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## **An Assessment of Evidentiary Value of Crime Scene Investigation: Views from Nigeria Police.**

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### **Abstract**

*This research is an assessment of evidentiary value of crime scene investigation, views from Nigeria police. In order to achieve the objective of study, data was collected through primary and secondary sources. Data collected was critically analyzed with statistical package of social sciences (SPSS) and major finding revealed that evidentiary value of evidences collected by Nigeria Police is weak. Evidences are collected without search warrants and chain of custody are not maintained. The situation is compounded by the non-utilization of laboratory for crime scene reconstruction. The Nigeria Police should therefore build capacity in crime scene management by training personnel in rudimentary knowledge of forensic application in crime management.*

**Keywords: Evidences, Crime Scene Investigation, Crime Scene Reconstruction.**

## Introduction

The success of criminal investigation depends on transforming collected information and evidences into usable knowledge. This starts from the crime scene which is an integral aspect of criminal investigative process. Lee, et al. (2001) posited that crime scene is the take off point of criminal investigation as it is at the scene of crime that investigators can find the necessary clues and leads that will establish incontrovertible and legally admissible evidence. Shelton et al. (2007) maintained that the forensic and the Police world rely heavily on activities that happen in the crime scenes particularly as law courts emphasize more on forensic technology in the dispensation of justice.

Crime scene investigation is rooted in Edmond Locard exchange principle which states that when a person comes in contact with an object or another person, a cross transfer of evidence occurs (Bertino, 2012). By Locard exchange principle every contact leaves a trace (Trimm, 2003). Saferstein (2015) maintained that crime scenes contain evidences that are critical to investigation. Evidences encompass any and all objects that establish that a crime has been committed or link a crime and its victims or perpetrators. There is reciprocal transfer of traces whenever two objects or persons are in contact at the scene of crime (Van, 1986). By Locard principle, criminals leave traces of themselves at crime scene, on the victim and they take away evidence from the scene.

The evidence that is transferred bears a silent witness to the criminal act. It is at the scene of crime that the gathering of evidence starts because the crime scene contains visible and hidden information that are vital to investigation. Evidence at crime scene are left for several reasons which include carelessness, panic, underestimation of Police capability, emotional instability, drug and alcohol influences (Bertino, 2012). Criminals most times overlook tangible evidence like jacket, pen, purse and piece of paper or card that can connect them to the crime. Criminals also leave behind less visible evidences such as finger prints, small particle of glass, body hair or clothing fibres.

Research evidence, according to Horsewell (2004), shows that the degree of transfer of evidence to a very large extent depends on:

- The pressure or force exerted when the objects are in contact
- The nature of scrubbing or brushing action when the contact took place.
- The smoothness or roughness of observed surfaces.
- The duration the objects were in contact position.

The assessment and interpretation of the scene of criminal incidents for evidences will furnish first-hand information and intelligence which will enhance effective decision making and policy direction. It is for this reason that crime scene investigators must painstakingly search and collect all evidences at the crime scene (Ogle, 2004). With such evidence there will be authentic and concrete methods of proof that is verifiable and scientific.

## Statement of the Problem

The Nigerian system of policing and criminal investigation, unfortunately, is reactive and incident driven. It involves rapid response for call to service and retrospective investigation which Moore (1993) identified as features of standard traditional policing model. The Nigeria

Police due to a combination of factors such as poor training, poor workers condition and remuneration, lack of internal accountability, poor communication and policing strategies, have created a culture of predatory policing that manifest in the extraction of information and evidence from suspects and detainees through torture, eye witness and confession. In Nigeria, the manifestation of torture includes beating and maiming of citizens, the use of restrain such as handcuffs and leg chains, inserting pin and hot objects into genital organs of suspects, use of cigarette light to inflict pain and discomfort on suspects, whipping suspects with sticks, iron bar, wire and cables coupled with unnecessary use of firearms against suspects in order to extract confession (Alemika and Chukwuma, 2000). With the use of torture, many suspects do not hesitate to make confessional statements if only that will warrant and facilitate their being charged to court where they hope to eventually deny and reject the confessional statements on oath that statements were made under duress. The use of eye witness accounts that is still in use in Nigeria to extract information has equally become unpredictable in criminal investigation. Eye witness accounts are affected by both environmental and psychological factors such as stress, sight of weapons, distance, use of disguise, limited time spent viewing perpetrator, ethnic and religious differences between witness and suspects. An individual standing in the crowd may have been at or near to the scene where the incident occurred without actually paying full attention to details of the offense (Lee et al. 2001). The immediate pit-fall of eye witness account, torture and confession is that criminal investigation and trials last for what seems like eternity.

In advanced societies, biometric technology is now available for purposes of identification, authentication, tracking and access control (Alemika, 2003). These facilities now make it easy for investigators to gather scientific based evidence from the crime scene that will afford the Police the opportunity to present water tight arguments in court proceedings against suspects. Evidence as we know is the foundation of justice and the judiciary cannot provide justice unless they ascertain the underlying fact of a case.

Peterson et al. (1984), found from their research conducted, that clearance rates in the United States for offenses with evidences from crime scenes scientifically collected and analyzed was three times greater than cases where such evidence did not exist. Briody (2004) equally observed that in the United States, homicide cases are now decided increasing more with DNA evidences from scene of crime than information extracted through confession, torture and eyewitness account. This is in sharp contrast with what is obtainable in Nigeria, where authentic and concrete methods of proof backed by forensic evidences from crime scenes have not been attained. The evidential burden of proof beyond reasonable doubt that is demanded by the law necessitate that Police must establish the link between offence, victim and the scene of criminal incident cannot be attained under this scenario. Research therefore, is to examine evidence collected and its value in criminal investigation.

## **Brief Literature Review**

### **Evidence in Crime Scene**

Swanson *et al.* (2003), define evidence as things that tend to logically prove or disprove a fact or issue in a judicial case or controversy. It has bearing on the guiltiness or innocence of the defendants. Holden (2006) identifies evidence as objects that have been used, left behind, removed, altered or contained in the course of committing criminal act.

Eckert (1997) classified evidence into physical and biological. Physical evidence has shape, size or dimension. Physical evidence could be tangible material objects that investigators can use to establish through scientific examination and analyze that a crime has been committed.

Physical evidence includes impressions such as finger prints, foot prints and shoe prints. Tool marks, fiber, weapons, bullets and shell casings are still part of physical evidence. Recognition and analysis of physical evidence is therefore an essential aspect of investigative process (Gardner, 2005). Biological evidence, according to Bertino (2012), are samples of biological materials that have the advantage of narrowing suspects to specific groups or reducing it to an individual which is more admissible and persuasive in the law court. Biological evidence includes body fluid like urine, saliva, sperm and blood. Tissue, bones, teeth and natural fibers are part of biological evidence.

Eckert (1997) further classified evidence into direct and circumstantial. Direct evidence includes first hand observation such as eye witness account, police video camera and confessions. Circumstantial evidence is indirect evidence that can be used to imply a fact but does not directly prove it. Circumstantial evidence which can either be physical or biological in nature can be used to link a crime scene and suspect.

Adams et al. (2004) maintained that evidence is of value when they can be photographed, measured, analyzed and presented in court during prosecution and trial. The availability of evidence collection tools and technique in developed countries allows for ease in investigators ability to piece together the story of a crime before the crime scene becomes cold and contaminated. Evidence is not only instrumental in establishing the elements of an offense but in the final reconstruction of the entire crime scene scenario (Petraco & Sherma, 2006).

Fisher (2004) summarized the several roles that forensic evidence accomplishes in criminal investigation. These roles are:

- Substantiating if crime has been committed and connecting key elements of crime.
- Establishes link between suspect, the victim and the crime.
- Helps to reveal the identity of the culprit who committed the criminal act.
- Helps to absolve the innocent from criminal involvement.
- Forensic evidence plays key role in corroborating a victim's testimony and assists in revealing what transpired in the criminal act.
- Gives useful lead to pursue further investigation and prosecution.

Adams et al. (2004) in fact argued that considering how valuable evidence is in connecting the dots in investigation, crime scene investigators should as a matter of necessity understand vividly the followings:

- What constitute physical and biological evidence?
- Applicable techniques for collection.
- How to preserve physical and biological evidence.
- How worthy clues can be collected through evidence?
- How to categorise and interpret significant clues retrieved from evidence?

## **Theoretical Framework.**

The theoretical framework adopted for this study is Niklas Luhmann's version of *system theory*. The system theory provides a framework within which complex details can be explained and organized. System theory is a holistic approach that can explain crime scene investigation and criminal investigation in general. Luhmann developed a version of system theory that builds on elements of general system theory and Talcott Parsons' *structural functionalism*. Niklas Luhmann, just like Talcott Parsons, attempted building a grand theory for analysing the entire social system.

Functional differentiation, which is a core concept in Luhmann's social system, is basis for unity. Functional units complement each other as they perform their unique roles towards the sustenance of the system. System theory was chosen as it helped in ascertaining not only the functioning of individual units but other units that make up the complex chain of activities in crime scene investigation. Each unit is distinct in terms of delineation and functions. The functioning of crime scene investigation as an integral aspect of criminal justice system is built on this complex chain of activities. Crime scene investigation is a complex chain of activities. The complex chain of activities starts from securing the crime scene, collection of evidence, documentation of evidence, chain of custody, analysis and interpretation of evidence. Personnel required in this complex chain of activities include but not limited to frontline officers, patrol team, photographers, sketch artist, medical examiner, forensic staff and investigative officer.

With system approach, it is possible to find out if failure on the part of any unit in the chain will undermine effective crime scene investigation. What will happen for instance, if evidence linking the suspect and the crime is not properly collected and documented.

## **METHODOLOGY**

Research methodology sets out procedures to conduct study and gives insight into the essential information required of, in an identified problem of study.

### **Research Design**

Research design is the blueprint for research aimed at answering specific research questions and testing specific hypotheses. Anol (2012) states that research design should at least specify three processes which are:

1. Data collection process
2. Sampling process and
3. Instrument development

Survey research design was considered appropriate for this research. Survey research designs are procedures adopted in research in which researcher administer a survey to either a sample or entire population of people in order to elicit information on attitude, opinion and general characteristics that are difficult to measure using observational techniques (Pinonnseult & Kraemar, 1993).

### **Area of Study**

The area of study is Zone five command in the South South geo- political zone of Nigeria.

### **3.3 Population of the study.**

Population in research study is collection of objects and people with well-defined and similar characteristics (Bless & Higson –Smith, 1995). The officers and men of the Zone Five command made up of Delta and Edo State Command of Nigeria Police constitute the study population

#### **Sampling Technique.**

Purposive and snow ball sampling techniques which are non-probability sampling techniques was used. The purposive sampling which is equally known as subjective sampling technique relies on researcher's sound judgment in choosing members of the population that will participate in the study (Black, 2010). Purposive sample was applied in picking three states in south south geo-political Zone which are Bayelsa, Delta and Edo. Sampling was applied in selected area offices that are situated in the urban and emerging urban centres in Zone Five Commands where incidence of crimes appear to be on the high side. The area offices selected are: Delta: Asaba, Agbor, Ozoro, Sapele, Warri and Ughelli; and Edo: Ikpoba hill, Ekiadolor, Oba Market, Auchi, Ekpoma and Agenebode. Purposive sample is appropriate when studying a cultural domain with knowledgeable experts making it easier for generalization to be made on selected sample.

Snow ball was used in picking officers from the selected area officers in Delta and Edo State Command. Police personnel involved in intelligence gathering and criminal investigation are hard to reach because of the sensitive nature of intelligence and investigative task. Investigative task further necessitates constant movement of personnel in search of vital clues making the use of snow ball sampling appropriate in picking the sample size. Snow ball sampling technique is a technique for finding research subjects in which one subject gives the researcher the name of another subject who in turn gives the name of another research subject (Vogt, 1999). With snow ball sampling technique, Police personnel assisted researcher in reaching out to their colleagues after a formal letter was presented to the Zonal Command Headquarters. This technique helped guarantee the confidentiality associated with this research subject. Snow ball is not only convenient but less expensive. The use of referrals makes it easy and quick to find research subjects as they are from reliable primary data.

#### **Instrumentation**

The instrument that was used for this study is the questionnaire. Self-developed and validated questionnaire that is titled crime scene and investigative challenges was patterned on four point Likert scale. Likert scale which is unidimensional scaling method assumes equal weight for all items (Murphy & Likert, 1938). The questionnaire had two sections, which are section A and section B. Section A dealt with the personal data of the respondents while section B deals with the issues of crime scene management. The Likert four-point type format was weighted thus: strongly agree (4) agree (3), disagree (2), strongly disagree (1).

### **3.6 Validity and Reliability**

The validity of research instrument was ascertained through the standard practice of consultation with project supervisor and other experts in criminology. Their suggestions and corrections to the research instrument were integrated into the final draught which ensured ambiguity and poorly constructed questions were corrected and ensured instrument captured the objectives of research.

Research instrument was subjected to reliability test using the Cronbach Alpha test statistical package of social sciences (SPSS) version 23 computer software for consistency.

### **Method of Data Collection**

Bless and Higson-Smith (1995) identified that the objective of study and nature of information being sought greatly determine the process of data collection that will ensure that outcome of study is relevant to the investigation. Data were obtained from primary and secondary sources.

The secondary sources included books, journals, seminal papers and documents from Nigeria Police force which are directly or indirectly related to crime scene management. The use of secondary data allows identification of gap, deficiencies and additional information required for research investigation.

The primary source involved the administration of questionnaire and oral interview which guaranteed first-hand information that is pertinent to the success of this survey was equally a source of gathering information from Police personnel. Primary data is very reliable because it is objective and collected from the original source.

### **Method of Data Analysis**

Data collected from the field were analysed using frequency, mean, standard deviation, percentage and chi-square ( $\chi^2$ ) statistics for the validation or invalidation of hypotheses through the use of SPSS version 23.

### **DATA ANALYSIS AND RESULTS**

This study was a survey that examined respondents view and perception on crime scene and investigative challenges encountered by Nigeria Police. The statistical analysis adopted for this study was the statistical package for the social sciences (SPSS) version 23. Chi-square was performed to ascertain if significant relationship existed between identified variables pertaining to crime scene and identified investigative challenges encountered by the Nigeria Police. Simple percentage was used to analyze attributes of respondents. Mean responses were performed and used to analyze research questions while chi-square statistical analysis was used to test research hypothesis. The criterion mean used in scoring is 2.5 which was obtained through the summation of weighed points and divided by four (4)  $= \frac{4+3+2+1}{4} = 2.5$ .

For hypothesis, any hypothesis that is greater than .05 level of significance was accepted while any hypothesis that is equal or less than .05 level of significance was rejected.

A total of one thousand, one hundred and thirty copies of questionnaire were distributed to respondents in the study area. Of one thousand, one hundred and thirty questionnaire administered to respondents, seven hundred and ninety-five copies were filled and returned. The seven hundred and ninety-five questionnaire amounted to 70% of total questionnaire administered.

**Table1: Descriptive analysis of evidentiary value of evidence collected by Police personnel**

S/N	Evidentiary Value of Evidence Collected by Nigeria Police Personnel	Mean	SD	Decision
1	Evidence is always legally collected through search warrant provided by Police personnel	1.9375	.39194	Disagreed
2	Chain of custody of evidence is maintained by Nigeria Police	2.2500	.15000	Disagreed
3	In Nigeria, Police evidence collected are subjected to both laboratory and comparative analysis	2.1438	.46417	Disagreed
4	Evidence are narrowed to individual, through laboratory analysis by Nigeria Police	1.9813	.40758	Disagreed
5	Lack of group cohesion affects the chain of custody of evidence	3.2813	.74268	Agreed
6	The sequence of activities in crime scene is followed by Nigeria Police	2.1000	.44913	Disagreed
7	Crime scenes are properly secured by Nigeria Police before evidence is collected.	1.9719	.40424	Disagreed

**Source: Field Survey 2022**

Research question concerns the evidentiary value of evidence collected by Nigeria Police personnel. The rationale was to find out if procedure adopted by the Police would enhance the value of the evidence in terms of legal admissibility. Issue of particular concern was if search warrants were presented before search was conducted and if chain of custody of evidence is maintained. Item 1, had a mean score of 1.9375 and standard deviation of 39194 which showed that evidence was not legally collected through the use of search warrant by Nigeria Police personnel. On if chain of custody was maintained the mean was 2.2500 and 15000. This means that chain of custody was not maintained in crime scene investigation by the Nigeria Police. Item 3, had a mean score of 2.1438 and standard deviation of 46417. This means that most of the evidence collected were not subjected to laboratory and comparative analysis that would enhance their evidentiary value. On if evidence was narrowed to individuals through laboratory analysis, the mean above depict 1.9813 and standard deviation of .40758 which portrays that majority of respondents disagreed. Evidence was not individualized with the aid of laboratory analysis. Item 5 had mean score of 3.2375 and standard .74268. This showed that majority of respondents agreed that lack of cohesion among Police personnel affected the chain of custody of evidence. Item 6 had mean score of 2.1000 and standard deviation of. 44913. Response showed that most respondents in Nigeria Police do not adhere to the sequence of crime scene investigation. Failure to adhere to sequence of crime scene investigation diminishes the value of evidence collected. On if crime scenes were properly secured by Nigeria Police before evidence collection, the mean score stood at 1.9719 and standard deviation at .40424 which showed that crime scenes were not properly secured before evidence was collected.

**There is no significant relation between evidence collected in crime scenes and their evidentiary value in investigation.'**

**Table 11: Chi-Square analysis of evidentiary value of evidence collected by Police personnel**

S/N	Evidentiary Value of Evidence Collected by Nigeria Police Personnel	Df.	Chi-Square	Sig.	Decision
1	Evidence is always legally collected through search warrant provided by Police personnel	3	6.875 <sup>a</sup>	.309	Accept
2	Chain of custody of evidence is maintained by Nigeria Police	3	7.825 <sup>a</sup>	.670	Accept
3	In Nigeria Police evidence collected is subjected to both laboratory and comparative analysis	3	4.775 <sup>a</sup>	.321	Accept
4	Evidence is narrowed to individual, through laboratory analysis by Nigeria Police	3	4.525 <sup>a</sup>	.302	Accept
5	Lack of group cohesion affect the chain of custody of evidence	3	55.575 <sup>a</sup>	.000	Reject
6	The sequence of activities in crime scene is followed by Nigeria Police	3	6.525 <sup>a</sup>	.438	Accept
7	Crime scenes are properly secured by Nigeria Police before evidence is collected.	3	2.900 <sup>a</sup>	.212	Accept

The purpose was to ascertain the strength of evidence collected in crime scenes. Chi-square result in table shows no significant relationship existing in all items except for item 5. Hence hypothesis is accepted.

**Discussion of Findings**

The evidentiary value of evidence collected by Nigeria Police is weak as evidence is mostly collected from crime scenes without search warrant and chain of custody which account mostly for the weight of an evidence. The non-utilization of laboratory analysis to examine evidence collected at crime scenes further reduces the value of evidence as individuation which is essential aspect of crime scene reconstruction cannot be attained. The Criminal Procedure Code (CPC) and Criminal Procedure Act (CPA) of Nigeria stipulate that search warrant must be used except under situation of reasonable suspicion. According to Criminal Procedure Act (1990) Part (1) subsection 10 states that an individual can only be arrested without warrant by Police officer if he refuses to give his name, residence or arrested by private individual. Part (2) subsection 10a states that Police officer may without an order from a magistrate and without warrant arrest any person whom he suspect upon reasonable ground of having committed an indictable offence against Federal or State law. This however leaves the Police with discretion. Search warrant itself in legal parlance is the thorough examination of body, apartment, vehicle, office, vessel, aircraft for the purpose of finding and securing evidence that link suspect, victim and crime. Evidence by implication is deemed improperly obtained if search warrants are not duly authorized by the court, Justice of Peace or assigned Police officer. Evidential values of evidence are diminished if not properly obtained as such evidence are admissible only at the discretion of the presiding Judge which is the reality in Nigeria.

## Conclusion and Recommendation

The Police in Nigeria have not advanced to the stage where they can deploy and apply forensic technology in the management of crime scene. Forensic technology is required for the purposes of collection, identification and authentication of evidence collected at crime scene. The limited spread of forensic laboratories across the federation has not actually encouraged the collection of biological and physical evidences. It is worthless collecting evidence from crime scenes that will not be analyzed. The Nigeria Police should build capacity in crime scene management by training personnel in rudimentary knowledge of forensic application in crime management. Regular training and refresher courses will equip personnel with specialized skill and knowledge in crime scene methods and technique. Government should establish forensic laboratories across all States in the Federation as their presence will encourage the application of forensics technology to crime scene investigation

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