Nigeria Police and Forensic Criminal Investigations: A Review of Some Critical Issues

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Abstract
Utilisation of forensic science methods in criminal investigations is gaining acceptance partly because its application helps maximize objectivity and reliability of the investigation process. This could also be one of the reasons for the Nigeria Police to adopt forensic science in criminal investigations. However, looking at the nature and rate of crime being reported to the police and successful court trials; there seems to be challenges within the police system itself with regards to using forensic methods in the investigation of crimes. In order to better understand these challenges, this paper presents a summative review of works related to forensic criminal investigations and policing in Nigeria. Five search engines/databases: Google scholar, Pubmed, Sciedirect, Researchgate and Academia were used to source materials for the review. Two search phrases, ‘forensic science in Nigeria’ and ‘forensic science and Nigeria police’, were used as keywords. Challenges were identified from the review; these were inadequate forensic facilities, limited utilisation of forensic methods, the dearth of research on perception as well as the skills of the Nigeria police in utilizing forensic science. It is therefore recommended that: more forensic facilities should be provided to the police and that empirical research should be conducted to explore further on the challenges.

Keywords: Criminal Investigations, Forensic Science Methods, Nigeria Police, Police Reform

Introduction
Crime is one of the most disturbing security problems affecting countries worldwide. Among the African countries, very few have a low crime rate (See Table 1). Specifically, the rate is high in Nigeria (Numbeo, 2018) and is generally increasing (Adetula, 2013), as further supported by the majority (72.22%) of survey respondents (Nationmaster, 2018). As indicated in Table 1, Nigeria has consistently remained among the top three countries

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that have high rates of crime in Africa in the past few years. Particularly, financial and economic crimes, cybercrimes, terrorism, rape, murder, assault, drug and substance abuse, theft, kidnapping and highway robbery are the common crimes (National Bureau of Statistics, 2016); that negatively affect the security and socioeconomic development of Nigeria. For instance, cybercrimes tarnish the image of the country and reduces the competitive edge of organizations (Hassan et al., 2012); terrorism and insurgent activities are costing so many innocent lives (Sarki & Lalu, 2017) and property damage; rape has continued to raise social and reproductive health concerns (Folayan et al., 2014); while drug and substance abuse render youth socially and economically unproductive (Folayan et al., 2014). Corrupt officials have stolen over $150 billion from Nigeria in the last 10 years (BBC, 2015), in addition to more than $400 billion stolen between 1960 and 1999 (Time, 2007). Consequently, there is an urgent need for both proactive and reactive measures to curb the menace of crime in Nigeria.

Table 1. Crime Index by African Countries 2013 – 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Crime Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Kenya</td>
<td>74.30</td>
</tr>
<tr>
<td>South Africa</td>
<td>76.68</td>
</tr>
<tr>
<td>Nigeria</td>
<td>60.62</td>
</tr>
<tr>
<td>Angola</td>
<td>52.86</td>
</tr>
<tr>
<td>Uganda</td>
<td>66.02</td>
</tr>
<tr>
<td>Libya</td>
<td>- 61.42</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>52.86</td>
</tr>
<tr>
<td>Tanzania</td>
<td>- 57.11</td>
</tr>
<tr>
<td>Mauritius</td>
<td>51.51</td>
</tr>
<tr>
<td>Egypt</td>
<td>48.67</td>
</tr>
<tr>
<td>Algeria</td>
<td>51.82</td>
</tr>
<tr>
<td>Morocco</td>
<td>34.32</td>
</tr>
<tr>
<td>Botswana</td>
<td>- 47.03</td>
</tr>
<tr>
<td>Tunisia</td>
<td>45.46</td>
</tr>
<tr>
<td>Ghana</td>
<td>- 46.38</td>
</tr>
<tr>
<td>Namibia</td>
<td>37.34</td>
</tr>
<tr>
<td>Eritrea</td>
<td>57.81</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>26.04</td>
</tr>
<tr>
<td>Sudan</td>
<td>- 34.84</td>
</tr>
</tbody>
</table>

Note: Crime Index is an estimation of overall level of crime in a country. It is not influenced by any governmental organization; the index is based on survey done by 68,544 people in 5,181 cities around the world. The crime levels categorization is as follows: lower than 20 = very low; between 20 and 40 = low; between 40 and 60 = moderate; between 60 and 80 = high; higher than 80 = very high.

Like in many countries, the function of preventing and controlling crime in Nigeria is performed by the criminal justice system, which comprises the police, the court and the prison. Although each of these three subsystems is independent to a certain extent, they are also interdependent, as the activities of one can affect the functions of another (Bernard et al., 2005; Crawford, 1994). Due to their unique role of criminal investigations and being the first entry to the system, the police may improve or otherwise deteriorate the role of the criminal justice system through the outcome of their investigations (Phillips et al., 1998; Weitzer & Tuch, 2005).

As criminal investigation is a tool without which police work cannot be performed, it is also an important tool in ensuring the effective functions of criminal justice system because it determines the success of criminal prosecution through its various ramifications. Thus, care needs to be taken to ensure crimes are swiftly and properly investigated so as to ensure fairness and justice among individuals (Wilson, 2001). Perhaps, due to policy and operational problems, Nigeria Police (NP) have been criticized as not following standardized and value-free procedure of investigations, and subsequently many cases ended up unresolved (Nte, 2012), lives were lost unnecessarily, criminals escaped unpunished and were free to continue their illegal activities. Subsequently, mistrust between the police and public ensues, and the criminal justice system is seen and seemingly rendered inefficient (Alemika & Chukwuma, 2000). This situation calls for more effective, more reliable and fair methods of criminal investigations. Hence, the adoption of forensic science in criminal investigations could be apt.

Forensic criminal investigation refers to a process whereby knowledge and techniques of various scientific disciplines are used to investigate criminal activities. The process has the advantage of limiting the involvement of innocent individuals who are perceived as suspects or accused persons (Prahlow, 2010b; Rudin & Inman, 2000). It also saves time and resources in addition to many other benefits to the police, criminal justice system, and the society at large (Robertson et al., 2016). Contemporary law enforcement agencies have improved their capacity and ability by utilizing forensic investigations, as crimes can now be solved through careful examination of crime scenes and analyses of forensically obtained evidence (White et al., 2011).

Although the Nigeria Police has adopted forensic investigations since 1986, many people, researchers and the general public alike, have continued to express concerns as to the nature of forensic science used by the police, because they were unable to successfully investigate and solve certain crimes which were believed to be solvable if forensic techniques were really used. It is noted here that the portrayal of successful forensic criminal investigations in other countries as well as in crime documentaries, movies, and dramas; may have influenced the general feeling of dissatisfaction among Nigerian researchers and the general public.

This paper does not intend to specifically explore those questions, but rather reviews published works on critical issues related to forensic criminal investigations in Nigeria with Nigeria Police as the main focus. Thus, the paper centres on four issues: 1) the adequacy of forensic facilities in Nigeria, 2) types of forensic techniques used by the Nigeria Police in criminal investigations 3) reliable data on Nigerian police perception of forensic science, and 4) studies on forensic science skills of the Nigerian police. It is believed that this review will bring to the fore a summary of some important concerns regarding the current
state of forensic criminal investigations in Nigeria. Subsequently, the review could serve as a basis for conducting further research that can assist the Nigeria Police to improve its investigations work, policing, and eventually the functions of the Nigeria’s criminal justice system.

1. Method

This paper used summative content analysis (Hsieh & Shannon, 2005) as a method. The data that were used to address the set objectives in this review were sourced from Google scholar, PubMed, Sciencedirect, Researchgate and Academia; using two search phrases ‘forensic science in Nigeria’ and ‘forensic science and Nigeria police’ as keywords. In all, 16,610 results were obtained, but inclusion criteria were earlier (refer to Figure 1) set to ensure that only relevant materials to the objectives of the study were included in the review. The inclusion criteria comprised the following: the material is a not a book; that it is written in the English language; published between 2000 and 2018; it is available on the search engines mentioned; and it is relevant in discussing forensic science in Nigeria and/or forensic science and the Nigeria Police as determined by the current researchers.

Figure 1. Flowchart for the Review

KEYWORDS:
- ‘forensic science in Nigeria’
- ‘forensic science and Nigeria police’

SEARCH ENGINES:
- Google scholar
- Sciencedirect
- Academia
- PubMed
- Researchgate

Preliminary search of materials yielded 16,610 results

INCLUSION CRITERIA:
- Material not a book
- Published between 2000 and 2018
- Written in English language
- Available on the search engines
- Related to the objectives of the review

Materials excluded because they did not pass the inclusion criteria (n=16,531)

NO

YES

Materials passed the inclusion criteria (N=79)

THEMES:
- Adequacy of forensic facilities
- Forensic techniques in criminal investigations
- Nigerian police perception of forensic science
- Forensic science skills of the Nigerian police
After filtering, 79 materials were considered relevant; these are the materials that have passed the inclusion criteria stated in Figure 1. All other materials that did not pass the said criteria were therefore excluded. The analysis involved identification of related contents in the filtered articles based on the four objectives/themes of the paper, coded, sorted out and thematically presented so as to give a clear understanding of what the current researchers found. Figure 1 depicts the flowchart of the review and material selection process.

2. Findings

2.1 Inadequate forensic science facilities

It is clear from what this review has found that not much consideration is given to forensic science methods in Nigeria. In the whole of the country with a population of 190,886,311 people (United Nations, 2017), crime index of 70.87 in 2017 (Numbeo, 2018), and increasing rates of criminal activities (Adebayo, 2013; Ajaegbu, 2012; Torruam & Abur, 2014), there are only two forensic laboratories owned by the NP: one established in 1986 in Lagos, which is increasingly being abandoned because of its outdated facilities (Adebola, 2016) and a more recent laboratory commissioned in 2016 at the NP headquarters in Abuja (Arase cited in Okunola, 2016). These two laboratories may not be enough to carry out most of the basic forensic tests required in criminal investigations by the police; particularly if one compares with South Africa that has a population of 56,717,156 people (United Nations, 2017), crime index of 75.72 (Numbeo, 2018) but owns four comprehensive forensic laboratories for its police (South African Police Service, 2018).

Lack of reliable forensic investigative facilities may lead to many unresolved and poorly resolved cases, which is contrary to the essence of criminal justice system. This fact has been supported by Obafunwa (2011) and Ladapo (2015). Indeed, lack of forensic facilities has been linked to several unsolved murder cases in Nigeria (Nte, 2012). This situation could be seriously detrimental to the well-being of individuals and the larger society, given the increasing population and urbanization taking place in the country (Jiboye, 2011); and the fact that crimes like burglary, rape and kidnapping remain threats to individuals (OSAC, 2017; Numbeo, 2018).

Other than violent crimes, the availability and application of forensic science could have helped the Nigerian government in its previous and current efforts to investigate and prosecute financial misappropriation by government officials and private individuals which has been negatively affecting the socio-economic development of the country (Dada et al., 2013). This argument has also been voiced by several authors, including Ahunwan (2002), Okogbule (2006), and Obiah (2010). According to Riaux, et al. (2006), adequate forensic facilities and their proper utilization could help link rapists, murderers, kidnappers, burglars and terrorists to the various crimes they have committed; thereby ensuring a successful prosecution in the court of law and serving as a deterrent which at the end can lead to reduction in crimes rates.

A fingerprint database of all Nigerians for example, would make it faster to determine suspects in a crime and determine crime victims whose facial characteristics are not readily identifiable. Such is the case for several countries that make it a mandatory requirement as
citizenship. Malaysia, for instance, requires all of its citizens to register their fingerprint at the age of 12 (Will, 2001), while registration of fingerprint is compulsory in India (Bengali, 2017). The databases in these countries assist in no small measure in solving different types of crimes, particularly property and violent crimes.

2.2 Dearth of Research on Types of Forensic Techniques used by the Police

Despite the first establishment of forensic laboratory in Nigeria over 30 years ago, there seems to be few studies that ascertained the types of forensic science methods available to the police to utilize during criminal investigations (Alade cited in Okwuofu, 2014). Over the years, there have been works that focused on issues related to forensic science in the country (Nte, 2012), but no reliable account on the types of forensic science methods available to the police. For example, Ladapo (2011) wrote and argued that criminal investigation is pivotal to the effective administration of justice in Nigeria and Kasum (2009) demonstrated that forensic science is a core tool in criminal investigation. However, when reviewed, neither Kasum (2009) nor Ladapo (2011) identified the available forensic methods used by the police.

Some works reviewed herein, particularly Motunrayo (2016) and Aigbokhaevo and Iyamu-Ojo (2015); emphasized that forensic science is a missing link in criminal investigation in Nigeria and listed some types of forensic techniques. Other researchers argued for consideration of human rights in the application of Disaster Victim Identification (Motunrayo, 2016) and reformation of requirements for DNA testing in Nigeria (Iyamu-Ojo, 2017). However, these researchers (Aigbokhaevo & Iyamu-Ojo, 2015; Motunrayo, 2016; Iyamu-Ojo, 2017) did not explore what types of forensic methods were utilized by the NP. Indeed, out of 40 studies on different forensic science sub-disciplines related to Nigeria published between 2007 and 2018, none of them asked or reported on whether or not the NP were utilizing any of the forensic science methods studied. See Table 2 below for the summary and the appendix for details reference of the studies.

Table 2. Published Studies on Forensic Methods Related to Nigeria between 2007 and 2018

<table>
<thead>
<tr>
<th>Discipline</th>
<th>No. of Studies</th>
<th>Discipline</th>
<th>No. of Studies</th>
<th>Discipline</th>
<th>No. of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forensic accounting</td>
<td>7</td>
<td>DNA Analysis</td>
<td>2</td>
<td>Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>Ballistic</td>
<td>1</td>
<td>Anthropology</td>
<td>10</td>
<td>Soil chemistry</td>
<td>1</td>
</tr>
<tr>
<td>Fingerprints</td>
<td>3</td>
<td>Pathology</td>
<td>6</td>
<td>Psychiatry</td>
<td>1</td>
</tr>
<tr>
<td>Computer forensic</td>
<td>2</td>
<td>Odontology</td>
<td>3</td>
<td>Lip forensic</td>
<td>1</td>
</tr>
</tbody>
</table>

Sources: Google Scholar, ResearchGate, PubMed, ScienceDirect and Academia.
Accessed on 13th June, 2018

Based on the information in Table 2, there appears to be a scarcity of knowledge relevant to the NP within these 12 sub-disciplines. Anthropology as a sub-discipline had the highest number of published works with 10 materials in a span of eleven years. This was followed by the sub-discipline of forensic accounting with seven materials. Very little
materials have been published in the other nine sub-disciplines. Lack of reliable information on the types of forensic science usable and used by the NP could hinder efforts to strengthen the prominence of forensics and its benefits in criminal investigations.

In other words, there appears to be a gap between what policies could have advocate, and what is actually being done with regards to the application of forensic science. This may not be surprising however, as there is also no specific policy document (referring to the NP reform document, 2014) on the establishment of forensic laboratories for the police; the utilization of forensic science is presumably incorporated in the reform document part dealing with provision of training and modern facilities. Reviewing the available literature, there was no mention of fingerprinting, DNA analysis, toxicology, pathology, photography among others; which was unexpected, given the benefits that these sub-disciplines offer in criminal investigations.

What these lacks of information means is that the Nigerian public, in particular victims of crime, are at a disadvantage; while criminals continue to outwit the police. Data on available disciplines and techniques could help the police and the government to better monitor the state of forensic science and what needs to be done to ensure proper utilization of forensic investigation. In South Africa, for example, it is known that there are six sub-disciplines, i.e. ballistic, scientific analysis, question document, biology, chemistry and explosives units available for the police in the four laboratories across the country (South African Police Service, 2018).

2.3 Lack of Reliable Data on Police Perception of Forensic Science

As an important agency of criminal justice system, this review found that a lot of works have been conducted on different aspects of the police organization in Nigeria. For example, studies on historical antecedents (Karimu & Osunyikanmi, 2012), nature and operation of the NP (Alemika & Chukwuma, 2003), police-community violence (Alemika & Chukwuma, 2000), as well as community policing (Ikuteyijo & Rotimi, 2012). Other studies have been conducted on state police and its implication in democratic dispensation (Innocent & Ogbochie, 2014), and gender relations and discrimination in the NP (Alemika & Agugua, 2001). The problem of corruption and its effect on policing has also been studied (Alemika & Chukwuma, 2004).

Of particular interest are the works of Alemika and Chukwuma (2003) and Karimu and Osunyikanmi (2012); who described policing reform over the years. As it was earlier shown, forensic science became necessary to the police for them to stay relevant and up to the tasks of crime prevention and control and therefore should be included on all police reform activities; yet, the way police officers perceive the science can affect the overall usefulness of the methods in criminal investigations and police reform activities.

Still, previous studies on perception and police in Nigeria (Ikuteyijo, 2009; Obioha, 2004) were largely about public perception of the police. The perception of the police on the application of forensic science has not been studied, despite the fact that it is the perception of players in an organization, police investigators in this case; that shapes organizational climate and make a working environment effective (Armstrong-Stassen & Ursel, 2009; Wiesenfeld et al., 2001). The lack of studies in this crucial area is surprising given the acknowledgement of the benefits that forensic science has to offer to police activities and the criminal justice system.
NP are the ones carrying out the evidence collection, ensuring chain of evidence, and as such should have favorable perception of forensic science, to the extent of at least improving upon investigation. If they perceive forensic methods in a negative light, the small number of cases solved using forensic methods would be reflective of this. Subsequently there would be many unsolved cases that could have been otherwise solved had forensic science methods been utilized during investigations. It comes therefore to no surprise that there might exist disparity between the availability of forensic methods and the usage of the same by the Nigerian police.

2.4 Few Researches on Forensic Science Skills of the Police Personnel

As seen from this review, studies on NP competence and skills were done without much depth (Alemika, 2008), as police forensic skills and knowledge were not specifically researched. For example, Aremu’s (2005) work on police competence was on credentialing, i.e. process of reviewing, verifying, and evaluating a practitioner’s credentials. Aremu’s (2005) study focused on how academic qualification, training, and other professional qualifications; were related to general career commitment of young police officers in Nigeria, but attempt was not made to answer questions to do with forensic skills of the IPOS (Investigating Police Officer). Also, Adebayo and Ogunsina (2014) studied personality attributes and their effect on job commitment of officers and men of Nigeria police force, but did not explore whether the police have the adaptability attribute, critical thinking, personal integrity, or preparedness mindset which are important components to having forensic science skills.

Alemika (2009) had recognised the importance of forensic skills to the Nigerian Police and went on to conclude that the police did not have training in handwriting, ballistic and fingerprinting analyses; he however did not support his position with any empirical data. It is not surprising then that he called for the conduct of Training Need Analysis (TNA) of the police (Alemika, 2009). Such an assessment is usually performed in order to define the exact content of a training and skills acquisition, so as the gaps identified could be addressed, within a specific context (Brinia & Viligenis, 2013). Although, there is no reliable and current statistics on forensic expertise of the Nigerian police, there was only one trained forensic pathologist and no ballistics or DNA expert as at 2007 (Transtec Report cited in Network on Police Reform in Nigeria, 2010); one can imagine how many skillful forensic scientists the police currently have, considering the slow rate at which forensic investigation is being incorporated into the police work.

In comparison, there were 12,560 police forensics professionals employed in the United States as of May 2011 (U.S. Bureau of Labor Statistics, 2011). In South Africa there were 23,682 detectives, who were trained in at least one forensic technique (Kalenga, 2014). Related to the importance of skills, the police forensic investigators from South Africa were able to identify South Africans who were separately involved in a Malaysian plane crash and collapsed building in Nigeria using their forensic skills and techniques (Kalenga, 2014). In contrast, there have not been reports where the Nigeria police were seen using forensic techniques to solve similar incidences, instead they were found in many situations conducting investigation that apparently showed the unavailability of forensic facilities.
Conclusion

Forensic criminal investigation is a potent tool which the NP could utilize to improve its functions and that of the criminal justice system. Even though the agency has been using it for more than three decades, there are challenges surrounding its proper utilization as reported by various studies. It is thus concluded that the NP seemed not to have enough forensic laboratories and facilities required to carry out forensic investigations, just as there are no reliable account of the types of forensic techniques available and used by the police. It is also clear that despite the fact that perception and skills of a forensic practitioner is crucial in the utilization of forensic techniques, there were no reliable data on these two important components as they relate to the IPOs in Nigeria. Consequently, while there is a need for the establishment of more forensic laboratories for the police, designed empirical research to explore issues discussed herein are required, so as to have a more reliable data about what forensic facilities and skills are available and usable to the Nigeria police and what needs to be improved for effective crime investigations.

References


Appendix

Studies on Forensic Science Disciplines related to Nigeria
published between 2007 and 2018

Accounting


Anthropology


**Ballistics**


**Computer**


**DNA Analysis**


**Fingerprinting**


**Lip**


**Odontology**


**Pathology**


**Psychiatry**


**Soil chemistry**


**Toxicology**

