

## A PRELIMINARY FRAMEWORK OF FORENSIC SCIENCE FUNDAMENTALS BASED ON ITS ELEMENTS IN SHARIAH MANUSCRIPTS

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### **Abstract**

*Forensic science has become an 'odd' to the shariah due to the dual educational system that segregationally treats science different from religion. As to stitch back the loophole, this study aims to identify forensic elements in classical legal scripts that can lead to a formation of an integration theory. This study used Grounded Theory Method that relied upon constant comparative approach guided by literature analysis. The theoretical samples were gathered from classical legal opinions in the admissibility of circumstantial evidence in Islam. This study found that there were 117 free nodes that constantly built four key fundamentals for the framework which were forensics jurisprudence, human capital, forensic analysis, and accreditation. This study proved that there is a connection between science and religion through the application of forensics in Islamic legal scripts. This study suggests further exploratory research on each key fundamental found thus completes the theory development process of this framework.*

*Keywords: Forensic science; fundamental framework; grounded theory; al-qarinah: islamic law*

### **INTRODUCTION**

During the period of 750-1100 AD, it was described that the Muslims were the top contributors towards the development of the intellectual field in the world. Researchers all over the world have the same opinion that the Muslims contributions were glorious especially in the field of sciences. However, after the 14<sup>th</sup> century, this

golden age has faded out gradually as the diminishing of Islamic countries all over the world.

The impact of separation between religion and science has brought several impacts towards the relation of science and Islamic law. This impact has also resulted in a dual education system which also leads to the segregation between these two fields (Ramli Awang, Kamaruzzaman Yusoff, Badlishisham Mohd Nasir, Mohd Nasir Ripin, & Hussin Solomon, 2014). In common law, the connection between the field of forensic science and the law has seldom being interpreted as 'uneasy relationship' (Cassella & McCartney, 2011). As Saks and Faigman (2008) said:

The reasons for the courts' empirical ineffectuality are likely manifold. Three systemic factors, in particular, appear to explain much regarding the courts' failures in this area. The first, and most basic, is the cultural divide that separates law and science.

(p.161)

This problematic situation could lead to the misunderstanding and misinterpretation of forensic evidence in any trial either in Shariah law or common law. As in Shariah law, a deep understanding in every part of the trial is the key to provide the best judgement. This kind of understanding is needed in the reasoning process of the judge as referring to hadith 1716 in Sahih Muslim (n.d.):

عَنْ عَمْرِو بْنِ الْعَاصِ، أَنَّهُ سَمِعَ رَسُولَ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ قَالَ: إِذَا حَكَمَ الْحَاكِمُ فَاجْتَهَدَ  
ثُمَّ أَصَابَ، فَلَهُ أَجْرَانِ، وَإِذَا حَكَمَ فَاجْتَهَدَ ثُمَّ أَخْطَأَ، فَلَهُ أَجْرٌ

Translation: Amr ibn Al-As reported: The Messenger of Allah, peace and blessings be upon him, said, "If a judge makes a ruling, striving to apply his reasoning (ijtihad) and he is correct, then he will have two rewards. If a judge makes a ruling, striving to apply his reasoning and he is mistaken, then he will have one reward.

(Hadith 1716 of Sahih Muslim)

As a result, this failure leads to irrelevant and misinterpretation in legal reasoning process (Ahmad Syukran, Amidon, Mohammad Amir, Aminuddin, & Abdul Rahim, 2015). Schiffer (2009, p. 200) added that, in common law, history has proven that judicial error can occur either from the lacks of the justice system or from forensic science, including gathering and evaluating process and analysis such as the probabilities of misinterpreting the data presented in court (Thompson & Schumann, 1987). With that, this study tries to suggest for a fundamental framework of forensic science as a systematic approach in understanding forensic science from the basic of Islamic religion.

## LITERATURE REVIEW

This section highlights on recent literatures found to elaborate on the concept of forensics fundamentals framework in Islam. It is divided into two subsections namely forensics fundamental framework and the integration of forensic science with circumstantial evidence in Islam.

### Forensic Science Fundamental Framework

The word 'fundamentals' refer to the main rules or principles that centralised a phenomenon. It is also referring to the core and basis of a thing. This terminology is suggested to refine the concept in understanding forensic science. There are several literatures found in detailing this concept. In brief, the studies divided the concept of forensic fundamentals into scientific aspects (Anthony J, 2008; Max M Houck & Siegel, 2010) and non-scientific aspects of forensic science (Ahmad Syukran, Aminuddin, & Abdul Rahim, 2015a; Ahmad Syukran, Mohammad Amir, Aminuddin, & Abdul Rahim, 2016; Max Michael Houck, 2010; Kirk, 1963).

**Table 1** A Brief Overview on Literature of Forensic Science Fundamentals

<i>Category</i>	<i>Reviews</i>
Scientific aspects	Explains on the division of sciences and analytical that related to the forensics field
Non-Scientific aspect	Explain on the non-scientific aspects such as basic principles, the role of human capital, legal aspect, justice and the law

### The Integration of Forensic Science with Circumstantial Evidence in Islam

The discussion of this concept has been elaborated by many literatures. Classical references were found to explain on the admissibility of the circumstantial evidence from a different school of thought. There were four prominent schools of thought that discussed this topic in their respective view of thought. In concise, the discussion made through these four school of thought were obviously given a clear status of acceptance of the forensic science application in Islam. The discussion

status can be concisely viewed from the table below (Ahmad Syukran, Hasna, Wan Ismail, Aminuddin, & Abdul Rahim, 2015):

**Table 2 A Simplified View on The Admissibility of Circumstantial Evidence under Four Prominent School of Thought**

<i>School of Thought</i>	<i>Admissibility</i>
Maliki	Majorly accepts Classic scholars decline
Hanbali	Contemporary scholars accept
Shafii	The acceptance relies upon cases
Hanafi	Majorly declines

This study used the opinion that accepts the admissibility of circumstantial evidence as it could lead to justice by contemporary scholars as it carries more concrete and reliable arguments (Ahmad Syukran, Aminuddin, & Abdul Rahim, 2015b). Moreover, recent literatures that linear with this integration part were found from the previous study. Several studies found to correlate on the modern application of forensic science within the legal context (Sayed Sikandar, 2005, 2006, 2007). These studies have discussed on the weight, the applications, and the comparative views through common and Islamic law. A compilation of literatures that links within the essence of the objective of Islamic law was found in related to this study (Ahmad Syukran, Hasna, et al., 2015; Ahmad Syukran, Mohammad Amir, Aminuddin, & Abdul Rahim, 2015; Ahmad Syukran et al., 2016; Lukman & Wan Abdul Fattah, 2012). These studies discussed on the role of forensic science in realising the objective of Islamic law through the integration with forensics basic principles, histories and recent advanced technology application in the field of fiqh. However, these studies only discussed the fundamentals in general such as the basic principles, ethics, and related maxims.

This study concludes that from the literature, there is no specific reference found to explain on the fundamentals of forensic science in Islam. Previous studies on the fundamentals of forensic science did not cover from the Islamic perspective. The integration of forensic science and circumstantial evidence in Islam still in general discussion and does not specify the fundamentals aspect. As Creswell (Creswell, 2012) suggested that in the immature situation of literature, exploratory research design is the most suitable approach to get answer the research questions. With that, a grounded theory study should be conducted to fill this gap. This study should be derived from the origin of legal scripts in related to the topic.

## METHODOLOGY

This study used Grounded Theory (GT) method as research methodology. GT method is a method to build a new idea or concept that begins from very small topic level up to the abstract level. This concept is also known as a pattern that consequences basic categories in a study. This method, which emphasises on theory development insists the scientist to build the category needed by acquiring, refining and constantly comparing the data gained in the study (Kolb, 2012).

### Theoretical Sampling

Theoretical sampling refers to the data collection process guided by the evolving theory. This process is one of the most important parts in GT method (Draucker, Martsolf, Ross, & Rusk, 2007). By considering that this study proposed a GT method application, the theoretical sampling was gathered from the primary documents of classical legal scripts in the admissibility of circumstantial evidence in Islam.

**Table 3** Primary documents used in theoretical sampling in GT method

<i>Document</i>	<i>Category</i>
Al-Quran al-Karim	-
Ṣaḥīḥ al-Bukhārī	Hadith document
Ṣaḥīḥ Muslim	Hadith document
Ja mi' al-Baya n fi Ta'wīl al-Qura n	<i>Tafsir bi al-Ma'thūr</i>
Tafsir al-Qura n al-'Adzim	<i>Tafsir bi al-Ma'thūr</i>
al-Ja mi' li Ahka m al-Qura n	<i>Tafsir bi al-Ra'y</i>
Faṭḥ al-Bārī fi Sharḥ Ṣaḥīḥ al-Bukhārī	<i>Sharah Hadith al-Bukhari</i>
Al-Minhāj Sharah Ṣaḥīḥ Muslim	<i>Sharah Hadith al-Bukhari</i>
Al-Dībāj 'ala Ṣaḥīḥ Muslim	<i>Sharah Hadith Muslim</i>
'Umdat al-Qārī fi Sharḥ Ṣaḥīḥ al-Bukhārī	<i>Sharah Hadith Muslim</i>

### Analysis Approaches

The approach used in this GT method is constant comparative (CC) analysis. This CC analysis develops theoretical ideas from the data through the systematic simultaneous process of coding and analysis (Taylor & Bogdan, 1998). It is a constant process to emerge new abstract concept in a study as Glaser (1965) said:

The constant comparative method is designed to aid analyst with these abilities in generating a theory which is integrated, consistent, plausible, close to the data, and in a form which is clear enough to be readily, if only partially operationalised for testing in quantifiable research.

(pp. 437-438)

By using this CC approach which comprises four stages of analysis, this approach develops a new theoretical concept that linear and associates with data and discloses in a clear form of presentation for further study. It consists of comparing circumstances, integrating categories, determining the theoretical limit, and writing the new theory. In this study, each stage of open, axial, and selective coding have adapted this kind of method combined with literature reviews to guide the whole process.

### **The Computer-Aided/Assisted Qualitative Data Analysis (CADQAS) Software Usage**

CADQAS refers to Computer Assisted Qualitative Data Analysis Software. This study used a CADQAS software which was ATLAS.ti (version 7.6). This software is built purposely for the social scientists to analyse the findings and interpret any form of data by using tremendous functions (Muhr, 1991). This software supports all form of data either textual, pictures, sound transcript, and video records. It can assist in the development of theory process by linking codes to form networks. In fact, it is a very useful qualitative analysis software, but the main analytical process of developing, linking, deciding and interpreting codes were done mainly by the researchers.

### **RESULTS**

This study found that there were 117 free nodes, 15 open codes, six axial codes and four selected codes. The codes resulted from CC analysis combined with literature guides to generate new abstract ideas in this study.

The open codes emerged from 117 free nodes are Procedure, Crime Scene Investigation, Crime Scene Investigation, Maxims, Forensics Principles, Practical, Recognition, Criteria of Experts, Identification of Deceased, Biological Aspects, Persons Involved, Physical Aspects, Cases, *Dalail al-Hukm*, Witnesses, Chain of Custody. These open codes were then built the six axial codes of; Experts, Forensic Scientists, Islamic Legal Foundation, Legal Aspects of Forensic Science, Accreditation, and Forensic Basics. The selective codes are: 1. Forensics Jurisprudence, 2. Human Capital, 3. Forensic Analysis, and 4. Accreditation.



**Figure 1: Open, Axial and Selective Codes Overview<sup>1</sup>**

Figure 1 displays on the relations of each code with the outer round signifies open codes, the middle round is axial codes, and the inner round is selective codes. The colour purposes to sort the relevant codes that interlinking with each other to form the theory.

## DISCUSSION

This study shows that forensic science elements do exist in the classical legal scripts of circumstantial evidence literature in Islam. It signifies an interaction between forensic science and religion in terms of Islamic law. The used of authentic reference in Islam as theoretical samples in this study corresponds with Nasr (2010) who said:

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Islamic sciences always relate to the existence of God and His authoritative power, whereas for the modern sciences, God is irrelevant to sciences.

(p. 3)

It stitches back the gap between the religion and science especially in the relations of forensic science and Islamic law. The theory developed from this study emerged four key fundamentals that need to be explored more in terms of each component. This is in line with Ramli *et.al.* (2014) who said:

All the modern scientific and technological principles must be filtered by Muslim scholars before they are exposed and practised.

(p.41)

More research should be conducted in detail accordingly to the key fundamentals developed by the theory.

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#### **CONCLUSION**

All in all, this study develops a new framework theory corresponding with the fundamentals of forensic science and its integration with circumstantial evidence in Islam. This theory opens a new field of research area under the related topics. Syncing back to the previous literature, this study enlightens the view of the literatures to be pinned under key fundamentals emerged from this framework theory. This study claims that more research that needs to be conducted within this integration field as the world has never separate religion and science.



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