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**FORENSIC EXPERT WITNESSING: AN EMERGING
NEED FOR SCIENTIFIC EVIDENCE IN UGANDAN
JUDICIAL SYSTEMS**

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Kabul ve Onay



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DEDICATION

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ABBREVIATIONS

ACB	Agricultural Chemicals Board
AG	Auditor General
AIDs	Acquired Immune Deficiency Syndrome
ATA	Anti-Terrorism Act
CIA	Central Intelligence Agency
CID	Criminal Investigations Department
CMI	Chieftaincy of Military Intelligence
COMESA	Common Market for Eastern and Southern Africa
CPR	Civil Procedure Rules
DDT	Dichlorodiphenyltrichloroethane
DGAL	Directorate of Government Analytical Laboratory
DNA	Deoxyribonucleic Acid
DPP	Directorate of Public Prosecutions
DWD	Water Directorate of Development
EAC	East African Community and
ECSA	East Central and Southern Africa.
ESO	External Security Organization
EU	European Union
FBI	Federal Bureau of Investigations
FHRI	Foundation for Human Rights Initiative
FIA	Financial Intelligence Authority
FIFA	Federation Internationale de Football association
GMO	Genetically Modified Organism
HIV	Human Immunodeficiency Virus
HSBC	Hong Kong and Shanghai Banking Corporation Limited
HURINET	Human Rights Network
ICDs	Internal Container Depots
IEC	International Electrochemical Commission

IGG	Inspector General of Government
IGG	Inspector General of Government
ILC	Inter-laboratory comparison
ILC	Inter-Laboratory Comparison
ISO	Internal Security Organization
ISO	International Organization for Standardization
ISO	International Security Organization
IT	International Technology
JLOS	Justice Law and Order Sector
MPPU	Minerals Police Protection Unit
MTCS	Medium Term Competitive Strategy and
NARO	National Agricultural Research Organization
NDA	National Drug Authority
NDP/A	National Drug Policy and Authority
NEMA	National Environment Management Authority
NWSC	National Water and Sewerage Corporation
PAE	Party Appointed Expert
PEAP	Poverty Eradication Action Plan
PMA	Plan for Modernization of Agriculture
SEP	Strategic Exports Programme
SGBV	Sexual and Gender-Based Violence
SIU	Special Investigation Unit
SJE	Single Joint Expert
SOCO	Scene of Crime Officer
SWAP	Sector Wide Approach
UIRI	Uganda Industrial Research Institute
UK	United Kingdom
UN	United Nations
UNBS	Uganda National Bureau of Standards
UNBS	Uganda National Bureau of Standards
UNBS	Uganda National Bureau of Standards
UNHRC	United Nations Human Rights Commission

UPDF	Uganda people's Defence Forces
UPF	Uganda Police Force
UPF	Uganda Police Force
URA	Uganda Revenue Authority and the
USA	United States of America
USAID	United States Agency for International Development
UVRI	Uganda Virus Research Institute



ABSTRACT

Forensic Expert Witnessing: An Emerging Need For Scientific Evidence In Ugandan Judicial Systems

In terms of justice innovation, Uganda is one of the most active nations. People and their needs are placed at the center of justice systems thanks to Uganda's growing commitment to people-centered justice. There is a demand for justice systems to be changed to be more open to innovation and to a wider range of justice providers. Forensic expert witnessing is one way to provide this innovation. It involves testifying about findings and offering comments based on the findings of the study of evidence gathered from a crime scene.

Previous studies have shown that good expert witness practise can help with prolonged and unresolved criminal injustices like wrongful convictions, unsolved crimes, unsuccessful prosecutions, and unpunished offenders. This calls for an analysis of the existing expert witnessing in the current Uganda's legal institutional framework with regard to scientific evidence to identify key recommendations necessary for best expert witness practise in Uganda. The data was collected using multiple-choice and open-ended questions and analysed qualitatively and quantitatively by a sample of 100 people from different regions and different professions. The survey consisted of 5 questions for the ministry of justice and constitutional affairs representative, 10 questions for experienced lawyers, judges, and public prosecutors, 6 questions for experienced expert witnesses, and 6 questions for the general population.

It was established that there is a shortage of experienced expert witnesses in Uganda today due to the high level of specialisation required. Further still, the few highly experienced ones are in constant demand and spread thinly across the system. Moreover, the existing monitoring and accountability mechanisms that govern the work of expert witnesses are weak and ineffective since there is no specific registry of expert witnesses by field of expertise, either by qualification or experience. There is also a lack of legal framework to protect the rights, work, and payment system of the expert witness. As such, few people are knowledgeable about expert witnessing; therefore, there is a need for witness awareness programmes to be carried out in different parts of the country in order to improve Uganda's justice system.

Keywords: Expert witness, Ugandan judicial system, criminal injustices, legal framework, justice innovation

ÖZET

Adli Bilirkişi Tanıklığı: Uganda Yargı Sistemlerinde Bilimsel Deliller İçin Gelişmekte Olan İhtiyaç

Adalet inovasyonu açısından, Uganda en aktif ülkelerden biridir. Uganda'nın insan merkezli artan adalet bağlılığı sayesinde, insanların ihtiyaçları adalet sistemlerinin merkezine yerleştirilmiştir. Adalet sistemlerinin yeniliğe , daha geniş bir adalet sağlayıcı yelpazesine açık olacak şekilde, değiştirilmesine yönelik bir talep var. Adli bilirkişi tanıklığı bu yeniliği sağlamanın bir yoludur. Bulgular hakkında ifade vermeyi ve bir suç mahallinden toplanan kanıtların incelenmesinin bulgularına dayanarak yorumlarda bulunmayı içerir.

Önceki araştırmalar, iyi bir bilirkişilik uygulamasının, yanlış mahkumiyetler, faili meçhul suçlar, başarısız kovuşturmalar ve cezasız kalan suçlular gibi uzun süreli ve çözülmemiş cezai adaletsizliklerde yardımcı olabileceğini göstermiştir. Bu, Uganda'daki en iyi bilirkişilik uygulaması için gerekli temel tavsiyeleri belirlemek için bilimsel kanıtlarla ilgili olarak mevcut Uganda'nın yasal kurumsal çerçevesindeki mevcut bilirkişi tanıklığının bir analizini gerektirir. Veriler, çoktan seçmeli ve açık uçlu sorular kullanılarak toplanmış ve farklı bölgelerden ve farklı mesleklerden 100 kişilik bir örneklem ile nitel ve nicel olarak analiz edilmiştir. Anket, adalet bakanlığı ve anayasal işler temsilcisi için 5, deneyimli avukat, hakim ve savcılar için 10, deneyimli bilirkişiler için 6 ve genel nüfus için 6 sorudan oluşmaktadır.

Gereken yüksek düzeyde uzmanlık nedeniyle bugün Uganda'da deneyimli bilirkişi eksikliği olduğu tespit edilmiştir. Dahası, son derece deneyimli birkaç kişi sürekli talep görüyor ve sisteme ince bir şekilde yayılıyor. Ayrıca bilirkişilerin çalışmalarını yöneten mevcut izleme ve hesap verebilirlik mekanizmaları zayıf ve etkisizdir. Çünkü bilirkişilerin uzmanlık alanlarına, nitelik veya deneyime göre belirli bir kaydı yoktur. Ayrıca bilirkişinin haklarını, işini ve ödeme sistemini koruyan yasal çerçeve de yoktur. Bu nedenle, çok az kişi bilirkişilik hakkında bilgi sahibidir; bu nedenle, Uganda'nın adalet sistemini iyileştirmek için ülkenin farklı yerlerinde tanık bilinçlendirme programlarının yürütülmesine ihtiyaç vardır.

Anahtar kelimeler: Bilirkişi, Uganda yargı sistemi, cezai adaletsizlikler, yasal çerçeve, adalet yenili

1. INTRODUCTION

1.1. Overview

Issues such as claims that high-power electric lines cause cancer⁽¹⁾⁽²⁾, some energy drinks on the market cure erectile dysfunction⁽³⁾⁽⁴⁾, industrial chemicals damage the immune system⁽⁵⁾⁽⁶⁾, the use of asbestos sheets for roofing is dangerous⁽⁷⁾⁽⁸⁾, family planning pills cause bareness⁽⁹⁾ and reduce libido⁽¹⁰⁾ etc are coming up in court nowadays. Issues such as intellectual property⁽¹¹⁾⁽¹²⁾, exaggerated advertisements⁽¹³⁾⁽¹⁴⁾, and paternal disputes are bound to require scientific evidence in court⁽¹⁵⁾. Patent law cases can turn on an understanding of the underlying technical or scientific subject matter⁽¹⁶⁾. And, of course, tort law often requires difficult determinations about the risk of death or injury associated with exposure to a chemical ingredient of a pesticide or other product.

Consider a case of a terminally ill patient in hospital. Is there a law that permits a doctor's assistance in the suicide of a terminally ill patient? Is the "right to assisted suicide" part of the liberty that the constitution protects? To what extent can medical technology reduce or eliminate the risk of dying in severe pain? The medical question cannot determine the answer to the legal question. When does one have the right-to-die?

Given the increased use of cosmetics and whitening chemicals⁽¹⁷⁾⁽¹⁸⁾, can the retailer or cosmetic manufacturing company be prosecuted for the side effects and the harm they cause on the skin of the customer? Courts review the reasonableness of administrative agency conclusions about the safety of a drug, the risks attending industrial waste disposal, the leakage potential of a toxic waste dump, or the risks to wildlife associated with the building of a dam. In a case of professional negligence of a doctor, nurse, engineer, electrician, technician, IT specialist, etc, only scientific evidence suffices in such cases.

Recently many people have been robbed of their hard-earned finances through bit coin schemes⁽¹⁹⁾. Court cases involving money laundering and many get-rich-quick schemes are on the rise nowadays⁽²⁰⁾. Is eye witness evidence really sufficient for a judge in such cases?

In the case of a car accident that happens after a tire goes off. Who is to be prosecuted? The mechanic, car manufacture or the driver? In case a factory procures an expensive machine which is transported to the site only to be installed and it doesn't function, who makes the compensation? Is it the manufacturer of the machine, the seller of the machine, the transporter or the technical person who installed it may have encountered a failure?

How can a drug causing more harm than good get off the market? When a dangerous and mentally ill person is determined a threat to public safety? In case power comes back after a power outage and it destroys factory machinery or domestic appliances whose switch was on when the power came on, would such a case be decided on only humanistic grounds? How about a case of a person who dies in a bathroom because of very smooth tiles? Is it possible that the tile factory is sued? On many recent cases, where there is no expert witness, we remain with more questions than answers to solve the cases.

Currently in Uganda, there are many construction accidents and failures⁽²¹⁾. In such malfunctions, who is to be exonerated? The contractors, the cement manufacturers or the hardware where the building materials were bought?

As new innovations within every sector increase in number, so are the industrial and manufacturing errors. Many of these errors can only be argued out scientifically in court. In addition, more and more technologies are getting access to the Ugandan market. Criminals are quick to find ways to exploit new technologies to further their illicit activities. Uganda was named as the most entrepreneurial country in the world in a report by B2B marketplace Approved Index⁽²²⁾. Several Ugandan products are coming on market daily. Who can scientifically pin a company that its product caused harm to a customer? Who can scientifically prove that a product on the market is counterfeit? These questions and many others implicate science and medicine as well as law.

The Supreme Court's docket is only illustrative. Scientific issues permeate the law. There should be proper resolution of such matters not just to the litigants, but also to the general public—those who live in our technologically complex society and whom the law must serve. Court decisions should reflect a proper scientific and technical understanding so that the law can respond to the needs of the public. Recently, the parliament of Uganda is every now and then presented with bills involving science for example the request for permission for use of GMOs in Uganda⁽²³⁾, relevance of circumcision in the fight against

AIDs, effects of spraying DDT to kill mosquitoes on the ecosystem⁽²⁴⁾⁽²⁵⁾, the environmental impact of cutting down a forest to plant a sugarcane plantation⁽²⁶⁾⁽²⁷⁾, effect of drilling oil on the drainage system of an area⁽²⁸⁾⁽²⁹⁾, impact of a particular pesticide on the fertility of the soil⁽³⁰⁾⁽³¹⁾, hydro-electric dam construction effect on the ecosystem surrounding a water fall⁽³²⁾⁽³³⁾ etc. Parliament solicits advice on several science policies from the experts for example the potential dangers of food additives.

The legal disputes are increasingly involving the principles and tools of science. The importance of scientific accuracy in the decision of such cases reaches well beyond the case itself. A decision wrongly denying compensation in a toxic substance case, for example, can not only deprive the plaintiff of warranted compensation but also discourage other similarly situated individuals from even trying to obtain compensation and can encourage the continued use of a dangerous substance. On the other hand, a decision wrongly granting compensation, although of immediate benefit to the plaintiff, can improperly force abandonment of the substance. Thus, if the decision is wrong, it will improperly deprive the public of what can be far more important benefits. Decision making in such cases often isn't enough without expert evidence and opinion. This paper is written to assess the work and need of the experts in the juridical system. The legal framework within which the expert operates is looked into.

Furthermore, science itself may be highly uncertain and controversial with respect to many of the matters that come before the courts. Scientists often express considerable uncertainty about the dangers of a particular substance. And their views may differ about many related questions that courts may have to answer. What, for example, is the relevance to human cancer of studies showing that a substance causes some cancers, perhaps only a few, in test groups of mice or rats? What is the significance of extrapolations from toxicity studies involving high doses to situations where the doses are much smaller? Can lawyers or judges or anyone else expect scientists always to be certain or always to have uniform views with respect to an extrapolation from a large dose to a small one, when the causes of and mechanisms related to cancer are generally not well known?

2. BACKGROUND OF STUDY

2.1. Who is An Expert Witness?

A witness is a person giving sworn evidence to a tribunal or court of law⁽³⁴⁾. There are basically two types of witnesses: witnesses of fact who may give evidence of fact but may not normally give opinions and expert witnesses who may give opinion evidence within their expertise and in addition evidence of facts. An expert witness is a person with specialized skill sets whose opinion may help a jury make sense of the factual evidence of a case. An expert witness has knowledge or experience of a particular field or discipline beyond that to be expected of a layman. The Expert Witness's duty is to give to the Court or tribunal an impartial opinion on particular aspects of matters within his expertise which are in dispute⁽³⁵⁾. In Uganda jurisdictions, the Court must give permission for an Expert Witness to give evidence⁽³⁶⁾⁽³⁷⁾. An Expert Witness is an expert adviser who is normally appointed by a party to assist in the formulation and preparation of a party's claim or defense. An expert adviser does not have an overriding duty to the court but to the party instructing him. The primary function of an expert witness is to express his independent expert opinion based on the information that is provided. An expert can be employed in different capacities for example at arbitrations, tribunals, and litigation. The court must give permission for an expert witness to be called to testify in a matter before them. Motions to exclude expert witness testimony may be filed by either party in a case if there is a reasonable basis for the assertion that the expert witness is not qualified or cannot offer unbiased and objective opinions.

2.2. The Role of the Expert Witness

In contrast to non-expert witnesses, who are allowed to testify only to facts, expert witnesses are allowed to testify to their opinions within their specified realm of expertise, but not beyond⁽³⁸⁾. Either party in an adversarial legal system may employ expert advisors to assist them with technical matters, data, preparation of strategy and examination, but this is not an expert witness. An expert witness's overriding duty is to the court (whose

duty is the provision of a fair trial) rather than to either the prosecution or the defense, no matter which side called the witness or is paying them for their time. Opinions given by an expert witness may be based on prior knowledge, facts in evidence, testing results or reasoning⁽³⁹⁾. Uncertainty (whether the opinion given is accurate) is separate from an assessment of evidential value (the significance of a given opinion in context), both of which should be communicated by the expert witness if known. There is often an unavoidable level of uncertainty in opinion evidence and this must be explained and quantified to the extent possible by the expert witness, either in the report or testimony. Evidential value, or weight of evidence, refers to how important to the questions at issue the conclusion of the expert is⁽⁴⁰⁾; for example, the meaning of a ‘match’ is different if the analysis is comparing shoe prints rather than DNA, or if a defendant’s fingerprint is found to match a fingerprint from a potential murder weapon and that weapon is a kitchen knife from the defendant’s home where they cook regularly rather than a gun they claim to have never seen. Often, the weight of the link provided by expert evidence cannot be quantified and so to ascribe a specific value to it can be misleading.

2.3. Expert Witness Statement and Testimony

An expert witness is usually expected to produce a report or statement prior to the trial containing the results of their analysis⁽⁴¹⁾. Such a statement must include details of the expert witness’ qualifications, experience and certification/accreditation if applicable, as well as their proffered scope of expertise. The basis for any opinions or conclusions drawn must be stated, such as published literature, recovered data or case information provided by either party or the police. If colleagues or other similar experts are expected to or have offered differing conclusions from the same evidence, this should be included in the statement and an explanation of the reasons for the expert witness’s own opinion articulated. The report is disclosed to both prosecution and defense in a criminal trial⁽⁴²⁾.

An expert witness must be able to communicate complex ideas to a lay audience in a succinct manner⁽⁴³⁾. Presentation skills are important for an expert witness as they need to explain their scientific or technical discipline in brief to the fact finder and then articulate their conclusions and the bases for them without losing the attention of non-experts⁽⁴⁴⁾. The expert witness may opine on the evidence and their analysis in response

to questions asked by the attorneys or the court, and should put such answers in appropriate context, but they may not offer unsolicited opinions or advocate for either party.

2.4. Qualities of a good Expert Witness

In order to be admissible, an expert witness must practice in a profession relevant to the issue of the case, be skilled in their particular profession and have specialized knowledge through training, education, or practical experience⁽⁴⁵⁾. The Court expects an expert witness to be independent and impartial and will discount the evidence of one who is or is seen to be partisan. Also, he/she must comply with the specific procedure rules applicable and any Court or tribunal Orders in the case⁽⁴⁶⁾.

The expert is qualified to opine on the case if and only if his or her professional knowledge and skill set will assist the jury in better understanding the evidence. The expert's knowledge must be above and beyond the knowledge of the jury. He or she does not necessarily have to be the best in the field, nor have all of the facts regarding the case, as long as his or her expertise is relevant. An expert witness should provide truthful, impartial and independent opinions whether or not these opinions are in favor of whoever pays them. An expert witness has an overriding duty to the Court (or tribunal). This duty supersedes any duty owed to he/she who pays them even though they are still responsible for paying the expert's fees.

An expert witness' testimony by the expert must be based on sufficient data and factual information, accepted principles and methods that are commonly used in the field and appropriate application of the principles and methods. He/she should provide an independent expert opinion in their area of expertise on the subject matter in accordance with the instructions they are given. These instructions will be shown in the Expert Witness's Report which will be seen by the other side and the Court.

The expert's testimony is admissible so long as the expert uses unambiguous data and follows the standard of practice in his or her field of expertise. He/she should provide the opinion in the form of a report and/or evidence before a Court (or tribunal) as required. The report is required as it is not usually possible for the expert to give evidence without it. A competent expert witness should ensure that the report handed over contains all the

information as required by the court rules. An expert must be able to add value to the case by assisting the fact finder. Therefore, the expert testimony must provide a reliable opinion to help the fact finders reach a conclusion and also include valid scientific connections pertaining to case evidence that was not previously apparent⁽⁴⁷⁾. An expert is not considered helpful if his or her assumptions do not apply to the facts of the case. The expert must provide information that is new and not obvious to the jury, making sure that there is no analytical gap in their reasoning. The expert's opinion must be based on foundational facts agreed upon by other experts in the same field. The facts from which the expert derives their conclusion must be accurate and pertinent to the issue of the case⁽⁴⁸⁾.

2.5. What Not to Expect from An Expert Witness

Expert witnesses are not expected to take on the role of advocate and argue cases in court. They also don't find evidence and suggest what a case should consist of. Any kind of negotiations during the court case must not involve the expert witness. It is for the defendant or the legal representatives to advocate for the case⁽⁴⁹⁾. Expert witnesses can only present evidence within the confines of their profession. They are thus not to provide any opinion or advice beyond their specific area of expertise. They aren't supposed to accept any appointment which involves a conflict of interest⁽⁵⁰⁾ (unless resolvable by disclosure). In addition, they should never accept any appointment on terms that are conditional on the outcome of the case⁽⁵¹⁾. Examples of these are success fees or conditional fee arrangements (any form of payment linked to the results of the Case). Conditional terms are incompatible with the expert being seen to be independent⁽⁵¹⁾.

2.6. The Defendant, Legal Representatives and the Expert Witness

Before the work is started, contractual terms with the expert witness are agreed in writing⁽⁵²⁾. These include terms of payment⁽⁵³⁾. In developed countries, many experts use standard terms such as The Academy of Experts 'Model Terms of Engagement for the Employment of Experts'⁽⁵⁴⁾. The defendant or legal representatives are expected to

provide detailed instructions to the expert witness. Also, the expert witness should be informed of all developments in the case and of all key dates in good time⁽⁵⁵⁾. It is better that the legal representative (if there is one) should deal with the Expert rather than the defendant⁽⁵⁶⁾.

2.7. Types of Expert Witnesses

There are three types of expert witnesses: Party Appointed Expert (PAE), Single Joint Expert (SJE) and Expert Adviser (Shadow Expert)⁽⁵⁷⁾. Under Party Appointed Expert (PAE), the expert witness is appointed and instructed by one of the parties in the dispute⁽⁵⁸⁾. The primary duty is to assist the Court on the matters within his expertise and this duty overrides any obligation to the party from whom he has received instructions or by whom he is paid.

On the other hand, the expert witness is appointed and instructed by the parties involved in the dispute under the Single Joint Expert (SJE)⁽⁵⁹⁾. The primary duty is to assist the Court on the matters within his expertise and this duty overrides any obligation to the parties from whom he has received instructions or by whom he is paid.

Lastly, under the Expert Adviser (Shadow Expert)⁽⁶⁰⁾ type, the Expert is appointed by one of the parties to advise them in the dispute. This type of Expert is not covered by the Civil Procedure Rules and does not have a duty to the court and will not normally give evidence.

2.8. When are Expert Witnesses Necessary?

An Expert Witness is required when it is necessary to have opinion evidence to assist in the resolution of a dispute. This opinion may lead to an early resolution of the dispute. An Expert Witness may be involved in court proceedings and may be called to give evidence. The current rules encourage the use of a Single Joint Expert who is instructed by all the parties in the dispute to provide an opinion on the issue in proceedings. However, it is still possible to have an expert witness who is appointed by one party (party appointed expert). The duty of either an SJE or PAE is the same namely an overriding duty to assist the Court. Once a report has been produced it is open to the

parties to ask questions on any aspect of the report and the expert is required to respond provided they are for clarification purposes. The report and any answers given then form part of the evidence before the court and is used by them to assist in making a judgment⁽⁶¹⁾.



3. PROBLEM DEFINITION

Recently, expert witnessing is greatly affecting the outcome of criminal and civil court trials in Uganda. However, the effect of the expert witness on the functioning of the juridical system has scarcely been researched in Uganda. Gathering knowledge about expert witness practice in Uganda therefore is an interesting subject for study. With knowledge of the factors and/or patterns of expert witnessing in Uganda, recommendations can be made to find a new way of dealing with the expertise. On top of that, there is need to create awareness of existing views on the position and role of the expert witness in Uganda. From this, the juridical system as a whole will most probably benefit, which again is an important societal effect. Therefore, this research seeks to expose the various loopholes in the Ugandan legal framework that can be filled by expert witnessing. The research will show the causes of the low levels of expert witnessing in Uganda and general recommendations. Prolonged and unresolved criminal injustices like wrongful convictions, unsolved crimes, unsuccessful prosecutions and unpunished offenders discredit the criminal justice system and are the consequences of failures in the criminal investigation process. These however can be solved with good expert witness practice in Uganda.

The existing legal framework of Uganda relating to forensic expert witnessing is ambiguous and inadequate. The legal framework relating to expert witnessing in Uganda is outdated and out of touch with developments in the recent world, and thus largely irrelevant in the circumstances. A case in point is the Evidence Act Cap 6, enacted in 1909. The current circumstances differ so much from those of 1909. This dynamism renders the existing laws inappropriate and incapable of achieving the desired standards of legal practice in Uganda currently. The result has been the ineffectiveness of existing legal entities leading to an increase in crime involving gross financial losses to both individuals and state entities, and to trampling of human rights. There are also no provisions in the Uganda legal framework for the establishment of a uniting body of expert witnesses. As a result, no institution or organization stands independently to fight for the rights of expert witnesses. This has created insecurity among the professionals as

they witness in court. More to that, the legal framework in Uganda currently contains no requirements or mechanisms for training professionals in forensic expert witnessing. The purpose of this research is to create awareness of the need to train more professionals in forensic practice. There is still so much to learn, polish and upgrade by scientists who witness in the Uganda juridical system.



4. GENERAL OBJECTIVE OF THE STUDY

- To analyze the need for expert witnessing practice in Uganda juridical systems and to assess the Uganda's legal institutional framework in regard to scientific evidence.

4.1. Specific objectives

- To examine the role and impact played by scientific evidence in investigations and prosecutions in justice system of Uganda.
- To examine and assess the need for training of expert witnesses in Uganda
- To examine the general legal framework concerning expert witness practice and protection of rights of the expert witness in Uganda.
- To analyze the impact and challenges associated with expert witnessing in Uganda
- To identify key recommendations necessary for best expert witness practice in Uganda.

5. RESEARCH QUESTIONS.

1. How broad is the legal framework governing scientific evidence in Uganda?
2. What are the various impacts and challenges associated with expert witnessing in Uganda today?
3. How are institutions making use of scientific evidence in juridical practice?
4. What are the different theories widely accepted in expert witnessing in Uganda?
5. What are the key solutions to acute need of the expert witnesses in Uganda?

6. SIGNIFICANCE OF THE STUDY

There are but few writings regarding scientific evidence in Uganda. This study contributes to bridging the gap in knowledge regarding expert witness practice legislation in Uganda in relation to regional and international standards. The findings of this study will be useful to different stakeholders in the juridical systems for example the Uganda Police Force (UPF), Uganda people's Defence Forces (UPDF), the judiciary, Uganda parliament etc. Also, this study will be useful to them in making new policies, conduct of investigations, prosecution and sentencing. The study will also be useful in law revision, institutional review and policy formulation at both institutional and government levels. The findings will also add on the body of knowledge in the area of scientific evidence in Uganda and aids future research on the subject.

7. HYPOTHESIS

The provisions of Uganda's legal framework with respect to scientific evidence fall short of the established international standards thereby leading to the wrongful conviction. This combined with the wide gap in expert witness personnel has led to miscarriage of justice.



8. SCOPE OF THE STUDY

The research was centered on expert witness practice in Uganda. It explored the relevance, knowledge and impact of scientific evidence in different professional disciplines and institutions. The study looked at the different legislations that are in place in Uganda that pertain to expert witnessing from 1995 up to today. This study was conducted within the Penal Code Act, cap 120 laws of Uganda, Evidence Act cap 6 laws of Uganda. Further, the concept of investigation, examples of investigative institutions in Uganda, their roles and the challenges they find during scientific investigations are discussed. Lastly, the paper draws relevant conclusions and makes recommendations.

9. HEORETICAL FRAMEWORK

9.1. Eye Witnessing in Uganda

9.1.1. What is Eyewitness Testimony?

Eyewitness testimony is what happens when a person witnesses a crime (or accident, or other legally important event) and later gets up on the stand and recalls for the court all the details of the witnessed event. It involves a more complicated process than might initially be presumed⁽⁶²⁾. It includes what happens during the actual crime to facilitate or hamper witnessing, as well as everything that happens from the time the event is over to the later courtroom appearance⁽⁶³⁾. The eyewitness may be interviewed by the police and numerous lawyers, describe the perpetrator to several different people, and make an identification of the perpetrator, among other things⁽⁶⁴⁾.

What can happen to our memory from the time we witness an event to the retelling of that event later? What can influence how we remember, or misremember, highly significant events like a crime or accident? Eye witness testimony therefore has many flaws yet the Ugandan judicial system relies so heavily on it.

9.1.2. Flaws in Eye Witness Testimony

When an eyewitness stands up in front of the court and describes what happened from her own perspective, this testimony can be extremely compelling. There is now a wealth of evidence, from research conducted over several decades, suggesting that eyewitness testimony is probably the most persuasive form of evidence presented in court, but in many cases, its accuracy is dubious⁽⁶⁵⁾. There is also evidence that mistaken eyewitness evidence can lead to wrongful conviction—sending people to prison for years or decades, even to death row, for crimes they did not commit. Faulty eyewitness testimony has been implicated in at least 75% of DNA exoneration cases—more than any other cause (Garrett, 2011). Mistaken eyewitness testimony is considered by many to be responsible for 75% of cases of wrongful imprisonment in the US (The Innocence Project,

2012; Wells, Memon, & Penrod, 2006; Wise & Safer, 2004). In many of these cases, the judge and/or juries were convinced by testimony from a witness which implicated the defendant but which was, in fact, inaccurate (e.g. Wells et al., 2006). Research in both law and cognitive science shows that while laypeople do have their own experiences of memory, they face predictable difficulties when evaluating the memory of others. These difficulties are borne out in real cases—in both the United States and United Kingdom, for example, false or misleading eyewitness testimony has been identified as a leading cause of wrongful conviction (National Registry of Exonerations, 2021; UK Miscarriages of Justice Registry, 2021, see also Garrett, 2012; Wells et al., 2006).

9.1.3. Misinformation

Misinformation can be introduced into the memory of a witness between the time of seeing an event and reporting it later. Something as straightforward as which sort of traffic sign was in place at an intersection can be confused if subjects are exposed to erroneous information after the initial incident. Hundreds of subsequent studies have demonstrated that memory can be contaminated by erroneous information that people are exposed to after they witness an event (Frederick, Nichols, & Loftus, 2011; Loftus, 2005). The misinformation in these studies has led people to incorrectly remember everything from small but crucial details of a perpetrator's appearance to objects as large as a barn that wasn't there at all. In addition, misinformation effects can occur easily, and without any intention to deceive (Allan & Gabbert, 2008). Other studies have shown that misinformation can corrupt memory even more easily when it is encountered in social situations (Gabbert, Memon, Allan, & Wright, 2004). This is a problem particularly in cases where more than one person witnesses a crime. In these cases, witnesses tend to talk to one another in the immediate aftermath of the crime, including as they wait for police to arrive. But because different witnesses are different people with different perspectives, they are likely to see or notice different things, and thus remember different things, even when they witness the same event. So, when they communicate about the crime later, they not only reinforce common memories for the event, they also contaminate each other's memories for the event (Gabbert, Memon, & Allan, 2003; Paterson & Kemp, 2006; Takarangi, Parker, & Garry, 2006). Mistakes in

identifying perpetrators can be influenced by a number of factors including poor viewing conditions, too little time to view the perpetrator, or too much delay from time of witnessing to identification. Some factors have been shown to make eyewitness identification errors particularly likely. These include poor vision or viewing conditions during the crime, particularly stressful witnessing experiences, too little time to view the perpetrator or perpetrators, too much delay between witnessing and identifying, and being asked to identify a perpetrator from a race other than one's own (Bornstein, Deffenbacher, Penrod, & McGorty, 2012; Brigham, Bennett, Meissner, & Mitchell, 2007; Burton, Wilson, Cowan, & Bruce, 1999; Deffenbacher, Bornstein, Penrod, & McGorty, 2004).

9.1.4. Blending Eyewitnesses and Expert Witnesses

Eyewitness testimony is very powerful and convincing to jurors, even though it is not particularly reliable. Identification errors occur, and these errors can lead to people being falsely accused and even convicted. Likewise, eyewitness memory can be corrupted by leading questions, misinterpretations of events, conversations with co-witnesses, and their own expectations for what should have happened. People can even come to remember whole events that never occurred. The problems with memory in the legal system are real. But what can we do to start to fix them?

It is hard for the legal system to do much about most of these problems especially in Uganda⁽⁶⁶⁾. But there are some things that the justice system can do chief amongst which is reliance on expert witness testimonies. Recommendations call for appropriate education (often in the form of expert witness testimony) to be provided to jury members. Eyewitness testimony can be of great value to the legal system, but this testimony is often given far more weight than its accuracy justifies. Overall, the findings of the current set of studies suggest that there is a place within the Ugandan legal system for researchers to present scientific findings to inform the court.

9.2. Expert Witnessing in Uganda

9.2.1. What is An Opinion Under the Law of Evidence?

The Evidence Act of Uganda does not define the term ‘opinion’⁽⁶⁸⁾. However, an ‘opinion’ can be defined as a “statement about what a person thinks about an alleged fact.” Courts have also attempted to define the inference drawn from observed and communicable data as opinion⁽⁶⁹⁾.

9.2.2. What is Opinion Evidence?

Opinion evidence can be defined as evidence of what the witness thinks, believes, or infers in regard to facts, as distinguished from personal knowledge of the facts themselves⁽⁷⁰⁾. Generally, it’s the court’s function to draw its own conclusion based on admissible evidence presented in court but there are instances where the opinion of a lay person or expert may assist the court in coming to a decision.

9.2.3. Admissibility of Opinion Evidence

The opinions of witnesses as to the existence of facts are not admissible⁽⁷⁰⁾. In law, witnesses can only testify about “facts” and not “opinions”. This means that courts can not admit a person’s opinion as evidence. Opinions are not admissible evidence. In *R v. Loake* the court stated that, “Court cannot admit statements of opinion made by witnesses because of partiality and in some cases such statements may be influenced by hearsay”. When a witness is called to give evidence, the court is only interested in hearing from them facts which they are aware of from their own knowledge (not an opinion of what may have happened). In *Sherrard v Jacob*, a police man was allowed to testify that the accused was drunk, but not that the accused was unfit to drive. Drunkenness is objective and fact based but the ability to drive is subjective and opinion based. The more assessment needed to give the opinion, the less likely the courts will be to allow it.

9.2.4. Exceptions to the General Rule That “Opinion Evidence is Not Admissible”.

There are instances where opinions given by witnesses can be admitted by court as acceptable evidence. The exceptions to the rule governing the admissibility of opinion evidence are covered from Section 43-49 of the Uganda Evidence Act⁽³⁶⁾. Under these provisions, two types of opinion evidence are extracted; Opinions of Experts and Opinions of ordinary witnesses.

9.2.5. When Non Expert Evidence is Accepted as Expert Evidence

In *Gatheru v. R* the court defined “experts” as, “All persons, who practice a business or profession which requires them to possess certain knowledge of the matter at hand, so long as they have experience in it”. Section 43 of the Evidence Act shows that opinions of experts can be admitted by court when the court has to form an opinion upon a point of foreign law, science or art, identity of handwriting or finger impressions. This means that persons who are specially skilled in foreign law, science or art, or in questions as to the identity of handwriting or finger impressions can be called by court to give their expert opinions about an issue which the court has no special knowledge about. More to that, in *Kimani v. Republic* the court was of the view that; “.....it is now trite law that the courts must give proper respect to the opinions of the experts,..... Such opinions must be considered along with all other available evidence.....”.Section 45-48 of the Evidence Act provides for the kind of evidence which can be given by non-expert witnesses as seen below; *Handwriting and signatures*: Section 45 of the Evidence Act shows that evidence of non-expert witnesses is admissible because there may be no other evidence to establish the writing or handwriting or signature of the person concerned. It was noted that in *Onyango v. R*, that the court accepted evidence given by a non-expert in handwriting. The handwriting in a book to facilitate forgery was of the accused. *Customs or Rights*: Section 46 of the Evidence Act shows that the opinions as to the existence of a certain custom are accepted if the person who gives the opinion knows the custom very well. In *Kigozi v. Lukiiko* , the High court was of the view that a high-ranking customary political officer and at the same time a senior saza chief of Buganda could be regarded as

competent to give evidence as an expert about the Buganda customs. *Usages/Tenets of anybody*: Section 47(a) of the Evidence Act allows a person who knows the tenets or usages within a particular family or group to give his/her opinion about them. Section 47(b) of the Evidence Act allows ordinary witnesses to give their opinions about what a constitution of a religious or charitable foundation to which they belong. Section 47(c) of the Evidence Act allows ordinary witnesses who know the meaning of words used by a particular class of people to give their opinions about the meaning of those words. *Opinion on relationship*: Section 48 of the Evidence shows that the opinion of a person who as is a member of a family, or has special knowledge about the relationship of one person to another is relevant.

9.2.6. Can Courts Reject Expert Evidence Even Though it is Admissible?

Even though expert evidence may be admissible, a judge can choose to reject such evidence if/she feels that the expert evidence given is not relevant, does not support well the fact alleged, or if a judge can make his or her own conclusions without relying on expert opinions. This is because a judge is regarded as the “expert of experts”. LJ Lawton in *R v. Turner* stated that, “If on the proven facts, a judge can form their own conclusions without help, then the opinion of an expert is unnecessary”. Expert evidence is still lacking in Uganda which often leads to miscarriages of justice. Judges have to decide whether to defer to experts and their specialist knowledge or whether to use them in an educative role to understand the evidence already given. In *Kimani v. Republic*², the court held that; “Though the courts must give respect to the opinions of experts, such opinions are not binding on courts and that such evidence must be considered along with all other available evidence, and the court would be entitled to reject it if the expert opinion is not soundly based.”

9.2.7. Status of Expert Witness Practice in Uganda

There are still low levels of expert witnessing in Uganda. However, several organizations are coming on board to offer expert services even though their staff is largely undertrained as forensic trained expert witnesses. The Justice Law and Order Sector (JLOS) is a sector wide approach (SWAP) that brings together 17 institutions with closely linked mandates for administering justice maintaining law and order and promoting the observance of human rights, to developing a common vision, policy framework, unified objectives and plan over the medium term⁽⁷⁵⁾. It focuses on a holistic approach to improving access to and administration of justice through the Sector Wide Approach to planning, budgeting, programme implementation, monitoring and evaluation⁽⁷⁶⁾. The Uganda police force, the Judiciary, Directorate of public prosecutions and the Ministry of gender, labor and social development are all part of the institutions that constitute JLOS. Such organizations as Uganda National Bureau of Standards (UNBS), Uganda Virus Research Institute (UVRI), and National Agricultural Research Organization (NARO) are coming in to fill the expert witness gap in the legal system. Several hospitals (especially those in urban centres) like Mulago regional referral hospital, Nsambya hospital, Mengo hospital, Rubaga hospital are also creating awareness among their medical staff of their civic duty to witness in court when there is need. Non-government organizations like United Nations Human Rights Commission are also rising to the challenge of expert witnessing amidst limited number of trained professionals. Specialized government bodies like the Uganda police Force and Uganda People's Defence (UPDF) army are creating fully fledged departments to serve expert witnessing services. So far the government of Uganda instituted the Uganda Police Directorate of Forensic sciences⁽⁷⁹⁾ and Directorate of Government Analytical Laboratory (DGAL)⁽⁸⁰⁾.

Several projects such as the Spotlight Initiative⁽⁸¹⁾ support the Uganda Police Force Forensics Department to successfully investigate SGBV Crimes⁽⁸²⁾. UN Women Uganda through the support of the EU-UN Global Spotlight Initiative and the Embassy of Sweden works with the Uganda Police Force to ensure trauma-informed and victim-centered investigation of Sexual and Gender-Based Violence (SGBV) crimes. UN Women has supported trainings on evidence collection and donated evidence collection vans as well as state-of-the-art technology to facilitate DNA collection for better investigations of SGBV crimes. In addition to the equipment, UN Women supported the trainings of

SOCO's in trauma-informed, victim-centered and gender-sensitive investigations. Assistant Inspector of Police Emmanuel Ogwang, Regional Scene of Crime Officer, and Kampala Metropolitan was trained on evidence collection in 2020, to better facilitate investigation and therefore prosecutions of Sexual and Gender-Based Violence (SGBV) crimes. UN Women committed to support expert witness efforts already in place by Government.

Specialized expert witness laboratory equipment has been procured by the government in several forensic departments. Thus, the turnaround time on case investigation has been greatly reduced, as police now have an in-house DNA processing laboratory in addition to the Government Analytical Laboratory. DNA capabilities are crucial to support investigations and come in handy for SGBV crimes. There has been a decrease of backlog to 8 months. Further, the cases investigated have seen credible evidence of perpetrators in 70% of cases. That 30% gap would be filled by awareness (of the general public and medical practitioners) of these capabilities and training."

Initiatives are in place to train several professionals in forensic expert witnessing. Many of these are trained from abroad. Uganda has recently partnered with countries like India, Turkey, UK and several others to train more experts. These trained professionals are in turn bringing the multiplier effect by training others. Doctor Jaffar Kisitu (Forensic Chemistry Section Head) is one of the Specialists employed to train others at the UPF Forensics Department using his PHD in Toxicology. Doctor Jaffar Kisitu, the Forensic Chemistry Section Head provides trainings for UPF Officers and Investigators on the use of the equipment to detect drugs⁽⁸²⁾. He divulged that the chromatographic machine detects trace amounts of substances and provides evidence to prosecute sexual violence crimes. Uganda has seen an increase in optimism around reporting SGBV cases, as explained by Assistant Inspector of Police Emmanuel Ogwang, Regional Scene of Crime Officer for the Kampala Metropolitan East area. Mr. Ogwang trained as an Evidence Collection Trained Personnel focused on SGBV crimes.

Private institutions such as Uganda Industrial Research Institute (UIRI)⁽⁸⁴⁾ are equipping their laboratories with specialized forensic expert witness testing facilities. In addition to forensic services, these private institution laboratories also provide testing facilities to food scientists, researchers, exporters, manufacturers, pharmacists and the general public. These Laboratories' goals are many but they include availing testing

services and material analytical services to the private sector. These facilities concede to the internationally recognized concept of a non-regulatory public test house, requiring the ability to test products against agreed specifications and to produce an authoritative test certificate in confidence. Through funding and expertise from the USAID A2Z programme, the Community is working with UIRI to improve micronutrients testing standards within East Central and Southern Africa. UIRI's Chemistry Laboratories, together with the ECSA Secretariat, is implementing activities aimed at improving laboratories in the region.

9.2.8. Scientific Evidence in Famous Civil and Criminal Cases in Uganda

It should be noted that scientific investigation is an ideal form of investigation for Uganda in particular. In Uganda, there are instances where scientific investigation techniques have been employed and have yielded positive results. However, there are instances where these techniques have been neglected leading to obtaining weak evidence which leads to wrong acquittal or convictions hence, defeating the ends of justice.

In the case of the 13 July 2010 Kampala twin bombings, as Ugandans watched the FIFA World Cup 2010 finals in South Africa, between Spain and Holland, the thirteen suspects (seven Kenyans, five Ugandans and One Tanzanian); these “bunch of thugs” connived, abetted, orchestrated and helped carry out the attacks at the Kyadondo Rugby grounds and in Ethiopian Village in Muyenga in Kampala-Uganda and drove the entire country into furry⁽¹⁵⁷⁾. Fifteen people, majority foreigners died on spot due to the Muyenga attack. Then just around 11.18 pm at Kyadondo, another attack occurred, leaving over 50 revelers dead and hundreds injured. Following the attacks, security agencies from Uganda, neighboring countries, Interpol and USA dreaded CIA and FBI swung into action leading to arrests of over 60 suspects. Others were arrested from neighboring Kenya, Rwanda and Tanzania. Indeed, in complex criminal cases such as this, scientific evidence is key in ensuring convictions⁽¹⁵⁸⁾. The accused were convicted and sentenced to death, for the murder of 76 people and over 100 injured on July 10, 2010 as they watched the South African World Cup final at Kyadondo Rugby grounds in Lugogo along Jinja Road and at the Ethiopian Village in Muyenga. The facial

reconstruction by FBI of the two suicide bombers heads found at Lugogo, indicated that one was of Somali origin, while another was black, believed to be a Ugandan or Kenyan. None of the bodies of the two suspects were claimed by relatives until they were disposed of. The evidence showed that the attacks were planned in Somalia, and the explosives transported to Uganda via Kenya⁽¹⁵⁹⁾. Incidentally, it was through concerted regional collaboration and co-operation that Ugandan authorities were able to get the evidence they needed in this case. Nevertheless, not much attention has been paid to scientific investigation in Uganda as investigation largely remains the preserve of the police and the Director of Public Prosecution who tend to guard their roles in investigation jealously.

In another case of Murder of Celina Nebanda, a former member of parliament from the opposition side, it had been alleged that Nebanda had died of poisoning orchestrated by the ruling party⁽¹⁶⁰⁾. The police avoided submitting the postmortem report by delaying to show the cause of death of the deceased. For this reason, a private medical pathologist was involved investigating samples that were taken from Nebanda's corpse. The president was quoted saying that: This pathologist was arrested because he was not authorized by the Government to test any samples from her body⁽¹⁶¹⁾. Also Dr. Chris Baryomunsi was among those who took part in carrying out the post mortem at Mulago Hospital when Nebanda passed away. Dr. Baryomunsi (who by then held a ministerial position in government) was called in to help the hospital and Police pathologists decided to steal samples together with his colleagues. The President accused kinkizi East Member of Parliament Dr. Chris Baryomunsi of 'stealing the Late Cerinah Nebanda's body samples from Mulago Hospital'. The President also faulted Members of Parliament for going to the mortuary saying it is unheard of for lawmakers to go to the mortuary. The death of the former vocal MP has since been shrouded in mystery with many disputing the government explanation about her demise. Dr. Sylvestre Onzivua was arrested at Entebbe International Airport on his way to South Africa, however the President said the Doctor was not acting within the law and that is why he was apprehended. President Museveni has warned that Government will not tolerate MPs interfering with Police work. At the end of the day, the police came up with a postmortem report which is believed to be fabricated⁽¹⁶²⁾. This report indicated high cocaine levels in the body of the deceased. This marked the absurd end of this case⁽¹⁶³⁾. All this serves to confirm how conflicting interest can defeat scientific investigation

Another case in point is one where the recently established Financial Intelligence Authority (FIA) is investigating its very first case where it was revealed that fifty-seven people with links in Uganda are among 100,000 clients of a giant Swiss bank⁽¹⁶⁴⁾. Out of the 57 HSBC clients associated with Uganda, seven have a Ugandan passport or nationality. These 57 clients held a total of \$89.3m with clients associated with Uganda who held the highest amount standing at \$8.8m⁽¹³⁸⁾. As such, Uganda was also ranked third in East African Community and 105th in the world among the countries with the largest dollar amounts in the leaked Swiss files followed by Kenya and Tanzania⁽¹⁶⁵⁾. Yet the FIA does not have the capacity to investigate all these allegations⁽¹⁶⁶⁾. Part V of the Act 48 provides an elaborate procedure that can be used to identify and confiscate proceeds of the crime. This Part of the Act requires a court order for seizure, freezing and forfeiture of assets. In other Acts such as the Evidence (Book Bankers) Act, financial information cannot be obtained without a court order. An individual or a corporation seeking to commence a private prosecution or investigating internal fraud may require a court order. The Act also covers various forms of electronic transfer of funds through banks, financial institutions and other channels used by natural and legal persons to carry out such transfers. Whereas FIA is the entity in charge of investigations, yet it lacks all the requisite knowhow to scientifically investigate this case; hence, there is need for collaboration with the relevant department to obtain sufficient scientific evidence.

Similarly, in *Uganda v. Ssekabira & Others*, in this case, of the original 24 persons charged with the offence of terrorism, contrary to section 7(1) (b) and 7(2) (c) of the Anti-Terrorism Act, 2002, the state withdrew the charge against one Paul Luzikala and a one Joseph Katamba was dropped at the commitment stage⁽¹⁶⁷⁾. Later on, the case was discontinued against eleven accused persons. Justice Ralph Ochan, held that: “The third schedule to the Anti-terrorism Act has the effect of conferring powers to obtain information for purposes of terrorist investigations, namely, investigations into the commission, preparations or instigation of: police statement that Detective Constable Okello John Stephen was the “Investigation Officer” in this case. He does not qualify under the law to undertake terrorism investigation. And by the way an investigation officer does not have to do everything in the process of investigation by himself. He is in charge of the investigation which enables him supervise and oversee the details of the process such as recording of statements, drawing sketch plan, site visits by Scene of

Crime Officer (SOCO) among others. In this case there was a violation of Section 17 (1) of civil procedures rules and the Third Schedule of the Anti-Terrorism Act (ATA), 2002 in that the designated Investigation Officer was below the rank of Superintendent of Police. The entire investigation is incurably tainted, rendering the prosecution a nullity. This case failed because both the Police and the prosecution, in their desire ignored the basic and elementary requirements of scientific investigations.

These are only but a few sample cases presented where scientific investigations come into perspective. However, every now and then in Uganda, scientific evidence is increasingly becoming necessary in delivery of justice in juridical systems.

9.2.9. Challenges That Threaten Expert Witnessing Services in Uganda

The forensic witness workforce is characterized by insufficient numbers of trained professionals, skewed rural-urban distribution, inadequate qualifications, inadequate skill-mix and limited career growth opportunities, poor laboratory infrastructures and the absence of quality management systems. These factors adversely affect the performance of forensic laboratory professionals, who are the backbone of quality services in the judicial system. Furthermore, with the rapid advances in technology and emerging organized crime, there is need to constantly keep these professionals up-to-date and well equipped.

Many doctors who write “expert” reports and witness in court did not receive any formal training in forensic medicine, so a quality medico-legal service may not be rendered at times. Absence of qualified personnel in different forensic disciplines adversely affects the outcome of medico-legal investigation and unsurprisingly, occasionally result in inadequate medico-legal investigations. The term police surgeon is a misnomer and should be replaced by forensic medical officer or forensic pathologist. Such similar scenarios exist in different professions in Uganda. The low level of legislation governing the practice of forensic medicine and general forensic practice in Uganda has resulted in a lack of independent jurisdictional authority on the part of the experts⁽¹⁶⁸⁾. Existing forensics laboratory policies and laws in Uganda are weak and aren’t

firm enough to support the expert witness in court. There is still a lot of expert evidence that is not admissible in court yet because of the existing laws.

Although recent decades have seen rapid advancements in modernized forensic equipment and laboratory processes, there have been minimal investments made towards strengthening forensic laboratory professionals in Uganda. Many forensic professionals such as laboratory technologists, scientists and pathologists are unwilling to serve in the public sector due to the inadequate resources, low remuneration and poor career advancement opportunities within the medical laboratory profession. They are also unwilling to serve in rural areas. This is bringing about abortion of justice to the rural areas. Conflict of Interest among Investigative Institutions doesn't make the working environment of the expert witness better. Instances are common in Uganda where the interest of a given investigative institution is at stake. A case in point is the recent prosecution of the Inspector General of Police. How would the police investigate the case? The DPP works together with the police in investigation; in this case there is already conflict of interest hence a challenge to investigative collaboration.

Recently there are so many masterminded and fabricated cases that are baseless. So often, these cases are politically motivated with no scientific grounds that can be established whatsoever. Given the nature of these cases, there is no room for scientific investigations. Several agencies set up non-existent scientific evidence which undermines the practice of professional expert witnessing.

There is frequent violation of human rights by investigative Agencies as they carry out their duties which curtail some of the freedoms of an individual. For instance, after arrest, the suspect is deprived of freedom of movement and association among others. It should however be noted that: The fundamental rights and freedoms of the suspect must at all times be protected. In case of violation of human rights, it should be noted that no matter how sufficient the evidence obtained during investigation may be, court cannot convict the offenders on the basis of such tainted evidence.

Psychological traits of the police and prosecutors have a role to play in hardening expert witness practice in Uganda. After undergoing lengthy, laborious and complicated scientific investigation process, police investigators generally tend to develop a feeling of exclusiveness, and feel that the entire investigation domain is their responsibility. As a result any sort of advice and instruction from outside is taken as interference and

unnecessary. Scientifically proven evidence alone isn't enough. Resistance is shown if the police is told to bring more substantial evidence, or amend or improve the evidence collected. Police officers and organizations tend to take their entire work and especially the case handling as a professional and skilled job. Though they work and do the investigation within their own legal, and procedural codes, their practical and operational framework makes them believe that they have their own chain of command system which works as efficiently as prosecutorial agencies and which they believe, can provide them guidance and instructions.

Investigative Institutions are expected to have common goals. However more often than not, they lack of shared /common goals. There is lack of confluence in the aims and objectives of the investigative agencies in Uganda. The lack of sharing common goals with other investigative institutions makes it impossible to motivate investigative institutions to produce quality files. In order to make such a relationship more effective, all investigating parties should make efforts to understand and respect each other's responsibility in investigation.

Due to institutional changes and technological innovations, crimes have taken a different form apart from the well-known and familiar offence. The current complex, novel and diverse types of offences require new investigative techniques which most of the investigating officers aren't accustomed to. Novelty and Complexity of Cases of cases is thus a bottleneck in scientific investigations.

Nowadays cases require specialized knowledge for scientific analysis of information, data processing, and sometimes international cooperation and so forth. The police are also expected to react flexibly and expeditiously to the modern forms of crime.

The knowledge gap in scientific investigation creates a great need to collaborate between the different investigating parties. It isn't easy for individuals to effectively work together across organizational boundaries. Each participant in an investigation process has a specific, partial point of view. The participant institution has different tasks, goals, working procedures and organizational cultures. It is noted that in Uganda today, institutions that do scientific investigations rarely collaborate. Each institution prefers to get their own tests and results than believe a report from another sister investigative body. The myth of the investigator solving crimes with intuitive methods alone is outdated.

Moreover, when the collaborative investigation is successful, it results in increasing amounts of information in the form of documents and knowledgeable personnel.



10. A DISCUSSION OF THE MAJOR INVESTIGATIVE BODIES IN UGANDA

The accused is presumed to be innocent until proven guilty. The burden is therefore on the prosecution to prove the guilt of the accused beyond a reasonable doubt. A criminal trial cannot be successful unless there is effective investigation. In Uganda, the main agencies working on issues connected with complex crimes include institutional authorities such as the Uganda Police, the Directorate of Public Prosecutions (DPP), the Inspector General of Government (IGG), and the Auditor General (AG), etc. These have long histories and divergent tasks defined in the legislation. Each authority has its goals that differ from the goals of the other. For example, criminal investigations are mainly carried out by the police, whereas the constitution of the republic of Uganda empowers the DPP to direct the police to investigate any matter of criminal nature and report to the DPP expeditiously. Given the increasing complexity of crimes handled by the judicial system and related organizations, a need for more reliance on scientific evidence is emerging. Often, one institution may require the intervention of another in order to obtain sufficient evidence hence the need for investigative collaboration for example The Uganda National Bureau of Standards (UNBS), the Uganda Revenue Authority (URA) and the Uganda Police Force (UPF) are responsible for enforcing the existing laws. Therefore, this section briefly outlines some of the investigative institutions and their roles.

10.1. Directorate of Government Analytical Laboratory (DGAL) “the Government Chemist”

The Directorate of Government Analytical Laboratory (DGAL) is under the Ministry of Internal Affairs (MIA) and exists: to provide a full range of general scientific analytical, forensic and advisory services that facilitate effective legal proceedings to dispense fair justice; safeguard people’s and environmental health and safety. DGAL provides specialized analytical and advisory services to a wide range of clientele

including Government Departments responsible for the administration of justice and other agencies of Government mainly the Police, Courts of law (Judiciary), Directorate of Public Prosecutions (DPP), the private sector and members of the public. It also provides services to statutory bodies such as National Water and Sewerage Corporation (NWSC), Uganda National Bureau of Standards (UNBS), National Environment Management Authority (NEMA), National Drug Authority (NDA), for Water Directorate of Development (DWD), Agricultural Chemicals Board (ACB) and the private sector⁽⁸⁰⁾. The Government Analytical Laboratory helps government to provide and ensure internal security through increased use of scientific evidence-based investigations. The directorate in its day-to-day operations is guided by various pieces of legislation which include but not limited to the Fire Arms Act cap 299⁽⁸⁵⁾, the Evidence Act cap 6⁽⁸⁶⁾, the Magistrates Courts' Act cap 16⁽⁸⁷⁾, the National Drug Policy and Authority act cap 206⁽⁸⁸⁾, the National Bureau of Standards act⁽⁸⁹⁾ and the Adulteration of Produce Act cap 27 etc.

The Scientific investigations conducted by the Government Analytical Laboratory are important in the security and safety of persons and property. The Government Analytical Laboratory is a strategic stakeholder in supporting the monitoring and enforcement of quality assurance in value-addition chains. This is important to product owners as well as the consumers in the fight against counterfeit products because the Directorate is a stake holder in ensuring that the quality of the products of the manufacturer are maintained through aiding law enforcement agencies to determine what is counterfeit and what isn't through carrying out independent analysis of the exhibits brought to the Directorate from Police for testing and generating an analytical report. This according to section 103(1) of the Magistrates courts act is admissible as evidence. This report is what would corroborate the assertions of the product owner that what has been recovered is counterfeit. The state prosecutors in various jurisdictions across the country always insist on having the government analytical report attached on the police case file before it is sanctioned for the suspect to appear in court over the charges of counterfeiting of trademarks.

The Directorate has historically been the leading provider of independent scientific analytical and forensic services in Uganda, with laboratories staffed by trained chemists, material scientists, technicians and laboratory management, with over eighty (80) years of industry knowledge and expertise provided since 1930s. Broadly, the services of

DGAL are :Forensic analysis of exhibits and samples to guide and facilitate investigations and prosecutions, Forensic advisory services, bio-and chemical-monitoring of environment, food and water supply systems for detection and prevention of bio-and chemical attacks to ensure public safety and health, Biological and chemical official control testing / monitoring for conformity to standards, Statutory testing to assure environmental health and safety, quality verification to facilitate trade and non-tax revenue collection and Expert opinion to aid administration of justice, law and order⁽⁸⁰⁾.

The Directorate's services are multi-focused, oriented to fostering, facilitating and enhancing the administration of justice, ensuring general public health and safety as well as promoting private sector competitiveness and growth. The Directorate operates within the Justice Law and Order Sector (JLOS), complementing and working with the other justice administration agencies through offering scientific analytical based investigations to facilitate delivery of justice.

Besides DNA testing and police matters, the lab also carries out testing on the advice of the Administrator General, especially in cases where human remains cannot be identified, for instance in the case of fires, blasts or traffic accidents, where bodies are burnt or crushed beyond recognition. In all cases, a police officer is dispatched to deliver the samples and collect them when they are ready⁽⁹⁰⁾. The department is understaffed and ill-equipped to handle the multitude of requests it is expected to handle. The shortage negatively affects the efficiency of the CID in investigations.

The mandate of DGAL is to provide specialized scientific, analytical, advisory and referral services to foster administration of justice, private sector growth and ensure general public safety⁽⁹¹⁾. The Directorate provides a wide range of analytical and advisory services to government institutions responsible for the administration of justice, law and order, as well as statutory agencies responsible for environmental management, compliance to standards, drug analytical investigations, tax investigations, security and intelligence etc., as well as promotion of trade, private sector competitiveness and growth. The operations of DGAL are centered on: Facilitating effective legal proceedings for fair justice, by the timely provision of expert advice; Contributing to the protection of the environment and health of the people of Uganda, by participating in the establishment of integrated chemicals management systems and regulating consumer and industrial

chemicals; Increasing DGAL's institutional efficiency and effectiveness through continuous improvement of management systems, funding base and staff development⁽⁹²⁾.

The vision of the Directorate of Government Analytical Laboratory (DGAL) is to be a centre of excellence in the provision of scientific, analytical, forensic and advisory service by 2040. Its mission is to foster justice, public safety and health through provision of quality and timely scientific, analytical, forensic and advisory services. The foundational Core Values of the Directorate of Government Analytical Laboratory (DGAL) are Professionalism, Quality services, Team work, Integrity, Respect, Fairness, Confidentiality, Participation and Effectiveness⁽⁹³⁾.

The service functions of DGAL are structured along two broad categories, namely: The Forensic functions and the general scientific analytical functions⁽⁸⁰⁾. First, The Forensic functions which aim to assist in criminal, civil and commercial investigations through the examination, analysis and comparison of exhibits and samples by application of the relevant branches of science. Different divisions of the Directorate undertake diverse examinations and analysis of physical evidence materials leading to provision of reliable and irrefutable scientific evidence and hence providing and strengthening the links in the chain of evidence to dispense justice. Secondly, the general scientific analytical functions which aim at providing a full range of analytical services to support enforcement and regulation of public health and safety, environmental protection, and collection of Government revenue.

DGAL is decentralized to serve the country better. DGAL Head Office Plot 2, Lourdel Road, Nakasero, Wandegaya, Kampala serves the central region. DGAL Mbale Regional Laboratory Plot 15-35 Lyadda Road, Mbale, Mbale City serves the eastern region. DGAL Mbarara Regional Laboratory Plot 7 Kitunzi Road, Mbarara City serves the western region. The north eastern region is served by DGAL Moroto Regional Laboratory Plot 2-12, Independence Avenue, Mini JLOS House, Moroto Municipality while the North region is served by DGAL Gulu Regional Laboratory Plot 4 C, Princess Road, Gulu City⁽⁹⁴⁾.

The Directorate of Government Analytical Laboratory (DGAL) shelves cases due to shortage of manpower, reagents and limited equipment according to the Auditor General. The Directorate is overwhelmed by many cases from law enforcement agencies all requiring analytical reports and these have created a case backlog at the Directorate⁽⁹⁵⁾.

The delay is also partly caused by the stringent measures in the procurement of the reagents, which requires advertising for the services. Government bureaucracy is a great bottleneck in the procurement of lab equipment and reagents. Setting up of new regional centers has helped reduce the distance people previously had to travel but hasn't helped much in reducing the number of cases.

The Directorate of Government Analytical Laboratory (DGAL) was seeking 29.5 billion Shillings to handle its case backlog in the next two financial years⁽⁹⁶⁾. DGAL analyzed and reported 2067 cases of the 5559 backlog cases. This is 37.2 percent performance against the target of 37.5 percent set in the Case Backlog Reduction Strategy for financial year 2018/2019.

10.2. Uganda National Bureau Standards (UNBS)

The UNBS operates a Product Quality Certification Scheme which certifies the quality of a product and grants the manufacturer a permit to affix the UNBS Quality Mark, on the product itself or on the packaging. Products (domestically-produced or imported) subject to technical regulations must be tested for conformity before they are placed on the market. In principle, the tests are carried out by the appropriate UNBS laboratories in the fields of chemistry, microbiology, mechanics, building materials, and electrical equipment⁽⁹⁷⁾. For locally-produced goods, the UNBS carries out scheduled and surprise site visits to industrial plants to ensure safety and conformity with technical regulations. The UNBS is the sole statutory organization responsible for the formulation, promotion, and enforcement of standards and technical regulations. Any interested party (i.e. public sector, private sector, academia, or members of the public) submits proposals for national standards/technical regulations to the UNBS⁽⁹⁸⁾.

The Uganda National Bureau of Standards (UNBS) was established as a semi-autonomous body by an Act of Parliament in 1983. It has a National Standards Council (NSC) as its policy making body. The Executive Director together with the management team is charged with the administrative and operational responsibilities. The current staff strength of UNBS is one hundred and six (106) people, of whom approximately 75% are technical staff of the organization. The UNBS aims at being the leading institution of international repute in the provision of standardization services. The UNBS purposes to

enhance national development through the application of standards in trade, industry to encourage fair competition and protect consumers. In Uganda, the Uganda National Bureau of Standards (UNBS) is the organization that ensures that consumer products meet current standards including safety.

It is generally recognized that the export markets can only be obtained and sustained when the locally produced products are internationally competitive not only in prices but also in quality. Uganda therefore requires a strong national standards infrastructure. UNBS spearheads development and implementation of standards for the various sectors of the economy. It also carries out conformity assessment of products and services based on quality and standards requirements. Protecting the consumers against substandard, shoddy and hazardous products, ensuring delivery of quality services to the people and facilitating the growth of strong private sector competitiveness on sustainable basis are also roles of UNBS⁽⁹⁹⁾⁽¹⁰⁰⁾.

Just like several government analytical institutions, UNBS is decentralizing its services. This is bringing closer analytical services to the rural community for instance the Uganda National Bureau of Standards (UNBS) has opened a food safety testing laboratory for the northern region based in Gulu. The equipment for the laboratory was donated by Vegetable Oil Development project (VODP) through the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and Trade Mark East Africa (TMEA) funded by the Danish government⁽¹⁰¹⁾.

According to UNBS, this laboratory equipment is worth \$ 988,470 while Trade Mark East Africa (TMEA) through the Danish Government has so far provided laboratory equipment worth \$ 4,455,283 to the bureau⁽¹⁰²⁾. According to David Livingstone Ebiru, the executive director at UNBS, the bureau intends to open similar testing laboratories for eastern region based in Mbale and for Western Region based in Mbarara in the near future.

The regional food safety laboratories provide conformity assessment services to enterprises and industries involved in processing and value addition to ensure that their products meet the minimum quality standards before being put on the market. The laboratories test food and non-food products such as edible fats and oils, milk and milk products, water, alcohol and beverages, fruits and vegetables, cereals and cereal products, grains and animal products, among others.

Though UNBS doesn't primarily test for forensic evidence purposes, it does provide expert witnesses tests and writes reports which are accepted in Uganda judicial system. Several reports of alcohol poisoning have been written by scientists working with UNBS⁽¹⁰³⁾.

The UNBS has also set standards for different products on the market, it conducts routine product testing such that no harm is inflicted on product users for instance standards for cosmetics were developed including shea butter⁽¹⁰⁴⁾⁽¹⁰⁵⁾⁽¹⁰⁶⁾, a standard for a fishing gill nets was elaborated⁽¹⁰⁷⁾⁽¹⁰⁸⁾⁽¹⁰⁹⁾, Under textiles⁽¹¹⁰⁾⁽¹¹¹⁾, standards for school clothing were developed to support manufacture of standard garments for use in schools. Against the set standards set by UNBS, cases can be reported in court by any suspecting Ugandan⁽¹¹²⁾.

Standards for farm tools & implements like spades, hoes, wheelbarrows⁽¹¹³⁾ & machetes were reviewed⁽¹¹⁴⁾. In addition the standards for network security and information security management systems were developed; Standards for major staple foods such as maize, beans, wheat, sorghum and millet were revised. UNBS has set the standard for green coffee beans too. This is just to mention but a few standards that have been set⁽¹⁰⁰⁾.

UNBS laboratories are internationally accredited which means the test results are recognized globally⁽¹¹⁵⁾. In 2019, UNBS tested 17,770 product samples against a target of 15,000⁽¹¹⁶⁾. These included chemicals, food items, electrical items, materials & engineering items, to ensure that locally manufactured & imported items conform to Uganda Standards. The e-certificates were successfully implemented under Laboratory Information Management System (LIMS) to improve on turnaround time. The turnaround time for testing products in UNBS Analytical Laboratories has generally improved from an average of 30 days in the last financial year to 20 days which meets our promise of 21 days.

To further improve on the turnaround time, UNBS has put in place a laboratory recognition scheme where over 15 public and private laboratories can be contracted to test samples on behalf of UNBS⁽¹¹⁷⁾⁽¹¹⁸⁾.

In imports inspection in 2019, 447 consignments that did not meet standards estimated at Shs29.1 billion (USD 7,856,604) were denied entry into Uganda thus protecting more than 5 million consumers from consuming substandard products.²²²

tonnes of a variety of substandard products worth shs992 million seized at the point of importation were destroyed(100). These include food & food products, chemicals & consumable products, assorted electronics, mattresses & assorted textiles

Import inspectors were deployed to 20 additional entry border points & customs inland container depots, resulting into inspection of additional 8,600 consignments per annum. This resulted into protection of about 900,000 consumers from potentially harmful & substandard products⁽¹¹⁹⁾. Under Market Surveillance 6,646 inspections were undertaken against the annual target of 5,000 inspections. This included interception of trucks distributing uncertified products which contributed to 58% of the total inspections. 413 tonnes of substandard items worth Sh66.4 billion were seized from supermarkets, retail shops, distribution outlets, manufacturing premises, hardware shops, and Internal Container Depots (ICDs), and distribution trucks

The Uganda National Bureau of Standards (UNBS) unveiled it's the Inter-Laboratory Comparison (ILC) programme and called upon laboratory owners and institutions to participate, to ensure accuracy of their results. The Deputy Executive Director-Standards, Ms. Patricia Bageine Ejalu said that inter-laboratory comparisons are undertaken to verify that a laboratory provides correct results within the stated measurement uncertainty. She added that the need for ongoing confidence in laboratory performance is not only essential for laboratories and their clients but also for other interested parties, such as regulators, laboratory accreditation bodies and other organizations that specify requirements for laboratories⁽¹²⁰⁾. "Monitoring the quality of the analytical results, by using effective quality control tools, can help prevent good products being discarded and stop non-conforming products from being released to the market", Ms. Ejalu said.

According to International Organization for Standardization, ISO/IEC 17043:2010, inter-laboratory comparison (ILC) is the organization, performance, and evaluation of measurements or tests on the same or similar items by two or more laboratories or inspection bodies in accordance with predetermined conditions⁽¹²¹⁾⁽¹²²⁾. The only requirement was for laboratories' operations to meet the relevant national and international standards⁽¹²²⁾⁽¹²³⁾⁽¹²²⁾. Participating in the Inter-Laboratory Comparison program is of great importance to laboratories because it shows competence of

laboratories, attracting national, regional and international recognition. It also ensures quality control of their tests.

The UNBS mandate is provided through the Act of Parliament that established it and is given as: develop and promote standardization; quality assurance; laboratory testing; and metrology to enhance the competitiveness of local industry, to strengthen Uganda's economy and promote quality, safety and fair trade. Its Mission is to provide standards, measurements and conformity assessment services for improved quality of life. The Vision of UNBS is to ensure Safe, quality goods and services for all⁽¹²⁴⁾.

The role of UNBS can be classified in terms of both Government's priority programmes and international relations. UNBS' role and importance in the economic development of Uganda has continued to grow and the expectations from the public are also continuously increasing. The role of UNBS is increasingly becoming more and more relevant especially in the provision of technical expertise in mainstreaming quality standards in the government's economic programmes such as Poverty Eradication Action Plan (PEAP), Plan for Modernization of Agriculture (PMA), Medium Term Competitive Strategy (MTCS) and Strategic Exports Programme (SEP).

UNBS is also a member of the International Standardization Organization (ISO). At the regional level, UNBS is actively involved in the development and elaboration of regional standards at the East African Community (EAC) and Common Market for Eastern and Southern Africa (COMESA). The harmonized standards and codes of practice are geared at facilitating trade within the region⁽¹²⁵⁾

The UNBS services to the public are both regulatory and supportive to trade in nature. They are regulatory in as far as ensuring of fairness in trade and protection of the consumers against substandard, shoddy, and hazardous products is concerned; and are supportive to trade through the development and implementation of standards for the various sectors of the economy and carrying out conformity assessments of products to standards. These activities ensure that manufacturers produce quality products that are competitive both locally and internationally⁽¹²⁶⁾.

UNBS assists exporters by providing information on standards and quality requirements of the export markets, conformity assessment of the export products through laboratory testing and inspection. Also Certificates of analysis and/or certificates of conformity are issued whenever required by the export markets. UNBS provides training

and technical advisory services to (both existing and potential) export-oriented industries and businesses on standardization and quality assurance to enable them improve on the quality of the exports⁽¹²⁷⁾. UNBS plays a great role in assisting in export-oriented industries and businesses by establishing Quality Management Systems (e.g., ISO 9000) in their processes to improve their capability of producing products that conform to the export market standards and quality requirements. UNBS aids in import standardization through implementation of the Import Inspection and Clearance Regulations 2002⁽¹²⁸⁾. Thus, it safeguards the health and safety of the consumers and the environment against imported substandard, shoddy and hazardous products. It also safeguards Ugandan industries from cheap counterfeit imports that can be a threat to infant industries. It also ensures that Uganda's hard-earned foreign exchange is not wasted on shoddy, substandard and sometimes dangerous products, which may not only further impoverish the people but also cause ill health sometimes resulting in death. Similarly, UNBS facilitates import trade by providing importers with information on requirements of Uganda Standards for onward transmission to potential suppliers abroad.

UNBS ensures fairness in domestic trade: UNBS is the custodian of the physical internationally traceable measurement standards such as the standard kilogram, standard metre length etc. UNBS does this through ensuring precision and reliable measurement systems by verifying the accuracy of weighing and measuring instruments used by traders and consumers in commercial transactions, calibrating measuring and testing equipment used in industry to ensure accurate measures of products made by these industries, assisting the private sector, procurement agents, tenders, government and the general public in assessing conformity of purchases to specifications through testing, measuring and inspection of the consignments before delivery⁽¹²⁷⁾.

The regulatory function of the UNBS is done by carrying out market surveillance to rid the market of dangerous, shoddy and substandard and counterfeit products. UNBS also provides information and technical advisory services to industries to enable them meet quality and standards requirements. In addition, it provides technical assistance to industries so as to improve on the quality and safety of their products and services. UNBS carries out quality audits and inspection with the aim of quality marking or certifying products that conform to Uganda Standards or other specifications⁽¹²⁹⁾. New products on the Ugandan market must be tested by UNBS. Most products that cross borders, unless

they carry a recognized certificate from the country of origin, have to go to UNBS to be tested. UNBS uses four main laboratories to test new products. The chemistry lab calculates chemical composition, the microbiology lab tests for bacteria in food and drink, the building materials lab, amongst other things, tests the strength of cement and steel, and the electrical lab for all electrical goods⁽¹³⁰⁾. When something does not meet the laid down standards it is either destroyed or downgraded, which means an importer, who has already paid to transport goods from one country to another (and perhaps transit through a third) makes a loss. However, once certified, a product is labeled accordingly and manufacturers are allowed to put the UNBS standard on the product label at the production process. Thus, part of UNBS's work is to advise the importer of the laid down quality standards before the importation process begins.

10.3. National Drug Authority (NDA)

The National Drug Authority (NDA) was established in 1993 by the National Drug Policy and Authority Statute which in 2000 became the National Drug Policy and Authority (NDP/A) Act, Cap. 206 of the Laws of Uganda (2000 Edition). The Act established a National Drug Policy and National Drug Authority to ensure the availability, at all times, of essential, efficacious and cost-effective drugs to the entire population of Uganda, as a means of providing satisfactory healthcare and safeguarding the appropriate use of drugs. It's tasked with the role of promoting and protecting public health through the effective regulation of human, animal medicines and health care products. NDA ensures a Uganda with safe, effective, quality medicines and health care products⁽¹³¹⁾⁽¹³²⁾. The vision of NDA is to be a world class drug regulatory agency effectively protecting and promoting public health. Its mission is to ensure access to quality, safe and efficacious human and veterinary medicines and other healthcare products through the regulation and control of their production, importation, distribution and use. The core values of NDA are excellence, professionalism, fairness, highest standards of service, integrity, honest, transparency and accountability and team spirit.

The objectives of the Drug Authority are stated under Section 2 of the NDP/A Act, Cap. 206⁽⁸⁸⁾. These are;-to ensure that essential, safe, efficacious and cost-effective drugs are made available to the entire population of Uganda to provide satisfactory health care;

to make a continuous review of the needs, knowledge and resources of essential drugs; to promote the rational use of drugs both in the public and private sector; to improve government regulation and control on manufacture, production, importation, exportation, marketing and use of drugs; to provide systematic public information and professional training and retraining of health workers; to improve the registration of drugs and licensing of pharmaceutical premises; to intensify research in all types of drugs, including traditional medicines; to comply with the international regulations on drugs, including the conventions on narcotic drugs and psychotropic substances under international control; and to fight against drug and substance abuse.

The functions of the Drug Authority are stated under Section 5 of the NDP/A Act, Cap. 206. These are;-deal with the development and regulation of the pharmacies and drugs in the country; approve the national list of essential drugs and supervise the revisions of the list in a manner provided by the minister; estimate drug needs to ensure that the needs are met as economically as possible; control the importation, exportation and sale of pharmaceuticals; control the quality of drugs; promote and control local production of essential drugs; encourage research and development of herbal medicines; promote rational use of drugs through appropriate professional training; establish and revise professional guidelines and disseminate information to health professionals and the public; provide advice and guidance to the minister and bodies concerned with drugs on the implementation of the national drug policy; and perform any other function that is connected with the above or that may be accorded to it by law. Though NDA is not primarily involved in forensic investigations, investigative bodies directly work with it in cases involving drugs and intoxication.

10.4. National Water and Sewerage Corporation (NWSC)

The National Water and Sewerage Corporation (NWSC) is a public utility company 100% owned by the Government of Uganda. The Corporation was established in 1972 under Decree No: 34. At its inception in 1972, the Corporation operated in three (3) major towns of Kampala, Jinja and Entebbe. These laws were revised in 1995 by the NWSC Statute and later on the statute was incorporated in the Laws of Uganda as CAP 317⁽¹³³⁾. The primary aim of this was to revise the objectives, powers and structure of

NWSC to enable the corporation operate and provide water & sewerage services in areas entrusted to it on a sound commercial and viable basis. NWSC offers expert professional services for all types of water & waste development projects from mini to large development schemes, low to high head projects.

The Vision of NWSC is to be the leading customer Service Oriented utility in the world. The mission is to sustainably and equitably provide cost effective quality water and sewerage services to the delight of all stakeholders while conserving the environment. Its core values are professionalism, reliability, integrity, innovation, team work, excellence and result oriented⁽¹³⁴⁾.

Water quality refers to the chemical, physical, biological, and radiological characteristics of water relative to the intended use. Water quality is measured against specified national standards in relation to the WHO guidelines. These guidelines provide a framework for defining water that is safe to drink upon which individuals can make informed decisions. There are many possible compromises to drinking water quality. Common contaminants in water include; micro-organisms such as bacteria, inorganic contaminants such as metals and salts, organic chemical contaminants from industrial processes, pesticides and herbicides as well as radioactive material mainly from anthropogenic activities. Other causes may be soil and decaying matter in the gutters as well as algae in the piping systems. These substances can potentially affect the physio-chemical and bacteriological quality of water hence directly or indirectly impacting on human health. Even if the water does look clear and doesn't smell, one cannot be 100% sure that it is safe to drink. Therefore, testing water is the only way to find out about its quality and hence ensure safety of communities. In cases involving industrial waste in water, NWSC conducts water tests which act as evidence in court. NWSC is not primarily involved in forensic investigations though it can conduct water tests on request by any legislative authorities.

10.5. The Uganda Police Force. (UPF)

The police force in Uganda is a national body which falls under control of the Ministry of Internal Affairs and is led by the Inspector General of Police. The Uganda Police is established under the Constitution. The Uganda Police Force (UPF) is composed

of: the regular Uganda Police Force; the Uganda Police Reserve; special constables; and any other person appointed as a member in terms of the Police Act of 1994⁽¹³⁵⁾⁽¹³⁶⁾. The functions of the police are laid down in Article 212 of the Constitution of the Republic of Uganda⁽¹³⁷⁾. The Police Act also re-echoes the functions of the police namely: to protect life and property; to preserve law and order; to prevent and detect crime; and to cooperate with the civilian authority and other security organs established under the Constitution and with the population

The mandate of Uganda Police Force as provided in the Constitution of the Republic of Uganda, and Uganda Police Force Act Cap 303, is protection of life and property, prevention and detection of crime, keeping law and order, and maintenance of overall Security and Public Safety in Uganda⁽¹³⁵⁾. The vision of the police is “A professional and people centered police for a safe and secure society”. Police’s mission is to secure life and property in partnership with the public in a committed and professional manner in order to promote sustainable development. The core values of the Uganda police are discipline, professionalism, community oriented, nationalism, patriotism and integrity.

The functions of the Police Council are provided for in terms of the Police Act, which includes the following: to recruit, appoint and promote police officers up to the rank of inspector of police; to exercise disciplinary control over all police officers through the police courts; to advise the police authority on the ranks structure in the force; to formulate terms and conditions of service of members of the force subject to approval by the police authority; to formulate and establish standards of recruitment and training within the force; to determine the types and quality of equipment and supplies to be procured by the force; to formulate and advise the police authority on the policies of the force and ensure the implementation of that policy; to ensure efficient organization and administration of the force; and to ensure that the force is of a national character and composition.

When an offence is alleged to have been committed, the police have the mandate to carry out investigations with the aim of obtaining the necessary evidence that will be used in court to warrant a conviction so as to punish criminals, to protect life and property preserve law and order as well as preventing and detecting crime. It should be noted that poor investigation leads to acquittal of guilty individuals on one hand and conviction of

innocent parties on the other. Being a part and parcel of the criminal justice system, a scientific investigation into an offence helps the state in proving the guilt of the accused beyond reasonable doubt, and ensures that chances of convicting an innocent person are avoided. Many offences recently require expert opinion due to technicality involved. Experts such as pathologists, ballistic experts, government chemists, finger print experts, bomb experts, and DNA experts are increasingly being used⁽¹³⁸⁾. The scene of crime officer should visually represent the scene of the crime through a sketch plan. This helps court to visualize what took place at the scene of crime without court visiting the scene. When an offence has been scientifically investigated, the trial process becomes easier and expeditious and this can only be possible when there is employment of expert personnel trained in specialized disciplines. A criminal investigative failure more commonly results in the offender escaping justice (a wrongful conviction also allows the real offender to go free). The damage resulting from criminal investigative failures, whether to victims, innocent people, or the public, are significant.

On the other hand, the Criminal Procedure Code Act 17⁽¹³⁹⁾ sets out the procedures to be followed by police and the Penal Code Act 18⁽¹⁴⁰⁾ outlines offenses and punishments prescribed by law. The Criminal Investigations Department (CID) is responsible for detecting, preventing and investigating crime, compiling information on criminals and gathering evidence for use in criminal prosecutions. Other branches and units of the Uganda Police Force, include the Legal Department; the Child and Family Protection Unit, which deals with human rights and gender-related issues, the Police Anti-Terrorism Unit, responsible for such activities as Unit (MPPU), which deals with border crimes, including smuggling; and the Special Force Unit, a paramilitary branch of the police trained in riot control and border patrol. Also under the police is a specialized department of forensics. It's called the Directorate of Forensics Science.

10.6. The Directorate of Public Prosecution (DPP)

The office of the DPP is also established by the Constitution⁽¹⁴¹⁾. The DPP has the mandate over all criminal prosecutions in the country, including corruption cases⁽¹⁴²⁾. This is derived from the functions of the DPP which include: to direct the police to investigate any information of a criminal nature and report to him or her expeditiously;

to institute criminal proceedings against any person or authority in any court with competent jurisdiction other than court martial; to take over and continue any criminal proceedings instituted by any other person or authority; and to discontinue at any stage before judgment is delivered any criminal proceedings instituted by himself or herself or any other person or authority; except that the DPP shall not discontinue any proceedings by another person or authority except with the consent of court.

It should be noted that in exercise of the functions conferred on him or her, the DPP is not be subject to the direction or control of any person or authority. However, in exercise of these powers, the DPP has regard to public interest, the interest of the administration of justice, and needs to prevent abuse of the legal process. The DPP does not carry out investigation of cases. This is the function of the police. The role of the DPP is to guide and advise the police in the conduct of the investigations. The cases are reported to the police who carry out investigations and refer the case to the DPP for legal advice and to conduct the prosecution. The prosecutions are done in the Magistrates courts, although the DPP has powers to commit any case to the High Court for trial.

10.7. The Inspectorate of Government (IGG)

The IGG is established by Article 223 of the Constitution⁽¹⁴³⁾. The IGG has powers to investigate, cause investigation, arrest, cause arrest, prosecute, or cause prosecution. The major difference in the roles of the DPP and IGG is that while the IGG has powers to investigate, arrest and prosecute offenders, as already stated, the DPP does not investigate or arrest but relies on the police for investigations and arrest. Secondly, while the DPP has powers to control and handle all criminal prosecutions in the country, IGG handles investigations and prosecutions only in corruption cases, and cases of abuse of authority or public office. Corruption cases are defined both in the Anti-Corruption Act 29⁽¹⁴⁴⁾ and in the IGG Act 30⁽¹⁴⁵⁾ to include embezzlement, bribery, nepotism, influence peddling, theft of public funds or assets, fraud, forgery, causing financial or property loss and false accounting in public affairs⁽¹⁴⁶⁾. In investigation of corruption, Uganda's Prevention of Corruption Act gives the DPP powers to: cause the investigation of any bank account, share account or purchase account; apply to court for orders restricting disposal of assets or bank accounts of accused persons; order the inspection of documents

and obtaining of copies thereof; and, to obtain information. The same powers apply to the offences of embezzlement and causing financial loss under the Penal Code. 31. The above offences are investigated by mainly a specialized fraud squad of the Criminal Investigations Department (CID) based at the Police Headquarters or the investigators of the Inspector General of Government (IGG)⁽¹⁴⁷⁾.

Many of the police officers who carry out these investigations are neither trained in forensic document analysis nor any forensic science discipline. Inputs are sought from experts in the affected organizations and others, especially auditors from the Office of the Auditor General, and document analysts or handwriting experts from the Government Analytical Laboratory. The auditors are useful in unearthing financial irregularities or malpractices while document examiners mainly deal with the identification and analysis of handwriting, signatures, alterations, erasures, embossments and stamp impressions. In some cases, the input of the Public Procurement and Disposal of Assets Authority (PPDA) may be required to identify procurement irregularities and malpractices.

10.8. The Uganda Human Rights Commission (UHRC)

The Uganda Human Rights Commission (UHRC), is mandated to investigate human rights abuses, conduct inspections of places of detention, and to make recommendations to Parliament on victim compensation and human rights related matters⁽¹⁴⁸⁾. In addition, the UHRC has the powers of the court and includes a judge from the Uganda High Court in its organization. In this regard, the UHRC has been commended for conducting effective external oversight of the police, which has included surprise station visits, and reductions in the number of police-related incidents of abuse and disappearance⁽¹⁴⁹⁾. The UHRC is also established by the Constitution. The functions of Commission inter alia include: to investigate at its own initiative or on a complaint made by any person or group of persons against the violation any human right⁽¹⁵⁰⁾. It should be noted that the nature of the work police does legally deprive members of society some human rights. In this way the UHRC checks the abuse of powers of the police. It is also mandated to establish continuing program of research, education and information to enhance respect of human rights.

UHRC's mission is to protect and promote fundamental Human Rights and freedoms in Uganda for sustainable development. The vision of UHRC is "A society that respects human rights and fulfils civic obligations". Its values are Integrity, Transparency, Accountability, Fairness, Dignity of the person, Independence, Professionalism and Non-discrimination⁽¹⁵¹⁾.

10.9. The Uganda Revenue Authority (URA)

The Uganda Revenue Authority (URA) was established by the Uganda Revenue Authority Statute of 1991⁽¹⁵²⁾ and set up in September of the same year as a central body for assessment and collection of specified revenue, to administer and enforce the laws relating to such revenue and to provide for related matters. Uganda Revenue Authority (URA) is a central body in charge of collection and assessment of specified tax revenue, administer and enforce the laws relating to such revenue and to account for all the revenue to which those laws apply⁽¹⁵³⁾. Uganda Revenue Authority is also required to advise the Uganda Government on matters of policy relating to all revenue, whether or not this revenue is specified in the URA Statute No. 6. The Mandate of URA is to assess, collect and account for central government tax revenue (includes non-tax revenues) and to provide advice to government on matters of policy relating to all revenue sources. Cultivate a taxpaying culture through provision of reliable services, leadership development and building strategic partnerships. URA has a Mission to Mobilize revenue for national development in a transparent and efficient manner. Its Vision is to have a transformational revenue service for Uganda's economic independence. Core values of the URA are patriotism, integrity, professionalism and excellence.

Tax body, Uganda Revenue Authority (URA) impounds goods that are not matching standards as set by UNBS⁽¹⁵⁴⁾. Suspects are always arraigned in courts of law for an appropriate penalty and whenever there is a need, scientific evidence is presented in court by URA to pin the suspect for example upon examining samples of cement, laboratory tests may reveal lime being packaged as cement⁽¹⁵⁵⁾. Also URA intercepts contrabands such as cosmetics containing hydroquinone which were banned from the Ugandan market because of the dangers they pose to people's health. Expert witnesses present scientific evidence against such contraband⁽¹⁵⁶⁾.

10.10. Other Investigative Bodies in Uganda.

Additionally, there are several other institutions which carry out investigations and these include; the Auditor General, Uganda People's Defence Forces and its Chieftaincy of Military Intelligence (CMI), Special Investigation Unit (SIU), External Security Organization (ESO), Internal Security Organization (ISO), the Joint Anti-Terrorism Taskforce), Uganda Prisons etc. Many of these carry out investigations but rarely rely on scientific methods. A number of non-government organizations have been involved in investigations, including the Foundation for Human Rights Initiative (FHRI), HURINET-Uganda, and Human Rights Focus, which have played a significant role in strengthening mechanisms of scientific investigations. Recently more and more journalists are getting involved in investigative journalism. These are increasingly referring to expert evidence while compiling their reports.

11. RESEARCH METHOD

11.1. Introduction

In order to be able to answer the posed research questions, several subjects needed to be addressed. In this chapter the chosen research method and sampling population, the formulation of interview questions, the diminishment of bias and the transcription method of the interviews are described. These issues are all important elements of reliable and valid research. The next paragraphs will go into these subjects and describe them in more detail.

11.2. Quantitative Versus Qualitative Methodologies

Mostly for this kind of studies, qualitative research is done, but quantitative methods can be used too. The choice was made for both qualitative and quantitative methods. The preference for qualitative has two reasons: first of all, the number of interviews is small, which makes a statistical analysis less reliable. Secondly, since the aim is the exploration of personal feelings and opinions (frames), a qualitative method can give more information. There is no restriction in the answers as would be the case when using a scoring list and the interviewees can use their own words to describe their opinion. If quantitative research is the outline of a picture, qualitative research colors it in. Quantitative research is also used to be more representative of facts within the entire Ugandan population. A larger sample was dealt with: with a quantitative survey, a much broader study was done – one which involved more people. Using both methods ensured that the research findings are deeper and broader.

11.3. Interview Questions

Since the aim of the study is the description of the cognitive frames of the interviewees, the possibility to express their feelings and thoughts in answer to interview questions is important. The first sections of the research cover that. The interview

questions are worded in a way that enables the interviewer and the respondent to react on the previous answer. For these matters, open-ended questions were asked because emotional responses are frequently too complex to report in a single phrase. Selltitz et al. recommended the use of open-ended questions, allowing the respondents to choose their own terms. (Silverman, 2006 and Selltitz, 1964, as quoted in Silverman, 2006 p. 120). In addition to being able to follow the respondent in his or her answer, the issues that come from the theoretical framework also have to be addressed. The questions were structured such that the interviewees word their answers freely, including thoughts and feelings.

Both the quantitative and qualitative interviews were done either face to face or over the telephone. Most expert witnesses were visited in person, as were the representative of the Ministry of Justice and one of the judges, since they both were in the same city at that time. The other interviews were done by telephone for reasons of time management: the interviewees were scattered over the country and performing all these interviews face to face would have cost too much time and money. Since the writing of this started while I was in turkey, end-to-end Whatsapp calls to several professionals were made in the preliminary research.

Since the author was familiar with the target group firsthand, it was judged that the interviewees would speak their mind and it would not matter whether they were meeting the interviewer or were asked to express their opinion over the telephone.

11.4. Sampling and Characteristics of the Interviewees

To gather information on the need for more expert witnesses several parties had to be interviewed in order to get a “360 degree” view on the expert witness. These parties were: a representative of the Ministry of Justice, judges, public prosecutors, defense lawyers and expert witnesses. The persons for the interview were not chosen randomly; the choice was based on (a) the needed population for a broad inventory of views on the expert witness in order to answer the research questions and (b) practical reasons of personal access and availability. One could say this is “purposive sampling”: purposive sampling demands that we think critically about the parameters of the population we are interested in and choose our sample case carefully on this basis. Sampling in qualitative

research is neither statistical nor purely personal: it is, or should be, theoretically grounded. (Silverman, 2006, pp. 306-307).

Based on theoretical grounds and the parties of interest, the choice was made for the following population:

- Representative of the Ministry of justice and constitutional affairs.
- Two judges
- Two public prosecutors
- Two defense lawyers
- Six expert witnesses, consisting of three pairs: Expert witnesses working at the DGAL, expert witnesses working with the police directorate of forensics, expert witnesses from Mulago hospital pathology department.

The reason for choosing pairs of persons is that at least there is more than one personal opinion within groups. With regard to the thoughts and motives of the Ministry of Justice and constitutional affairs, this was not deemed necessary since the ministry is not a person but an institution and has to act as “speaking from one mouth”, although clearly the quotes are personal. The representative of the Ministry of Justice and constitutional affairs is a person that has been involved in the new laws and regulations from the beginning of the discussion within the Ministry. This person, therefore, has a good insight in the matters pertaining expert witnessing in the law spheres in Uganda.

Both judges that were interviewed work at appeal courts and have had ample experience in court sessions where hearings of expert witnesses took place. The public prosecutors have experience in working with forensic experts (as does every prosecutor in criminal law), not only when prosecution takes place also but also at the stage of criminal investigation. Both defense lawyers are specialized in criminal law and work at very well-known lawyer’s offices, but they differ in experience. The interviewed expert witnesses differ in experience; three of them have many years of experience, the other three are relatively new to this work. The expert witnesses were chosen in such a way that three pairs can be identified: one pair of expert witnesses that works within the DGAL, one pair that is based at the Uganda Police Directorate of Forensics and one pair of pathologists in Mulago hospital.

To be more inclusive 100 people each practicing a unique career were chosen and interviewed. These were intended to be a representative of the total Ugandan population. Both the formal and informal sector are represented. The interviewees were selected from different professions and from different areas of Uganda.

Here is the list of 100 quantitative interviewees categorized by the work they do: dentist, registered nurse, pharmacist, computer systems analyst, physician, database administrator, software developer, physical therapist, web developer, beautician, journalist, occupational therapist, veterinarian, computer programmer, school psychologist, gate keeper, interpreter & translator, mechanical engineer, veterinary technologist & technician, epidemiologist, IT manager, market research analyst, book binder, computer systems administrator, medical secretary, civil engineer, substance abuse counselor, prison officer, land surveyor, super market attendant, auditor, medical assistant, lawyer, accountant, high school teacher, clinical laboratory technician, maintenance & repair worker, school bursar, recreation & fitness worker, taxi driver, insurance agent, elementary school teacher, dental assistant, property manager, boda boda rider, construction site manager, retailer, taxi conductor, middle school teacher, massage therapist, paramedic, preschool teacher, hairdresser, dancer, marketing manager, police patrol officer, school counselor, pastor, clinical social worker, imam, mobile money attendant, loan officer, event planner, nursing aide, sales representative, architect, HR specialist, plumber, electrician, real estate agent, logistician, auto mechanic, bus driver, restaurant cook, child & family social worker, administrative assistant, receptionist, priest, cement mason & concrete finisher, painter, sports coach, footballer, teacher assistant, brickmason & blockmason, cashier, janitor, electrician, delivery truck driver, statician, car mechanic, phone technician, garbage collector, maid & housekeeper, carpenter, security guard, construction worker, fabricator, telemarketer, stay home house wife, farmer, road cleaner, market vendor, hotel receptionist, musician, bar attendant, store keeper, UPDF officer, and butcher man.

11.5. Privacy Matters

The interviewees participated willingly after being given the insurance that they would stay anonymous and that, if they used examples to emphasize a point, the persons

or business mentioned in the example would not be named. This condition is important especially for the qualitative research interviewees because the forensic and juridical world is rather small in Uganda and people can be easily identified by other people in the field if too many details are given. This should not happen because some statements were fairly explicit. For that reason, the characteristics of the chosen population are not described in detail and explicit examples are left out to avoid possible recognition and complaints.

11.6. The Researcher: Managing Role and Reflexivity

A special point of interest was the danger of asking leading questions from my side or discussing matters instead of performing an interview. Having been a student keen in expert witness study, it would be too easy to get involved in a discussion about the many facets of the aspects involved in expert witness instead of doing an interview and let the other person formulate his own thoughts. Measures to prevent that as well as possible were: formulating the questions beforehand, sticking to those questions during the interview and checking if all questions had been asked before ending the interview. A third person, that had nothing to do with the interviews or the subject of research, has listened to random samples of the interviews. He was asked to check for leading questions and to judge on the nature of the interview: was it an interview or a discussion? This has helped me to reflect on my own actions. In practice it was noted that I did not interfere substantially, so the results of the interviews can be considered to reflect the thoughts and feelings of the interviewees.

11.7. Transcription and Translation

The interviews were all recorded. After recording, the interviews were transcribed to make specific points of interest easier to identify. In the thesis the interviewees will be indicated as follows:

RM: representative of the Ministry of Justice and constitutional affairs

J1: Judge 1

J2: Judge 2

P1: public prosecutor 1

P2: public prosecutor 2

L1: experienced defense lawyer

L2: less experienced defense lawyer

E1: experienced expert witness at DGAL

E2: less experienced expert witness at DGAL

E3: experienced expert witness at the Uganda Police Directorate Of Forensics

E4: less experienced expert witness at the Uganda Police Directorate Of Forensics

E5: experienced expert witness Mulago Hospital department of Pathology

E6: less experienced expert witness Mulago Hospital department of Pathology

11.8. Interview Questions

Several subsets of interview questions were made to fit the different populations. All subsets start with a basic question to loosen the tongue and follow-up questions were formulated to extract more specific information. Subtopics were formulated beforehand, derived from the theoretical framework. The interview with the representative of the Ministry of Justice and constitutional affairs started with a very basic question on the reasons for few expert witnesses in Uganda and follow-up questions going deeper into the matter. From there, questions on the position of the expert witness as stated in the law are asked, going from theory to daily practice. Judges, defense lawyers and public prosecutors, all professionally active in the court room, were asked almost the same set of questions. Low key questions asking for their opinion about daily expert witness practice ushered me into depths of insight. The questions more explicitly addressed their feelings and thoughts on and practical experiences with expert witnesses in general. The interviews touched on changes over the years and their thoughts on the ideal expert witness. A question was asked to extract from their answers any wishes or critical notes on the performance of expert witnesses. I ended with the golden question of the reason for low levels of expert witnessing in Uganda. The third set of questions was designed for the expert witnesses. They not only had to address the matter of laws and regulations,

but also their own performance and experiences. The basic starting point was the level of satisfaction with their personal performance. Then questions about changes in their role and position over the years were discussed. The interview ends with a question on the reason for few expert witnesses in Uganda. General questions were asked to members of the general population. 100 participants were interviewed. These included members from the formal and informal sector. The questions were geared to find out how much knowledge about expert witnessing is in Ugandan communities. The interview questions, although they are different subsets, were derived from the subjects in the theoretical framework. The possible influence of the working environment, the perception of science and scientists, the outcome of the public engagement with the functioning of the expert witness, expressed in the laws: all these subjects are addressed in the interview questions going from basic, general questions to more detailed and personal questions.

11.9. Data Analysis

After recording the interviews, they were transcribed using the transcription method based on the simplified symbols as described by Silverman (Silverman, 2010, Appendix). This method was chosen because the emphasis of the interviews was more on the content than on the way it was worded. Longer pauses before or during an answer and stopgaps, like „uh“ and „ehm“ were noted because they could indicate hesitation before or during answering. After transcription the answers were grouped according to concepts from the theoretical framework, such as the perception science and scientists. Also, answers that addressed certain more specific topics were grouped, such as answers on the assessment of expertise. After grouping, any differences or agreements on topics became clear. These grouped answers formed the basis for the headlines in the chapter on results. The headlines of the results were grouped again and these groups formed the basis for the discussion and conclusions.

11.9.1. Section A

11.9.1.1. Questions for a Representative of the Ministry was Justice and constitutional affairs

11.9.1.2. Question: Is true that we have an expert witness shortage in Uganda?

RM: It's true; there is a shortage of experienced expert witnesses. And the few highly experienced ones are in constant demand and spread very thin across the system. As a result, they either refuse to take on cases, or are dilatory in their submission of opinions, both of which cause delays in trial. There is no policy yet designed to increase the number of expert witnesses. May be with the recent "push" by the president to train more scientists, this gap will be bridged.

Another reason why we have few expert witnesses is that many professionals in Uganda don't want to associate with court. Many potential witnesses fear the court system in Uganda. Most cases that require expert witnesses are high profile cases that would put an expert witness' life on the line. Witnessing in such cases puts the witnesses' lives at risk. Definitely no one would put themselves deliberately in harm's way. Recent reports about corruption in court increase the fears of the objective expert witness. In a corrupt system, even the most credible expert witness is of no use. Giving such evidence or opinion isn't of use either.

Many expert witnesses feel helpless in the Ugandan justice system because the existing monitoring and accountability mechanisms that govern the work of expert witnesses are weak and ineffective. Also, the legal frame work that protects the rights of the expert witness is still weak in Uganda. More to that, recently there have been new criminal cases several which are not yet well defined by the law. Many of these are crimes involving science. There are few experts who can ably witness in such cases. Many experts trained in science and technology in Uganda aren't competent enough to pin criminals engaged in science-related crime. In addition, in several cases it has been noted that the expert witness in Uganda is more of a political tool than they are an expert. After

witnessing in a few cases, many experts never want to witness again in court. In many cases, the expert witness is used not as an expert but as an object to avert justice. Therefore, not so many professionals are able to build their careers as expert witnesses especially after losing such cases. However qualified an expert is, they lose credibility if their objective is to bias justice.

11.9.1.3. Question: Does Uganda have a clear law on expert witnessing?

RM: There is no clear law that guides and regulates expert witnessing. We only have the evidence act. There are also some guidelines as per the Civil Procedure Rules (CPR). The evidence act instructs court to rely on expert opinion but the law doesn't set the qualification standards of an expert witness either by experience or academic qualifications. Experts such as pathologists, ballistic experts, government analysts, finger print experts, bomb experts, and DNA experts are increasingly involved in investigations and trials of serious offenses. However, their qualifications to testify are subjective to the judges in charge of the respective cases. The rule admitting expert evidence in Uganda is founded on necessity. This is always after critical examination from the lawyer. Opinions of experts are received as an exception to the general rule.

11.9.1.4. Question: Who Qualifies to Testify an Expert in the Courts of Uganda?

RM: Pursuant to statutory law, the courts of Uganda have regulated the role of expert opinion in proceedings while setting standards for expert opinion that may be admitted as evidence. Whereas practical experience is viewed alongside academic qualifications, experience is considered more important for purposes of identifying experts than their academic qualifications for example in *Dan Nsubuga Weraga v Uganda* (Criminal Appeal 39 of 2008) [2010] UGHC 117 (02 September 2010)). Further preference is accorded to experts who have working knowledge of contemporary practice in the relevant profession. They are considered more credible than highly qualified persons who have not practiced for a long time. This rule of experience and practice is practiced more

strictly in criminal proceedings than in civil matters. (Dan Nsubuga Weraga v Uganda (Criminal Appeal 39 of 2008) [2010] UGHC 117 (02 September 2010)). In Uganda, it's noted that though the expert witness may not have any forensic training background, at least they are consulted in a field that they are actively practicing. The fitness of a person to fit to testify in Uganda is subjective and relates to the specific issue at hand. The expert must limit his/her testimony within their expertise.

11.9.1.5. Question: Why do we have low levels of expert witnessing in Uganda?

Few people specialize to the level of expert witness because it is only possible with highly specialized training and it involves a high financial cost. It is the major reason we have few experts in Uganda. Also, the standards for expert qualification are so high: and they aren't getting down soon. Besides, it's essential to understand the jurisdiction's standards for expert qualification. An attorney must establish that the expert is qualified. Am of a view that, many professionals can witness as experts with just an additional certification. Few short course programs (if any) currently run to qualify the expert witness in Uganda. In addition, experience is given less weight than it deserves in expert witnessing. Otherwise, we would be having enough witnesses in some sectors. I have met few experts who have qualifications attained from Uganda. Many of them studied abroad. If we had more training institutions in Uganda, probably we would be having more experts. The training opportunities in expert witness are still so limited.

11.9.2. Section B.

11.9.2.1. Questions to the Lawyers, Judges, and Public Prosecutors

11.9.2.1.1. Question: In Your Opinion, Do You Feel the Expert Witnesses in General are Independent and Objective?

J1: An expert witness should be as careful and critical as possible. If from the expert report it shows that an expert witness is not objective, I will dismiss this person's report.

J2: Uhm, we do have to realize, how I shall put it, that in fact everyone is biased. Normally, he who pays the piper calls the tune. However; it is different with bureaucratic expert witness institutions. For example at DGAL, the experts aren't direct beneficiaries of the money that is paid for expert services. That way, they can be objective.

P1: I think that working for one court party by definition does affect independency and with that, also the objectivity because after all it is like this: who finds me bread and cheese, it's to his tune I dance.

P2: I think the objectivity is endangered when the expert witness is not independent. And I think that in fact we all tend to see the expert witness as objective and independent. It is not so, when an expert witness is hired by the defense. That way, I think the expert witness is not objective. I don't want to think about an expert witness that writes down what I want him to write down. Not as a prosecutor. A lot of lawyers do want that because it can be of use for the defense.

L1: I have worked with independent and objective witnesses before. However, I have met corrupted ones too. I don't trust every expert witness' testimony. Of course, you could say with regard to the experts at some government expert witness bodies that they're not completely objective because they are employed by the government. Most times however I trust them especially because they swear an oath to report truthfully and consciously. You have to assume that this oath ensures objectivity.

L2: Look, at the moment that it's an expert witness who doesn't work for the prosecution that I think would be more objective. I'd say it would be best if that investigation is instigated by the judge.

11.9.2.1.2. Question: How, In Daily Practice, Do You Check the Expertise of an Expert Witness?

J1: If you want to verify an advanced degree such as a PhD, one free way is to confirm the existence of the expert's dissertation. While the existence of a dissertation will not definitively prove the expert has received a PhD, the absence of one should be an item for follow-up.

J2: Nowadays I ask them questions like ehm how long have you been in this field of expertise, what exactly you do, Can you present your ID, publications etcetera.

P1: Professional certifications and licenses can be verified through the issuing authority's website or through the website of the institution issuing the license. This is however isn't simple in Uganda. Getting credentials from institutions abroad isn't easy yet many expert witnesses study from abroad. For foreign expert witnesses of some nations, the state licensure websites typically provide the license status, such as active, inactive, or expired, and may even include important information such as prior disciplinary actions or suspensions that the license holder has on record.

P2: With some expert witnesses I have my doubts on the expertise and then I'm very critical. It's not always easy to judge, especially when they're from abroad. And you also don't know how valuable their publications are...ehm...you know, it's hard to judge if someone has real expertise.

L1: I cross examine the expert to find any inconsistencies in their CV. Expert witnesses will, of course, highlight their accomplishments, such as professional certifications and licenses, educational background, prior testifying experience, and authored publications in order to emphasize their credibility as experts. While the vast majority of experts disclose this information accurately and completely, recent history shows that there are exceptions.

L2: I do ask colleagues for instance or eh yes I do look on the internet to find out what publication someone has and what their research focus was.

11.9.2.1.3. Question: Have There Been any Changes in Your View on the Expert Witness Over the Years?

J1: Yes. Nowadays expert witnessing is more solid than it as .When an expert gives their opinion well it has a devastating impact on the outcome of a trial, so they shouldn't underestimate the importance of their evidence and the importance of getting it right.

J2: There are so many more technical possibilities to investigate things these days that the expert witness has become more important. After all, we need to understand or at least think we understand the ins and outs of these scientific fields.

P1: Yes. Trends are changing. New ways of committing crimes are everywhere. We can't keep working without experts. There are certain crimes that are hard to deal with while depending on eyewitnesses. We need experts at least for corroborative evidence.

P2: So much is possible these days that we cannot grasp ourselves. We don't know, the expert does. We do the judicial interpretations and eh we well we do need the experts to fill that scientific gap.

L1: The role of the expert witness has grown. I think this is mostly because a lot of the methods of investigation have become more complicated. Also the increased science and technology has caused the increase of importance of the expert witness.

L2: Expert witnesses break down complicated scientific evidence, concepts, and theories in a way that the jury can better understand. Previously there would be abortion of justice because of several loopholes in a particular case. Expert witnessing closes such gaps.

11.9.2.1.4. Question: Do You Think There Might Be Factors That can Influence the Performance of an Expert Witness?

J1: Sometimes you see well that the expert witness breathes easier and can tell his story. When the expert tends to answer with bias, then as a judge you have to ask the expert witness if his answer would be the same if he considers other aspects as well.

J2: One expert witness can express himself better than the other one. Sometimes I see that an expert witness is under pressure by the defense lawyers and he exerts his right for the defense so you have to give them room to do so. Definitely too much cross-questioning doesn't go down well with most experts.

P1: Sometimes a party (usually the defense) aims to embarrass the expert witness. The “president” of the court should cut that off, but if he doesn’t the expert witness must save himself. Sometimes they don’t dare to state things clearly and then everybody gets confused. Then the expert witness is basically worthless.

P2: The lawyer can ‘fire at will’, they don’t care, they can ask ridiculous questions and then it is for the judges and the prosecution to end this. Expert witnesses are nervous in court whether they will, pass the competence test. But that’s not what it’s all about. Sometimes it feels like they are ashamed, they are too shy.

L1: There are quite a few expert witnesses that don’t do well in court. These cannot put things into words and express themselves badly. On many occasions, they cannot clarify things when they are put under pressure. Then they keep repeating themselves instead of really answering the question.

L2: Good terms of work especially when it comes to payments changes a lot. A well-paid expert is expected to present the best evidence. We can only pray he/she isn’t biased to present evidence in favor of whoever is financing them.

11.9.2.1.5. Question: Do You Think an Average Ugandan can Afford Hiring an Expert Witness?

J1: An average Ugandan cannot hire an expert witness. In criminal cases however, the state attorney hires one when there is need.

J2: Expert witnesses are needed normally in high profile cases. In such cases, either of the parties engaged can choose to hire an expert. Many of the parties involved in high profile cases can hire one.

P1: Lawyers involved with expert-intensive cases, such as products liability, personal injury or malpractice actions, can attest to the fact that in the last decade expert fees have risen dramatically. The sky has really become the limit. For example, in some cases medical experts are now demanding hourly rates of \$100, \$300, or even \$500 or more per hour for deposition testimony. Although such fees are usually excessive, sometimes these rates are paid, thereby perpetuating the notion that it is the expert, and not the judicial system, that controls such fees.

P2: For plaintiffs in civil cases, defense experts who charge exorbitant fees make it harder to prosecute good cases. For defense counsel and the clients and carriers they represent, excessive fees paid in one case virtually guarantees the same fees in similar cases down the road. Clients and lawyers pay more now -- and they will also pay more in the future. Clearly, few Ugandans will be able to hire an expert witness.

L1: More often than not, excessive fees go unchallenged for two reasons: First, on the eve of trial there is little extra time available in which to prepare pleadings and conduct hearings to challenge these fees, so the fees just get paid. Second, the cost of challenging excessive fees can, in some instances, be greater than simply paying the fee in the first place. So again, the fees get paid. This is not what it should be.

L2: There is no mathematical formula to help attorneys -- especially new lawyers - spot excessive expert fees. However, it is reasonably high for an average Ugandan.

11.9.2.1.6. Question: Is There A Need for More Expert Witnessing in Legal Proceedings?

J1: Expert witnesses make observations or draw inferences that lay or judicial fact finders would not be able to make for themselves. It is, nevertheless, the jury or judge and not the expert that is the ultimate fact finder. Though we need the expert witness as judges, their opinions are only corroborative evidence.

J2: In adversarial systems of trial, great reliance is placed upon cross-examination and the ability to call opposing experts to ensure that experts are held accountable for their methods and those fact finders are not misled. In practice, however, these methods have serious shortcomings and need to be combined with other forms of accountability such as oversight by professional bodies. An expert witness working under a registered professional body is needed in Uganda.

P1: So often we hear the legal profession berate expert witnesses as "hired guns" whose bias is for sale. While this may be relevant to a small minority of "experts", the majority do their job with integrity and in an ethical fashion. An advocate for a proposition will not call a witness to support a claim if it is clear that the witness holds an opposing view. It follows that the bias emanates from the lawyer, not the witness. A

witness without a formed view cannot truly claim to be an expert, as the expert should have sufficient knowledge to form an opinion.

P2: Objective and independent expert witnesses are so much needed in Uganda. The expert witness must commence the assessment without bias or favor; must collect her or his history and examination of the relevant material; evaluate all the facts and evidence provided for scrutiny; seek additional material where there appears to be a deficiency; and draw on all of these data to formulate an opinion in response to questions posed by the instructing lawyer. The expert need not support or refute the stance proposed by the lawyer but the lawyer will only use those opinions favourable to the lawyer's case and hold the remainder as privileged where even that option prevails. It follows that the role of the expert is to provide a well-prepared analysis; it is the lawyer who is paid to be biased.

L1: Yes. Many cases nowadays require technical expertise. However, the main cause of the shortage of expert witnesses would be the inadequacy of legal aid pay rates.

L2: Evidence must come from the independent thinking of the expert witness. It must not be influenced by those who instructed them. Such a witness is needed in many cases today. However, reports of biasness due to corruption are tainting the image of the expert. The principal duty of an expert witness is to the court, not the prosecution or defense.

11.9.2.1.7.Question: If any Changes are Needed in Order to Make Science More Relevant to the Court Room, What Would These Changes Be?

J1: A number of high-profile reports and a growing body of literature question and critically reflect on core issues pertaining to the methodologies informing forensic science and their effective use within the criminal justice system. I wish the methodologies could be more explainable in the layman's language.

J2: Challenges and pitfalls that have been identified in relation to the introduction of forensic evidence in the courtroom range across both operational problems and structural shortcomings. Tension points in the relationship between science and the law

are exemplified in high-profile cases. In the USA they have “The innocence Project”. We need such a project too in Uganda to help people who are wrongfully charged with cases.

P1: Corruption is a vice that eating up some expert witnesses. As a result, they become biased. Systems need to be put in place to ensure objectivity and independence of the expert. Am thinking if there is a central body under which expert witnesses are registered it would help. I would personally trust an expert witness working under an “umbrella “body than one who is independent.

P2: Expert witness services are still very expensive. Take an example of DNA analysis which is very expensive yet it’s one of the major requested for evidences in court.

L1: Scientific methods that attach numbers to their reports need to be used more. Sciences which require an empirical analysis of the data are more convincing. Some methods are too subjective to be accepted. A method that relies on scientific instrumentation to provide quantitative data that can mathematically represent results should be more common in the future of science in court. This is currently done in drug analysis, toxicology or DNA analysis. These are distinct for their quantitative approach to evidence and the fact that the result can often be codified, either as a ratio or as a number. The perception of the lay public is that these sciences are largely infallible: there is little room for human error, and objective results can be furnished by a computer.

L2: A number of scientific and professional organizations need to come forward with proposals to aid the courts in finding skilled experts. The project can recruit a slate of candidates from science and professional organizations to serve as court-appointed experts in cases. This is ideal when the court has determined that traditional means of clarifying issues under the adversarial system are unlikely to yield the information that is necessary for a reasoned and principled resolution of the disputed issues. The project also can develop educational materials that will be helpful to scientists who are unfamiliar with the legal system.

11.9.2.1.8. Question: How Often, in Daily Practice, Do You Need the Expertise of an Expert Witness?

J1: As a judge, I rarely need an expert witness. Most expert witnesses in civil cases spend such little time in court. I consider expert opinion to be largely corroborative. There

are several other “solid” pieces of evidence that I consider before I go for experts. The vast majority of cases settle prior to the expert witness having to appear at trial.

J2: Trials involving expert witnesses are outrageously expensive. In the current economic crisis, it’s part of justice to work within a limited budget. Expert witnesses are expensive to hire yet are notoriously unpredictable. There are many cases where I have noted that the expert was paid so much for so less. Many day-to-day cases never need experts. However, expert evidence is increasingly becoming a need in the court of appeal.

P1: The decision to call, or not to call an expert witness is a challenging one. In many cases, I choose not to call. However, in cases that involve business and insurance litigation, including accounting practices, banking customs, labor relations, and securities, I call experts in such fields to give more weight to the evidence on my desk. In cases involving construction accidents, including the use of cranes and other machinery, safety programs and trainings, the proper use of scaffolds, and the correct way to dig trenches I have always brought an engineering expert on board. I have called expert doctors countless times on cases of medical malpractice claims, addressing the standard of care, proximate cause, informed consent, or the nature of a specific disease or condition. Recently, new forms of professional malpractice in accounting practices and IT require specialized expert knowledge.

P2: Most cases I handle require no specialized knowledge. By percentage, I may require expert witness evidence on less 10% of the cases.

L1: I believe that “if an average person doesn’t know, you need an expert to show”. However, some experts in Uganda have little credibility to show. It’s even hard to believe but some are corrupt. Corruption is a major reason why hiring an expert would be a last option for me.

L2: The future of modern litigation, steeped in scientific culture, lies with expert testimony. Indeed, some sources refer to modern lawsuits especially in the court of appeal simply as a ‘battle of the experts.’ The proliferation of expert testimony as an “arms race.” Unfortunately, experts cost a lot for the law firms funding their testimony. Due to the cost involved, I personally rarely work with an expert even after recognizing how much I need them on my case.

11.9.2.1.9. Question: How Do You Outsource Expert Witnesses?

J1: I don't hire experts as a judge. However, on a party's motion or on its own, the court may order the parties to hire one. The court may ask the parties to submit nominations. It may appoint any expert that the parties agree on and any of its own choosing. But the court may only appoint someone who consents to act.

J2: The inherent power of a trial judge to appoint an expert of his own choosing is virtually unquestioned. However, I never choose an expert on a case because whoever hires them pays for their services. Presently, judges are reluctant to appoint experts. A notable obstacle to the use of court-appointed experts is a reasonable concern for the risks of judicial influence on jury deliberation. Other reasons for reluctance include: fears of interfering with the traditional functions of adversarial counsel, fears of creating an inference of a lack of judicial objectivity that may increase the risk of reversal on appeal, and unwillingness to devote the time and money necessary for selecting experts and overseeing the taking of their testimony.

P1: There are multiple ways to locate the expert I need, such as referral agencies, online and print directories, and searching by keyword on the Internet. When I find an expert who at first glance seems to be what I am looking for, I contact them and delve deeper into his or her qualifications. The responsibility to verify that the expert is qualified and will meet my case needs is mine. I am sure to investigate the background of the expert, and ask for references. Once I have located several names and have performed my due diligence, I decide which expert is really what I am looking for, the right one for me and my particular case.

P2: I personally desire to hold a meeting with the expert recommended to me. However, on several occasions, it is practically impossible to meet every potential expert personally, so most interviews are conducted over the telephone. I initiate my conversation on phone before our first meeting.

L1: Finding an expert witness can be tricky if you do not know where to start. The good news is that you can quickly and easily find a properly qualified expert for many cases at DGAL Wandegeya and Uganda police directorate of forensics in Naguru. Mulago Hospital also has experts who we normally consult especially in the pathology department. Many of these however have many cases on their desks to handle.

L2: How I choose an expert witness largely depends on the case. Definitely one, who worked well in a case of construction failure, won't work in a series of cyber-crime case. For me, who I contact largely depends on the case. Currently in Uganda, there is no "one stop" body or organization that has all the experts registered. I wish there was such a body with different experts who are just a call away from appointment.

11.9.2.1.10. Question: Why Do We Have Low Levels of Expert Witnessing in Uganda?

J1: The hiring and preparation of experts by opposing attorneys has led to charges that an expert is a "hired gun," indeed telling only that portion of the truth that helps the side of the attorney who is paying the witness. This has lowered the credibility of an expert in the Ugandan court.

J2: Sometimes several experts are used by each side, leading to the "battle of the experts." In these situations, critics say, expert evidence becomes disputed evidence and a possible source of confusion for judges and juries. As a response to these perceived problems, courts limit the number and use of experts. Some expert witnesses undermine the adversary system by usurping the fact-finding role of the judge or jury. Therefore the last person a judge calls to witness is the expert.

P1: Court-appointed experts are commonly consulted in Uganda. Proponents say such experts would be untainted by a partisan selection and preparation process, and would be able to offer truly unbiased evidence. However, court-appointed experts are rarely used because the parties on most cases fear that they are corrupted. Only in extraordinary circumstances will a party accept such an expert.

P2: An expert is someone who wasn't there when it happened, but for a fee will gladly imagine what it must have been like. And therein lies some of the difficulty. The fees charged by experts are hefty and ridiculous for an average Ugandan. Experts therefore are a reserve of only high-profile cases.

L1: Before an expert can testify in a court, the proponent of the expert testimony has to show that the expert is qualified, that the field of expertise is one that is generally recognized, and that the source of information on which the expert relies is of a type commonly relied on by experts in this field. However, few such experts are available in

Uganda. Such experts as can convince the jury and judge that they fully qualify on a trial are only existent in few fields. There are cases where experts have to be found abroad. Definitely few Ugandans can't afford an expert witness who jetted in from the UK or USA.

L2: Experts are often needed in "complex cases". These "complex cases" attract a lot of media attention. Definitely when a case has a very big public following, it gets complicated. Also, many conflicting parties (often big names in government) come on board. In such cases, few experts would accept appointment to witness. Some such cases are politically motivated. No sane expert would deliberately put their life on the line. If you ask a group of lawyers, "How many of you have a complex case right now in your office," every hand goes up.

11.9.3. Section C.

11.9.3.1. Expert Witnesses

11.9.3.1.1. Question: Have You Ever Experienced Circumstances That Influence Your Performance and/or Objectivity?

E1: Yeah sure. Sometimes outside influences inevitably introduce bias and alter perceptions. Bias explains why two expert witnesses can apply the same methodology to the same facts and arrive at different expert opinions. In the real world, bias can infect opinions in ways that expert witnesses might not recognize. Even though am expected to gather data, to evaluate the relevance of that data to the case, and to draw impartial conclusions from the most relevant data, sometimes I am tempted to view data with a skewed mind. I prefer having a counter-expert witness on a trial for justice. Knowing that I have someone to oppose my opinions, pressurizes me to be more critical.

E2: An expert is judged based on say the fact that someone is a PhD, professor or medical specialist. That makes a difference in court. Those are societal differences. They are impressed by titles and not impressed by expertise. What I often see is that a professor says something and doesn't need to substantiate it and if we (without title) have to say

something about it then we do have to substantiate. Sometimes academic qualifications don't match expertise. Experience is underrated yet academic qualifications are overrated. I'm still convinced that there are people that can testify truthfully in court as an expert witness but certainly cannot be acknowledged as experts.

E3: Everyone understands that experts are paid for their work yet the expert's acceptance of payment for testifying is an obvious focal point of a bias analysis.

E4: Reliance on technology may reduce biased results, but the belief that technology itself is free from bias is doubtful. Technological systems, after all, "are built, programmed, operated, or interpreted by humans. "Whenever I can, I would love to present my opinions with the help of technology. Technology is easily believed.

E5: Subjectivity creeps into interpretations of evidence when experts use methodologies that are different but both are widely regarded as objective. Different conclusions could result from mistakes rather than bias. They could also result from honest differences of opinion about how to interpret test results. Still, lawyers scrutinize expert opinions for evidence that bias hasn't influenced an expert opinion. Lawyers wonder whether the expert's selection of data and reliance on a particular analytical method has been influenced by outside factors. This is something that only the scientist can explain.

E6: They do ask you questions like how long have you have been practicing this field of expertise and what are your publications etcetera, but sometimes I see other so-called experts and they have a CV that states they are the informers for a television show and then that supposedly adds to their expertise! That's ridiculous, of course.

11.9.3.1.2. Question: Do You Think You can Be Independent and Objective, As the Law and Regulations Require?

E1: Well, The Way The Request For Investigation Is Worded Is of course always subjective and sends you in a certain direction. Every time I have a case I try to be as objective as I can. But truth be told, there are cases which are tempting while others are challenging. In such cases, it's hard to maintain objectivity until the end.

E2: In general, I ensure to be as objective as possible. However, the fact that sometimes I am involved in several legal proceedings unrelated to the case in which am

providing evidence sometimes affects my performance. Well as objectivity matters, how evidence is presented matters a lot.

E3: I imagine I can. Yes, I'm an expert for both sides and then almost without saying you get a more balanced view on all these cases. You cannot afford to commit yourself to one party because next time you're in court for the other party. So objectivity is key.

E4: I work for a government owned crime lab. Am only as objective as I won't clash with the government in a case. In fact most parties in court already think am on the "government team" even before I say a word.

E5: ehmmmm that's a difficult question how can you judge yourself? I can only say that I try to be objective and hopefully if I'm not someone will tell me. So far, I must say I haven't had any comments on my objectivity.

E6: Lawyers attack the objectivity of data, or perceived lack of it, to impeach expert witnesses whose findings lack psychometric verification and quantization. You can't afford to stand before a jury without objective data. I am objective. I don't want my expert witness profile corrupted. This doesn't come easy especially when corrupt officials contact me with requests to pervert justice.

11.9.3.1.3. Question: Do You Feel There Have Been any Changes in Your Role as an Expert Witness Over the Years?

E1: I'm very sure they look at us differently. They used to believe me when I said something and now, and I don't think so. Some experts who are hired are biased by corrupt tendencies especially in high profile cases. That's not a good thing. Nowadays I must show why I came to a certain conclusion and on what I based my reasoning and yes, I think that's a good thing. Knowing that I will receive cross-examination about my report challenges me to improve.

E2: Nowadays, more people are qualified to be expert witnesses. More are indeed qualifying by the day. It's unlike those days when Uganda had one expert who would qualify in court because only, he/she had a particular specialty. For a specific case, now lawyers have options of which experts to choose.

E3: I think the role of the expert witness has changed; judges have developed the habit of asking. Well, what do you mean when you say you're sure, how sure are you? It's no longer that when the expert witness says something that the judge keeps silent and just accepts the conclusion. It's not like that anymore. The defense has also become keener.

E4: I have the feeling that we have to go to court more these days. It's well trickier you know; they ask way more questions and you have to tell them more. The more questions you answer the more questions arise. Sometimes after a lot of cross-examination, you can leave the judges and lawyers with more questions than answers. Also there is more counter-expertise which can be a nuisance. The quality of some of these so-called counter-experts is still lacking.

E5: I don't notice much difference. Of course, I do tell them on what scientific grounds my conclusions are based but well, there is a new trend to use more counter-experts. Many of these experts acquired qualifications from abroad. I believe these are hard to verify in most instances.

E6: Ehm...good question. I have to say that we are still treated with respect. However, recently there is an increase in questioning our expertise. Not that they don't check, but they don't ehm give us a hard time.

11.9.3.1.4. Question: Do You Think There Might Be Factors That can Influence the Performance of an Expert Witness?

E1: In my opinion the expert witness should always insist upon a written agreement which clearly defines the scope of the expert's engagement (and the manner in which his or her fee will be paid) and the expert witness should never blindly accept the lawyer's word for all things critical to the project. An expert witness who has unclear terms of payment is unreliable.

E2: The attorney is an advocate for his or her client's position and legal rights and remedies. The expert is not. It is the expert's first responsibility, therefore, to ensure that he or she has a full knowledge of all the underlying facts (at the very least those which impact the area of the opinion solicited) and full access to all relevant records. Merely accepting the word of the attorney, or the client without verification, can have a

devastating effect upon the expert's credibility if proved wrong. And, if the expert's credibility is successfully impeached on any point, it is impeached on every point.

E3: Expert witnesses are, not surprisingly, real people...just like lawyers and clients. Without an extreme amount of discipline and self-denial, we all have a tendency today to send a quick e-mail, or maybe a "memo," instead of picking up the telephone and calling, to discuss a point or make a statement or reveal a doubt or weakness about a position. And things written leave records for the entire world to see. Generally speaking, in the world of expert witnesses there are several types of writings. For example, there are "reports," there are drafts of reports, there is correspondence, there is electronic mail, there are memos, and there are personal notes (which may be in a notebook, on a napkin, on a desk calendar or "Day Timer," or even on the old-fashioned sheet of paper). My practice, and strong preference, is that if a report is not required, do not do one. If you do not do one, it cannot be discovered. Only the court, by direct order or by inserting the requirement in a case scheduling order, can make the expert prepare a written report. Such written material in the hands of the defendant may cause trouble to the expert. Only the final report of the expert should ever get into the hands of a lawyer. Any other written document about the case can be used to tarnish the credibility of the expert. Contact between the lawyer and expert too should be to a minimum.

E4: Am not saying that am corrupt, but one factor that I have seen change performance of experts is corruption. Corrupted experts concoct results so as to bias the jury.

E5: The attorney should never be allowed to revise the report. Unscrupulous attorneys can edit a report in their favor. Also, an expert has to prepare a report; by all means they should prepare it themselves. If anything needs to be clearer or maybe placed elsewhere for greater emphasis or persuasiveness, and then talk about it, do not write about it. A document can be used against an expert even though it has partial information.

E6: Yes, I think.....In my opinion a crucial factor is that we are working for an independent institution, not for the police or the prosecution. All parties can come to us for advice freely and they get the bill. Anyone that pays us gets an advice. I believe that is an important factor to keep our independency. It's only in a few rare cases where people in high profile positions try to influence what the expert has to say.

11.9.3.1.5. Question: Are There any Factors in Your Working Environment That You Would Like to See Changed?

E1: It's common for law firms to have a stable list of expert witnesses they like and use regularly. Though this comes with an advantage to the law firm, it can be a source of injustice since the expert can easily transform from being professional to being a permanent client of the law firm. An expert who associates with a particular law firm can easily be influenced with time. I hope there can be a set limit on how many times the same expert can be used by the same firm. Definitely this can be tough in cases where there is one or two experts in Uganda. Then law firms would be left with no options.

E2: Expert witnesses are used in nearly every complex, high-stakes legal case, from financial litigation to medical malpractice. The rates paid for expert witness services cost an arm and a leg. More non-organizations should get onboard to hire experts in cases that desperately need justice yet no party is financially empowered enough to hire a witness. In the circles of an average Ugandan, expert witness services aren't affordable.

E3: The legal framework supporting expert witnesses needs to have some reforms. A degree of standardization of policies and practices regarding the use of expert witnesses is necessary in Uganda. Also incorporating a Witness Workgroup or organization wouldn't be a bad idea. This workgroup can embark upon the development of standards of operation and best practices. The Workgroup included can also be structured to include judges, trial court administrators, court administration employees, expert witnesses and a Court Budget Commission. Am thinking the budget commission can regulate how much fees experts charge. It would help to control both corruption and ridiculous charges.

E4: The ministry of justice and constitutional affairs should develop and maintain an online registry of expert witnesses, by field of expertise, by qualification or experience. The registry may also indicate the expert's work place and publications. That way, the work of sourcing an expert can be simplified.

E5: Clear procedures and guidelines should be laid out for experts. Inappropriate behavior, complaints, or performance issues of expert witnesses should be penalized.

E6: An administrative order or standard contract and standardized rates for expert witness services for each of the most commonly needed expert witness examinations should be set. There is no point in one party paying \$1,000 for a service that would cost \$100. This can also be a source of misconduct by the expert.

11.9.3.1.6. Question: Why Do We Have Low Levels of Expert Witnessing in Uganda?

E1: If you're an expert, the opposing party may challenge your testimony or qualifications. One therefore can testify in only in cases where they have a specialty. Since the cases that can be reported can vary and are many, it's difficult to find a specialist for every case. Thus currently some sectors have more experts than others for example expert witnesses are necessary in many cases, including car crashes, products liability, medical malpractice, and insurance coverage disputes. The government should identify sectors with few experts and initiate programs to train more of them.

E2: It's essential to understand the jurisdiction's standards for expert qualification. An attorney must establish that the expert is qualified. This is only possible with a highly specialized training. Few people specialize to the level of expert witness. It is the basic reason we have few experts. The standards for expert qualification are so high: and they aren't getting down in the near future. Can you imagine, there are cases where masters' training hasn't been satisfactory training before the attorney?

E3: The legal framework supporting expert witnesses needs to have some reforms. Though a degree of standardization of policies and practices regarding the use of expert witnesses is necessary, a more inclusive policy is desired. Many professionals can witness as experts with just an additional certification. Few short course programs currently run to qualify the expert witness in Uganda. As a matter of fact, most expert witness courses require a master's degree which is much broader than what the expert needs for their work. Am also of a view that if experience in a particular field is given more weight in witnessing, we would be having enough witnesses in some sectors.

E4: Uganda has few expert witnesses because of limited training opportunities. Training as an expert in most fields requires one to study abroad. Few universities here in Uganda provide specialized expert witness courses. The limited numbers of courses are only a line in a broad-spectrum band of expert witness courses there is to study. In addition, the slots allocated for scholarships to train expert witnesses are still few given the need in the courtroom.

E5: There are low levels of exposure among the general population to expert witness services. As a result, few aim at becoming one. If only there was awareness about the heavy need for expert witnesses, may be more people would study to qualify. Creation

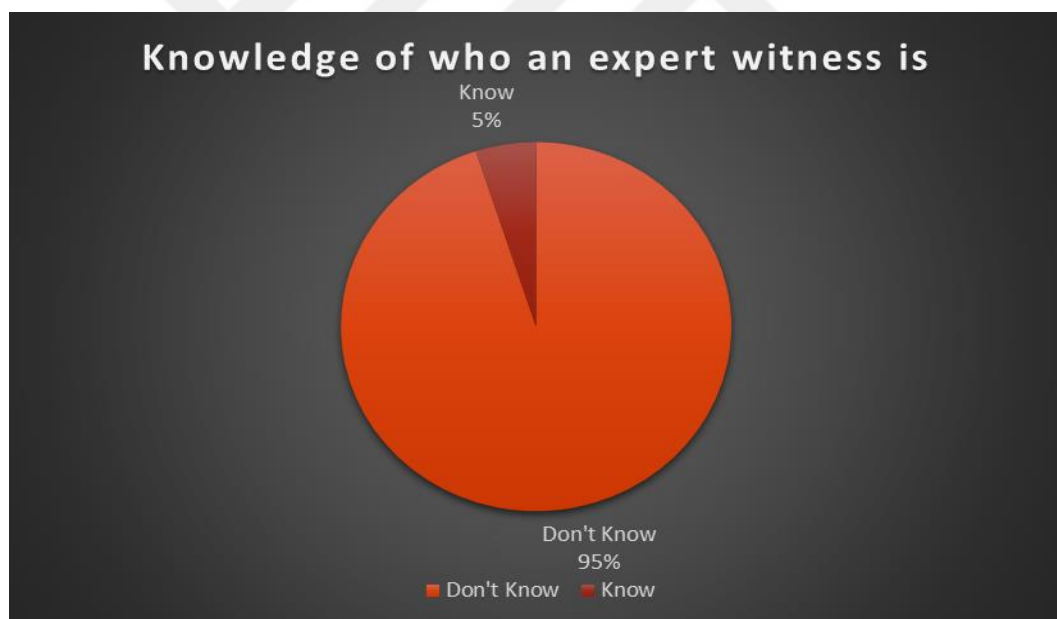
of awareness among university undergraduate students could inspire many to take up the opportunities in the expert witnessing field.

E6: Most expert witness task requires someone to have at least a master's degree. Not many people in Uganda currently study up to that far. This is partly brought about by the ever-increasing cost of education. As a result, few people can afford to specialize so as to become experts in their fields.

11.9.4. Section D.

11.9.4.1. Responses from the General Population.

11.9.4.1.1. Question: Who is an Expert Witness?



11.9.4.1.2. Question: Have You met an Expert Witness Before?



11.9.4.1.3. Question: Would You Trust Evidence Presented By an Expert Witness?



11.9.4.1.4. Question: Have You Ever Read any Material About Expert Witnessing?



11.9.4.1.5. Question: Have You Heard About any Expert Witness Awareness Program Before in Uganda?



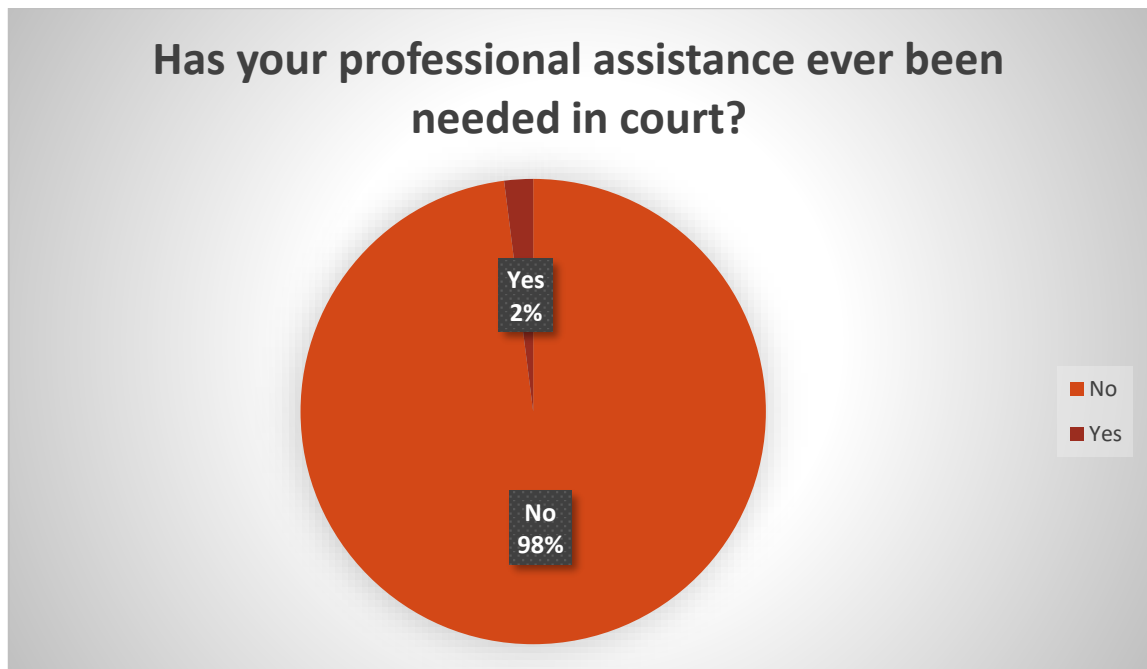
11.9.4.1.6. Question: Would You Hire an Expert Witness to Help You in A Court Case?



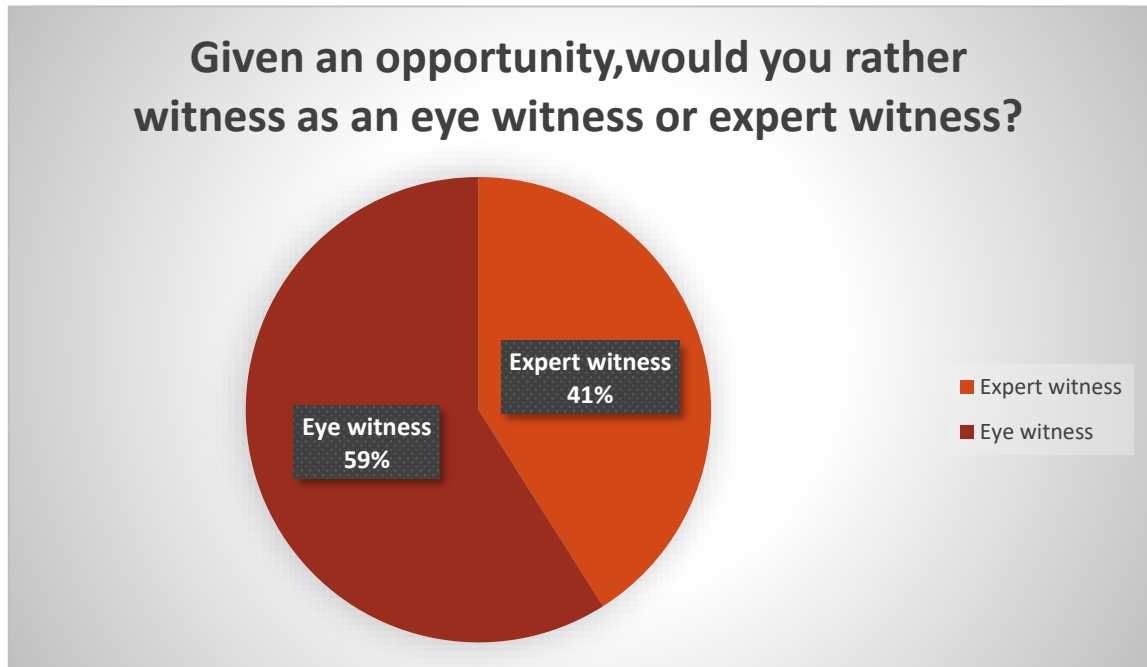
11.9.5. Section E

11.9.5.1. Extra Questions for the Professionals

11.9.5.1.1. Question: Has Your Professional Assistance Ever Been Needed in Court?



11.9.5.1.2. Question: Given an Opportunity, Would You Rather Witness as an Eyewitness or an Expert Witness?



11.10. Analysis of Study

11.10.1. Overview

The results will be listed per research section. The first research section (Section A) is aimed at analyzing views from the Ministry of Justice and constitutional affairs. The second research section (Section B) will reveal the facts as per the Lawyers, Judges, and public prosecutors. The third research section (Section C) compiles findings from expert witnesses who practice in Uganda. The fourth section (Section D) checks general perspective of the public to expert witnessing. The fifth section (Section E) capitalizes on the views from the formal sector which is most susceptible to hiring or be hired as the expert witness. Within each research question there are subdivisions that highlight research findings. These findings are summarized and illustrated with quotes from the interviews. What is recorded is only but a summary of the lengthy discussions.

11.10.2. Section A: Results Analysis

There is a shortage of experienced expert witnesses in Uganda today because expert witnessing requires a high level of specialization. The few highly experienced ones are in constant demand and spread very thin across the system. Definitely that calls for many experts even in a single sector like pediatrics. As a result, most expert witnesses practice only in urban areas especially in the central region. However; there are also cases in the rural areas that need expert witnesses. In addition, there is no clear law that guides and regulates expert witnessing. We only have the evidence act. There is no policy yet designed to increase the number of expert witnesses. The recent “push” by the president to train more scientists, may help bridge the gap. Many professionals in Uganda don’t want to associate with court. Additionally, some potential expert witnesses fear the court system in Uganda. Furthermore, most cases that require expert witnesses are high profile cases. Engagement of experts in such cases has sometimes proved a risky venture. These and many other factors reduce on the number of experts that work on cases. As a result, the case backlog in expert witness institutions is huge. Moreover, many expert witnesses feel the existing monitoring and accountability mechanisms that govern the work of expert witnesses are weak and ineffective. Also, the legal frame work that protects the rights, work, and payment system, qualifications etc of the expert witness is still weak in Uganda. Recently there have been new ways of committing crimes several of which are not yet well defined by the law. Many of these can be solved with the hiring of an expert witness since they involve science.

11.10.3. Section B: Results Analysis

Judges expect the expert witness to be objective. Prosecutors argue that working for one court party by definition does affect independency and also the objectivity. Lawyers argue that corruption is a vice that is consuming many expert witnesses. The experts at the DGAL or directorate of police forensics services aren’t fully trusted especially in cases where government has interest because they are employed by the government. Uganda needs more independent bodies that register expert witnesses and put them up for hire. Many experts are contacted through institutions not as individuals. Witnesses working under institutions tend to be more objective and are not easily

influenced. It was noted that it is hard to verify credentials of many expert witnesses since majority hold qualifications from abroad. More and more cases nowadays require an expert to come on board because new ways of committing crimes are everywhere. As a result, the role of the expert witness has grown over the years. The methods of investigation have become more complicated. The increase in science and technology in crime has caused the increased importance of the expert witness. There are no standard guidelines about the payment of the expert witness. Many experts are overly expensive and thus an average Ugandan cannot afford an expert. Currently in Uganda, there is no requirement for new expert witnesses to undertake training on trial processes before being admitted into the profession. Without sufficient knowledge of trial processes and an understanding of the correct procedures to be followed when providing expert testimony, expert witnesses can end up causing or exacerbating inefficiency in the trial process instead of facilitating the decision-making process.

It was noted that projects with the same objectives as “The innocence Project” in the USA can do a good service in Uganda. Science can help many wrongfully charged victims to get justice. In addition, a central body under which expert witnesses are registered is recommended. People trust expert witnesses working under an “umbrella” body than one who is independent. Highly specialized experts are a necessity in many cases. Few such experts are available in Uganda. Such experts as can convince the jury and judge that they fully qualify on a trial are only existent in few fields.

Experts are often needed in “complex cases”. These “complex cases” attract a lot of media attention. Definitely when a case has a very big public following, it gets complicated. Sometimes, many conflicting parties (often big names in government) come on board. In such cases, few experts would accept appointment to witness. Some such cases are politically motivated.

Public prosecutors and defense lawyers express doubts on the objectivity of expert witnesses that are called upon by the other party. Prosecutors and lawyers currently frame the expert witness of the other party as non-objective. Apparently, there is a distrust about the objectivity of an expert witness, called upon by either prosecution or defense, that is deeply rooted in the distrust they seem to have about each other’s goals in criminal court, these goals not being truth-finding but a strive for (personal) victory. Both parties express the feeling that the other party will try to mold the opinion of an expert witness to their

point of view in a given case. For the defense lawyers this means that an expert witness, called by the prosecution, probably will express an opinion that is non-favourable for the suspect. For the public prosecutors this means that an expert witness, called by the defense, probably will express an opinion that is favorable for the suspect. These feelings of distrust are reflected in their opinion about the expert witnesses in such a case. According to the lawyers, working in such an institution almost equals working for the prosecution. Doubts on the objectivity are barely suppressed by the oath an expert witness has to swear to be truthful. Also, the expert witnesses at DGAL and Uganda Police Directorate of Forensics are in close contact with police and prosecution. For the defense lawyers this means that the involvement with these parties will influence the independency and objectivity of the expert witness. Even the appointment by the judge of an expert witness from the government institution does not take away the doubts of the defense lawyers: The expert witness thus is an important factor in the investigation and court process in criminal cases. Every party expressed the need for an expert witness that is not only knowledgeable, but also able to explain scientific aspects to other involved parties. Certain aspects are judged to be important for an expert witness in order to make optimal use of the expertise.

11.10.4. Section C: Results Analysis

Two expert witnesses can apply the same methodology to the same facts and arrive at different expert opinions. Subjectivity creeps into interpretations of evidence when experts use methodologies that are different but both are widely regarded as objective. Some experts tend to view data with a skewed mind. Thus, counter-expert witness on a trial for justice is necessary. Knowing that someone can oppose an expert's opinions, pressurizes the expert to be more critical. It was noted that everyone understands that experts are paid for their work yet the expert's acceptance of payment for testifying is an obvious focal point of trust in them. Additionally, experts that work for a government-owned crime labs are only viewed as objective as they won't clash with the government in a case. Parties in court already believe that such experts are pro-government even before an expert says a word. However; recently more reliance on technology (which is easily believed) is solving many issues. Technological developments have increased the

need for professionals that can work with the equipment and make sense of the outcome of investigations with that equipment. Looking at the development in the forensic scientific field, much has changed indeed: the use of DNA as evidence, the advanced research methods in toxicology, the use of computers and other ICT-related devices and much more. The more advanced the used methods are, the more need there is for experts. Also, the experts that present results from state-of-the-art instruments appear more credible.

It's common for law firms to have a stable list of expert witnesses they like and use regularly. Though this comes with an advantage to the law firm, it can be a source of injustice since the expert can easily transform from being professional to being a permanent client of the law firm. An expert who associates with a particular law firm can easily be influenced with time. In addition, the legal framework supporting expert witnesses needs to have some reforms. A degree of standardization of policies and practices regarding the use of expert witnesses is necessary in Uganda. There is currently no specific registry of expert witnesses, by field of expertise, by qualification or experience. The registry is supposed to indicate the expert's work place and publications. This simplifies the work of sourcing an expert. There are still no clear procedures and guidelines laid out for experts. Inappropriate behavior, complaints, or performance issues of expert witnesses often go unpenalized. In addition; there are no standardized rates, administrative orders or standard contracts for expert witness services for each of the most commonly needed examinations.

The assessment of expertise in a given scientific field is not a simple thing since judges, lawyers and prosecutors aren't scientists yet the quality of an expert witness is important. Since parties cannot judge the scientific quality of a person's work in a scientific field, they rely on other aspects. Professional titles, the number of publications and former experiences with an expert witness are the main points on which expertise is judged. Most expert witnesses frame themselves as being as independent and objective as possible. Expert witnesses feel that experience in a scientific field is the most important factor of expertise. The expert witnesses will judge a person on professional aspects and not so much on "circumstantial evidence" such as titles and the number of publications. In their opinion it is not the packaging but the content that counts. Hands-on experience in the scientific field is deemed most important. Apart from the difference in the way

expertise is judged, the expert witnesses seem unaware of the difficulties for lay persons to assess expertise in a non-familiar scientific field.

Defense lawyers have their doubts about expert witness credibility. This explains the rise in the use counter-experts. These doubts that the defense lawyers have about the expert witnesses of the police are shared by non-police expert witnesses. Non-police expert witnesses frame police expert witnesses as probably biased for the prosecution. Apparently, employment in a governmental institution like the police or DGAL is enough to raise doubts about the independency and objectivity of the expert witnesses of the directorate of forensics. Whether consciously or unconsciously, close contacts with police and prosecution almost automatically leads to a loss of objectivity. In the opinion of non-police expert witnesses, the employment by the police is a threat to objectivity and independency. Therefore, more experts are needed in private practice.

11.10.5. Section D: Results Analysis

Only 5% of Ugandans know who an expert witness is. After explaining to most people who an expert witness is, many agreed that they would hire one in case they have a court case. Expert witnessing is a practice less written about even in legal circles. As result few people have knowledge about it. Worse still, there are no running expert witness awareness programs in Uganda.

11.10.6. Section E: Results Analysis

Professional Ugandans who can aid to witness in some simple cases confess to fear court proceedings. Given the cross-examination in court, they can only be comfortable as an eyewitness not as an expert. These act as expert advisers (shadow experts). Normally, the expert is appointed by one of the parties to advise them in the dispute. This type of expert however, is not covered by the civil procedure rules and does not have a duty to the court and does not normally give evidence. 59% of professionals confess they would rather witness as an eyewitness in a case but not as an expert. Definitely witnessing as an expert in court calls for a report. Anything that requires one to write a report to the court is something many want to avoid. Writing a report comes with undue responsibilities.

12. DISCUSSION

12.1. Overview

For this thesis, the subject of research was categorized into different research sections. In the sections from A to E, the answers to the questions are analyzed. The answers to these questions are in most cases only a summary of what was discussed with the respondents. The responses are used to critically look at the position, performance and power of the expert witness in Uganda today. Though there appears to be several negative elements in the current settings of expert witness practice in Uganda, this research is meant to reinforce the positive elements. In doing so, the credibility and performance of the expert witness can be enhanced. In the end, the juridical system as a whole can profit.

12.2. Institutionalization of experts

Most experts are institutionalized in the governmental bodies. These government bodies have intimate connections with the police and the prosecution. These connections have tightened over the years under the influence of increased public and political interest for forensic work. In order for state employed forensic experts to preserve their independence, it is desirable that state forensic laboratories should be divorced from police organizations, especially from operational police units, and forensic experts in state laboratories should always be aware of the danger of identifying with the prosecution perspective. (van Koppen & Penrod, 2003). The fact that for example DGAL is a state institution in itself is reason enough to doubt its independency in some cases that involve government. This generally causes for less trust in DGAL employees (including the expert witnesses). Defense lawyers have an almost intrinsic distrust of expert witnesses from government affiliated institutions; they consider them as being dependent of the prosecution and thus less objective. The defense lawyers are not the only ones that have commented on the government affiliated expert witnesses; the public prosecutors have also expressed their worries. This research shows that the expert witnesses from the government affiliated institutions are not in a very good position when it comes to

credibility. Not only do they have the intrinsic disadvantage of working in a governmental institute, some institutions are also considered a black box by parties like the prosecution and defense lawyers. Research on expert communication found that people had about twice as much trust in experts from universities than from national public bodies ((Bauer, M., Durant, J. and Gaskell, G., project coordinators, 1997). As a result, the expert witnesses from the Uganda Police directorate of Forensics have more problems in gaining trust than other expert witnesses.

The research findings suggest that the ministry of justice and constitutional affairs should develop and maintain an online registry of expert witnesses, by field of expertise, by qualification or experience. The registry may also indicate the expert's work place, publications and method by which they can be fairly compensated. That way, the work of sourcing an expert can be simplified. The installment of a register for expert witnesses is meant to ensure the scientific quality and integrity of expert witnesses by formulating professional standards with regard to scientific expertise and a code of conduct to ensure objectivity. Additionally, there is need of incorporating a witness workgroup or organization. This workgroup can embark upon the development of standards of operation and best practices. The workgroup can also be structured to include judges, trial court administrators, court administration employees, expert witnesses and a court budget commission. The budget commission can regulate how much fees experts charge. It would help to control both corruption and ridiculous charges.

12.3. The Expert Opinion Versus Public Opinion

Nowadays, science has become a public domain and scientists are much more visible and common than they used to be. Society and science are intertwined, because of the increase in possibilities for the public to inform themselves about scientific issues. The use of information on the internet and the exchange of opinions through social media have extended the possibilities for lay people to form an opinion on a scientific issue. These developments have also created awareness of the public that science has its insecurities and shortfalls. The awareness of these insecurities in science in combination with a better-informed audience has led to loss of automatically assumed authority for scientific experts. The flipside of the coin however shows an increase of importance of

science in court. This increase is due to the ongoing technological development. Court parties therefore have to rely on the expert witness more and more, but on the other hand they need to make sure that the expert witness has the right expertise so that they get the right information. The expert witnesses in Uganda have to realize that the rules of the game have changed. No longer are they automatically seen as experts and this has profound effects on their accountability. Expert witnesses will have to take more effort in showing other involved parties that they indeed are objective and are capable of reporting according to the required scientific standards. The expert witnesses affiliated to government institutions in particular have to take great care not to become unconsciously biased for the prosecution. On top of that, management of the government institutions will have to find a way to show to the prosecution and defense lawyers that the expert witnesses are stand-alone professionals, doing their scientific work without any interference from any involved party, including the police.

12.4. Doubts on the Independency and Objectivity of Expert Witnesses Will Be Hard to Counter

There is an overall agreement that the desired role and position of the expert witness is one of independency and objectivity in order to have the juridical system function as desired. However, parties do also agree that this is a utopian thought. Everyone is aware of the practical impossibility of absolute and total independency and objectivity and a certain amount of bias has been accepted as a reality. Some situations carry with them the prerogative of biased expert witnesses, at least in the eyes of the beholders. An expert witness that is specifically hired by either the prosecution or the defense is judged by these parties as dependent on that particular court party. Expert witnesses who are considered to be working for one side are seen as less credible. The results show that in particular the public prosecutors and the defense lawyers see each other's expert witnesses as more dependent on a certain party.

The judge or jury makes a subjective determination of when an expert is credible. However, no published measure exists for assessment of the credibility of expert witnesses in Uganda. As a result, many professionals with no previous experience in forensic training provide testimony in court which is relied upon in Uganda. Source

credibility impacts the persuasiveness of a message on a receiver. Witness credibility is one example of source credibility, and our concern is the credibility of the expert witness in the courtroom. The construct of witness credibility is a salient concern, because in the courtroom trial outcomes are sometimes based on the credibility of an expert witness. Expert witnesses testify to educate or provide scientific or professional data, conclusions, and opinions. The less credible the expert, the less likely that expert's message will be probative or persuasive. Indeed, there is often an opposing expert offering an alternate point of view. In those instances the triers-of-fact decide which expert is more believable and which explanation is more plausible. The perceived credibility of the witnesses may influence the judgment of which of the attorneys' arguments is more persuasive.

12.5. Methods of Assessing Expertise Used By Some Parties can Lead to Misinformation

Another striking result is the struggle that parties have with the assessment of expertise. Science is no longer a secluded area but a public arena. This combined with the fact that court parties do not take the expertise of an expert witness for granted anymore forces juridical persons to develop their own way of assessing expertise. This is not without problems. There is a big difference in the way the expert witnesses think that expertise should be assessed and the methods that the other court parties use. The underlying problem finds its roots in the changes in the perception of science and scientists that has taken place in the past decades.

Juridical persons, being lay people in the scientific field of any expert witness, rely more on external labels for expertise, these being mainly the number of publications and professional titles. The expert witnesses on the other hand point out that these external labels are not a good reflection of actual expertise, because the matter of experience is left out of the equation. According to the expert witnesses, someone that actually has been working in a scientific field for a long time can be a better expert than someone with lots of publications and titles. In their opinion, hands-on work in a certain forensic scientific field is a prerogative for building expertise. For them, the main question is not "who are you" but "what have you done". It does seem wise for expert witnesses and other parties to discuss the matter of assessing expertise because the information from an expert

witness can profoundly influence the outcome of a criminal court trial. All parties should come to an agreement about a method of assessing expertise that on the one hand assures parties that they will get the expertise they need and on the other hand a method that can be used by lay people. It seems an excellent idea for all parties to come to an agreement on how to assess expertise.

12.6. Sensitizing Citizens on Reporting Science-Related Crime

Behind the prevention and prosecution of science-related crime looms the larger challenge of creating a national culture of scientific-related crime awareness. Those who fall victim to cases involving science need to know where to report it and get assistance. The uncertainty about how and where to report can deter victims from reporting, limiting law enforcement ability to respond to and understand how expert witnessing can help. Consumers, businesses and industry owners and need to be educated and trained on the possibilities of committing crimes related to science. They also need to be sensitized about the existence of expert witnesses in cases that require scientific evidence or opinion.

12.7. Weak Legal Framework Supporting Expert Witness Practice in Uganda

The legal framework supporting expert witnesses needs to have some reforms. A degree of standardization of policies and practices regarding the use of expert witnesses is necessary in Uganda. The evidence Act needs amendments to include laws that are aligned with contemporary ways of committing crime. This research suggests amendments in the law to introduce mandatory training for expert witnesses prior to entering the profession. This would ensure that expert witnesses are familiar with trial processes, thereby reducing the chances of an expert's testimony slowing down the trial.

Scientists have offered their help. The legal community should accept that offer. Science—its learning, tools, and principles—should be embraced by the law. Expert witnesses are used in nearly every complex, high-stakes legal case, from financial litigation to medical malpractice. As a result, the law in Uganda can also be amended to

introduce rules or standards for drafting expert opinions. In this age of science, legal foundations that are sound in science as well as in law must be built.

An administrative order or standard contract and standardized rates for expert witness services for each of the most commonly needed expert witness examinations can be set. The same goes for the rules on the standardizing of reports. Currently there are no clear rules and regulations on expert reports. As a result some reports present less information while other reports are more verbose. Amendments can highlight the key elements needed in an acceptable expert report. The way a report is written can be a critical factor: if the considerations and conclusions are not clearly stated they can be misunderstood. Also, longer reports do not always mean better understanding by the receiver. This has been investigated for police reports on the hearings of suspects. Short reports with short statements from suspects were compared to long reports with very elaborate statements. Strikingly, the more elaborate the statement, the less credible the statement was judged by readers (Malsch, M., Keijser, J.W. de, Kranendonk, P.R. & Gruijter, M. De, 2010). It can be concluded that a report should be clear and to the point, otherwise there is not only the risk of misunderstandings in readers of the report but also a possible loss of credibility for the author of the report.

Containment of the personal responsibility of the expert witness leads to legal problems and possible misunderstandings. The extent of the personal responsibility of the expert witness for his work (investigations and results) in the amendment of the law can be a good point of discussion. The instigation of rules on reporting and the more or less compulsory way of wording reports conflicts with the personal responsibility of the expert witness. The legal responsibility that is laid upon the expert witness is violated when the law deems it necessary and obliged for an expert witness to report as though the expert witness is not a person, but part of an institute. Knowledge of the personal responsibilities at least makes clear to all parties that the expert witness knows where he stands in the juridical process. This heightens the appreciation for the expert witness.

12.8. Focusing on Preventing Science-Related Crime More Than Responding to the Crime After it Has Occurred

It is better to prevent science-related crime from happening than to respond to it after it has occurred. In many cases, effective preventive measures are at relatively low cost and easy to implement. Consumers need to take steps to avoid falling victim to science-related errors. This can be done by educating masses through available media on how to take responsibility for their own lives. People can be trained on how to exercise safety measures by government agencies like NDA, UNBS, etc. These can assist consumers to recognize the warning signs. Government can also introduce national justice-science awareness programs/trainings and issue publications on how users of different products can protect themselves. Emerging of new scientific cases can also be avoided by holding the importers, manufacturers, professional organizations and businesses to a high level of standards. Creating general awareness of expert witness services and how they can work for or against people is necessary with the recent increase in science-related crime.

12.9. United We Stand, Divided We Fall

Incorporating an expert witness workgroup or organization is needed. This workgroup can embark upon the development of standards of operation and best practices. This work group is more of a Science-Justice council which can help advise the judiciary about science matters. The workgroup can also be structured to include judges, trial court administrators, court administration employees, expert witnesses and a court budget commission. Clear procedures and guidelines can be laid out for experts. Inappropriate behavior, complaints, or performance issues of expert witnesses can be penalized.

The registry of this workgroup can recruit an initial group of experts in medicine and health-related disciplines, primarily from major academic institutions, and new registrants are added on a regular basis. As needed, the registry can conduct targeted searches to find experts with the qualifications required for particular cases. Registrants must adhere to a code of conduct designed to ensure confidence in their impartiality and integrity. Scientific and professional organizations that register skilled experts can be

incorporated. These can come forward with proposals to aid the courts. The organizations can recruit a slate of candidates from science and professional organizations to serve as court-appointed experts in cases in which the court has determined that traditional means of clarifying issues under the adversarial system are unlikely to yield the information that is necessary for a reasoned and principled resolution of the disputed issues. The workgroup can be tasked to develop educational materials that will be helpful to scientists who are in most cases unfamiliar with the legal system. A registry of independent scientific and technical experts who are willing to provide advice to courts or serve as court-appointed experts can be kept by these workgroups.

12.10. Promotion of Partnerships and Shared Responsibility Between Key Players

Combating-science related crimes require more than just an enforcement response; prevention, mitigation and education are important aspects too. It is also a shared responsibility between individuals, industry and governments. This means forging mutually beneficial partnerships to share information and combine efforts to combat such crimes.

Government should also explore other partnership arrangements, including with overseas law enforcement agencies and with key industry sectors. Stakeholders like URA, NDA, UNBS, etc must therefore work hand in hand to achieve a safe and secure environment by making Uganda a hard target for science-related criminals.

12.11. Need for Training of More Scientists and Judges

In Uganda today, very few professionals have forensic training. There is a need to prepare the scientist for the occasionally hostile legal environment that arises during depositions and cross-examination. Currently in Uganda, no academic institution provides diploma, degree or high qualifications in forensics. Knowledge about forensics in Uganda is currently spread through seminars and workshops.

It would undoubtedly be helpful to educate willing scientists in the ways of the courts, just as it would be helpful to develop training that might better equip judges to

understand the ways of science and the ethical, as well as practical and legal, aspects of scientific testimony. Short certificate courses can be designed with a curriculum to match the needs of the scientist and the judge. In- service training of all court parties is relevant. In-service training should offer at least one basic level module to equip those practicing law with basic knowledge about expert witnessing. Good trial management techniques can be included in the curriculum used to train judges and prosecutors, and courts could be granted the competence to initiate proceedings against expert witnesses, and even revoke licenses when there has been a breach of duty. This way, the interests of the parties and the experts when extraordinary procedures are used are protected.

Justice, Law and Order Sector (JLOS) coordinates trainings in 9 regions of the country. The trainings target a number of stakeholders including members of the medical profession (medical officers, midwives and clinical officers), judicial officers; State Attorneys and Prosecutors and Police officers. The trainings increase capacity of stakeholders. While in these trainings, challenges to administration of cases are discussed and relevant local solutions to the challenges are discussed. Trainings help to raise awareness among stakeholders on strategies to prevent and respond to gender-based violence more generally. The key areas covered in these trainings are; intimate partner violence, drugs and sexual violence, the anatomy of the male and female genitalia, rape in the absence of trauma, SGBV medical management protocols, the police forms and guidelines for the filling of the forms, medical ethics in SGBV and examination of suspects, child sexual abuse, forensic injury interpretation, forensic specimen management, the evidence act, expert witnesses, expectations of the DPP, techniques of evidence giving, laws on sexual offences and court procedure, basic principles of counseling and psycho-social support, psychiatric effects of SGBV and the assessment and management thereof.

The trainings increase awareness on changes to the medical evidence police forms. They also build capacity of stakeholders on how to use and complete the revised forms. These trainings demystify the court procedures and process for expert witnesses. They also ensure collaboration and synergy between different stakeholders along the referral pathways for use and dissemination of the new forms and implementation.

More of these trainings increase awareness of gender-based violence and strategies for prevention and response; improve on the knowledge, skills and attitudes of

stakeholders in the forensic and medical management and cases of sexual violence. They equip the health workers with basic knowledge of the legal system in Uganda and the laws related to sexual offences in order to enable them testify in courts of law and enhance the psychiatric and counseling skills of the health workers to enable them offer psycho-social support to the survivors of sexual and gender-based violence. Lastly, they introduce the health workers to the police Form 3, 3A and 24A for the documentation of forensic evidence in cases of sexual assault.

The trainings are conducted by a team of specially trained persons who comprised the following categories; pathologist, lawyers, obstetricians/gynecologists and other medical specialists.

12.12. Naming and Shaming of the Expert Witness

The outcome of the research indicates that the court room performance of an expert witness is a very important factor for his credibility. Expert witnesses are held much more accountable these days for their findings and conclusions. They must be able to explain their considerations clearly to all parties. Since science has become a more public domain, lay people have a greater desire to apprehend scientific considerations and desire clear answers to their questions. This is most probably because of public attention for forensic investigations. The expert witness is under much more pressure these days. Coping with the effects of public pressure is difficult. Based on the interview results, one of the problems apparently is a lack of protection from public pressure or even downright naming and shaming. This lack of protection of the expert witness has been mentioned by more than one party. Of course, no one can prevent public pressure and indeed it has had positive effects, like revealing misjudgments. And whenever there is a negative public opinion on an expert witness it is always unpleasant for this person. Nevertheless, when this leads to such an impact on the expert witness that his functioning gets impaired, there is an indication that public pressure has gone too far. The negative effects must be countered in order to prevent unnecessary loss of functionality of the expert witness. Furthermore, it would be unethical to create public pressure on an expert witness during a criminal trial by leaking information to the press by one of the court parties, no matter whether this information is (allegedly) true or false.

Worse still majority of professionals in different fields have never testified in court before. Sending court summons to a professional in Uganda sends them into a state of panic. Most professionals confess that given a report that has its way to court, they would never accept to sign or fill it. Professionals in Uganda are skeptical about their civic duty to testify as an expert witness to assist the courts of law to dispense justice and would do anything to avoid going to court. The communication rules in court can hinder an expert witness in communicating all that he deems to be important. Finally, Communication during court sessions is of importance in order to get a better understanding by all parties of the relevancy and scientific value of the expert witness's statements.

12.13. Strengthening International Legal Regimes for Extradition and Mutual Legal Assistance

Having strong legal ties with the international community comes with many advantages. It ensures that no criminal receives safe haven anywhere in the world. Domestic laws that ensure that the improper use of science is appropriately criminalized are needed. Also, international laws and declarations related to science should be respected. A new level of international cooperation complements such domestic efforts, especially since global networks facilitate the commission of trans-border offenses. Therefore, consistent with principles of sovereignty and the protection of human rights, democratic freedoms and privacy, nations must be able to collect and exchange information internationally. Evidence of such crimes can be preserved and collected in a data base. This information can be sharable wherever with international agencies. Sharing information and intelligence between law enforcement agencies, intelligence agencies and the experts can lead to a better understanding of new ways of committing crime. More effective responses can then be put into place.

13. LIMITATIONS OF STUDY

An evaluation of existing views and needs in the Ugandan legal systems has been made: There is an emerging need for scientific evidence in Ugandan judicial systems. However, this study should be regarded as an introductory study into factors that influence forensic expert witnessing, the performance of the expert witness and the perception by the public and the court. Of course, in this study only a small number of people have been interviewed and the interviewees were not selected from all professions. The number of experts to be certain remains unclear because of the limited scope of this study. Also, the question remains whether the respondents are a good representation of the population; larger numbers of interviews could answer that question. Larger numbers could also tell us more about the validity of the findings. A larger study however, might be hindered by the use of the semi-structured interviews with open-ended question; the transcription of these interviews is time-consuming and not an easy task. Semi-structured questions also leave out some ideas.

14. RECOMMENDATIONS ON FUTURE RESEARCH

There remains an opportunity for research into the number of experts needed per profession. In addition, the constitution of Uganda can still be scrutinized to check for loopholes in the legal system that give way to injustice even after scientific evidence is availed. This study was done about expert witnessing in Uganda; several reports remain to be written about other countries. By broadening this study to other countries, specific cultural influences can be identified, thereby deepening the understanding of the effect of societal factors on the perception and performance of the expert witness.

15. CONCLUSION

As new innovations within every sector increase in the number, so are the industrial and manufacturing errors. Many of these errors can only be argued out scientifically in court. In addition, more and more technologies are getting access to the Ugandan market. Criminals are quick to find ways to exploit new technologies to further their illicit activities. Many difficult legal cases fall within the area of scientific uncertainty. Law enforcement agencies need to stay up-to-date with these methods so that they can recognize emerging trends, patterns and problem areas. This definitely can easily be done with close partnership between lawyers and experts. A balance however needs to be maintained such that science still addresses the needs of Ugandan communities even amidst the volatile science structures. Judges have begun to work more closely with scientists to ensure that their rulings are founded on scientifically sound knowledge. This research has proved that in this age of science and technology, science has found a warm welcome, perhaps a permanent home, in our courtrooms. The legal disputes are increasingly involving the principles and tools of science. A judge is not a scientist, and a courtroom is not a scientific laboratory but there is an increasingly important need for law to reflect sound science despite the difficulties. The law must seek decisions that fall within the boundaries of scientifically sound knowledge. It is nowadays common to find cooperation between governmental institutions and the scientific community. Scientific regulatory agencies should farther their work to develop products that reflect good science sense.

Today, the president of Uganda is pushing a science agenda. Yes, Uganda still needs more scientists. More so, the specialized scientists. However, any effort to bring better science into the courtroom must respect the jury's constitutionally specified role. Judges and juries are being asked to decide unresolved scientific questions in a growing number of high-stakes lawsuits involving drugs, toxic chemicals and industrial processes. Thus, laws that reflect an understanding of the relevant underlying science, not laws that free companies to cause serious harm are needed. Business groups, legal critics and many scientists have sharply disputed the scientific basis for the claims. They complain that

judges have been too lax in permitting what they call “junk science” to be used in the courtroom. Plaintiff and consumer groups, however, say that when scientists disagree, the legal disputes must be settled by the courts, not by scientists



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- 2020-2023 Cukurova University: MSc. Forensics Sciences
- 2010-2014 Makerere University College Of Education And External Studies: BSc.
Science with Education
- 2008-2009 Mengo Senior School: Uganda Advanced Certificate Of Education (UACE).
- 2003-2007 Mengo senior School: Uganda Certificate Of Education (UCE)
- 1995-2002 Outspan Primary School: Primary Leaving Examinations (PLE)

RESEARCH EXPERIENCE

Research Assistant, Uganda Government Analytical Laboratory, Questioned document Department

January 2021 - January 2023

- Researched new document crimes
- Collected and graphed data from different courts.

ADDITIONAL SCHOLARLY WORK

“Forensic expert witnessing: an emerging need for scientific evidence in Ugandan judicial systems dissertation” April 2023

SKILLS

- Interpersonal skills
- Data collection
- Written and verbal communication
- Internet and database research
- Critical thinking
- Writing reports
- Collecting data
- Analyzing data
- Researching (internet or databases)
- Interviewing

REFEREES

1. Prof. Dr. Nyakairu George William Atwoki

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