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EFFECT OF JUDICIAL PROCEEDINGS ON FORENSIC EVIDENCE

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Abstract

This study is motivated by the growing number of persons worldwide whom our courts of law have wrongfully convicted of crimes they never committed and those who have been wrongfully acquitted of crimes they actually committed. This scenario makes one to ponder over the judicial proceedings used in evaluating the forensic evidence tendered in our courts of law. The study is therefore, carried out to investigate how judicial proceedings affect forensic evidence. In order to achieve the foregoing objective, primary and secondary data were used. A 5-point likert scale research questionnaire was used to collect the primary data while the Secondary data were sourced from journals, textbooks and the internet. Data analysis was done using a simple linear regression technique after conducting a reliability test and converting the ordinal primary data to interval data. The study revealed that there is no significant relationship between judicial proceedings and forensic evidence. It was therefore, recommended that appropriate court proceedings that reveal the relevance, reliability, believability, persuasiveness and probative value of evidence be used for admitting and assessing forensic evidence tendered in court.

Keywords: Evidence, admissible evidence, weight of evidence, forensic evidence and forensic accounting

1. BACKGROUND OF THE STUDY

Without evidence, the occurrence of fraud cannot be proved and neither criminal conviction nor civil verdicts are possible (Okoye, 2017). Evidence in whatever form of litigation is paramount and inevitable but, lack of evidence is better than faulty evidence which has caused many innocent people unlawful jail terms and death. In recent times, the subject of evidence has dominated the literature of law of evidence. What has prompted the increasing interest in this area of research is the ever rising number of people that are wrongfully convicted of crimes they never committed. Sherrer n.d as cited in Medill Justice Project (2019) reported that 5,731 people world-wide are said to have been convicted wrongfully. Furthermore, at least 135 people in the United States confessed to crimes they did not commit while another 129 were convicted of crimes that never happened (Purpura, 2012). In the UK, the Jury was seen as not competent to handle fraud cases because of the long time and huge sums of taxpayers' moneys spent on three fraud cases that unnecessarily collapsed after wasting time and money (1992 Blue Arrow Fraud Trial; 1996 Trial of Brothers Ian and Kevin Maxwell; and 2005 London Underground Jubilee Line Case as cited in BBC News, 2017). In Nigeria, the controversial Bode George case is a good example where after a lower court had convicted him and five others of committing a large scale fraud to the tune of ₦84 billion and granting them a controversial 2 years Jail term, the Supreme Court on what they termed technical grounds, overturned the case in their favour

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(Sahara Reporters, 2013). The foregoing scenarios therefore, suggest that judicial proceedings in the areas of admission and assessment of evidence are not effective. Majority of the previous studies reviewed dwelt mostly on the distinction between the role of the trial Judge (admissibility) and that of the Jury (weight). This researcher has not come across any previous work that specifically attempted to investigate how judicial proceedings (admitting and assessing materials used in supporting evidence) affect forensic evidence. The current research will attempt to fill this gap. This study is therefore, aimed at investigating how materials admitted and assessed as evidence during judicial proceedings, affect forensic evidence. How do judicial proceedings affect forensic evidence? This study will be used to answer the foregoing question.

1.1 STATEMENT OF PROBLEM

In law of evidence, all the pieces of evidence tendered in court by forensic experts are expected to have admissibility status and probative value (tending towards truth). The Judge and Jury are therefore, legally mandated to carry out these two evidential responsibilities separately. The separation of the Judge's function of determining the admissibility of evidence from the Jury's function of assessing the weight of evidence does not preclude the effective admission and assessment of objects or things supporting the evidence. The objective of this distinction between their judicial roles is to ensure effective admission and assessment of things used in supporting the evidence tendered in court.

Unfortunately, many innocent people have been convicted of white collar and other crimes they never committed. For example, in June 1997, the Grand Jury wrongfully indicted Mr. Rick Hoyle of Idaho in the United States, on eight counts of insurance fraud, forgery, grand theft and racketeering based on journal entries in the Hoyle's insurance books and records. Hoyle legally challenged this court decision and on June 13, 1999, a twelve-person Jury returned not guilty verdicts on all counts to prove that the evidence used against him was false.

Similarly, three U.K longest fraud trials namely, 1992 Blue Arrow Fraud Trial, 1996 Trial of Brothers Ian and Kevin Maxwell and 2005 London Underground Jubilee Line Case all collapsed after £40m, £25m, and £60m, respectively were wasted on them. The collapse of the foregoing cases were due to flimsy reasons like, too complex to handle, Jurors were either on strike or were arrested for benefit fraud or were on annual leave, maternity leave and sick leave. The prosecution was disappointed with this false court decision. It is ironical and unfortunate that the false evidence used in convicting innocent people and the ones used in acquitting those who are guilty, even including the valid and reliable evidence used in reversing wrongful convictions all come from the same court of law.

The above scenarios suggest that pieces of evidence usually tendered in court are oftentimes not admissible and weighty and thus giving rise to the question as to whether the judicial proceedings used in admitting and assessing evidence have any significant effect on forensic evidence. Therefore, the main objective of this study is to investigate how judicial proceedings used in admitting and assessing evidence, affect forensic evidence. How do evidence admission and assessment proceedings of courts of law affect forensic evidence? Once again, this research will be used to answer the foregoing question.

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1.2 OBJECTIVES OF THE STUDY

The main objective of this study is to investigate how judicial proceedings for admitting and assessing evidence, affect forensic evidence. The specific objectives are:

1.2.1 To investigate how court procedures for admitting evidence support items affect forensic evidence.

1.2.2 To investigate how court procedures for assessing evidence support items affect forensic evidence.

1.2.3 To make recommendations based on the findings of the research.

1.3 RESEARCH QUESTIONS

The study will be used to answer the following research questions:

1.3.1 How do court procedures for admitting evidence support items affect forensic evidence?

1.3.2 How do court procedures for assessing evidence support items affect forensic evidence?

1.4 RESEARCH HYPOTHESIS

H_0: There is no significant relationship between court procedures for admitting and assessing evidence support items and forensic evidence.

H_1: There is a significant relationship between court procedures for admitting and assessing evidence support items and forensic evidence

1.5 OPERATIONAL DEFINITION OF STUDY VARIABLES

1.5.1 Judicial Proceedings: This is the independent variable in the study. These are court procedures which ensure that evidence support items are properly admitted and assessed. Operationally, it is defined as the scores assigned to what each respondent says about judicial proceedings.

1.5.2 Forensic Evidence: This is the dependent variable in the study. This is the weight of evidence derived from judicial proceedings. Operationally, it is defined as the scores assigned to the weight of evidence perceived by respondents as a result of what they say about judicial proceedings.

1.6 SCOPE OF THE STUDY

This study will focus on the court procedures for the proper admission and assessment of evidence support items and measurement of the weight of evidence derived from the court procedures. Simply put, it is about the judicial admission and assessment of evidence and their effects on forensic evidence. Other judicial proceedings and non-forensic related evidence will not be considered in the study. Primary data on evidence admission and assessment will be collected from 20 participants drawn from the fields of accountancy, finance, forensic science and law. Related textbooks, journals and internet materials will provide the secondary data. The study is focussed on obtaining the degree of relationship between what the 20 study participants will say about judicial admission and assessment of evidence and what they will say about the weight of forensic evidence.

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1.7 SIGNIFICANCE OF THE STUDY

This study will make forensic experts and attorneys and related professionals become more knowledgeable and proficient in handling their evidential responsibilities and these knowledge and proficiency will encourage them to see the need in working together to reduce the high incidence of wrongful convictions and acquittals. The information in the study will serve as an additional academic materials for lecturers, researchers and students of forensic related disciplines.

2 LITERATURE REVIEW

2.1 Conceptual Framework

Here we are going to look at how what is admitted and assessed as evidence during judicial proceedings affect forensic evidence. Does it make forensic evidence real, demonstrative, testimonial or documentary? For example, a knife, bloody clothing and DNA admitted and assessed as evidence during judicial proceedings (independent variable) will reveal real forensic evidence (dependent variable). Similarly, things like displays, charts, pictures or models used in educating the Judge during judicial proceedings (independent variable) will reveal demonstrative forensic evidence (dependent variable). Let us again demonstrate a third example. Financial frauds or things such as deliberately putting down wrong totals, wrong brought forward figures, refusing to record revenue or expenditure, refusing to issue receipts or committing teeming and lading which are admitted and assessed as evidence during judicial proceedings (independent variable) will reveal testimonial forensic evidence (dependent variable). In summary, judicial proceedings (independent variable) affect or influence weight of evidence which will be used as proxy for measuring forensic evidence.

We will use this rule as the basis for developing our 5-point likert scale research questionnaire.

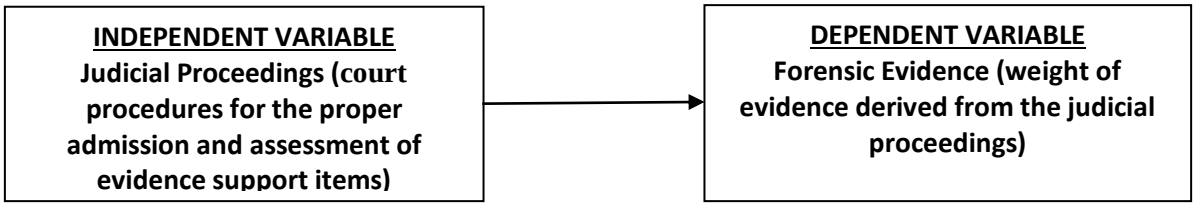

Figure 1: Conceptual Model

The above conceptual model depicts a relationship between judicial proceedings and forensic evidence. This model will be used in the study to investigate how respondents' comments about judicial proceedings affect their perception about the weight of evidence which is used in the study as proxy for measuring forensic evidence. These specific study variables ('judicial proceedings' and 'forensic evidence') will be supported by the theoretical and empirical reviews.

2.2 THEORETICAL FRAMEWORK

2.2.1 Fraud Scale Theory of 1984: This theory was propounded in 1984 by Howe and Romney. It holds that there is an association between personal integrity and each individual personal code of ethical behaviour. Personal integrity is observable both in the decision of an individual and

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decision making process. This association enables us to assess integrity and to determine the tendency of individuals to commit fraud. Relating this theory to the current study, it can be said that the positions occupied by the forensic accountant or forensic experts, the trial Judge and the Jury demand a demonstration of high integrity. There is therefore, a very strong association between the personal integrity of the aforementioned people and the code of ethics that regulate their work.

2.2.2 *Fraud Diamond Theory of 2004:* This theory was first presented by Wolfe and Hermanson in the CPA Journal of December, 2004 and it is an extension of the fraud triangle theory. This extension simply involves the addition of a fourth component called capability. The theory holds that without the present of capability, the other three elements namely, pressure, opportunity and rationalization cannot make a person to commit fraud. The fraud diamond theory is related to this study because forensic accountants or scientists, the trial Judge and the Jury all have the capability to become dishonest because of the unlimited authority they sometimes possess. According to Mathuva (2009) of the Institute of Certified Public Accountants of Kenya (CPAK), 44 percent of fraud perpetrators have unlimited authority in their companies or endeavour.

2.3 EMPIRICAL REVIEW OF LITERATURE

The review of empirical studies will be based on studies that support the theoretical basis of this study. Nutter (2019) first described machine learning as a process that exposed a machine to a large quantity of data and infers a rule from the observed patterns. After establishing that machine learning evidence is admissible, Nutter explained that counsel for both sides must be aware of how machine learning will affect the weight the trier of fact will assign to such evidence. The aim of Nutter's comment was to envision or envisage the possible evidentiary issues that will arise when the output of machine learning algorithm is used as substantive evidence in court. He further explained the three significant ways Artificial Intelligence software will affect criminal and civil litigations in the future. Firstly, the liability which the decision of the algorithm will expose user to, secondly, the alteration of the predictive technologies in the criminal justice system and thirdly, AI can aid the legal reasoning process. The comments of Nutter focussed specifically on using the results of the machine learning process as substantive evidence in litigation. The author concluded by making the following quoted comments: "For instance, in a blurry surveillance video or an unclear audio recording, the naked eye and ear may be insufficient to prove guilt beyond a reasonable doubt, but certain recognition algorithms could do so easily". "Lip-reading algorithms might tell jurors what was said on video where there is no audio available". "A machine might construct an estimation of a perpetrator's face from only a DNA sample", or "in other DNA analysis of corrupted samples". (Condliffe, 2016; PARABON NANOLABS, 2018 and Adelman & Marciano, 2017 as cited in Nutter, 2017).

Fisher (2017) made a short commentary which offered a different assessment. The author argued that pattern evidence is valuable in court cases, even without statistics to assess its worth. He was reacting to the claim made by critics that expert opinion should depend on objective data. Arguing against this claim, he said that expert opinion or evidence should not depend on only statistics in order to make evidence admissible in court since expert conclusions on legal matters are based on professional training, knowledge, skills and experience all of which are also based

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on empirical data. The author further argued that requiring pattern evidence cases to be supported with statistical data is like saying that all expert testimony cases should also depend on statistical evidence. Opinion evidence according to the author, which is based on subjectivity should not be rejected out of hand since any information presented to the court to make decisions depend on admissibility and weight of the evidence. Despite the statistical evidence claim made by critics of pattern evidence cases, the Judge who is the gatekeeper is still the one to decide what is admissible and what is not for the jury to assess. The author finally support his points using he U. S. Federal Rules of Evidence (FRE) Rules 702 and 703 respectively as follows:

"A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case. *Further, FRE Rule 703 under the Bases of an Expert:* An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted. But if the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect."

Faigman, Slobogin and Monahan (2016) sought to use the nature of science in conceptualizing gatekeeping analysis in scientific evidence cases. The authors specifically made a clear distinction between general and case-specific scientific findings. The trial Judge, according to the authors should assess the reliability of both the method used and the conclusion reached by the expert. The authors further asserted that whether or not the expert's methods and conclusions are reliable or credible are matters of weight which concern the Jury unless the Judge can prove that no rational Jury will accept the expert's assertions. Faigman et al further emphasized that aligning the admissibility-weight determination with the nature of science is in line with constitutional and evidential desideratum.

Mcdermott (2013) used his article to quantitatively and qualitatively analyse the use of written witness statements instead of oral testimony and to assess how this impacts practically on the rules of admissibility of written witness testimony brought before the international Criminal Tribunal for the former Yugoslavia, the International Criminal Tribunal for Rwanda and the Special Court for Sierra Leone. Evidence undercurrent and less stringent rules on written witness testimony, were traced from admissibility to judgement. The author found that current rules on admissibility are relatively not frequently used in some tribunals and that the question of equality of arms in others, could be raised when written statements are admitted in court since prosecution use more liberal rules on written statement more than the way the defence do. Other findings disclosed by the author included continued emphasis on the importance of oral testimony by some chambers and the request by others that less weight should not be given to written testimony that is not subjected to full cross examination. The article recommended that the weight of evidence should be totally analysed from a practical stand-point and a more

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particularized approach to pieces of evidence in the future. This study supports the Faigman, et al (2017) that prescribed the general-specific factors for admissibility-weight determination.

Idhiarhi (2018) explain the concepts of evidence and types of evidence and highlighted the provisions of evidence Act of 2011. The author used the decision taken in Oghoyone v. Oghohone (2010) to conclude that because we operate in a system where we oppose and attack each other, the court has no duty to raise matters of inadmissibility or non-compliance with laid down rules. Any objection raised to non-compliance according to Idhiarhi should come from the opposite party. Inadmissibility would be taken as having been waive if no objection is raised by the opposite party. However, Idhiarhi has used this article to debunked his earlier position which he used the judicial decision in Attorney-General, Oyo State v. Fairlakes Hotels to support.

Watney (2009) focused his attention on rules that govern admissibility of electronic evidence as they relate to the South African legal framework in law of evidence. The argument put forward by the author is that admissibility centers on the establishment of the type of electronic evidence that is being used whether it is documentary or real evidence. According to Watney, admissibility of electronic evidence is functionally similar to traditional evidence in South Africa and that this country does not have special rules governing electronic evidence. He further disclosed that South African law of evidence is bedevilled by the absence of procedures regulating the collection, storage and presentation of electronic evidence when if addressed, will make the country to successfully face the 21st century challenges and its role in proving electronically committed crimes will be improved.

Jerrold (2015) attempted in his short but, very important article to answer two questions: what makes some scientific evidence admissible? And who makes this decision? The author argue that anything that is generally accepted has many ways of treatment and experts who engage in condemning one another at trials are the real culprits. He asserted that errors are inevitable and having differing views and approaches are not failures but, they can be regarded as simple beliefs and approaches that have gained general acceptance. He agreed with an article that stated that junk science is able to find its way into the courtroom because Judges and Jurors are given too much responsibilities in deciding expert testimony that is or is not admissible and weighty. This work seems to be slightly similar to the position held by Idhiarhi (2018).

In an attempt to discuss the role of forensic science experts in criminal investigation, Idhiarhi (2018) used the decision taken in Attorney-General, Oyo State v. Fairlakes Hotels to conclude that ";..it is not sufficient to say that where a document written by an expert is tendered in evidence and that document or the testimony through which it is tendered if unchallenged, then it must be acted upon. The document is certainly subject to scrutiny by the trial court and its contents could, in the process of the scrutiny, be rejected if there is reason to do so. It will be interesting to recall that Idhiarhi in his article of 18th April, 2018 used the decision taken in Oghoyone v. Oghohone (2010) to argue that it is not the duty of the court to raise matters of inadmissibility or non-compliance and that it is the opposite party's duty to raise objection and if objection is not raised, the non-compliance will be taken as having been waived.

A 5 – 4 decision was taken by U. S. Supreme court that defendants have the right to cross-examine forensic analysts who handle scientific evidence in criminal cases. This suggest that forensic findings are open to interpretation and could be manipulated. According to a report on forensic released by U. S. National Academy of Sciences and Justice Antonin Scalia's majority

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opinion, serious deficiencies have been found in the forensic evidence used at criminal trials. This decision is in line with the decision taken under Crawford v. Washington that a witness testimony against a defendant is inadmissible unless the witness appears at trial or if the witness is unavailable, the defendant had a prior opportunity for cross-examination. The weight of evidence used in arriving at a verdict for this case is that the substance mentioned in the expert testimony was confirmed as cocaine. The appearance of the expert witness for cross-examination is therefore, immaterial.

Faigman (2017) attempted to draw a dividing line between admissibility and weight of evidence. The author asserted that the distinction between admissibility and weight is fundamental to all evidence codes but, little attention was given to it in courts. It was therefore, according to the author, the court decision in Daubert v. Merrel Dow Pharmaceuticals Inc that held that Judges are gatekeepers and are the ones to determine the expert testimonies that are or are not reliable or valid for Jury's assessment. Faigman therefore, distinguished between a general assertion and general framework of reference that will help Judges in determining evidence that is or is not admissible in court and a case-specific assertion or conditional facts that will assist jury in assessing the weight of evidence.

The work carried out by Dyson (2014) was a brilliant attempt to verify whether there was any logical connection between admissibility and weight in matters concerning pieces of evidence tendered in courts of law. The issue addressed by Byrne (2014) as cited in Dyson (2014) was whether that classical division between the judge's responsibility (admissibility) and Jury responsibility (weight determination) is breaking down. What probably prompted this enquiring question is the frequent report of deficiencies in forensic science and the ever-increasing number of wrongful convictions globally. Dyson asserted that the question which is exclusively left to the Judge to answer is: "Is this evidence admissible?" while the other question which is left to the Jury to answer is: "Is this evidence, which is admissible and has been admitted, evidence of sufficient weight to act on in resolving the controversy being tried?" This therefore, shows a clear distinction between the function of a Judge and that of a Jury.

A conference paper was written and presented by ACFE member in 2011 at the 22nd Annual ACFE Fraud Conference and Exhibition aimed at assisting professionals in forensic investigations and audit including other relevant professionals in knowing the elements of fraud, why fraud happens and how to analyse whether fraud could or often has occurred. The author asserted that where a witness lacks credibility, his testimony will not be admissible in court. According to the author of the paper, it is usually risky to admit the testimony of a witness or a forensic scientist or expert who lacks credibility and integrity. The paper emphasized that in order to prove or disprove a circumstantial case in court, fact witnesses and expert witnesses must be used, whether you are on the investigating side or the side of the investigated. Careful screening of witnesses and the fact patterns in each case is the key to having a positive result and that investigators should be sure of their facts and witnesses and accountants who represent clients should remember that the client is innocent until proven guilty no matter what law enforcement or the news media have to say, the paper concluded. All the studies so far reviewed focussed principally on the distinction between admissibility of evidence and weight of evidence and on factors that make evidence admissible and weighty. We have not come across any study

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that has attempted to investigate how judicial proceedings for admitting and assessing evidence support items affect forensic evidence. We will therefore, use the current study to fill this gap.

3 METHODOLOGY

The research design adopted for this study was the survey design using a one-time-only observation. The data for the study came from both primary and secondary sources. The data could not be subjected to pre-test trial because the research was required to be completed in just three weeks. 21 participants which consisted of professional accountants, professional auditors, forensic experts, financial analysts and legal practitioners, constituted the target population. All the 21 participants were accessible from which a sample size of 20 was determined, using Yaro Yamani formula as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where n = sample size, N = accessible population and e = level of significance. After substituting the appropriate values into the above formula, the sample size, n becomes:

$$n = \frac{21}{1 + 21(0.05)^2}$$
$$= \mathrm{n}(1 + 21(0.05)^2) = 21$$
$$= \mathrm{n}(1 + 0.0525) = 21$$
$$= \mathrm{n}(1.0525) = 21$$
$$= 1.0525\mathrm{n} = 21$$
$$\mathrm{n} = \frac{21}{1.0525} = 19.95 = 20 \text{ approx.}$$

Ex-post facto design was adopted due to the inability of the researcher to manipulate the independent variable, judicial proceedings (independent variable) had already exerted its influence on forensic evidence (dependent variable) before the researcher started the work. The nature of the effect of this independent variable was therefore, what the study investigated. The random sampling technique was used to select the 20 participants from the target population. An eleven-item (11 items or statements) structured questionnaire was developed and circulated to sample members using a 5 – point likert scale (please see table 1 on page 16). All the participants responded and returned their questionnaires.

The reliability of the ordinal data which was collected on a 5 – point likert scale, was tested using Cronbach alpha. The ordinal data was converted to interval scale data in order to facilitate the application of simple linear regression technique. The relationship between the two study variables, 'judicial proceedings' and 'forensic evidence' was expressed using the following equation:

FOREVI = f (JUDPRO)

This regression model now becomes:

$$FOREVI = b_0 + b_1 JUDPRO + e_i$$

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Where,
FOREVI = Forensic Evidence
JUDPRO = Judicial Proceedings

b_0 = expected value (a constant amount) of the dependent variable (FOREVI) when the independent variable (JUDPRO) becomes zero.
b_1= A coefficient which represents the contribution of judicial proceedings (independent variable) to the occurrence of forensic evidence.

e_i = *error term*

$b_0, b_1, \geq 0$

The distribution of composite likert scores of JUDPRO and FOREVI used in running the simple linear regression, is shown on tables 2 and 3 on page 17

4 RESULTS FROM PRIMARY RESEARCH

4.1 Test of Reliability and Validity of primary data prior to data analysis

The independent variable data and dependent variable data conformed to Cronbach alpha which showed a reliability coefficient of above the required 0.70. The reliability coefficients of 0.76 and 0.74 were respectively obtained for judicial proceedings data and forensic evidence data respectively (please see tables 4 and 5 on pages 18 and 19 respectively).

4.2 Regression analysis (see table 6 on page 20)

The contribution of the independent variable (judicial proceedings) was very low while there was no significant relationship between the variables (R^2 = 0.091, F(1, 18) = 1.812, n.s). The intercept of forensic evidence (the dependent variable) was positive when judicial proceedings (the independent variable) equals to zero and it was not significant$(\beta_0 = 1.536, n.s)$.

4.3 Hypotheses testing (see regression output table 6 on page 20)

The results obtained after testing the null hypothesis were as follows:
Hypothesis: There is no significant relationship between judicial proceedings and forensic evidence. This regression analysis results represented a correlation coefficient that is positive and weak and this was not significant. $(\beta_1 = .321, n.s)$. The null hypothesis was therefore, accepted while the alternative hypothesis was rejected.

5 DISCUSSION OF FINDINGS

The variability of the dependent variable (forensic evidence) as explained by the independent variable (judicial proceedings) is indicated by an adjusted R square of .041 which is approximately .04(please see table 6 on page 20). The model generated an F – statistic of 1.812 at an alpha level of .20 (.195) and it was not significant. Therefore, the model has a very low explanatory power. The simple linear regression output shown in table 6 on page 20 forms the basis for analysing the hypothesis.

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5.1 Hypothesis: (as table 6 on page 20 shows)

There is no significant relationship between judicial proceedings and forensic evidence $(\beta_1 = .321, n.s)$. What this means is that given an unstandardized coefficient of .321, any increase in judicial proceedings value by 1point will cause the value of forensic evidence to increase by 0.321 point only, with all other variables being held constant. A standardized coefficient of 0.302 means that as judicial proceedings value increases by 1 standard deviation, value of forensic evidence will increase by 0.302 standard deviation with all other variables being held constant. However, this positive relationship was not significant or not being true at a t-test statistic of 1.346 based on the alpha level of .05 (i.e. .195). The positive relationship that would have existed between judicial proceedings and forensic evidence is very weak and not significant mostly due to the inappropriateness of the objects or things used in admitting and assessing evidence during judicial proceedings. Admission and assessment of evidence during judicial proceedings was mostly based on irrelevant, unreliable, unbelievable and unpersuasive objects or things. For instance, inappropriate objects or things admitted and assessed as evidence still found their way to the courtrooms. Objects or things admitted as evidence during judicial proceedings reveal forensic evidence only when they are relevant and reliable and they reveal forensic evidence only when they are believable, persuasive and have probative value.

6 CONTRIBUTION TO KNOWLEDGE

This study has demonstrated that without the existence of a positive and significant relationship between judicial proceedings and forensic evidence, relevant, reliable, believable and persuasive evidence cannot be revealed during judicial proceedings. The knowledge added to the existing ones is that when objects or things admitted and assessed as evidence during judicial proceeding clearly relate to evidence, there will be no reason why forensic evidence will not be relevant, reliable, believable, persuasive, and have probative value. The presence of a logical connection between judicial proceedings and forensic evidence is what gives credibility to the evidence that will be used in convicting and acquitting defendants on trial. The time has come for us to pay more attention to this logical connection instead of laying emphasis only on the distinction between admissibility of evidence and weight of evidence. This distinction will be beneficial if what the Judiciary is doing aligns with what the forensic expert is doing.

7 CONCLUSION

Evidence is relevant, reliable, believable, persuasive, and have probative value if it is clearly supported by objects or things admitted and assessed as evidence during judicial proceedings. Evidence is relevant if it relates to the facts of the case and it is reliable if it is obtained from a credible source. Weight in the law of evidence is the believability, persuasiveness or the probative value of any evidence which is admissible in court. We cannot have a valid and reliable verdict without an admissible and weighty evidence. For evidence to be admissible and weighty, it must have a strong and positive relationship with the objects or things that are assessed as evidence during judicial proceedings. In the current study, there is no significant relationship between the objects or things admitted and assessed as evidence during judicial proceedings and forensic evidence, suggesting that the judiciary and the forensic experts or scientists are not sufficiently working together to bring justice to generate credible evidence.

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8 RECOMMENDATIONS

8.1 The quality of evidence will be improved when objects or things admitted and assessed as evidence during judicial proceedings relate clearly to the facts of the evidence.

8.2 Objects or things admitted and assessed as evidence during judicial proceedings should be relevant, reliable, believable, persuasive, and have probative value for both the judiciary and forensic experts.

8.3 The judiciary should at all times use the result of the evidence admitted and assessed during judicial proceedings to arrive at a verdict and not the other way round.

8.4 Forensic experts or scientists and attorneys should ensure that before going to court to give their litigation support, their pieces of evidence with supporting objects are relevant, reliable, believable and persuasive and should at all times demonstrate high level of integrity.

8.5 For justice to always prevail, the usual assertion made in some quarters that whether the objects or things supporting the evidence are admissible or not, it is the jury that will determine the weight of the evidence or have the final say. After all, there have been reported cases where Jurors were arrested for benefit frauds. This is a very dangerous assertion and should therefore, be jettisoned.

8.6 The judiciary and the attorneys should note that 'this is the goat that X stole' from me (admissibility) is not as believable and persuasive as a picture or video or any other acceptable means of proving that X stole the goat (weight). Forensic experts should also note that the inability of the prosecution to prove that the goat is the same as the one purported to have been stolen renders the evidence inadmissible. The attorneys are fully aware of this.

9 DIRECTION FOR FUTURE RESEARCH

Future research work in this area should be focussed on answering the following questions:

9.1 Why has forensic science not prevented the Judge and Jury from convicting innocent people and from acquitting those who are actually guilty?

9.2 What proactive steps should we take to ensure that forensic errors are discovered long before Jurors give their final verdict?

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APPENDIX

TABLE 1: RESEARCH QUESTIONNAIRE

S/N	Section A Judicial Proceedings	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	Expert testimonies tendered in court are admitted and assessed	1	2	3	4	5
2	Stolen and injury inflicting items are tendered in court for ion And assessment	1	2	3	4	5
3	Pictures and videos used in showing how and where crime was committed are tendered in court for admission and assessment	1	2	3	4	5
4	Written confessions and agreements are tendered in court	1	2	3	4	5
5	In all the trials witnessed, the Jury has never been outraged	1	2	3	4	5
6	I have never witnessed any trial where a good thing is overly emphasized	1	2	3	4	5
7	Nothing is done to take the Jury's attention from the main issue	1	2	3	4	5
8	Other witness testimonies are accepted only when they are relevant and reliable	1	2	3	4	5
9	Non-experts are never allowed to give testimonies in court	1	2	3	4	5
10	Defendant's personality trait is used to support evidence only when they are relevant and reliable	1	2	3	4	5
11	Information from privilege sources are rejected when tendered in court	1	2	3	4	5
S/N	**Section B Forensic Evidence**	**Strongly Disagree**	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
1	Defendants are convicted only when the crimes mentioned in the testimonies are committed beyond a reasonable doubt	1	2	3	4	5
2	The Jury ensures that the stolen and injury-inflicted items are exactly the ones recovered from the defendants	1	2	3	4	5
3	The pictures and videos actually display how and where the defendants committed the crime.	1	2	3	4	5
4	Defendants are convicted only when tendered confessions and agreements are actually written by them	1	2	3	4	5
5	Nothing prejudicial has ever been presented before the Jury	1	2	3	4	5
6	No good thing has ever been overly emphasized during trial sessions	1	2	3	4	5
7	Deviation from the main issue does not occur during trial sessions	1	2	3	4	5
8	Believable and persuasive hear-says are used to convict defendants	1	2	3	4	5
9	All the testimonies come from experts witnesses	1	2	3	4	5
10	Only relevant and reliable personality traits are used as evidence	1	2	3	4	5
11	The Jury uses only privilege information from independent sources	1	2	3	4	5

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Table 2: DISTRIBUTION OF 5-POINTS LIKERT SCALE RESPONSE SCORES AND TOTAL SCORES FOR JUDICIAL PROCEEDINGS (JUDPRO)

ID Number	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Total Scores
1	4	4	2	4	3	3	4	4	2	3	4	37
2	3	4	4	3	3	5	5	4	4	3	5	43
3	3	3	4	3	3	3	5	5	4	3	5	41
4	3	4	4	3	4	5	4	4	4	3	5	43
5	4	3	5	3	3	3	4	4	4	3	5	41
6	4	4	5	3	3	4	4	4	3	3	5	42
7	4	3	5	3	3	3	4	4	3	3	5	40
8	3	4	4	3	3	4	5	5	3	4	5	43
9	3	2	4	2	2	2	3	3	2	3	4	30
10	4	4	4	3	3	4	4	4	3	3	4	40
11	4	3	4	3	3	2	4	3	3	3	5	37
12	4	5	5	4	4	5	5	5	4	4	4	49
13	4	3	5	3	3	3	4	4	3	3	5	40
14	4	4	5	3	3	4	3	4	3	3	4	40
15	4	4	4	3	2	2	5	4	3	4	4	39
16	4	4	4	2	2	4	4	4	3	4	5	40
17	3	2	3	4	3	2	3	3	4	2	4	33
18	4	4	4	3	4	3	3	5	3	3	4	40
19	4	3	4	4	3	4	5	4	3	3	5	42
20	3	3	3	3	3	4	3	3	3	4	4	36

Table 3: DISTRIBUTION OF 5-POINTS LIKERT SCALE RESPONSE SCORES AND TOTAL SCORES FOR FORENSIC EVIDENCE (FOREVI)

ID Number	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Total Scores
1	3	3	2	4	3	2	2	2	2	2	2	27
2	2	2	2	3	3	3	3	2	4	3	4	31
3	2	3	3	3	3	3	3	3	4	3	4	34
4	2	2	2	3	4	3	2	2	4	3	4	31
5	2	2	3	2	2	1	1	1	3	3	4	24
6	2	1	2	2	2	1	1	1	2	2	2	18
7	2	2	3	2	2	1	1	1	2	2	4	22
8	2	2	2	3	3	2	3	3	3	4	4	31
9	2	2	4	2	2	1	1	1	2	2	4	23
10	3	2	2	3	3	2	2	2	3	3	2	27
11	3	3	3	3	3	1	2	1	3	3	4	29
12	2	2	2	3	3	2	2	2	3	3	2	26
13	3	3	4	3	3	2	2	2	3	3	4	32
14	3	2	3	3	3	2	1	2	3	3	2	27
15	3	4	3	3	2	1	3	2	3	4	2	30
16	3	2	2	2	2	2	2	2	3	4	4	28
17	2	2	2	4	3	1	1	1	4	2	2	24
18	3	2	2	3	4	1	1	3	3	3	2	27
19	3	3	3	4	3	3	3	2	3	3	4	34
20	2	1	1	3	3	2	1	1	3	4	2	23

TABLE 4: Results of Testing the Reliability of the Primary Data Collected for Judicial Proceedings Using Cronbach's Alpha Technique (The acceptable Reliability Coefficient of 0.76 was obtained for the data. Reliability Statistics table is displayed below)

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Reliability

```
[DataSet1] C:\Users\Lizzy\Documents\Primary data for Judicial Proceedings.sav
```

Scale: ALL

Case Processing Summary

		N	%
Cases	Valid	20	100.0
	Excluded[a]	0	.0
	Total	20	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.755	11

Item Statistics

	Mean	Std. Deviation	N
Item_1	3.65	.489	20
Item_2	3.50	.761	20
Item_3	4.10	.788	20
Item_4	3.10	.553	20
Item_5	3.00	.562	20
Item_6	3.45	.999	20
Item_7	4.05	.759	20
Item_8	4.00	.649	20
Item_9	3.20	.616	20
Item_10	3.20	.523	20
Item_11	4.55	.510	20

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Item_1	36.15	15.082	.140	.763
Item_2	36.30	11.800	.665	.698
Item_3	35.70	13.379	.321	.750
Item_4	36.70	14.958	.138	.765
Item_5	36.80	13.747	.429	.735
Item_6	36.35	10.976	.586	.709
Item_7	35.75	12.408	.536	.718
Item_8	35.80	12.379	.669	.703
Item_9	36.60	13.726	.383	.740
Item_10	36.60	14.568	.253	.753
Item_11	35.25	14.618	.249	.753

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
39.80	15.853	3.982	11

TABLE 5: Results of Testing the Reliability of the Primary Data Collected for Forensic Evidence Using Cronbach's Alpha Technique (The acceptable Reliability Coefficient of 0.81 was obtained for the data. Please see Reliability Statistics table as shown below)

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Reliability

```
[DataSet3] C:\Users\Lizzy\Documents\Forensic Evidence.sav
```

Scale: ALL

Case Processing Summary

		N	%
Cases	Valid	20	100.0
	Excluded[a]	0	.0
	Total	20	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.742	11

Item Statistics

	Mean	Std. Deviation	N
Item_1	2.45	.510	20
Item_2	2.25	.716	20
Item_3	2.50	.761	20
Item_4	2.90	.641	20
Item_5	2.80	.616	20
Item_6	1.80	.768	20
Item_7	1.85	.813	20
Item_8	1.80	.696	20
Item_9	3.00	.649	20
Item_10	2.95	.686	20
Item_11	3.10	1.021	20

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Item_1	24.95	16.576	.239	.739
Item_2	25.15	14.345	.548	.701
Item_3	24.90	17.042	.034	.770
Item_4	24.50	15.632	.353	.727
Item_5	24.60	15.832	.331	.730
Item_6	25.60	13.937	.577	.695
Item_7	25.55	12.787	.754	.664
Item_8	25.60	14.253	.589	.696
Item_9	24.40	15.095	.459	.714
Item_10	24.45	15.629	.319	.732
Item_11	24.30	15.168	.204	.762

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.40	17.832	4.223	11

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TABLE 6: The results of simple regression analysis of the data collected for JUDPRO and FOREVI

Regression

[DataSet2] C:\Users\Lizzy\Documents\Regression Output for Judicial Proceedings and Forensic Evidence.sav

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	JUDICIAL PROCEEDINGS[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: FORENSIC EVIDENCE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302[a]	.091	.041	4.135

a. Predictors: (Constant), JUDICIAL PROCEEDINGS

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.981	1	30.981	1.812	.195[a]
	Residual	307.819	18	17.101		
	Total	338.800	19			

a. Predictors: (Constant), JUDICIAL PROCEEDINGS

b. Dependent Variable: FORENSIC EVIDENCE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.635	9.528		1.536	.142
	JUDICIAL PROCEEDINGS	.321	.238	.302	1.346	.195

a. Dependent Variable: FORENSIC EVIDENCE