

Deficiencies in Forensic Evidences Affecting Judicial Trial

Vachiravitch Itthithanasuphavit^a, Veenunkarn Rujipak^b, ^{a,b}Faculty of Social Sciences and Humanities, Mahidol University, Thailand, Email: ^avachiravitch.koh@gmail.com, ^bveenunkarn.ruj@gmail.com

The objectives of this research are to study the causes of deficiencies in the forensic evidences affecting the judicial trial and to study the approaches in the development to correct such deficiencies. This is the qualitative research using the in-depth interviews and focus group of 37 persons. The research tools are in-depth interview and focus group forms. The data was analyzed using content analysis methods contributed to the research questions. The research results revealed that the reasons for the deficiencies of forensic evidence affecting judicial trial included the lack of crime scene protection, evidence collection process, packing or unpacking, contamination of evidences, verification to correct the type of evidences, quality and standards, falsification of evidence, and improper arrest/raid. The development approach to correct the deficiencies of forensic evidences affecting the trial must be corrected according to the causes of the deficiencies of forensic evidences to be deficient. The most important thing is that the operators and regulating organizations must have an awareness, morality, ethics, and good governance in the performance.

Key words: Forensic Evidences, Deficiencies, Trial, Court.

Introduction

The 1990s was a decade of focus on the importance of forensic evidences in justice. By the end of this decade, the public, lawyers and prosecutors began to speculate that "Forensic evidence" was an indispensable condition in the process of justice (Baskin and Sommers, 2016). Similarly, the RAND Corporation encouraged the research and found that forensic evidence played a key role in criminal cases (Greenwood, Chaiken, Petersilia and Prusoff, 1975). In 2005, the Congress realized the importance of forensic science (National Academy of Sciences, 2009). In developed countries such as Japan, USA, as well as European countries, various scientific and technological knowledge has been introduced and developed to be used in the forensic examination to get the true and correct results according to the scientific principles.



This is very effective in the investigation of the criminal (Kitboon, 2015). In the past, evidence of forensic science was used to help resolving the case which was important and complicated. For example, in USA, cases where forensic evidence were used to help clearing the cases were the assassination of President John F. Kennedy in 1963 and the O.J. Simpson case in 1994. In England, the important case where forensic evidence was presented to help resolving the cases was the camouflage murder case at Ricker Hill Farm, Houghton Village in 1984 (Kitboon, 2015). The forensic evidence was therefore a weighty evidence in admissibility and being accepted in various countries. In genetic real evidence, it was especially popular for

This research paper is part of the Doctor of Philosophy Dissertation, Program in Criminology, Justice Administration and Society, Faculty of Social Sciences and Humanities, Mahidol University, Thailand

Proving the cases of rape, murder, and parental proof because forensic evidence is evidence that occurs through analysis or research. The law considers those evidence to be one of the evidences introduced into the proceedings or to the knowledge of the court in order for the court to determine whether the defendant is guilty or not.

In Thailand, there are many cases where forensic evidence has been brought into the trial allowing the trial to be properly and socially acceptable. The case of interest to Thai society in the past was, for example, the murder case of Nuanchawee Petchrung in 1959. The important evidence leading to the arrest of the accused was the diary and other evidences. For the case of Sayamol in 1993, the important evidence leading to the arrest of the accused was the diary like the Nuanchawee case. However, the problem was found. The new evidence was semen which was later proved that someone had been injected it in order to deviate the issue causing additional validation. The case of Hangthong Thammawattana in 1999 and the case of Dr. Wisut Boonkasemsanti in 2001 (the case of dismember murder of Dr. Phassaporn Boonkasemsanti) were the cases that changed the history of forensic science in Thailand. Therefore, forensic examination is used to prove the facts in criminal cases, civil cases, and security cases which critically affect lives, well-being, and properties of people and society greatly. This is especially true for those involved in the cases and hope to rely on the judicial process. Worachai (2016) said that at present forensic science evidence is very important in the cases. It is frequently used in both civil and criminal investigations. Forensic science is now more widely used in the justice process to protect rights, liberties and peace of people and society. Although forensic evidence is generally accepted evidence of great importance in today's justice system, the use of this type of evidence is still very problematic (Faculty of Applied Science, Dhurakij Pundit University, 2016). Similarly, the study of Sinloyma (2014) revealed that at present the forensic system still has many problems and obstacles in the operation. That is why the study is required. Although the forensic science evidences will affect the success of the judicial process, some deficiencies still occur affecting the judicial trial. The approaches should be studied for



developing forensic evidence management process to correct such deficiencies so that justice will be provided to those involved such as the sufferers, victims, families, society including stakeholders to build faith and confidence in the justice process as well as the peace in Thai society forever.

Research Question

What are the reasons for the deficiencies in forensic evidence that affect judicial trial and how should development approaches resolve forensic evidence deficiencies affecting judicial trial in order to reduce the deficiencies?

Research Objectives

- 1. To study the causes of deficiencies in forensic evidence that affect judicial trial.
- 2. To study development approaches to correct the deficiencies of forensic evidence that affect judicial trial.

Literature Review Meaning of Evidence

The "Evidence" consists of any individual witness, document, and real evidence including any record and testimony in the investigation stage, inspection report on object, place, real evidence, expert's opinions or anything presented to the court to prove the facts (Rattanakorn, 2014).

"Forensic evidence" consists of individual witnesses, documents, and real evidence (Sinloyma, 2017). The forensic evidence testifies to the opinions of experts in the law that are of great importance in the modern justice system that is focused on proving the offence of criminals using scientific and technological processes (Kitboon, 2015).

Related Concepts and Theories

2.1 Laws of Witness: That the evidences or real evidences will be accepted in court must comply with four basic rules. Avoidance or deviation from the fundamental rules is a weakness that allows lawyers to argue in court causing the value of the evidences to be lost. The four rules are; 1) Protection of crime scene, 2) Maintaining the main witnesses correctly and legally, 3) Appropriate evidence search, and 4) Having a chain of custody possession thoroughly (Chaemsuwanwong et al, 2009). In general, the procedure for examining evidences in the court can be easily performed by the person who witnessed the evidence in the scene. However, in



some cases where more than one person or entity possesses evidence, the court is required to show a chain of evidence possession.

- 2.2 The chain of custody consists of 1) Management done by the collector of real evidence to classify the real evidence by marking, specifying date, month, year of storage and details, 2) Collection to prove that the collection and possession of real evidence is correctly done based on the principles, 3) Transportation must be concise showing not to be confused with other evidences needed to be registered in case of mailing, 4) Delivery to prove that the exhibit has been delivered to the recipient correctly and appropriately with evidence showing the day, month and year of receiving the goods and a list of responsible persons every time (Chaemsuwanwong et al, 2009).
- 2.3 The probative value of evidence consists of; 1) The real evidence is evidence of the actual occurrence of the case or the evidence that is proved to have the wrongdoing, 2) The real evidence can connect suspects to the victim or the scene place, 3) The real evidence can identify the perpetrator, 4) The real evidence can defend against the alleged innocent, 5) The real evidence can confirm the victim's testimony, 6) The real evidence can cause confession or acceptance of offense, 7) The real evidence can be more reliable than the eyewitness, 8) In the case that the investigator has a problem in preparing the trial, the real evidence is even more important. The court will use the real evidence to help judging the case faster, 9) The real evidence having passed the investigation by scientific methods could increase the credibility in the court and 10) The absence of real evidence which will point facts in the scene place will be beneficial in resolving the dispute (Chaemsuwanwong et al, 2009).

Concepts and Theories about the Judicial Process of Thailand

The criminal judicial process is the process for prosecuting criminal cases. When a criminal offense has been committed, what must be done is to bring the offender to punishment. The provisions governing criminal proceedings are contained in the Criminal Procedure Code of the organization. Personnel associated with the conduct of criminal justice are the investigator or police officer as the first body responsible for the judicial process before the case is passed to the prosecutor and the court proceedings. The police are the people who arrest the perpetrators and gather evidence from the investigation. The lawyer comes to defend the litigants whether the plaintiff or the defendant. The prosecutor is the government official who proceeds from the investigation officer to sue the accused in the court further and the court of justice will make the judgment. The court is divided into 3 stages; the court of first instance, the appeal court, and the supreme court. There is also the Department of Corrections to involve in almost every process of criminal justice responsible for controlling the accused or defendant during the criminal proceedings (Panitphong, 2015).



Locard's Exchange Principle Theories

The growing importance of forensics to justice promotes the Edmund Locard's concept believing that every contact leaves its mark. This arose from the idea that "Every touch has a trace," especially the detection of traces. The principle is that when two objects come into contact with each other, an exchange occurs between the surfaces of that object's contact. This is an important guideline for crime scene detection of suspects' latent fingerprints (Inman and Rudin, 2000).

The Principle of Proof Beyond Reasonable Doubt

According to the criminal law of Thailand and global, the standard of proof in common criminal cases will leave the burden of proof to the plaintiff who is the accuser. The plaintiff must prove or ascertain that the defendant is exactly the wrongdoer in order for the court to believe that the defendant is actually guilty. The defendant has the right to seek evidence to refuse the claim or evidence of an objection or destroy the weight of the witnesses of the plaintiff. The investigation of witnesses must always be made in the presence of the defendant and it cannot be secretly done without the defendant presence unless it is legally allowed. The forensic evidence is one of the evidence which is legally considered sounded. The court always admissibility to and believes the evidences therein. In Thai law, there are provisions in the proof beyond reasonable doubt in the Criminal Procedure Code, Section 227 (Suthirakun, 2018).

Fruit of the Poisonous Tree Theories

This theory states that if any tree is poisonous, fruits or others obtained from the tree would be toxic as well. This is a comparison of the use of evidence in a case that if any evidence is obtained wrongly, no matter how important the test results are in the case, it cannot be used in a legal case as provided in Section 226/1 of the Criminal Procedure Code (Suthirakun, 2018).

Research Methodology Key Informants

1.1 The key informants for in-depth interviews consists of 30 judiciary personnel. The researcher used the purposive sampling. The key informants for the in-depth interviews are selected by the researcher based on the criteria of selection in order to obtain the key informants qualified with experience, knowledge, competence, and expertise on the aforementioned issues. They gave consent to give the information to the researcher as follows:



Table 1: Key informants by in-depth interview

Key informants	Number (persons)
Inquiry official, Royal Thai Police	5
Prosecutor, Office of the Attorney General	5
Judiciary	5
Central Police Forensics Division Official, Royal Thai Police	5
Central Institute Forensic Science Official, Ministry of Justice	5
Lawyer, Lawyers Council Under the Royal Patronage	5
Total	30

1.2 The key informants in the group meeting consisted of representative from the Royal Thai Police, representative from the Office of the Attorney General, representative from the Court of Justice (criminal), representative from the Central Forensics Division, Police Forensics Office, Royal Thai Police, representative from the Central Institute of Forensic Science, Ministry of Justice, representative from the Lawyers Council under the Royal Patronage for 1 each totaling 7 persons. The researcher performed the purposive sampling as same as the key informants. In the focus group, the researcher determined the criteria in selecting for obtaining the informants giving the reliable information. They must have experience, knowledge, competence, and expertise in the aforementioned issues and gave consent to provide the information to the researcher.

Data Collection Process

This study is a qualitative research through in-depth interviews and focus group from the key informants. The researcher collected the data as follows:

- 2.1 In-depth interview is a method for data collection by using dialogue, questionnaire and face-to-face interaction between the interviewee and the interviewer. The interviewer collects the data by observing the personality, gestures, speech, and attitude during the interview in order to be considered for summarizing the results based on the set research problem (Wiratchai, 2000). It was an interview with face-to-face data collection (Kaemket, 2008; Phoprueksanan, 2014). In this regard, the researcher conducted the in-depth interview from a group of selected key informants.
- 2.2 A focus group is a method of data collection from the discussion of the important informants in groups where the participants of the group discussion were selected from those who had direct experience or who were able to provide information (Romrattanaphan, 2019). The focus group is the brainstorming for gathering information including the examination of information obtained from the in-depth interviews.



Research Tools and Quality Inspection on Research Tools

The tools used for data collection are structured in-depth interviews and focus group having passed the quality inspection of tools from professors, advisors and experts in criminology, justice administration and forensic science. The coverage, correctness, and validity of contents were examined again to be in accordance with the academic principles.

Data Analysis

Regarding the data analysis, the researcher uses content analysis methods to analyze the causes of forensic evidence defects that affect the judicial proceedings and analyze development approaches to correct the deficiencies of evidence in forensic science affecting the trial.

Research Ethics

This research study was considered on the research ethics from the Office of the Human Research Ethics Committee in Social Science, Faculty of Social Sciences and Humanities, Mahidol University No. 25/25 Phutthamonthon Sai 4 Road, Salaya Sub-district, Phutthamonthon District, Nakhon Pathom Province 73710 and was certified by the Office of the Human Research Ethics Committee in Social Science on 8th January, 2018, by Certificate of Approve No. 2019/004.0801, MUSSIRB No.2019 / 009 (B1).

Research Results

Causes of Deficiencies in Forensic Evidence that Affect the Trial in Court

From in-depth interviews and focus group, the research results were found that the reasons for the deficiencies in the forensic science evidence that affect the judicial proceedings were:

1.1 The incident prevention measures were not of standard and did not strictly follow the principles causing damage to the scene. It was destroyed by the environment including people close to the crime scene as well as other persons who attended the event known as the "Crowd". This caused the forensic evidence or important evidence to be destroyed. Especially, the supervisors lacked awareness or did not consider the location of the incident which effect would happen if they entered the scene arbitrarily. This corresponded to one of the investigators saying:

"...the crime scene was destroyed before arriving because some police officers still lacked understanding by entering the scene unnecessarily..."

It was also in line with a forensic scientist saying:



- "...The problem of crime scene protection has been seen in many cases with the issue of whether the investigators or foundations arriving before the officers around the scene are good or not. The next problem is that if the case is big, the superiors will come and enter the scene without any consideration for anything..."
- 1.2 The process for collecting various kinds of forensic evidence still had problems. Most of the problems for the inquiry official were in the collection process. The process of collecting each type of forensic evidence was not valid for such type of evidence. It was fail to comply with forensic science and standards of forensic science. It also did not cover all types of forensic evidences existing at the crime scene due to lack of experience, knowledge and understanding including carefulness. Various environments were also not conducive to the collection of forensic evidence. It was correspondent with two investigators who comment in the same direction that:
- "...Police officers fail to follow the principles at all. In one case, there were many problems including entering the place, obtaining evidences to keep evidence that it was correct or not...."

This agreed with 3 prosecutors saying:

"...They are not experts in evidence collection because forensic evidence collection requires an expert. The forensic distortion lies in the collection and use processes that distort the evidence..."

In addition, it was also consistent with one forensic scientist saying:

- "...The collection of forensic evidence in each type in each category is sometimes not technically correct due to the inexperience or lack of experience of the investigating officers..."
- 1.3 The packaging or packing was non-standard. When obtaining forensic evidence from the crime scene, some problems occurred in packing each type of evidence such as poor packing using substandard materials. This also corresponded to a forensic scientist saying:
- "...In packing various evidence, the materials used would be non-custom boxes or made materials. It is a plastic bag, a typical bag that is not correct or as far as you can find..."
- 1.4 The forensic evidence was contaminated by undesirable objects causing damage to the evidence. This resulted in the inaccurate verification consistent with one forensic scientist saying:
- "...If the evidence becomes contaminated, the test results will be distorted. It is frequently contaminated because the evidence is not separated according to the principles..."



- 1.5 The forensic examination must be performed correctly based on such type of evidence. However, it may seldom happen if we follow the established standards. This is consistent with one forensic scientist saying:
- "... The evidence has to be examined as the correct type because each witness has a procedure for testing. The different tools are used with different methods. The examiners must be proficient in each area. However, the examiners in each agency must be trained and must have basic knowledge in that area..."
- 1.6 The falsification of evidence occurs with the forged evidence such as changing evidence, forging a car, etc. This agrees with one of the investigators saying:
- "... The problem in the evidence is that the object is imprecise. For example, in forging a car or a gun, it cannot be detected. It is fuzzy and there will be no clear verification..."
- 1.7 The non-rightful arrest/raid especially the arrest without a warrant, arrest by using incorrect method including using various methods in deceiving, threatening to obtain evidence including forensic evidence that causes unfairness to the suspect are in accordance with one of the investigators saying:
- "...Arrest without warrant, arrest using incorrect methods, using methods in deceiving, forcing, or abusing in order to obtain the confession are not rightful..."

Other causes of caused deficiencies in forensic evidence affecting the trial in court were 1) Lack of forensics investigators, scientists including regular experts in the police station necessary for collecting evidence resulting in insufficient personnel to cover all areas, 2) Inefficient database system, 3) Insufficient budget for forensic science operations, 4) Forensic equipment and technology which are not up to date and insufficient, 5) Opinions of experts are inconsistent and are not in the same direction, 6) Justice reform because different agencies are still doing their own duties with the lack of integrated collaboration. The Thai justice system tries to reform various agencies in the judicial process but it has not been successful, 7) Lack of public relations for people to have knowledge about forensic science services, 8) The evidence collection, verification, and scientific analysis take too long time, 9) Relatively high costs, 10) Workload that exceeds the limit of investigating officers, and 11) Transparency and good governance of personnel in the judicial process that can make the perpetrator less punished according to the law. The events like this happen frequently in Thailand and cause judicial personnel and agencies to be criticized and complained by the people as the saying "Thai prisons are for the poor". For those who are financially wealthy, they do not have to be



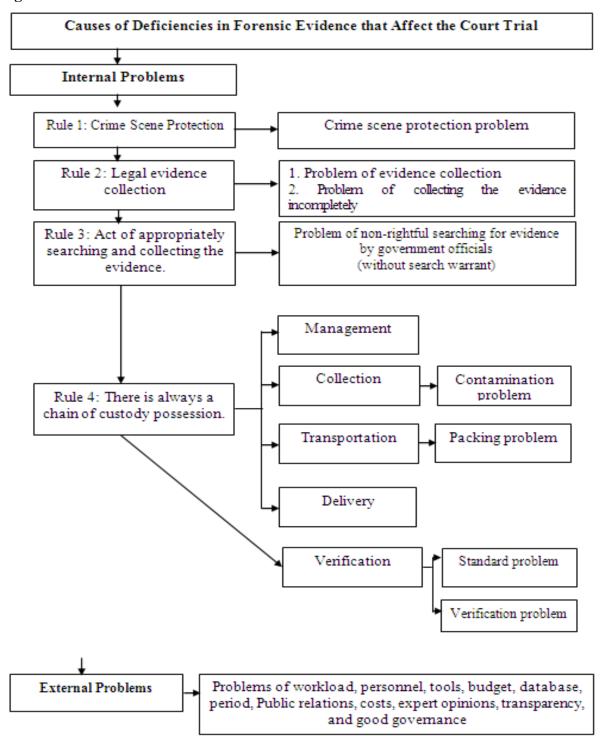
punished if they have a personal financial and personal relationship with judicial personnel. This corresponds to one lawyer saying:

"... There is a lack of transparency and lack of good governance in the justice process because sometimes one can help each other through personal relations or bribery of justice officials."

Therefore, from the research results, the researcher could synthesize and link the causes of deficiencies in forensic evidence that affect the court trial as shown in Figure 1.



Figure 1. Causes of deficiencies in forensic evidence that affect the court trial



Source: From the analysis and synthesis of the researcher



Development Approaches to Correct the Deficiencies of Forensic Evidence Affecting the Trial

From in-depth interviews and focus group, the research results revealed that the development approaches to correct the deficiencies of forensic evidence affecting the trial consisted of:

- 2.1 The crime scene should be protected until the end of the case. In addition, the crime scene must be maintained until the officers from the Forensics Division come to collect the evidence. This may be difficult but it is necessary to act and correct any defect that has occurred. For example, the officers involved must surround the scene correctly. Moreover, there should be the record whether any person entered the crime scene or not. Therefore, there should be a solution to the problem or take into account the prevention of the scene. This corresponds to one of the investigators saying:
- "...Police officers should protect the crime scene until the end of the case. The crime scene must be maintained until the Forensic Division comes to collect all evidence because all kinds of evidence are important in the trial and punishment of the offender..."

This is in line with one prosecutor saying:

"...It is often seen that the crime scene was not protected until the end of the case. The crime scene was not be maintained until the evidence was collected because it would cause problems such as important evidence might be lost..."

This is in accordance with one judge saying:

"...For ensuring the proceedings, the scene should be protected and maintained as long as possible because if there is a need to find important evidence, it will be easy and still useful in the case..."

This is also correspondent with one forensic scientist saying:

- "...Regarding the problems in crime scene protection which has been seen in many cases, the foreign guidelines should be studied. When considering foreign texts, it could be seen that the visit to the crime scene in foreign country would be indicated in the yellow, red, green area. Therefore, the solution is needed here..."
- 2.2 For problem solving of evidence collection process in the inquiry officer stage, the forensic evidence collection for each type must keep correct evidence according to the type of evidence in accordance with the academic principles and standards of forensic sciences. In addition, all evidences must be collected at the crime scene precisely and prudently. They must be most



complete. The personnel must have the knowledge and ability to perform the work. This agrees with the two inquiry officers saying:

"... The inquiry officers have to consider the process of collecting various kinds of evidence correctly according to the codes of practice and academic principles. All of them must be collected completely and carefully..."

This is in line with 2 prosecutors who saw in the same direction saying:

"...The inquiry officers or evidence collectors must collect the evidence as completely as possible and should resolve the problem in the process of collecting evidence..."

This is also correspondent with 2 judges who saw in the same direction saying:

"...One of the reasons for the dismissal or inability to punish the perpetrator is because of the initiation process, collecting evidence at the crime scene, is not in accordance with the established principles in collecting all items completely for the benefit of legal proceedings..."

This also agrees with one forensic scientist saying:

- "... The evidence must be collected correctly following the type of evidence in accordance with the principles of forensic science in order not to cause errors in the investigation process..."
- 2.3 Packaging or packing processes of different kinds of forensic evidence must be developed. The packaging or packing must be correct following the principles. The evidence collectors must separate 1 piece of evidence per package in order to prevent contamination or forensic evidence be destroyed. This packing or this process is very important because it will lead to the next step. This is in line with another forensic scientist saying:
- "...Now the agencies involved in the forensic evidence collection have developed a way to develop Packaging and develop different collection methods to solve the problems happening frequently. Packaging or packing affects the reliability of the evidence..."
- 4. In preventing the contamination on forensic evidence, when each forensic evidence has been contaminated by the others, it will cause the investigation results inaccurate affecting the case. This agrees with one forensic scientist saying:
- "...There should be an approach to protect each type of forensic evidence so that it does not become contaminated with other things. However, the evidence collector has to consider contamination with other objects in the crime scene as well..."



- 5. The forensic science examination processes must be performed correctly following the type of evidence. In this regard, the forensic scientists will have the expertise of the individual in the examination of each type of evidence which is not likely to be mistaken. This is correspondent with one forensic scientist saying:
- "...The investigation must be performed correctly following each type of evidence. When using the wrong method, it will cause the result of examination to be wrong and has no credibility..."
- 6. The forensic science standards must be developed to be internationally recognized and accepted by many countries particularly the development of forensic science standards in Thailand to be equivalent to the US forensic science standard which is the highest standard of the world. However, in developing to the international level, many elements must be considered.

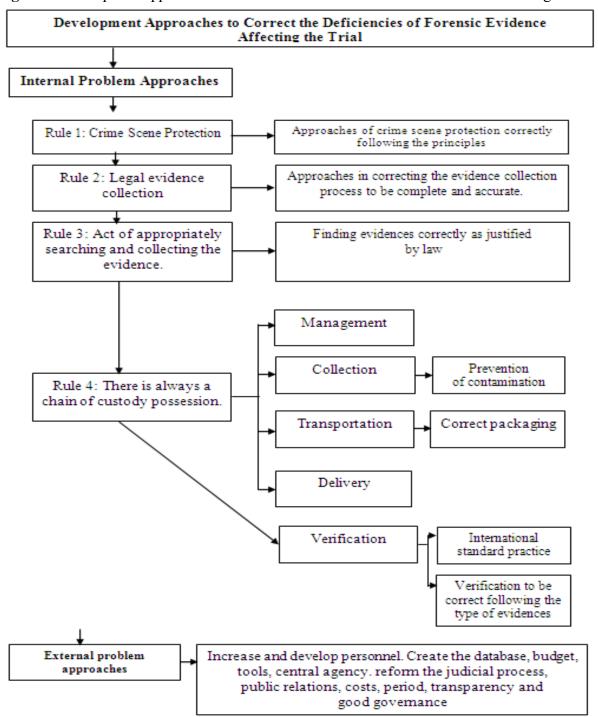
For other approaches in the development to correct the deficiencies of forensic evidence affecting the trial, there should be the approaches which are; 1) There should be more officials and development on the forensic officers, scientists, or experts stationed in police stations throughout the country theoretically and practically as well as allocating the budgets for hiring standardized private personnel to assist in forensic science work, 2) Establishing personal identity database, 3) Budget allocation related to the forensic science operation of each police station to have appropriate budget covering the works and comply with the workload that must be performed including the procurement of tools and related equipment, 4) Establishing a center for forensic science in Thailand as same as the Federal Bureau of Investigation in USA and the authority or function of each branch of forensic science having the distribution of authorities or duties in each area of forensic sciences for the potential agencies to assist in the implementation, 5) Reforming the judicial process to develop and drive the agencies in the judicial process to be credible from the public sector, 6) Creating awareness and public relations among the public to have knowledge about forensic science services, 7) Controlling or shortening the time of the procedures for verification, 8) Controlling prices for forensic science services to be at standard prices and accessible to the public; and 10) Solving problems of transparency and good governance of personnel in the judicial process to be transparent and perform their duties as law enforcement. However, when personnel in the judicial process are offenders, there is a need to punish them for the wrongdoing, not just moving to other agencies to set up a committee to investigate the facts despite the evidences clearly showing that the act has been committed. This is consistent with one lawyer saying:

"... The judicial personnel must be punished more severe than ordinary people in the society because they commit the offense by claiming the benefit of the defendant, the accused, or the victim ..."



Therefore, from the research results, the development approaches were analyzed and synthesized to correct the deficiencies of forensic evidence affecting the trial and link the development method for correcting forensic evidence deficiencies affecting the trial as shown in Figure 2.

Figure 2. Development approaches to correct the deficiencies of forensic evidence affecting the trial



Source: From the analysis and synthesis of the researcher



Research Result Discussion

According to the research results, it was found that the reasons for the deficiencies in the forensic evidence affecting the judicial proceedings consisted of lack of crime scene protection, evidence collection process, packaging or packing, contamination of evidence, verification including improper arrest / raid and other related causes. However, the reason mentioned above was because the practitioner did not follow the 4 rules of evidences. That the evidence or real evidence will be accepted in court must follow the 4 basic rules; Rule 1: The crime scene protection, Rule 2: The legal primary evidence collection, Rule 3: The appropriate search for evidence, and Rule 4: There is the chain of evidence possession (Chaemsuwanwong et al, 2009). These would be inevitable because it would be a weakness allowing the lawyers to argue in the court which would weaken the value of evidence. In general, the process of examining evidence in the court can be easily performed by the person who witnessed the evidence on the scene. However, in some cases where more than one person or agency possesses evidence, it is necessary to show the chain of evidence possession. This agreed with the study of Phromwikorn et al (2019) finding that the major problems and causes that contribute to the compromise of the credibility of the forensic evidence and the impact on the current judicial proceedings in Thailand include the crime scene investigation, crime scene protection, forensic evidence collection at crime scene and possession of forensic evidence since crime scene is the starting points for forensic evidence in the case. This includes the problem with processes and evidence testing tools. This is correspondent with the study of Sinloyma (2014) finding that the problems and obstacles to the administration of justice of the Royal Thai Police in evidence collection and forensics are the lack of experience working in the evidence collection area at the scene, giving the excessive authority to the investigators in exercising the discretion on evidence gathering and the investigator could not collect evidence from the crime scene due to the lack of protection and good treatment of the crime scene. For example, in the Nuanchawee case, the problem was found about the new evidence emergence which was semen. It was later proven to have been injected to deflect the issue. It required further investigation. This is in line with Makin (2012) studying that many organizations have taken measures to reduce the handling of evidence at crime scenes.

Forensic falsification from the study of Turvey (2012) finding that it occurred when there was the misleading in the opinions and documents. This includes conclusions that focus on illicit interests to be filed with the court. Some offenses have seriously damaged the reputation of forensic practitioners. This affects the confidence of the public towards the institution of forensic science and also undermines the confidence in the judgment system entirely. It can be seen that the forensic deviation occurred from some matters instead of the systemic core. This agrees with the theory of poisonous fruit saying that if any tree is poisoned, then a fruit or something obtained from the tree would have poison as well. This is the comparison on the use of evidence in the



case that if any evidence has been obtained wrongly, even if the examination results are important in a case, they cannot be used in the case.

Therefore, the problems or defects that arise will affect the judicial proceedings and also affect the confidence of the people. The approaches are needed for the development to correct the deficiencies of forensic evidence that affect the trial especially in the "Transparency and good governance" of the performance of personnel and agencies in the judicial process with a stake in the case.

Research Result Conclusion

The current justice system in many countries attaches great importance to forensic evidence used in judicial proceedings to punish offenders. Because of advances in science and technology, scientific advances have been applied to provide greater justice for sufferers or victims of crime. There are many cases that have successfully brought forensic evidence into trial to punish offenders. However, on the other hand, forensic evidence can also be flawed if there is a wrong practice. The research results reveal that there are many reasons why forensic evidence is impaired. This affects the judicial process resulting in the case being dismissed and the offender cannot be punished. Therefore, the development approaches are needed to correct the deficiencies of forensic evidence and be able to use them in the justice process for the best benefit. Especially for the judicial personnel who are responsible for collecting and applying these forensic evidence as law enforcement, they must have a sense of morality, ethics, code of conduct, and good governance. This includes the officials in the justice system and the judiciary agencies. There will be a number of programs and measures to prevent and suppress crimes. On the contrary, forensic evidence is indispensable in any trial. Currently, crime in Thailand is not likely to decline but is increasing and forensic evidence plays an important role in cases. Therefore, government officials have to be aware of morality, ethics, code of conduct and good governance in their own profession in applying forensic evidence in the correct use of the prosecution successfully. The important things is how to develop the judicial process to gain the confidence of the people. It is necessary to apply the principles of ethics and morality to the place. "Ethics" is superior to the "Evidence" and what is superior to evidence (application) is human ethics (personnel in the justice system). Even if the justice system has a good tool and how good the preventive and suppression measures are, if personnel in the justice process still lack consciousness, morality, ethics, code of conduct, and good governance in their own profession, it will cause the judicial process to become tainted. The value of justice does not necessarily have to be innovation because innovation is the only tool to make judicial proceedings and the verdict successful. If personnel in the justice system have such elements in their performance, they will be able to improve the level of justice in Thailand more efficiently and also affect confidence, people's faith in the Thai justice system that will assist and facilitate justice for all classes of people equally. It also makes many civilized countries see a better image of Thailand in various



litigation fairly. Apart from "people", it is an organization. The organizations in the judicial process must have a good image and be able to rely on the people to access, rely on, and assist in the facilitation of justice. This is because justice is to give the real justice.



REFERENCES

- Kitbun, A. 2015. Forensic evidence and the administration of social justice. Bangkok: College of Justice, Office of Justice Affairs.
- Kitboon, A. 2015. Forensic Evidence on Social Justice. Law Courses Justice for Reducing Social Inequalities. College of Justice Bureau of Justice Affairs, Ministry of Justice.
- Chaemsuwanwong A., Kulnithet N., Sukkawat S., Tangsuwan C., Mekprasertsuk T., Uicharoen K. and Tochima K. 2009. Forensic Science 1 for Investigation and Inquiry. (6th edition). Bangkok: G.B.P. Center Company Limited 2009.
- Brent E. Turvey. 2012. Forensic Fraud: Evaluating law enforcement and forensic science cultures in the context of examiner misconduct. Doctor of Philosophy, Criminology Department, Faculty of Humanities and Social Sciences, Bond University, Australia.
- David Alan Makin. 2012. Police Experience and DNA forensic: in concern or at odds: seeking performance in the 21st century. Doctor of Philosophy, Department of Criminal Justice and Criminology, Washington State University, United State.
- Deborah Baskin and Ira Sommers. 2016. The Influence of Forensic Evidence on the Case Outcomes of Assault and Robbery Incidents. Criminal Justice Policy Review, XX(X), 1-25.
- Faculty of Applied Science, Dhurakij Pundit University. 2016. Development of forensic evidence listening approaches to prove the truth in the cases. Bangkok: Faculty of Applied Science. Dhurakij Pundit University.
- Greenwood P, Chaiken J, Petersilia J, Prusoff L. 1975. The criminal investigation process. Volume III: observations and analysis. Santa Monica, CA: The Rand Corporation.
- Inman, K. and Rudin, N. 2000. Appendix A. Forensic Science Timeline. In Principles and Practice of Criminalistics. The Profession of Forensic Science. CRC Press.
- Jermsittiparsert, K., Trimek, J., & Vivatthanaporn, A. (2015). Fear of Crime among People in Muang-Ake, Lak-Hok, Muang, Pathumthani. The Social Sciences, 10(1), 24-30. DOI: 10.36478/sscience.2015.24.30.
- Jermsittiparsert, K. & Akahat, N. (2016). Fear of Crime among Students of Kalasin Rajabhat University. Research Journal of Applied Sciences, 11(2), 54-61. DOI: 10.36478/rjasci.2016.54.61.
- National Academy of Sciences, Committee on Identifying the Needs of the Forensic Sciences Community,



- Committee on Applied and Theoretical Statistics, and National Research Council. 2009. Strengthening Forensic Science in the United States: A Path Forward. Washington, DC: National Academies Press.
- Phoprueksanan N. 2014. Research Methods: Principles, Concepts and Techniques of Research Report Writing. Bangkok: Expernet
- Wiratchai N. 2000. Research for the development of teaching and learning: Teacher practice research. Published on the occasion of retirement.
- Suthirakun P. 2018. The use of forensic investigations using face-reading programs in the field of integration security. Bangkok: National Defense College.
- Sinloyma P. 2014. Development of efficiency in facilitating justice of the Royal Thai Police for the public evidence gathering and forensic evidence investigation. Academic Journal of the Graduate School of Suan Dusit, 10(1), 299-312.
- Sinloyma P. 2014. Development of a model for forensic science to be used in crime investigation in the 3 southern border provinces. Academic Journal of the Graduate School of Suan Dusit, 11(2), 43-53.
- Patchara S. 2017. Solving Crime Problems with Forensic Science. Supporting Documents for Lecture Training Program High-Level Fair Service 8th. Bangkok: Office of Justice Affairs.
- Kaemket W. 2008. Research methodology in behavioral science. (2nd edition). Bangkok: Chulalongkorn University Press.
- Phromwikorn W., Suwanrungsi S., Ammawat K., Buchitchon S., and Meebunsalang N. 2019. The Reliability of Forensic Evidence: Problems, Causes, and Developments for Thailand. Southern Technology Journal, 12(2), 168-180.
- Panitphong W. 2015. 100 years of democratic justice. Course on the rule of law for democracy, Constitution College Office of the Constitutional Court.
- Rattanakorn S. 2014. Explanation of the law on the evidences. (11th edition). Bangkok: Nitibannakan Publishing House.
- Sanseera W. 2016. Forced Scientific Forensics in Civil and Criminal Cases. Junlaniti, 13(5), 135-142.
- Worawut R. 2019. Group discussion. Online from: http://rlc.nrct.go.th/ewt_dl.php?nid=1182.