

Refereed Study

**Authority of the Electronic
Document**

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All praise belongs to Allah who has guided us to Islam; we would not have been guided to it had it not been for Allah's guidance, and peace and blessings be upon the most honourable Prophet, Muhammad, his family and companions.

Knowledge of jurisprudence is one of the most sublime sciences; therefore, the Wise Legislator (Allah) has exhorted Muslims to master it: "And it does not beseem the believers that they should go forth all together; why should not then a company from every party from among them go forth that they may apply themselves to obtain understanding in religion, and that they may warn their people when they come back to them that they may be cautious."² The Prophet (peace and blessings be upon him) also encouraged Muslims to be knowledgeable in the religion. Mu'awiyah bin Abi Sufyan (may Allah be pleased with him) narrated that he heard the Prophet (peace and blessings be upon him) saying, "Whomever Allah wishes well for, He gives him understanding in religion."³ Knowledge of religion includes discerning *Sharee'ah* provisions on modern events and cases.

The rapid change that the modern world is undergoing and the continuous development of telecommunication means, information systems, contracting procedures and the execution of transactions require scholars of religion to give these issues special attention. The Islamic *Sharee'ah* is valid at all times and places, and any case or event that may take place is invariably provided for in the divine legislation. All that required from scholars of jurisprudence is to discern provisions on these new changes based on the provisions and rules of the Islamic *Sharee'ah*.

One of the modern issues is the electronic document and whether or not it may be taken as evidence in positive and negative substantiation.

To tackle this vital issue, I have divided this study into an introduction and two topics, as follows:

Introduction: This comprises two sections:

1st section: Definition of electronic document, and

2nd section: Definition of substantiation

Topic One: Means of substantiation in the *Sharee'ah*; this comprises three sections:

² *Al-Tawbah*; 122.

³ Reported by Al-Bukharee; Part on Whomever Allah wishes well for ; see *Fath Al-Baaree*, 1/197 and Muslim, Part on Forbiddance of Begging; see also An-Nawawee's *Commentary on Muslim Authentic Book of Hadeeth*, 7/128.

1st section: Means of substantiation,

2nd section: Writing and its authority in substantiation, and

3rd section: Substantiation of electronic crimes.

Topic Two: Means and authority of electronic substantiation. It includes three sections:

1st section: Authority of electronic signature,

2nd section: Authority of electronic authentication; and

3rd section: Authority of electronic encryption

Conclusion: This includes the most important conclusions reached from this study.

I cannot claim to have reached the true divine judgment; all I can say is that I have, like all others, done my best to find the truth. If I have been correct, it is the grace of Allah that guided me, for which I thank Allah; and if I have been wrong, it is an excuse for me to say that I meant to find the truth for the sake of Allah. All I meant by this paper is to empower the divine law, to which end I have exerted every effort possible. I would like to ask readers to inform me of any error that I may have committed, for everyone is prone to fault except the Almighty Allah. Deeds, after all, are judged by intentions. Peace and blessings of Allah be on our prophet, Muhammad, his family and companions.

Section One

Definition of Electronic Document

A document "Watheeqa, plural "Wathaa'iq" linguistically means a physical or virtual writing or a record that conveys the intent of the writer; hence, the act of documenting is the process of making a document with the aim of substantiating a form of intent.

An electronic document can be defined as any body of information separate or separable from the data processing system prepared to be used by or derived from the electronic data processing system.⁴

This means that the electronic document represents computer outputs, be it in a printed hard copy or a digital form saved on a magnetic tape or compact drive.

The electronic document usually includes the electronic record which contains electronic data created by an electronic data system. These data can be retrieved or obtained in an understandable form and used in electronic transactions.

⁴ *Criminal Guide to Computer and Internet Crimes*, p. 163.

Section Two

Definition of Substantiation

The Arabic term "*ithbaat*" is the noun of the verb "*athbata*", which means to know something well or to provide evidence for something.

Moreover, the word "*thabata*" indicates that something is known, proven and unequivocal. Therefore, "*athbata*" is to provide a substantiating argument.⁵

Technically, jurists have used the linguistic meaning of the term "*ithbaat*" to indicate a form of a substantiating argument. However, common juristic use of the term suggests both a general meaning and a special one. Jurists sometimes use it to mean 'providing an argument substantiating a right or an event before a judge or any other person at the time of litigation or even before it'. They even use the term to mean 'documenting rights and debts or writing down minutes of meetings or claim statements and legal deeds by a notary public'.

However, the term is sometimes used to suggest a special meaning, namely 'to provide evidence or argument to a judicial body in the manner specified by the *Sharee'ah* to substantiate a right or an event with legal implications'. This latter meaning is the fulcrum of our present study.

⁵ See *As-Sihaah* by al-Jawaahiree, 1/245 and *Lisanul Arab*, 2/19

Topic One

Means of Substantiation in the Islamic *Sharee'ah*

This topic consists of three sections, as follows:

1st section: Means of substantiation

2nd section: Writing and its authority in substantiation, and

3rd section: Substantiation of electronic crimes.

Section One: Means of Substantiation

Jurists differ as to the means of substantiation as follows:

First Opinion

The majority of jurists argue that the means of substantiation are limited to those explicitly stated in the texts of *Sharee'ah* or those implicitly derived from them, like testimony, declaration and oath. Even the advocates of this opinion differ as to the number of substantiation means: some of them say they are seven, others say they are six and even some others say they are three.⁶

Second Opinion

The advocates of this opinion argue that the means of substantiation are not limited in number; they include anything that proves or documents a certain right. This opinion is adopted by a group of scholars including Ibn Taymiyah⁷ and his disciple Ibn Al-Qayyim.⁸

Proofs of the First Opinion

The advocates of the first opinion provide a number of texts that indicate a specific mean of substantiation. For example, Allah's statements "And get two witnesses of your own men, and if there are not two men then a man and two women such as you choose for witnesses..."⁹ and "O you who believe! Stand out firmly for justice, as witnesses to Allah, even as

⁶ *Haashiyat Ibn Abideen*, 5/550; *Al-Ashbah wal Nadhaa'er*, Ibn Nujaim, p. 98; *Juridical Laws*, p. 294; *Al-Haawi*, p. 13 and *Kashaaf Al-Qinaa'*, 6/348.

⁷ *Majmu' al-Fataawa*, 35/392.

⁸ *At-Turuq al-Hukmiyah*, p.12.

⁹ *Surat Al-Baqarah*: 282.

against yourselves..."¹⁰ specify two means of substantiation, the latter expressing a means of confession. Moreover, the Prophet's saying: "The burden of proof is upon the claimant and the taking of an oath is upon the one who denies (the allegation)"¹¹ and other texts specify the means of substantiation.

Proofs of the Second Opinion

The advocates of the second opinion argue that the Prophet's statement, "The burden of proof is upon the claimant..." indicates any means of evidence to the truth of anything. Therefore, the term "evidence" is more general than the one used by jurists, the latter being limited to two witnesses or a witness and an oath. They also add that the legislator means to prove the truth of something through any evidence that testifies to it. Moreover, they state that substantiating a right cannot in any way be limited to a certain category of evidence when all types of evidence that lead to the unequivocal truth of some act or thing should be treated on an equal footing.¹² According to them, the substantiating evidence is anything that proves the truth; the Qur'anic statement about the two witnesses has never meant substantiation, for substantiation means providing an argument or evidence that testifies to the truth of the claimant's allegation, which is sometimes stronger than a witness's testimony.¹³

Therefore, it cannot be said that the means or ways of substantiation are limited to a specific number. Hence, the texts cited by the majority of jurists state part of and not all means of substantiation.

To conclude, we can say that the means of substantiation cannot be limited to a certain number or special ways; they are open and limitless. Every means of substantiation that testifies to the truth of any right and uncover the whereabouts of an event can be reliable as judicial evidence.¹⁴

Section Two: Writing and its Authority in Substantiation

Scholars differ as to the authority of writing in substantiation as follows:

¹⁰ Surat *an-Nisaa'*: 135.

¹¹ Reported by at-Tirmidhi, *Sunan at-Tirmidhi*, Book of Rulings, Part on "The burden of proof..."; Ibn Majah, *Sunan Ibn Majah*, Book of Rulings, Part on "The burden of proof ...". Ibn Hajar, in *Fath al-Baree* said it is a good *hadeeth*.

¹² *A'laam al-Muwaqi'een*, 1/146 and *at-Turuq al-Hukmiayh*, p. 6.

¹³ *at-Turuq al-Hukmiayh*, p. 12.

¹⁴ *Means of Substantiation*, 2/615.

The First Opinion

According to the majority of jurists, writing has no authority as a means of substantiation.¹⁵ They argue that handwritings can be similar and confusable. A person might imagine that two handwritings are similar or belong to the same person while in actual fact they are different and belong to two different persons. They also state that writing can be forged or imitated, and hence it cannot be considered as a means of substantiation.¹⁶

The Second Opinion

The advocates of this opinion argue that writing is a legal means of substantiation. This opinion is adopted by the Malikees¹⁷ and is reported to be one of Ahmad's views which Ibn Al-Qayyim has chosen.¹⁸ They stated that Allah orders us to write thus: "O you who believe! When you deal with each other in contracting a debt for a fixed time, then write it down..."¹⁹ According to them, writing is used to document transactions in order that it would be relied on in case a right is denied; and therefore, writing should be considered as a means of substantiation. They also argue that the Prophet (peace be upon him) wrote to kings and others as a proof that he preached the message to them. The followers of the *Hadeeth* School are unanimous on the fact that the narrator of the Prophet's sayings may rely on written papers. Had these scripts not been used, the Prophet's *Sunnah* would have been lost, "for there is nothing in the hands of people besides the Book of Allah except these scripts".²⁰ They also cite the Prophet's saying: "It is not permissible for any Muslim who has something to will to stay for two nights without having his last will and testament written and kept ready with him."²¹ They add that had it not been legitimate to rely on writing, having someone's will written would not have been of any use. I believe, and Allah knows best, that the second opinion is weightier given the strong proofs that support it. To those who allege that writing can be forged or imitated, it can be said [to them] that other means of

¹⁵ *Haashiyat Ibn Abideen*, 5/435; *Tabsiratul Hukkam*, 1/356, *al-Muhaddhab*, 2/306 and *at-Turuq al-Hukmiyah*, p. 210.

¹⁶ Means of Substantiation, 2/423.

¹⁷ *Tabsiratul Hukkam*, 1/356.

¹⁸ *At-Turuq al-Hukmiyah*, p. 205.

¹⁹ *Surat Al-Baqarah*: 282.

²⁰ *At-Turuq al-Hukmiyah*, p. 205.

²¹ Reported by al-Bukharee, Book of Wills, *hadeeth* # 2738 and Muslim, Book of Wills, *hadeeth* # 1627.

substantiation are prone to forging, but this does not reduce their authority as means of substantiation.

A case in point is the Electronic Transactions Law applicable in Saudi Arabia which states that an electronic document is equal to a written one. Article 6 of the law states: "If any law applicable in Saudi Arabia stipulates a document or information for any reason should be kept, or stipulates that the information should be in a written form, the said condition is considered to have been met if the document or information is kept or transmitted in an electronic record provided that the following is observed:

a. The electronic record should be kept in the created, transmitted or received form or in any other form capable of substantiating that its content matches the one created, transmitted or received.

b. The electronic record should be kept in a manner that permits use and retrieval.

c. The electronic record should be accompanied by the information that enables identification of the originator and consignee as well as the date and time of transmission and delivery."²²

Therefore, novel substantiation means like the electronic document can be admitted as a complete substantiation way as long as they fulfill the same purpose of writing and are as secure as writing even though there is a general concern about the question of the power of authority of an electronic document due to the ways used in forging an electronic document, how such forging can be discovered and to what extent it is possible to discover forgery. More often than not, proving an electronic document to be a forged one is the business of IT experts.²³

Section Three:

Substantiation of Electronic Crimes

The preponderant use of computers and other modern technological products in the field of communications and information has led to the prevalence of a variety of crimes that resulted in huge losses and damages. These crimes include:

²² Electronic Transactions Law Motion, Ministry of Telecommunications and Information Technology, Saudi Arabia.

²³ Dr. Hijazi, Abdul Fattah Bayyoumi, *Criminal Guide to Computer and Internet Crimes*, p. 163.

- Damaging computer operating systems,
- Damaging computer software and their contents,
- Stealing information, especially that related to intellectual property rights,
- Forging and disrupting computer documents and outputs,
- Entering incorrect information, and
- Accessing and tampering with computer software.

Electronic crimes can be classified into two types:

The first type includes the use of computers as a tool to commit conventional crimes like stealing and the second type includes targeting computer and information systems.

Examples of both types include the following:

- Hacking into and destroying internet sites,
- Defamation,
- Hacking into e-mails,
- Flooding e-mail inboxes,
- Racketeering and robbing through computers,
- Forging electronic documents, and
- Accessing information networks without authorization.

Electronic crimes are of the most salient obstacles to the spread and development of information technology. These crimes have recently become remarkable. Therefore, it has been necessary to substantiate these crimes.

The majority of tools used in electronic crimes are available on the net either because the laws of many countries do not prohibit such tools, as they may be uncontrollable, or because they have other useful uses. Major countries have tracking tools to identify electronic criminals. For example, the source of a virus or a hacker can be identified.

Electronic crimes can be substantiated in several ways including the following:

1. Tracking criminals either through an e-mail message received from the criminal or through the location of the system used in committing the crime;

2. Protecting the scene of the crime from any change that may take place after committing the crime so that the traces that can be used to discover the crime would not be removed.

Many internet users may not know that their sites are prone to the tampering of hackers. They only discover such crimes a long time after their domains are tampered with or damaged. Although several products and services are available to detect intruders, network specialists might not know when a crime has taken place because tools used by hackers are changing constantly.²⁴ However, several electronic means can be used to substantiate electronic crimes.

²⁴ Arab, Yunous, *Privacy and Information Security*, p. 17.

Topic Two

Means and Authority of Electronic Substantiation

Section One: Authority of the Electronic Signature

The electronic signature is a small file issued by a specialized and governmentally recognized body where the name and particulars of the signatory along with the date and number of the signature certificate and source can be stored. The signature certificate is provided with two public and private keys. The signature can be used for any electronic documents that are intended to be considered legal and credible.

This tool is activated by encrypting the electronic document using the public key and transmitting an electronic message accompanied by the electronic signature. The receiver's software transmits a copy of the electronic signature to the authentication body to check the validity of the signature. The electronic system of the authentication body reviews the signatory database and checks the validity of the signature. The result is fed back to the receiver who can read it through his public key and hence can answer the transmitter in the same way.²⁵

Electronic signatures have received special attention at the international level. Several laws have been issued on ways of substantiating transactions carried out using the electronic signature.

Moreover, several rules have been laid down as to the authority of an electronic signature. These include the following:

- The electronic signature should uniquely be linked to the signatory;
- The signature should be created using means that the signatory can maintain under his sole control; and
- The signature should be linked to the data to which it relates in such a manner that any subsequent change of the data is detectable.

The main use of the electronic signature is to identify the signatory and distinguish him from others through a number of general and special guarantees which give it authority as to confirmation or negation.

However, legislators are divided over equating an electronic signature with a handwritten one. Some of them consider both types of signatures

²⁵ Abul So'oud, Sayed Mustafa, 2002, *Questions on Computers*, International Publishing and Distributing House.

equal, especially that forging a handwritten signature is much easier than finding passwords or different forms of electronic signatures.²⁶

Public keys provide the capability of maintaining confidential information and verifying the identity of the sender. When two parties, the sender and the receiver, trust a third party who issues them privacy keys and maintains them for the purpose of identifying these parties, this third party is known as the authentication body. Moreover, when more than one authentication body exist, they would have mutual authentication, and hence the collective body is called the public keys infrastructure which aims at establishing absolute trust with regard to completing transactions through the worldwide web. Thus, a mechanism for issuing, authenticating and managing public keys necessary for protecting the safety and confidentiality of information exchanged through public networks is established, and the parties to these transactions can be validated and authenticated.²⁷

The main goal of the electronic signature is that it testifies to the signatory's agreement to the transaction and hence gives it authority in confirmation and negation according to the *Sharee'ah* and law. Moreover, it electronically identifies the parties of the transaction.

Therefore, several laws on electronic transactions have considered the electronic signature a proof of the agreement of the person from whom the said signature is issued.

Article 7 of the law of the United Nations Conference on International Trade-Related Laws (UNCITRAL) states that a signature of a person should be affixed to a document as a means of identification and approval of the information issued by him.²⁸

The Model Law of Electronic Signatures states that the electronic signature signifies the signatory's approval of the information contained in the data message.²⁹

Thus, the electronic signature identifies the electronic signatory and is the only way to verify his personality from the juristic point of view and testify to his action. Consequently, it is a way of substantiation; for it

²⁶ Dr. Sharafuddin, Ahmad, *Electronic Signature*, E-Commerce Conference, Cairo, 2000.

²⁷ Dr. As-Suwayel, Muhammad bin Ibrahim, *Role of Public Keys Infrastructure in Supporting Electronic Governments*, Institute of Public Administration, Riyadh.

²⁸ UNCITRAL Model Law on E-Commerce, United Nations General Assembly's Resolution on International Commercial Law No. 85 dated 16.12.1996.

²⁹ Model Law on Electronic Signatures, Resolution of the UN Committee on International Commercial Law No. 56/80 dated 24.1.2002.

establishes the truth of the dealer as conforming with the intents of the Islamic *Sharee'ah*. Any way used to establish justice and truth agrees with the provisions of religion and cannot in any way contradict it.³⁰

Section Two: Authority of Electronic Authentication

Electronic authentication is based on the confirmation that the used public key actually belongs to the sender of the message, that it identifies his personality and that it is valid. The authentication agency usually issues digital certificates that are used to confirm the identity of the person who controls the electronic signature system. The said certificate contains information that enables verification of the signature for which the signatory is held responsible at the time of delivery of the certificate and proves that the relationship between the holder of the certificate and the electronic data contained in it . He is also responsible for the damage that the person who trusted this service may incur.³¹

Electronic authentication is normally provided by state-approved agencies. This gives the certificates they issue authority, which is a key factor in the integrity of the electronic document to which an electronic signature authenticated by electronic authentication agencies is affixed.

We have already stated that substantiation signifies any evidence that establishes the truth of something. As such, certificates with all these safeguards against forgery should be used as means of substantiation. They have the full authority to confirm or negate liability. The stronger the safeguards are provided for these certificates and associated signatures, the more authority they will have.

Section Three: Authority of electronic encryption

Most electronic communications are carried out in plain text, but the need for encryption is increasingly necessitated by the requirements of safety for commercial transactions. Encryption is defined as transferring information into a language that is not understood by persons unauthorized to have access to it.

Keys are used in encrypting information. These keys are based on algorithms which add to the effectiveness of encryption especially if they are associated with long bit keys. Hence, decryption is a process through which information is restored to its original format.

³⁰ *At-Turuq al-Hukmiyah*, p. 14.

³¹ Saudi Electronic Transactions Law Motion.

Encryption is closely related to electronic signatures, for encryption is a change to data in a manner that makes them unreadable except by the receiver through the use of the decryption key. The technology of the public key provides this feature for the sender and the receiver. It is used for both encryption and decryption; hence, the relationship between the electronic signature and encryption as the former is an encrypted electronic seal held by the signatory.³²

Encryption technology gives the encrypted electronic document authority in terms of substantiation. Some encryption technologies like the Privacy Good Parent_software protect data and make them difficult to decrypt. This, of course, gives the encrypted electronic document stronger authority both in confirmation and negation since authority of a document largely depends on the factors of change and forgery. The more difficult it is to change a document, the more authority it will have, and the other way round.

³² *Legal Challenges to E-Commerce*, p. 7.

Conclusion

To conclude, I would like to sum up the most important points discussed in this paper as follows:

- *Sharee'ah* scholars need to have profound knowledge of modern issues, especially those related to telecommunications and information technology which have dominated many aspects of our life.
- An electronic document is a computer output, either digital or analogous.
- The weighty opinion that agrees with the intents of the Islamic *Sharee'ah* with regard to means of substantiation is that they are not limited to a certain number, for anything that proves the truth is a means of substantiation.
- Modern systems have made electronic documents equal to ordinary written documents under certain terms and conditions that differ from one system to another. However, they are generally related to issues of documentation in order to ensure prevention of forgery or any kind of change to the document.
- The electronic signature is an identification of the electronic dealer and is a means to testify to his juristic personality and acts both in cases of confirmation and negation.
- Electronic authentication gives the electronic document stronger authority for it identifies the person who has written and signed it.
- Electronic encryption is a means of giving the electronic document more credibility in both confirmation and negation given that there is special software that is very hard to break in an effort to change the contents of the encrypted document.

Finally, I pray to Allah to make this study useful. May Allah have peace and blessings upon our Prophet Muhammad, his family and companions.