained to people how to avoid crime scenes. The agents ought to likewise guarantee that they don't linger on the scene (Ogechi and Oluwa, 2019).

#### **Related Literature Review**

In this section, we study a portion of the past methodologies used by specialists for recognizing forensic evidence. We give a concise survey of examination concentrates on forensic evidence in criminal justice.

Jyotirmoy Adhikary, in 2007, opined that measurable science is one of the most fundamental components of law enforcement. It incorporates investigating purposeful and actual follow-ups of the crime scene. It assists in determining the manner, time, and suspect of the crime. It provides evidence about the victim, the perpetrator, and the criminal activity, as well as aids in the investigation of various aspects of the crime. Criminal investigations and prosecutions now require the collection of forensic evidence as well as the application of forensic sciences. Measurable proof satisfies a few jobs in criminal examinations, for example, demonstrating a wrongdoing has been perpetrated or laying out key components of a wrongdoing, setting the suspect in touch with the person in question or with the crime location, laying out the character of people related with a wrongdoing, excusing the guiltless, support a casualty's declaration, help with laying out current realities of what happened.

McEwen, in 2010 found that the criminological science process is utilized for criminal examination purposes





examinations are at global and public levels.

for extricating the proof of a 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 examinations are done speeding up. Furthermore, various associations 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

Pragati Ghosh, in 2018 submitted that measurable science is remembered for the Indian Proof Demonstration, 1872, and viewed as a master proof. An expert is someone who knows a lot about a subject and can use that knowledge to give an expert opinion on a criminal case. In the case of Pantangi Balaram Venkata Ganesh vs. 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 had 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 results of the DNA test that the police obtained. Hence, one might say that legal examinations play a significant role in supporting analytical exercises by identifying the suspect and providing evidence of a crime.

Narejo & Avais in 2012, submitted that measurable science or criminalistics is utilized in logical strategies in criminal regulations. It includes utilizing legal knowledge and technology. Legal science incorporates utilizing trend-setting innovation, for example, DNA profiling, software engineering, and designing for the criminal examination process by the police. For example, physical science is utilized to distinguish the layout design of the blood disperse, while science is utilized personality of the engravings of the suspect, and science is utilized to perceive the compound piece of medications. Notwithstanding, the utilization of scientific science in a criminal examination in the Indian law enforcement framework is restricted and underrated. Sir William Herschel used forensic science primarily to identify the criminal suspects through fingerprinting. The finger impression proof was right off the bat acknowledged by the Court of Argentina in the 1890 period and afterward by English Court in the year 1902. Forensic science is remembered for the Indian law enforcement framework since old times for examining the cases and confirming the wrongdoing realities. By providing authentic evidence, forensic science aids investigators in locating evidence against perpetrators and strengthens the Indian legal system.

Menaker, Campbell & Wells, in 2017 submitted that the logical and specialized writing of measurable science and criminalistics centers around the lab techniques that are utilized to analyze and decipher actual proof gathered from the locations of crimes. Legal science and criminalistics research centers by and large give the logical assessment of actual proof gathered from locations of crimes, casualties, and suspects.

Rana, in 2020 looked at how the idea of forensic science is changing, as a result of new technologies. It incorporates current strategies of examinations like fluid chromatography, 3D printing, DNA assessments, and mass spectrometry for the precise review of current realities from the wrong doing spot police procured actual proof. There are various parts of criminological science like Odontology, Science, Humanities, Toxicology, and Pathology. Utilizing scientific methods to identify the victim's body when it is found in an unrecognizable position is a component of odontology. The recognizable proof of the casualty is executed by analyzing the teeth, mouth, or body arrangement. Forensic biology includes DNA profiling, which uses any body part to identify a suspect, such as hair, blood, or sperm. Additionally, fingerprint analysis is used to locate the suspect. An examination of the victim's cause and time of death is part of anthropology. It also determines the age, gender, and ancestry of the skeleton, which aids in victim identification when left in an unrecognizable position. Toxicology is mostly used to look into accidents, sexual assault, and poisoning cases because it includes examining the victim. In pathology, the victim's body is examined to determine the precise cause of death. 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.

#### **METHOD**

This study adopts a quantitative data collection approach and analysis from participants. The method helps to systematically investigate the role and impact of forensic evidence in criminal cases. Quantitative approach





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from the respondents, by using a questionnaire to collect data and analyze the collected data to produce the numerical results. 120 participants were selected to participate, all 100 feedback were returned, and 20 feedback were deleted after filtering the completed questionnaires. The questionnaire was designed using Google Forms and distributed via various platforms.

### **Respondents' General Profiles**

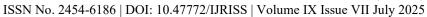
There are four (4) questions in this part, which are: (i) gender, (ii) age, (iii) education level (iv) employment status. Information from this part was aimed at knowing the respondents' background who were involved in the research. Table 1 below shows the frequency distribution and the percentage of respondents. Based on Table 1, this research's respondents were made up of 120 respondents, of which 46.67% were female and 53.3% were male. In terms of age, 10.83% were between 18 and 29 years old. 17.5% were between 30 and 39 years old, 34.16% were 40 to 49, and 37.5% were between 50 and above. In terms of education, 41.67% of respondents were Bachelor level, 32.5% of respondents were Master level, 15.8% of respondents were PHD level, and 10%respondents were others. In the employment status, 12.05% were Law enforcement, 20.83% were judiciary, 25% were from citizens, 33.33% were from victims, and 8.33% were others.

Table 1: Respondents' Profiles of Nigerians

S/N	Respondents' background	Frequency	Percentage (%)
1.	Gender		
	Male	64	53.3
	Female	56	46.67
2.	Age		
	18 – 29years	13	10.83
	30 – 39 years	21	17.5
	40 – 49 years	41	34.16
	50 – above	45	37.5
3.	Education level		
	Bachelor	50	41.67
	Master	39	32.5
	PHD	19	15.8
	Others	12	10
4.	Employment Status		
	Law enforcement	15	12.05
	judiciary	25	20.83
	citizens	30	25
	victims	40	33.33
	Others	10	8.33

Table 2: Rigidity of Nigeria judiciary system and awaiting trial problem.

S/N	Items	Frequency	Percentage
I I	The rigid nature of Nigeria laws has contribute to the awaiting trial problem in Nigeria maximum prison?		



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	a. Strongly agree	58	48.3
	b. agree	28	23.33
	c. Strongly disagree	15	12.5
	d. Disagree	19	15.83
2.	Most inmates in Nigeria maximum prison were arrested for minor offences and they constitute the bulk of awaiting trial problem?		
	a. Strongly agree	61	50.83
	b. agree	47	39.16
	c. Strongly disagree	12	10
	d. Disagree	-	-
3.	Inmate who have committed minor offences and locked up in prison where those who committed major offence are kept.		
	a. Strongly agree	66	55
	b. agree	50	41.67
	c. Strongly disagree	1	0.83
	d. Disagree	3	2.5

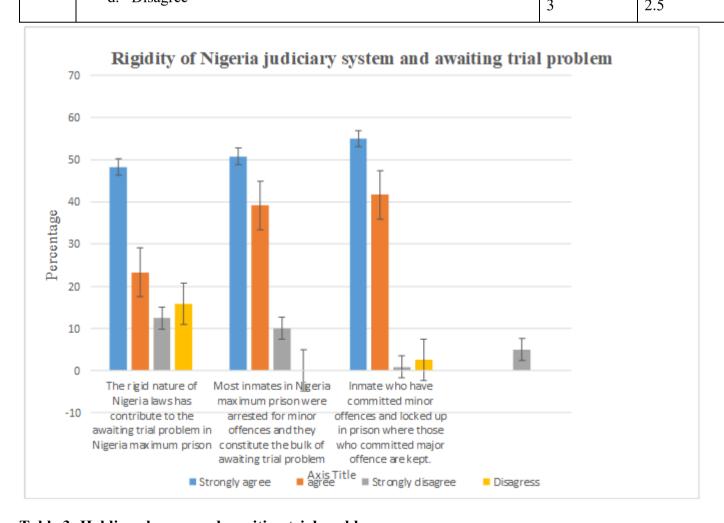


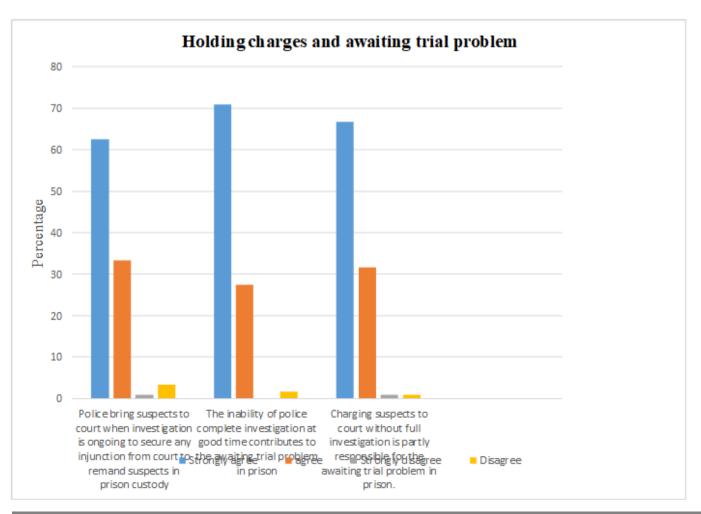
Table 3: Holding charges and awaiting trial problem.

S/N	Items	Frequency	Percentage
1.	Police bring suspects to court when investigation is ongoing to secure any		



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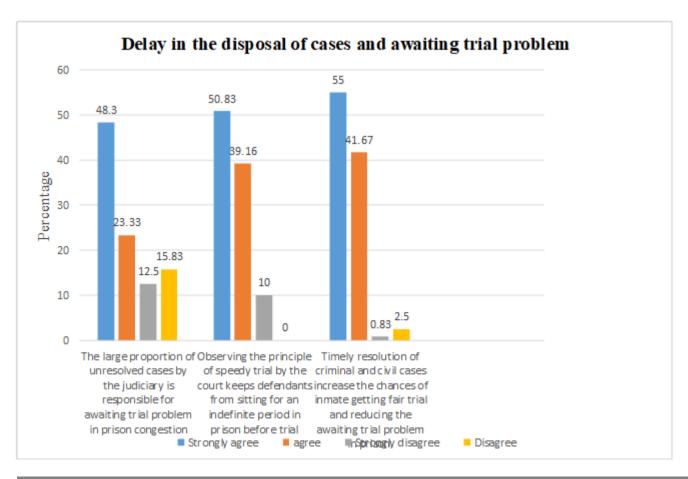
	injunction from court to remand suspects in prison custody?		
	e. Strongly agree	75	62.5
	f. agree	40	33.3
	g. Strongly disagree	1	0.83
	h. Disagree	4	3.33
2.	The inability of police complete investigation at good time contributes to the awaiting trial problem in prison?		
	e. Strongly agree		
	f. agree	85	70.8
	g. Strongly disagree	33	27.5
	h. Disagree	_	_
		2	1.67
3.	Charging suspects to court without full investigation is partly responsible for the awaiting trial problem in prison.		
		80	66.67
	e. Strongly agree	38	31.67
	f. agree	1	0.83
	g. Strongly disagree	1	0.83
	h. Disagree		





### Table 4: Delay in the disposal of cases and awaiting trial problem.

S/N	Items	Frequency	Percentage
1.	The large proportion of unresolved cases by the judiciary is responsible for awaiting trial problem in prison congestion?  i. Strongly agree j. agree k. Strongly disagree l. Disagree	58 28 15 19	48.3 23.33 12.5 15.83
2.	Observing the principle of speedy trial by the court keeps defendants from sitting for an indefinite period in prison before trial?  i. Strongly agree j. agree k. Strongly disagree l. Disagree	61 47 12	50.83 39.16 10
3.	Timely resolution of criminal and civil cases increase the chances of inmate getting a fair trial and reducing the awaiting trial problem in prison.  i. Strongly agree j. agree k. Strongly disagree l. Disagree	66 50 1 3	55 41.67 0.83 2.5







# RESULTS AND DISCUSSION

This research shows the rate at which the respondent is conscious of the role of forensic evidence in the criminal justice system in Nigeria. The survey sample of 120 respondents includes gender, years of experience, education qualification, and employment status. 48.3% of respondents strongly agreed that the rigid nature of Nigerian laws has contributed to the awaiting trial problem in Nigeria's maximum prison. 23.33% agreed, 12.5% of respondents strongly disagreed, and 15.83% disagreed. 50.83% of respondents strongly agreed that most inmates in Nigeria's maximum prisons were arrested for minor offences, and they constitute the bulk of the awaiting trial problem. 39.16% agreed, 15.83% of respondents strongly disagreed. 55% of respondents strongly agreed that most inmates who have committed minor offences and locked up in prisons, whereas those who committed major offences are kept. 41.67% agreed, 0.83% of respondents strongly disagreed, and 2.5% disagreed. 62.5% of respondents strongly agreed that police bring suspects to court when an investigation is ongoing to secure any injunction from the court to remand suspects in prison custody, 33.3% agreed, 0.83% strongly disagreed, and 3.33% disagreed. 70.8% of respondents strongly agreed that the inability of police to complete investigations promptly contributes to the awaiting trial problem in prison, 27.5% agreed, and 1.67% disagreed. Also, 66.67% of respondents strongly agreed that charging suspects to court without a full investigation is partly responsible for the awaiting trial problem in prison, 31.67% of respondents agreed, 0.83% strongly disagreed, and 0.83% disagreed. 48.3% of respondents strongly agreed that the large proportion of unresolved cases by the judiciary is responsible for awaiting trial in prison congestion, 23.33% agreed, 12.5% strongly disagreed, and 15.83% disagreed. 50.83% of respondents strongly agreed that observing the principle of speedy trial by the court keeps defendants from sitting for an indefinite period in prison before trial, 39.16% agreed, and 10% disagreed. Also, 55% of respondents strongly agreed that the timely resolution of criminal and civil cases increases the chances of inmates getting a fair trial and reduces the awaiting trial problem in prison, 41.67% of respondents agreed, 0.83% strongly disagreed, and 2.5% disagreed.

# **CONCLUSION**

The current alarming rate of crime and its attendant increase in sophistication have called for the use of forensic evidence. It is a technique designed to either identify the perpetrator or to connect them to the crime with certainty. The development of state-of-the-art technology to perform feats such as DNA testing has made forensic evidence through forensic science increasingly reliable. In recent years, the use of forensic science in criminal investigations and trials has steadily gained in popularity as an effective and powerful tool for seeking truth and justice. The use of forensic science can effectively help convict those guilty of crimes and can equally help exonerate the innocent. Forensic law has a great impact on our judicial system as it makes the justice process simpler and shorter by providing the evidence necessary to quickly adjudicate on matters. As Forensic evidence is relevant both in civil and criminal matters, a judicial system with adequate Forensic equipment and a strong grasp of Forensic science has a lot to benefit from it. This paper examined the roles that forensic evidence plays in criminal investigations. It also examined judicial approach and evaluated the challenge inhibiting effective application of forensic evidence by courts in crime prosecution, and advanced proactive measures for effective judicial application of forensic evidence. Nigeria will benefit immensely if the practice of forensics is allowed to blossom in view of the overwhelming advantages it presents. It will go a long way in helping the government achieve its goal of reducing crime/reduction. If the legislature gives a premium to the law on the use of forensic evidence as allowed for in the Evidence Act, this will ensure quick, appropriate, and unbiased judgments.

#### REFERENCES

- 1. Jyotirmoy Adhikary, DNA Technology in Administration of Justice, (LexisNexis, Butterworths, 2007.
- 2. Narejo, N., & Avais, M. A. (2012). Examining the Role of Forensic Science for the Investigative Solution of Crimes. Sindh Univ. Res. Jour. (Sci. Ser.) Vol, 44(2), 251-254.
- 3. McEwen, T. (2010). The role and impact of forensic evidence in the criminal justice system. National Institute of Justice.https://www.ncjrs.gov/pdffiles1/nij/grants/236474.pdf
- 4. Menaker, T. A., Campbell, B. A., & Wells, W. (2017). The use of forensic evidence in sexual assault investigations: Perceptions of sex crime investigators. Violence against women, 23(4), 399-425. https://www.researchgate.net/publication/301500979 The Use of Forensic Evidence in Sexual As



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- sault\_Investigations\_Perceptions\_of\_Sex\_Crimes\_Investigators/link/5a7904c70f7e9b41dbd44740/download.
- 5. Mrs.Shubhi Mack, Dr. Ishita Chatterjee, (2021). Role of Forensic Evidence in Criminal Justice Delivery System in India. Nat.Volatiles&Essent.Oils,2021; 8(4):5765-5770
- 6. Pragati Ghosh, Evidentiary Value of Expert Evidence under Indian Evidence Act, 1872, http://www.shareyouressays.com/119180/evidentiary-value-of-expert-evidence-under-indianevidence-act-1872, (accessed on 26.05.2018
- 7. Rana, P. (2020). Modern Techniques in Forensic Science and Their Function in Criminal Justice System: An Overview. Studies in Indian Place Names, 40(50), 3311-3323.
- 8. Tosin T. Olonisakin, Adedeji J. Ogunleye, and, Sulaiman O. Adebayo, (2017). The Nigeria Criminal Justice System and Its Effectiveness in Criminal Behaviour Control: A Social-Psychological Analysis. IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 22, Issue 2, Ver. IV (Feb. 2017) PP 33-48.
- 9. Vikramsinghrurhore (2022). Branches of Forensic Science or Criminalistics. Business development manager at followship travel & tours and students at Lloyd law college india.