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Admissibility of Electronic Evidence in Islamic Law and US Law- Need for a New Corroboration Theory

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Abstract

As the nature of civilization change with the passage of time, both in social and technological terms, the rules of legislatures must also change accordingly." Electronic evidence has embedded deep into the roots of society. It requires a new corroboration theory for Islamic law accordingly. As electronic evidence possesses a different nature than physical evidence. Sometimes it is regarded as documentary evidence, sometimes as circumstantial evidence and sometimes as something purely dependent on technical opinion. Previously oral testimony had prime importance which was replaced with documentary evidence and now electronic records. These changes must be incorporated by Islamic law theories as well. In fact, there is a need to over howl previous principles of Islamic law and replace the new one's which are appropriate and not repugnant to philosophy of Sharī'ah. The present research shall try to slightly contribute to this important point.

Key words: Documentary evidence, circumstantial evidence, electronic evidence, expert testimony

1. Introduction

Electronic data and cyber security issues are subject matter of heated debates worldwide these days. Electronically stored information has embedded deep in the roots of society. Since most of the information is stored electronically, including emotions on social media to business records in large data houses. In fact, most of the institutions are dependent on electronic means. So, institutions cannot survive even for a few hours without ICT[1]. Eventually disputes are also on the rise due to unwarranted use and transfer of electronic information.

Law making institutions throughout the globe have proactively welcomed

the new cyber revolution by equipping them with updated laws for electronic evidence. Islamic law perspective, on the other hand, is not that actively expressed by the Islamic Jurists, so far. There is less research on these issues from Sharī'ah perspective.

As the whole world has updated their legal systems, in order to incorporate changes required by the High-Tech revolution. Islamic legal system needs to incorporate theory based on modern means of proofs. There is no denying the fact that Islamic law does not provide explicit rules for electronic evidence. However, it does provide important 'general principles' that can be used to test the standards advocated by modern law with a view to ascertain their compatibility with Islamic Law.

Hence, present research is aimed at exploring the existing theories of evidence trying to update them-keeping in view the inevitable changes. And adding the innovations in Islamic law which are not repugnant to the objectives of Sharī'ah. This research shall first discuss the definition of electronic evidence and its different nature. Afterwards role of digital forensic experts in common law followed by expert testimony and its authentication in classical Islamic courts shall be discussed. Then documentary evidence and its journey of transition shall be discussed. Islamic law on documentary evidence shall be discussed to highlight the need of new corroboration theory. Concept of circumstantial evidence and changes in the concept shall be briefly discussed in the end.

2. Definition of Electronic Evidence and it's Different Nature

Electronic evidence can be defined as,

> "Any data stored or transmitted using a computer that support or refute a theory of how an offense occurred or that address critical elements of the offence such as intent or alibi. The data referred to in this definition are essentially a combination of numbers that represent information of various kinds, including text, images, audio and video." [2]

Electronic evidence can also be defined as; "information and data stored on, received or transmitted by an electronic device". [3]

Following are the characteristics of electronic evidence;

- Hidden nature, for instance, finger prints and DNA etc.
- Easily alterable or capable of destruction.
- Boundary less or having no jurisdiction.
- Time is of essence. [4]

Above characteristics reveal that the nature of electronic evidence is quite different from physical evidence. Based on that different classifications of electronic evidence are made. There are three types, which are made according to the degree of human participation;

1. Computer Generated Data: This type does not involve human intervention. Examples are data logs, telephone connections, and ATM transactions etc. Generally these records do not require testimony. The lawyer has to establish that the computer program was working properly at that time.[5]

Or the system that generated the evidence, generated in the ordinary course of business and the system can be verified by the one maintain the record.

Computer Stored Data: As the name suggest this type of document involve those documents which are stored in computer, i.e manually fed data. This documents includes, the records of activities written by humans. For example, emails, word processing files and messages. From the evidential point of view, it would be necessary to establish that the content of the document is a reliable record of human statement. Here the witness who created the document must testify about the reliability. Or a person who is custodian of the records may testify about the authenticity. [6]

Computer Stored and Generated Data: Records consisting of a mix of both human input and calculations generated and stored by a computer. Example of this type may be of spread sheet that contain human statements (input to the spreadsheet program), and computer processing (mathematical calculations performed by the spreadsheet program).[7]

Above mentioned types are discussed in, Elf Caledonia Ltd v London Bridge Engineering Ltd[8], as well, where it was rightly pointed out by the judge that it is not always possible for the person who fed the data in computer to come and testify. So there should be some limits of such testimonies also.

Apart from the above classifications, nature of electronic evidence is quite more broad and complicated. In modern legal systems, sometimes electronic evidence is considered as documentary evidence, while at other as circumstantial evidence or as real evidence. Whatever the case may be, electronic evidence are essential for legal trials nowadays and their abundant existence cannot be ignored.

As far as treatment of electronic evidence as documentary evidence is concerned, it has almost been unanimously agreed world-wide that electronic evidence is documentary evidence. Most of the countries around the globe have ratified their definitions of documentary evidence and included electronic evidence in it. For instance, UNCITRAL Model law[9], Qanun-e-Shahadat Order [10] or Uniform Act of Australia [11] etc. Most of the European countries have endorsed in their legislations that electronic evidence is documentary evidence. [12]

As far as the circumstantial nature of electronic evidence is concerned, there are a large number of judgments and case laws which treat electronic evidence as circumstantial evidence. Especially, when there is anonymity of authorship or doubts about the creator of the data, circumstantial evidence plays important role. [13] Like, when a child was killed in a hot car, Google history played a vital role to catch the criminal. [14] Other cases, among many are, U.S vs. Simpsons[15] and Christian Augilar Case[16]

Apart from all the above discussion, sometimes electronic evidence is considered as something wholly dependent on technical opinion, i.e expert testimony. So the role of digital forensic experts is essential for electronic evidence. Based on the above mentioned three attributes of

electronic evidence, expert testimony, documentary evidence and circumstantial evidence, stance of common law as well as Islamic law shall be explored in the above areas, to ponder that whether a new corroboration theory in Islamic law for electronic evidence is required or not?

3. Role of Digital Forensic Experts in Electronic Evidence

Western law has discussed the criteria of qualification of digital forensic expert in great detail. It is upon the discretion of the judge to decide whether an expert opinion is required in a particular case or not and whether the opinion of the expert is reliable or not? The preliminary question to be decided, in cases of digital forensic expert is, whether the expert is competent or not? Although it is expressed by the court that the judge should avoid unnecessary satellite litigation and exercise the discretion sparingly.

Three things need to be established in these cases;

(i) The field of expertise,

(ii) The witness is a qualified expert,

(iii) The matter to which the material relates is not within ordinary human experience - "common knowledge". [17]

As stated above, for acquiring witness's testimony, the judge has to keep in mind two aspects; whether or not the digital forensic expert carries any special qualification or experience regarding the subject matter, whether or not his opinion is acceptable due to some other incentive. An opinion acquired by the digital forensic expert, who does not have any special experience or knowledge is a question of weight, not admissibility. [18]

Knowledge that is taken due to experience at work without special knowledge is acceptable too. For example, in the case of *R v Oakley*[19], the opinion of a police officer was admitted regarding a road accident. The officer had 15 years' experience in the field of traffic division, who attended and passed a course as an accident investigator and attended over 400 fatal road traffic accidents.

As far as expert testimony in US legal system is concerned, since 1923, the role of experts is based on Frye dictum.[20] According to this rule, it is the role of the judge to check whether a scientific position presented before the court is the accepted position of the relevant scientific community. In 1993, the Daubert precedent[21] replaced the Frye rule. Which stated that following the condition of "general acceptance" rigidly may come out with odds with the rules meant to traditional barriers to "opinion testimony".[22] It was observed by the court that "Frye made "general acceptance" exclusive test for admitting expert scientific testimony. The court should also make sure that evidence is reliable.

The court further observed that the expert must be proposing to testify to

1) Scientific knowledge that,
2) Will assist the trier of fact to understand or determine a fact in issue.

There are four questions to be answered in order to satisfy the above two question. The first one is whether that scientific knowledge can be tested. Second

one is that whether the theory has been subject to peer review or publication. Third most important thing is that with respect to particular scientific technique, court should know or check the rate of error. Fourth one is whether the theories are subject to standards governing their application. To check the standardization. These techniques are suggested by the court in order to prove the reliability of scientific knowledge.[23]

At this time, it can be analysed that initially (earlier in 20th century), the tests for expert testimony were not that many and the opinion was supposed to have popular position in scientific community. But with the passage of time the number of tests increased with deep analysis of expert opinion. So the chances of misguidance from the part of experts became very low. Expert testimony nowadays is more like a technical opinion which can easily be corroborated by the court. Similarly, in Islamic law there are two ways of dealing with expert testimony. One of the group treat it as testimony and other treats it as narration. In case it is treated as a narration, one opinion is sufficient but if it is treated as a testimony it should complete number of witnesses like ordinary witnesses and expert should have just character.

3.1 Expert Testimony in Islamic Courts and Guide lines for Electronic Evidence

The testimony of expert witnesses has had an important role in Sharī'ah courts. The rationale behind it is well illustrated by the following Islamic legal maxim, that is "with respect to each craft, seek the assistance of the best practitioners of the same craft *(ista'īnū 'alā kull ṣan'a bi-ṣāliḥ ahlihā)*." [24] This maxim is a quotation of a tradition of Prophet (PBUH) in the incident of the Companion of Prophet, Sa'd b. Abī Waqās, who got ill and Prophet (PBUH) came for treatment. The condition of the patient was not good enough and Prophet (PBUH) realized that some expert needs to examine him. That is why, he called upon al-Ḥārith b. Khlādah from the tribe of Thaqīf, who was known as an expert physician (*rajul yuṭabbib*) at that time.[25]

The basic rule which relates to the accommodation of modern means of proof, including forensic evidence, is founded in a tradition of Prophet (PBUH), in which he declared, as part of his universal inauguration of Islamic legal proceeding, that technical knowledge and human expertise are something other than revelation. Technical knowledge needs to be proved after proper foundation of evidence and proof. This can be proved by his famous saying in which he declared that: "Since I am only a human, like all of you, I might, when litigants come before me to decide between them, rule in favour of more eloquent of them. If I thereby transfer to him what is rightfully his brother's, I warn him to take not that which is not his, or I shall reserve for him a piece of Hell."[26]

The reason why experts were indispensable to the judges was that, some indications (adilla, sg. Dalīl) were only known to the experts through professional experience. Only they could testify as to the existence of things which were hidden from the layman's eyes. It is phrased as man lahu al-baṣar [or al-naẓar] fī

dhālik al-bāb, in Islamic law books.[27] For instance, Imām Sarakhsī states if a woman is accused of adultery and she says that she is pregnant. Her testimony will not be admissible until she is inspected by female experts. Expert testimony would be the basis for delaying her ḥadd punishment till delivery and lactation.[28]

Similarly, in al-Mabsūṭ, Imām Sarakhsī[29] justifies the recommendation to judge to consult expert witness, on the general principle given by Quran;

فَسْـَٔلُوٓاْ أَهۡلَ ٱلذِّكۡرِ إِن كُنتُمۡ لَا تَعۡلَمُونَ [30]

"Ask those who know [ahl al-dhikr] if you do not know".

Case of electronic evidence lies in the same category. It includes knowledge beyond understanding of a common man. For that consulting an expert is also important and comes under the ambit of above mentioned verse.

3.2 Authentication of Expert testimony

Probability of expert testimony is a common problem both in Islamic and Western law. This problem has been dealt in both legal systems differently. Islamic law treats it by debating the status of expert testimony. That whether the expert opinion would be treated as a testimony or a report (khabar)? Western law on the other hand, has dealt the issue of probability of expert testimony in great detail. The reason being, that most of the problems lying in it are being confronted. Electronic evidence and modern means are dealt there on daily basis.

Classical Islamic Jurists debate on whether treating expert testimony as testimony (Shahadah) or a report (Khabar). If one witness is sufficient, then the juristic justifications for relaxation of evidentiary requirements should be known. Numerous examples are discussed in classical Islamic Law, in which the jurists have differed in opinion as to the requirement of number of witnesses in each matter.

For instance in the matters related to evaluation of property, value of damages to both movable and immovable property and rental prices, etc. Ibn Abidīn requires testimony of two expert witness. He is of the view that two experts from the same field shall report. Imam Sarakhsī is of the opinion that if the matter pertains to the value of the stolen property, two witnesses are required. He says that if both the experts differ in their opinion and one says that the amount is less than nisāb of theft i.e. ten dirhams, and the other says it exceeds nisāb, then the ḥadd punishment for theft will be prevented due of presence of doubt (shubha).

Imam Malik permits testimony of one witness in matters related to property. The Maliki jurist Qarāfi disagrees with Mālik. They are of the view that assessment is more similar to testimony than transmission. Similar debates are there in the matters of `divider (qāsim)[31], physiognomy (qiyāfa)[32]

Examination of the Islamic law clearly shows that sometimes jurists treat expert testimony as report and sometimes as witness and require number of experts explicitly mentioned in Qur'an and Sunnah. Sometimes Prophet

(Blessings and Peace of Allah be Upon Him) relied on the opinion of one expert. Like Zaid b. Thābit translated Jewish scriptures for Prophet (Blessings and Peace of Allah be Upon Him).[33] Such cases encourage the jurists to make an opinion on the expert testimony just like a matter as transmission of Hadith. Which means one witness is enough.

Following the above facts, it can be analysed that there are two ways of dealing with expert testimony i.e like a testimony or a narration. It has been observed above that in US legal system with the expansion of knowledge and field tried to put a number of tests on expert opinion. Hence, the tests purify the testimony from doubts. Same is the case with Islamic law, acceptance of narrations of Prophet (PBUH) were subjected to strict tests in the time of classical Islamic law. And once the conditions of narrations would apply, conditions of testimony does not apply.

Here in Islamic law, expert testimony should be subjected to tests of reliability, just like common law and US. Legal system, then it can be treated as a narration. . The nature of electronic evidence require that technical opinion given by digital forensic expert must be based on theories which are accepted in the relevant field of knowledge and subjected to proof. So, if these conditions are satisfied, it is not important to have an expert of just character and fulfilling the number of witnesses is also not very important. Here the theories are important. The trust of court is not on the character or words of experts rather on theories presented by him or her.

4. Documentary Evidence (Al-Kitābah)

Throughout the historical periods, societies created their laws and procedures through which humans could get social validations for their actions. In the middle ages individual honours and social validations in court of laws were achieved through oral testimony, who were called in court to testify about the moral character of a person. In that time oral testimony was considered as the strongest mean of proof. And the decisions were not based on legality or illegality or commission or non-commission, of a deed. Accountability was socially conducted at that time through words of humans.

After centuries, written documents slowly permeated in the society, as secondary evidence. The text of deeds were testified by human beings. Seals and signatures on the documents accommodated the oral tradition's emphasis on the identity and status of the witness, rather than on the content of the evidence itself. Formal aspects of the texts like lay out designs, and script-identified the authority behind the document.[34] Nowadays in the modern world trust is far more on documentary evidence rather than on witnesses. Because witnesses often perjure. Michael Buckland observed that "modern society seems to have decided that you can make people honest by requiring enough documentation or at least that you can make them more accountable"[35]

This system took years to accept documentary evidence as primary evidence. Oral testimony was required to authenticate. Similarly, when electronic records

were introduced in society, similar doubts and ambivalence about the reliability of such records were there. Hugh Tylor observed proliferation of electronic records and communication as "post literate" era, where high-speed linkages will foster modes of communication analogous to those of oral cultures. [36]

Initially paper based documents were accepted by law with difficulty. Then photo copies and microfilm were introduced. Tylor observed in this regard that "new medium is deeply distrusted until it becomes established and takes on a life of its own"[37] initially photocopies were considered as secondary evidence. But later it was accepted in different laws that photocopies taken out "in the regular course of business" shall be admissible. [38] Same rule was applied to microfilms. Perhaps on of the common test for admissibility of latest types of electronic records is "generated in the regular course of business" and "dependable system". That means a system which is carefully monitored and which can be verified by the program manager. [39]

So the system of dealing with documentary evidence, in common law, has changed with the passage of time. Because these changes were inevitable and could not be avoided. Electronic records if authenticated properly are admissible through out the world.

4.1 Documentary Evidence in Islamic law

There is a significant position of documentary evidence in Islamic law. Qur'ān itself orders to write down the transaction or any debt which is to be returned. Qur'ān explicitly states in Surah al-Baqarah "O ye who believe! When ye deal with each other, in transactions involving future obligations in a fixed period of time, reduce them to writing let a scribe write down faithfully as between the parties."[40] The verse is implying that the parties must put debt transactions in writing. The transactions and debts concluded electronically should also be archived and data must be properly saved, in order to keep a record as per commandments of Qur'an.

Similarly, large number of narrations of Prophet (Blessings and Peace of Allah be Upon Him)'s established the precedent, regarding the orders about drafting legal documents and their enforceability in the court of law. For instance, Prophet (Blessings and Peace of Allah be Upon Him) ordered his companion 'Ali to draw up a document in his name at Ḥudaībīyah.[41] Another example is of Prophet Muhammad (Blessings and Peace of Allah be Upon Him) when he bought a slave from the companion and drafted written document. He commanded his representatives to draft documents.[42]

4.2 Authentication of Documentary Evidence in Islamic Law

Acceptability of documentary evidence in Islamic law is not absolute. The Holy Book itself guides further about the criteria of admissibility. Qur'an explicitly states that "And bring to witness two just men from among you and establish the testimony".[43] After ordering to write down the debt, the same verse necessitates oral testimony of upright witnesses on transactions, in order to prove the authenticity and reliability in case of dispute.

Islamic law also relied on oral testimony. Purgation and presence of specific number of witnesses assigned for each matter, whether civil[44] or criminal[45], has prime importance in the light of Qur'an and Sunnah. It is to be noted that Islamic law emphasized on authentication of witnesses through purgation[46] and proper screening was made sure. According to Imām Sarakhsī, the statement of just and probable witness (shāhid Ādil) is the only source of authentic evidence. [47] Because at that time the character and words of a person was the only source of authentication. But this rule would change with the passage of time. As nowadays humans are not as pious and truthful as they were and secondly there are other means which can corroborate the statements of humans. So in other words, statements of humans can be double checked with technological means. For instance, if a person is saying that he did not send money to the terrorist groups and his bank statement is saying otherwise, it will not be easy for him to deny his bank statement. Then his statement will be corroborated by other means. Like his call records, laptop data or even the confession etc.

In classical Islamic courts, system of relying on oral testimony was going side by side with documentary evidence. In fact, documentary evidences excelled more in classical courts. There is a vast literature on documentary evidence which flourished with the passage of time.[48] It was reported that, there was a body of persons in courts who played a vital role in helping Qādi and in furnishing proofs of proceedings. All the proceedings of the court were recorded by the administrative staff. The records reserved with the name of these accredited persons were reliable proof as documentary evidence.[49]

According to *Ḥanafī* school of thought written evidence is admissible without oral testimony, if there are absolutely no possibilities of falsification of documents and has been preserved in archives of courts. For example, the Maḥaḍir or the minutes of the court are admissible evidence, according to them.[50] Thus, it became a common practice to draw up such documents before Qādi and deposit them back in the courts archives for safekeeping.[51] Such documents were used for legal as well as other assistance and were used without witness. The reason is the fool proof chain of custody of those documents. This approach can be followed more practically in case of electronic evidence. I there is surety about the safe custody or reliable business record. It can be admissible as well.

Hence, the documents free form all errors were compiled and archived in courts. There was a proper system of archiving public documents in the registers of judges and were placed in cabinets of the courts. Such documents were consulted in the time of need as a source of law and were considered a reliable source because the chain of custody was fool proof. Now a days if the mode is electronic place of archival is computer derives or hard disks. There is nothing wrong with it, as long as the documents are authentic. The authentication techniques may vary due to change of mode. But admissibility is not doubtful.

The above court practices from the history show that documentary evidence

had had a vital place in Islamic law of evidence. There is no doubt that Islamic law of evidence is incomplete without documentary evidence. The point evident from the historical facts is that the focus or wisdom of Islamic law of evidence like other laws is to get an authentic and fool proof evidence. Whether it be coming from just (Adil) witnesses or judge's register i.e., self-authenticating public documents or from electronic records. So now in Islamic law there is a dire need to upgrade its corroboration theory according to the current changes approaching in the form of high-tech revolution.

4.3 Application of Islamic Principles of Documentary Evidence on Electronic Evidence

The above-mentioned principles about the admissibility of documentary evidence would be applicable to electronic documents as well. Thus, computer generated evidence would be deemed admissible if the following two tests are applied to it;

1. If the system is generating the evidence "in the ordinary course of business" and
2. The system is "dependable" i.e it can be verified by the program manager.

It has been decided by the legal experts that the system is considered reliable if the business is relying on it in the ordinary course of business.[52]

4. Circumstantial Evidence (Qarīnah)

The word qarīnah literally means "association, linkage, affiliation or genuine evidence". The technical definition in Islamic law is, "some set of information or facts which demonstrate the presence or non-presence of a thing (fact). The evidences of fact must be likely to be proved in the court."[53] It is also defined as, "any signs and indications which show the existence or non-existence of a fact in issue (the thing claimed)".[54]

Proving or disproving a fact with the help of Qarīnah is endorsed by the Qur'an[55], Sunnah,[56] and precedent of Companions of Prophet (PBUH)[57].

Among the greatest suporters of qarina in Islamic law was Ibn Qayīm. He said that "Whosoever refuses to apply al-'Amarāt and al-'Alamāt (qarīna) in Islamic law, verily, he has destroyed many rules and had neglected many rights." [58]

These days meaning of circumstantial evidence has expanded to new technological pieces of evidence as well. Prof. Anwārullah, one of the modern writer on Islamic law treats a number of forensic processes as qarina. Like evidence collected through autopsy, or blood stains, finger prints, footprints, marks of injury or violence on private parts, or presence of incriminating objects, like the weapon of the offence, and tire and radiator marks on the body of victim in case of accident.[59] 'Ibn Qayīm al-Jawzīyyah and 'Ibn Farḥun supported admissibility of circumstantial evidence. Ibn Qayīm stated in his book that "physical indicators are stronger evidence than the testimony of witnesses, because they do not lie. Expert witnesses, by knowing how to interpret physical indicators, or how to interpret the language of things, become indispensable aids

to judges".[60]

4.1 Electronic Evidence

Just like other pieces of evidence, concept of circumstantial evidence has changed and broadened and now includes a number of electronic evidence init. For instance, call records of a kidnapper before and after crime shall be a circumstantial evidence. or bank statements of accused or emails, computer and mobile history are the strongest circumstantial evidence to trace a crime.

Such electronic evidence are of immense importance for the investigation officers. Because these proofs lead to other culprits and usually confession of the accused. Because a person cannot deny history of his computer or mobile. Similarly, proofs like, DNA test, finger prints, call records, text messages (record of the numbers and timings and on which texts are sent). These are the proofs which cannot be denied by the criminals themselves unless backed by a very strong evidence. These are admissible in court by all means subject to the tests of reliability and authentication. The way Islamic law used circumstantial evidence. These new modern means are acceptable in Islamic law.

5. Conclusion

The life of law changes with the change occurring in society. In history those rules and procedures could not survive which could not equip themselves with the latest trends of time. Same is the case of cultures and languages. According to modern trends whole world has updated their legal systems. Otherwise updated legal system is a great hindrance to the development of nations.

Rules of evidence has changed and has incorporated latest means of proof in it. similarly rules of expert testimony changed. Now the role of digital forensic experts is essential in the cases involving electronic evidence. Their duty starts when the electronic system is showing some errors. However, expert testimony is not accepted unconditionally by courts in common law and Islamic law. Theories presented by the experts are corroborated by the judge. Expert opinion in Islamic law was considered as a testimony and sometimes as a report. But now a days keeping in the developments of electronic evidence in mind. Their role should be of a report. Rather than of a testimony.

Western law deals with expert testimony for electronic evidence in great detail than Islamic law. The reason behind is change in time. Classical Islamic law did not confront with such issues. But the principles for admissibility of expert testimony in Western law explained above does not have anything inconsistent with Islamic law. The reason being evidence is a procedural law and not a matter of 'Ibādah (ritual). It only tells how to cater proofs for any disputes. The underlying philosophy of both the legal system in evidence is the same, to get reliable and authentic evidence. The methods may vary but end results are the same. Thus as far as such methods pertaining to modern technology have never been refused by the Prophet (Blessings of Allah and Peace be Upon Him) and his Righteous Caliphs, thus admissible in Islamic law as well.

As far as documentary evidence is concerned, in classical period when

evidence was physical, the stress was on credibility of paper or person. It required that document should not be forged, and purgation of witness was made sure as the credibility of document or evidence was based on oral testimony. Case is different in electronic evidence, since the mode is virtual, so the focus is placed on reliability of system. The system that generates the evidence must be reliable or trust worthy. Computer auto-generated evidence is considered authentic and does not need signatures if the system from which it is generated is trust worthy. System is considered as reliable used during the ordinary course of business. In such types of evidence witness is not required. In case of computer stored evidence testimony is required for the part, which is fed by human being.

Purpose of both Islamic and Western law of evidence is same, that is, to get authentic evidence. Being sure about doubt less evidence does not depend on paper or human being only. If that surety comes from electronic evidence, then it is admissible. Reliability of evidence which are electronically generated depends on reliable system. Such evidence is admissible without oral testimony. On the other hand, the documents in which data is stored by human beings is testified by the person who fed the data or through someone who has the knowledge of how the data is stored and kept.

Documentary evidence were admitted in classical courts and were considered as reliable. These were documents saved in archives of courts, like Mahdir and Sijilat. While the private documents were admissible subject to oral testimony of accredited witnesses. It is the time to overhaul the rules of evidence in Islamic law and incorporate a new corroboration theory in it.

Circumstantial evidence plays a vital role in proving electronic evidence. If the circumstantial evidence is strong one like, call records, bank statements, finger prints or DNA. They are admissible. Such proofs are circumstantial evidences in nature as stated by Ibn Qayyim, al-Jaūzīah in his book "*Al-Turuq al-Hukmiyyah fi al-Siyasah al-Shar'iyyah.*

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[7] Ibid.

[8] *Elf Enterprise Caledonia Ltd v London Bridge Engineering Limited* [1997] ScotCS

[9] The 1996 Model Law of UNCITRAL defines electronic or computer information and includes information: ―generated, sent, received or stored by electronic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex…..

[10] Qanun-e-Shahadat Order defines documents as, "[a] document means any matter expressed or described upon any substance by means of letters, figures or marks or by more than one of these means intended to be used or which may be used for the purpose of recording of matter. Qanun-e-Shahadat Order 1984 §2(b).

[11] The Australian Uniform Law Commissioners, defines document as any ―record of information, including: (a) anything on which there is writing; or (b) anything on which there are marks, figures, symbols or perforations having a meaning for persons qualified to interpret them; or (c) anything from which sounds, images or writings can be reproduced with or without the aid of anything else; or (d) a map, plan, drawing or photograph.

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[14] It was a case of a father, who was caught with the help of electronic evidence. Murderer named, Justin Harris, whose son was found dead after being strapped into a hot car for hours. Police searched his computer, where they found out that he made searches similar to the occurred incident. Police reported that Harris used his office PC to search about "child

deaths inside vehicles and what temperature it needs to be for that to occur." Michael Pearson, "Georgia toddler death: Who is Justin Ross Harris?" CNN News, June 28, 2014 http://edition.cnn.com/2014/06/26/justice/georgia-toddler-death-father/index.html. (Accessed January 30, 2017)

[15] United States v. Simpsons 152 F.3d 1241 (10th Cir 1998) [19]

[16] Sean E. Goodison, Robert C. Davis, and Brian A. Jackson, "Digital Evidence and the U.S. Criminal Justice System Identifying Technology and Other Needs to More Effectively Acquire and Utilize Digital Evidence" Rand Cooperation, 2015, 3. https://www.ncjrs.gov/pdffiles1/nij/grants/248770.pdf. (accessed, May 9, 2017) Also in, Dan Morse, Philip Welsh's simple life hampers search for his killer, Washington Post, May 6, 2014 https://www.washingtonpost.com/local/crime/philip-welshs-simple-life-hampers-search-for-his-killer/2014/05/05/1fd20a52-cff7-11e3-a6b1-45c4dffb85a6_story.html?utm_term=.cc88146e147f

[17] Stephen Mason, Electronic Evidence, 439.

[18] R v Silver lock [1894] 2 QB 766 (handwriting compared by a police superintendent); R v Somers [1963] 3 All ER 808, [1963] 1 WLR 1306, CA (medical doctor interpreting a report); R v Davis [1962] 3 All ER 97, [1962] 1 WLR 1111, CMAC (a witness can state the impression they formed as to the condition of the accused at the time they saw the accused).

[19] (2010) EWCA Crim. 2419.

[20] Frye v. United States, 54 App. D. C. 46, 293 F. 1013 (1923)

[21]Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U. S. 579, 589

[22] Ibid 585-589

[23] Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U. S. 579, 589

[24]Ismail bin Muḥammad al-'Ijloni al-Jaraḥī(d. 1162 H), *Kashf al-Khafā' wa mazīl al-Ilbās 'Ama Ishtahar min al-'A ḥadith 'ala 'alsina al-nās*, vol.1 (Al-Qairo: Maktabah al-Qudsi, li Sāḥibuha Ḥsām al-Qudsī, 1351H), 122. Also in Ron Shaham, *The Expert Witness in Islamic Courts; Medicine and Crafts in the service of Law* (London: The University of Chicago Press, 2010), 27.

[25] Khair al-din bin Maḥmood al-Zirkili al-Damishki (d. 1396), *Al-'A'lām,* vol. 2 (Dar al- 'Ilm lil-Malāyen: 2002), 157. Harith bin Kalādah was the companion who visited Persia and studied medicine from there. Prophet (PBUH) used to call him to see the patients when it was required.

[26] *Saḥiḥ Muslim*, Vol. 3, 131. Bab: 'Ism man khāsamah fil batil wa hua ya'lamhu, Tradition no. 2458.

[27] Sarakhsī, *al-Mabsūt,* vol. 9, 73.

[28] Ibid.
[29] Sarakhsi, "al-Mabsūt", vol. 9, 103.
[30] Al-Qura'an [16:43; 21:7]
[31] was an expert whose role was to divide estates and goods among partner and heirs. Imam Malik says that one divider is sufficient but two are better (al-aḥsan). Ron Shaham, *The Expert Witness in Islamic Courts; Medicine and Crafts in the service of Law* (London: The University of Chicago Press, 2010), 65.
[32] In this matter Mawardi (Shafai) thinks that the judge will decide whether the expert witness will act as a judge or a reporter. Malikis think that he is a reporter so one is enough.Ṣāliḥ b. Muḥammad Al-'Amrī [known as al-Fullānī], *Iqāẓ Himam Ūlī-Abṣār li'l-Iqtiḍā' bi-sayyid al-Muhājirīn wa'l-Anṣār* (Beirut: Dār al-Ma'rifa lil-Ṭibā'a wa'l-Nashr, n.d), 121-22
[33] Camilla Adang, *Muslim Writers on Judaism and the Hebrew Bible: From Ibn Rabban to Ibn Hazm* (New York: Brill, 1996), 6.
[34] Sara J. Piasecki, "Legal Admissibility of Electronic Records as Evidence and Implications for Records Management", *The American Archivist* 58, No. 1 (Winter, 1995): 55
[35] Michael K. Buckland, "Records Management in Its Intellectual Context: Experience at Berkeley," *Re- cords Management Quarterly* 16 (October 1982), 14.
[36] Hugh Taylor, "'My Very Act and Deed': Some Reflections on the Role of Textual Records in the Conduct of Affairs," *American Archivist* 51 (Fall 1988): 457
[37] Taylor, "'My Very Act and Deed'," 457
[38] Piasecki, "Legal Admissibility of Electronic Records as Evidence", 58
[39] Ibid.
[40] Al-Qura'ān [2:282], Translated by Yosaf Ali.
[41] Muḥammad bin Isma'il (d. 256), *Saḥiḥ al-Bukhari,* vol. 3 (al-Najat: dār al-Tauq, 2001), bab: Kaīfa Yaktub, tradition no. 2698.
[42] Muḥammad bin Aḥmad bin abī Sahl shams al-'Āa'ema al- Sarakhsī, *Al-Mabsūt,* Vol. 30 (Beirut: Dār al-Ma'rafa, 1993), 168.
[43] Al- Qur'ān [65:2]
[44] In civil matters two witnesses are required in usual circumstances, for

instance, child custody, marriage, contracts, wills, debts. Etc.

[45] In criminal cases number of witnesses is different in different type of offences. For instance in case of slandering and adultery four just witnesses are required. Other hudood offences require two just witnesses.

[46] Purgation means Tazkiyah (purification) in Arabic. It is formal procedure which is carried out by the judge in order to check out the character of witnesses. If he possesses a good reputation, which means his good deeds are dominating in his personality upon bad deeds. It means he is able to testify.

[47] Sarakhsi, al-Mabsoot, vol. 16, 112.

[48] For instance, works of Abū Ja'far Aḥmad b. Muḥammad b. Salām b. al-Taḥawī on shurut (docuemtnary evidence) is a great contributions. He wrote Kitāb al-Maḥāḍir wa'l-Sijillāt, Kitāb al-Shurūṭ al-Kabir and Kitāb al-shurūṭ al-Saghīr etc. Book by Imām Muḥammad on "Kitāb al-Shurūṭ" is remarkale. Along with that "Al-Fatāwa Hindīah" on "Kitāb al-Maḥāḍir wa'l-Sijillāt" and Kitāb al-shurūṭ are notable works. Imam Sarakhsī, in his book al-Mabsūt wroter on shurūṭ litereature.

[49] Jeanette Wakin, *The Function of documents in Islamic Law* (New York: Sḥte University of NewYork press, 1972), 7.

[50] Al-Tassi, Sharh Majalla, 211.

[51] Wakin, "The function of Documentary Evidence in Islamic Law", 9.

[52] Mason, *Electronic evidence*, 145

[53] Muḥammad 'Amīm al-'Ihsān al-Mujaddadī al-Barkatī, *Qwā'id al-Fiqh*, vol. 1 (Karachi: Sadaf Publishers, 1986), 428.

[54] Milton J. Cowan, *Dictionary of modern written Arabic*, 3rd ed., (Beirut: n.p., 1974), 760; Elias A. Elias, *Modern Dictionary: Arabic English* (Beirut: Dar al-Jalil, 1986), 537.

[55]"So they both raced each other to the door, and she tore his shirt form the back. They both found her lord near the door. She said: What is the (fitting) punishment for one who formed an evil design against your wife, but prison or a grievous chastisement? He said: It was she that sought to seduce me-from my (true)self And one of her house hold saw (this) and bore witness, (thus)-If it be that his shirt is torn from the front, then her tale is true and he is a liar. But if it be that his shirt is torn from the back then she is the liar, and he is telling the truth! So when he saw his shirt that it was torn at the back" Al-Qur'an [12:25-29] Prophet Yousaf was aquitted purely on the basis of

circumstantial evidence.

[56] It is narrated by the Prophet PBUH about circumstantial evidence that "There were two women who had small sons. A wolf came and took away the son of one of them; one of them said to other, "it was your son". The other said, "No, it was your son". They brought their dispute to Prophet David A.S and he decided in favour of the elder. Then they went to Prophet Solomon A.S and related to him their dispute for decision. He ordered to provide him a knife to make two pieces of the child so as to give one piece to each one of them. On this the younger one of them said, "Don't cut him into pieces, this is the son of elder one". Hearing this Prophet Solomon (PBUH) decided in favor of the younger one." Muḥammad bin 'Ismāīl 'Abū 'Abdullah al-bukhārī al-Jāfi, *Saḥīḥ al-Bukhāri*, vol.8 (Dār Taūq al-najāt, n.d) bāb 'izā Ida'at al-Mar'a 'ibnan, tradition no.6769, 156.

[57] Caliph Umar ordered hadd punishment for a woman who was pregnant without marriage. He considered it as a circumstantial evidence for adultery. 'Adnān Ḥassan 'Azāīza, *Ḥujjīah al-Qarāi'n fī Sharī'ah al-Islāmiah al-basmāt - al-kiyāfah - dalalāt al-'asar-teḥlīl al-dam* (Uman: Dār al-'Amār, 1989), 125.

[58] Muḥammad bin abī Bakr bin 'Ayūb ibn Qayīm al-Jaūziah, *Al-Turuq al-Ḥukmīyah* (Maktabah Dār al-Bayān, n.d), 4.

[59] Sikanadar Shah Ḥaneef, "Modern means of proof: Legal basis for its accommodation in Islamic law", 343.

[60] Shaham, *The expert witness,* 38.