

PROOF OF THE ELECTRONIC TECHNOLOGY TRANSFER CONTRACT

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ABSTRACT

This study aims to demonstrate the legal nature of the online technology transfer contract and to identify the methods of proof; the electronic signature and its authority to prove the resulting acts. To achieve these goals, the analytical scientific method is used to conduct this study, by referring to the relevant legal texts, and then analyzing these texts to reach the desired results of the study. The findings showed that more freedom should be granted to the party of lower bargaining power for a certain degree of cooperation and mutual interests and equality and consequently bring to light a noble human message for all communities. Furthermore, online sale and purchase are among the most important e-commerce fields therefore there should be a website for the importer of technology to help direct payment at the contractual time and venue. Finally, the legislator should draft legal texts to address shortcomings and deficiencies in the traditional laws particularly in relation to satisfaction, proof, and authenticity of the modern means of the e-commerce in the (ETTC). That would consequently make it easy for the contracting parties and promote the opportunity for concluding contracts freely and safely.

Keywords: Electronic Transactions, Electronic Outputs, Technology Transfer, E-Sign, Electronic Authentication

INTRODUCTION

The traditional (ETTC) is no different than the electronic one but in terms of the instrument used. The contract may be substantiated by all legally approved evidence methods. Importance of evidence may not be turned down being the first step of protection against unauthorized hands' access to evidence, therefore evidence and proof are sufficiently addressed by all legislation sources.

Legally, proof shall mean evidence before judiciary using the lawful methods on a disputed event between litigants. Validation thereof shall result in legal consequences. Proof is not much different than the normal evidence as upheld by the UN Commission that promulgated the Model Law on Electronic Commerce (MLEC), 1996 which provided that the online transactions may not be challenged just for being concluded online.

For the most part of legislation, the general rules of evidence are of the view that written evidence is accorded prominence because writing is more explicit recognition of approval that approaches certainty than other evidence. Importance of writing in evidence is attributed to several factors, most notably (Barham, 2005):

1. No confidence in the human memory, to the contrary the writing is characterized by consistency and stability.
2. Lack of confidence in witnesses who are subject to partiality or bribe and immorality.
3. False testimony is hard to detect compared to forgery in writing.
4. Writing is characterized by evidence that may be prepared in advance.
5. Flawless unlike the other substantiation methods like testimony if marred with flaws it is detracted, like possible missing of a witness by death or travel.

Therefore, for civil issues, the legislator ruled to have written evidence in cases where individual transaction is more than a certain limit while this is ruled out in other occurrences. It is said that the written evidence is the origin and rule in substantiation while other evidence is an exception to that rule. Adherence to the written evidence is currently faced by huge practical complications and impediments. Transactions got tangled and increased in size. The information is smoothly communicated through the latest communication media termed information revolution. Currently, the difficulty emerges in storage and retrieval, and hackers, theft, and vandalism of data.

In the light of the foregoing and bearing in mind the effect of technological development on the Law of Evidence, the following question arises: how effective is the legal authority of the modern communication media in evidence and their ramifications on the (ETTC) being identified by millions of people and such sites are free of control or accountability? This situation requires the State to regulate protection and carry into effect legislation compatible with the incredibly growing information revolution and accelerates irresistibly; in other words, to what extent are the current rules of the Law of Evidence applicable to the e-transactions, in particular the technology transfer contract?

The new transactions are associated with certain legal problems most notably the evidence. How to prove soft transactions being transmitted across space? Furthermore, the problem goes beyond the use of the network to include all remote communication. Differently, the claim of having new means of evidence will include deep rooted basic principles of evidence. For example, the use of credit card or ATM card as proof that will be contrary to the principle: nobody may create a personal evidence” as well as the e-sign again will be contrary to the ordinary signing forms determined by law.

The Significance of the Study

The importance of the research topic is shown in the technology transfer contract as it is a tool that helps the economic and commercial development of the developed countries. Therefore, the developing countries hastened to acquire technology by concluding contracts that guarantee its transfer to their countries safely and at the fastest time and at the lowest costs. If these contracts are completed by a very fast and accurate means, which is the use of the electronic network (the Internet), it will follow the path of developed countries in various fields of life. Also, technology transfer is a prominent feature of foreign trade at the present time. It has also become a business that facilitates technology transfer, and the best way to achieve wealth and ensure sustainable development and industrial competitiveness.

Reasons for Choosing the Research Topic

This topic was chosen due to the serious importance of the technology transfer contract, whether at the international level or at the local level which was the motive to choose and study an important and vital legal aspect of this contract of a special nature, and how to prove it in light of the great and increasing demand by countries and companies for conclusion of such a contract.

Jordan is considered one of the countries that adopt this type of contracts, which enjoys a uniqueness from the rest of the other contracts, and because the international community in general depends for development on the transfer of advanced technology in various productive sectors.

Since Jordan is one of the developing countries that lacks advanced technology, it has become necessary for these countries to resort to special agreements or to legal regulated

contracts through which they can overcome the state of backwardness and compensate for the delay.

The Statement of the Problem

Based on the role played by the technology transfer contract, which is to achieve economic, social and scientific development, so most of the interest of developing countries was based on progress and technology in response to the requirements of this development, and with the aim of eliminating the large gap that separates them from developed countries. Thus, the technology transfer contract emerged, and the authenticity of this contract, which is concluded remotely and through a high-risk electronic network, must be determined.

The Objectives of the Research Topic

The objective of studying this subject is identifying the technology transfer contract and the extent of its validity in evidence in the event of disputes arising between the contracting parties; as well as protecting the interests of technology recipients legally and objectively, since the latter is one of the developing countries that necessarily need technology to develop their own capabilities and achieving its development goals.

In addition to this, it is necessary to establish a sound legal mechanism for the implementation of the technology contract in line with the general legal rules and the requirements of the rules of justice.

The Research Difficulties

The difficulties in this research are the lack of Jordanian specialized references, as well as the lack of special legal legislation for this type of contracts in Jordan, and the multiplicity of opinions related to the organization of this contract and the extent to which it is established.

METHODOLOGY

The analytical scientific method is used to conduct this study, by referring to the relevant legal texts, and then analyzing these texts to reach the desired results of the study.

Themes of the Study

This study is divided into two themes with a view to achieve purposes of the study and investigated goals, as follows:

First theme: The electronic technology transfer contract, proof and methods.

First section: Essence of the electronic technology transfer contract and proof.

First branch: Definition of the electronic technology transfer contract "contract".

Second branch: Proof of the electronic technology transfer contract.

Second section: Methods of proof for the electronic technology transfer contract

Second theme: authentic methods of proof of the technology transfer contract

First section: authentic e-sign.

Second section: Legislation position on proving the contract.

First Theme: The Electronic Technology Transfer Contract, Proof, and Methods

The world is going through a crucial phase of transition not only in the shape of the international system and balance of power but also in the scientific and technological environment and ability to carry on sustainable research and development and inclusive development. Those transitions are based on knowledge and scientific accumulation being the cutting edge of the social, economic, and political progress for any community seeking life. Whereas the use of IT for knowledge transfer is among the means of knowledge transfer between individuals, the internet users consistently conclude different shapes of contracts, including the IT transfer one. Therefore, I divided this study into two sections the first is designated to demonstrate essence of the contract and proof, as follows:

First Section: Essence of the Contract and Proof 1- The definition of the (ETTC)

Conclusion of the technology transfer contract is burdensome to the legal people given the technical, engineering and accounting considerations of the contract in question. Thus, seeking help from the technical experts and legal people is inevitable for the success of these contracts (Mohammadain, 2001).

Jurisprudence set up so many definitions to the (ETTC) and herein we state only the one provided for in the Egyptian law of commerce No (17), 1999, Article (73): the (ETTC) is an agreement whereby the (technology supplier) undertakes to transfer paid technical information to the (technology importer) to be used for production of certain commodity or promotion or installation or operation of machines or to deliver services. The process of purchase or sale or renting or renting out of commodities or sale of trademarks or trade names or licensing them may not be technology transfer unless provided for in the (ETTC).

Thus, the contract shall be dedicated for transfer of technical information for production or development of certain commodity or delivery of technical services. To wit the exclusive contract to sell or buy equipment or spare parts or buy a trademark or accessing a license to use them may not be technology transfer but can be so in case the purchase or license is ancillary to a technical knowledge transfer or part thereof or associated there with, Accordingly, the legal references failed to provide a generic definition to that type of contract and confusion is still prevailing, however we will mention the most notable definitions to the (ETTC): Article (2) of the Jordanian e-Transactions Law No (15) for 2015; Article (9) of the same law has taken up the information message: “the information message is an expression of legally acceptable will to demonstrate acceptance or offer to establish a contractual obligation”, Article (10) of the same law defines the information message as “one issued by the originator whether personally or by an electronic mediator already spontaneously set by the originator or on his behalf”. The electronic document is just like the hard paper in concluding the e-contracts provided it is easy to access the e-document later (Abasiri, 2002).

Furthermore, Article (92//b) of the Jordanian Banking Law No. (28) for 2000 provides: “Notwithstanding the provisions of any other legislation, proof on banking cases is admissible using all methods of proof including the electronic evidence or evidence issued by the computers or fax messages”.

Article (13/3/c) of the Jordanian Evidence Act No (30) for 1952 as amended by law No (37) for 2001 provides that: “the certified or signed computer printouts shall be equally authentic unless the person to whom they are ascribed proves that he failed to or did not assign someone to print them out. Chapter 5 of the previously referred to Egyptian E-Commerce Law provides that: “the electronic releases and signatures shall be equally authentic as those of physical signatures as long as they comply with the relevant regulatory terms and rules¹.”

As shown in the foregoing, the latest legislation realizes the importance of the e-transactions through the modern means of communication characterized by hypersensitivity that would provoke disputes among the network users. Therefore, legal texts have been drafted to regulate and control the relations and alleviate legal vacuum of the ordinary legislation on the one hand and to cover the shortage with a view to facilitate use of the electronic media in proceeding the various commercial transactions as the contracts are electronic, including the electronic technology transfer contract concluded between parties in different areas and a party to that contract may be a foreigner especially after emergence of globalization that does not recognize or observes rights of neighborhood.

The prosper of e-commerce is credited to the integrated electronic network. No talk can be made about the e-commerce – in its global conception as a modern means of conclusion of commercial deals, locally and internationally alike- in the absence of internet (Michael & Allstar, 2000)

Proof of the (ETTC)

The right devoid of evidence is like nihility. The legal evidence is the grounds of the right. No legal effects are recognized without evidence to demonstrate the act or the legal event. In general proof is the process of substantiating evidence before judiciary using the legal methods on integrity of a legal occurrence that if proved then the right shall be recognized (Sanhori, 1981), while the electronic proof does not significantly differ than the ordinary one- writing has been accorded prominence specifically in civil and contractual acts- (Arab, 2000) as upheld by the UN Commission when it has promulgated recently the Model Law on E- Commerce for 1996 that provided that the acts concluded through the internet may not be challenged just for being done on internet, further chapter 5 of the Egyptian Draft law on E-Commerce about definition of the contract in question².

Significance of proof is apparent when the judge hears a case filed before him to identify its authority and weight in proof. The judge is the only person requested to safeguard the right (Morkos, 1981).

Building on the foregoing, the proof rules of the civil code issues become clear when conflicts arise between the parties. The judge shall provide legal safeguarding to the right even if denied by the litigant but if the defendant's denial coincides with failure of the right holder to substantiate the right before the judge,, then it is insignificant (Rushdi, n.d).

It is understood that the right may have legal existence because the event for which the law provides has taken place eventually, therefore certain consequences arise by force of law however absence of substantiation before the judge on the event shall preclude the right holder at the time of disputing the right existence from having access to the legal protection and thus, in practice the existence of right is equal to nihility. (Mansor, 1981).

Importance of this type of contracts depends on the legal conception as it sets up performance, privacy namely technology transfer for which both parties look whether the performance is to act or refrain from acting or deliver certain thing. In either case the destination is the venue of action. This is clear in the training and research contracts where labors and technicians move to the service recipient's installations or the other way round; the labor undertakes not to disclose the profession secrets. In the case of delivery, the transfer or assignment of any other right in rem like information or know-how, the parties either they proceed to deal with something outstanding like contracts of engineering and technical assistance or with something that is not existing but possible to exist in the future like research and development contract. The contract here does not stipulate existence at the contracting time. That means novelty feature of the technical know-how is based on outstanding elements with

added practical or detailed improvements that are composition to certain industry (Mawla, 2003).

Therefore, the technology contract is a legal structure indicating mutual agreement whereby the technology owner transfers it to the other party.

Second Section: Methods of Proof for (ETTC)

The high prevalence of computers in all walks of life matters most in the emergence of modern methods and mainstays of information and data that passes through the modern communication media and have become significantly different than those of the well-known hard traditional methods and mainstays (Zahra 1995). The latter has retreated and then replaced by the new mainstays of the new supports of information being handled through the computers, including the magnetic tapes, CDs, and microfilms³.

The problem provokes on the proof of the legal transactions being performed online that do not introduce the paper pattern as means of proof among the contracting parties.

Article (72) of the Jordanian Civil Code provided that: “the evidencing elements are:

- 1- Writing
- 2- Testimony
- 3- Evidence
- 4- Inspection
- 5- Declaration
- 6- Oath

The right can be personal or in rem or moral as provided for in Article (67) of the same law. Therefore, the evidencing materials shall apply to all civil and commercial disputes subject to the relevant provisions of trade laws, civil procedural laws, criminal procedures and Sharia procedures and the like.

As long as the information handled by the parties to the (ETTC) is online, the legal requirement for writing has become illogical as well as the matter that requires alternatives for processing of information being transmitted through the net that is amendable and can be altered without established evidence on such occurrence. That is the problem that involves all remote communication like telex and fax. The standard of proof on civil and commercial articles is the writing unless the law provides otherwise, particularly the emergence of electronic or digital writing through placing of information in digits stored as electronic data as in CDs compacted with reading memory only terms (CD Roms) or CD. The electronic information is temporarily or permanently stored in databases of computers (Rushdi, n.d). Such requirements oblige the users to maintain releases and instruments for all acts of people involved in trade including the daily acts; that is additional burden and increase cost (Ian, 1997).

With reference to Article (13) of the UN Convention on Multimodal Transport of Goods, 1980 provides that in connection with this convention purposes, the writing term is limited to correspondence in cable or telex format. Therefore, traditional writing on the paper is not required but includes writing in the new conception that relates to the modern digital literature idea.

For the commercial business engagements among the companies, including the (ETTC), they comply with freedom of proof using all methods including the electronic methods. As contracting is performed using these methods already recognized and established by international law and custom, then they account for a full evidence against each other without the need for the generally accepted written evidence in the traditional conception, and using the different electronic methods does not provoke any risks that may be portrayed when brought

before the judge as authentic evidence regarding the obligations of each party to the contract namely the supplier and recipient. The judge is given full freedom to accept or reject the information literature. The judge accepts what he has thoroughly read and understood certain paginated and dated literature in line with the safe methods and terms of the authentic evidence just like the traditional literature. The same extends to the modern electronic methods including the banking cards that have recently become equally authentic given the mutual agreement of the parties (Rushdi, n.d).

However, with reference to the reciprocal contracts including (ETTC), both parties shall sign it to legalize it. Signature is a substantive condition for the contract as it ascribes information and data transmitted to the transmitter and is also the personal mark set up by site in his name in particular to confirm veracity of the paper content and to declare accepting liability therefore in line with the law. Signature in the form of official stamp, signature and fingerprint can also be in the form of encryption or digits or electronic codes paving the way for users to process the information and reciprocal data confidentially. That has contributed to bring about quantum leap for the e-commerce contracts including the technology transfer and bringing into light the role of the e-sign⁴ as alternative to the traditional signature that does not conform to the computer transactions and outputs.

To sum up, certain legislations declared out approval of proof using all electronic methods, contracts, documents and records being customary instruments and e- transactions and computer data in accordance with certain terms are considered fit to be good evidence in all civil, commercial, banking and legal matters. This is upheld by the release of e-transactions law No (15) for 2015 by the Jordanian legislator. Yet, several international laws have allocated the electronic proof methods by nature, source and shape and founded certain standards and rules as the case may be, most notably official instruments and the common unsigned instruments being dealt with by people differently whether commercial or civil. Simultaneously they are certified banking documents (Ashor, 2006).

Therefore, producing the electronic instrument of whatsoever kind shall be adequate evidence for proof standing alone to establish satisfaction on the judge and relied upon to make the verdict without the need for another evidence and thus its proofing authority is equal to that of the written evidence. Therefore, the electronic evidence may not be nullified but with another electronic document. (Al Abodi, 1997).

Second Theme: Authentic Methods of Proof of the (ETTC)

There is increased reliance on the modern communication means day by day. It is being used by so many corporations and companies worldwide. They are used to manage and carry out all different business engagements rather than the written hard data. Recently, there has been more attention to proofing the technical storage of the data being transmitted by the contractors (supplier and recipient) and to the authentic electronic outputs in proofing the contracting acts concluded by and between the individuals notwithstanding the different time and location.

In line with Article (5) of the Jordanian Evidence Act, instruments are as follows:

- 1- Official instruments
- 2- Customary instruments
- 3- Unsigned instruments

The official instruments are those being delivered by officials and may not be challenged but with forgery. These instruments may be prepared by the holders and certified by the official. They are confined to date and signature only. The customary instruments bear signature of the holder or his/her fingerprint. The unsigned instruments are never authentic in general, however outlined a set of them to be considered authentic at certain settings and conditions depending on

their order at law and at the trader's books in addition to the household books and papers (Qudah, 1994).

The traditional civil and commercial laws had reflected on the conception of contracting via phone or telex or fax. However, currently reflect on using the electronic programs and systems, networks of information and telecommunication in contracting, particularly the internet, to what extent they are authentic in proofing the contracting acts in addition to the outputs i.e. regulatory data and excerpts. Using the electronic methods to conclude legal contracts and transactions provokes queries about law's recognition in proof and inference and emergence of e-commerce as a new pattern of trading transaction not only in sale and purchase but also in insurance, services, technology transfer and others. The latest technologies have brought about difficulties and challenges in the technical and knowledge transfer of technology, exchange of information and compliance of the technology supplier and importer with the ever-changing technologies. However, electronic authoritative new trends have emerged considering the electronic instruments in general and the official electronic instruments and methods in particular if issued by a public officer ex officio and provided for in law as proofing force (Ata Allah, 2007). Accordingly, various definitions have been brought to light, most notably Article (0/A) of WTO: integrated set of production, distribution and marketing of products using electronic methods (www.lawjo.net)

Additionally, radical, and legal regulations should be passed to govern the online contracts together with the required relevant global legal framework like the traditional legal regulations and standards in force in the national law.

Worldwide, UNCITRAL has had the most dramatic effect when promulgated the Model Law on Electronic Commerce (MLEC) dated 1996 which addressed the issue of e-commerce and e-sign and enacted provisions for accepting the e-sign as a means of contracting and proof. So many legislations in Europe, America, East Asian Countries, and some Arab States including Jordan, Egypt, Iraq and Lebanon and Tunisia have proceeded after the UNCITRAL action. Currently, they promulgate legislations providing for regulation of the electronic transactions held through the different electronic methods (Momani, 2002), one of them is the technology transfer contract.

Article (2) of the Jordanian Electronic Transaction Law No (15) for 2015 defined the electronic record as: the information message⁵ containing a record or contract or any other document of another kind originated or stored or used or duplicated or transmitted or notified or delivered online Article (7/A) of the same law set terms that should be available so that the e-record is as effective as the master copy.

Accordingly, the agreement shall be valid if containing exchange of information or messages or e-records and thus the agreement has become binding on the parties unless challenged by an express provision. The electronic record⁶ shall produce legal ramifications in line with Article (6) of this law. Conversely, the e-record associated with e-sign shall be as authentic as the written instrument. The parties of the e-transaction may invoke it – supplier and recipient- in line with Article (7/A) of the Jordanian E-Transaction Law. Otherwise, it shall have neither effective nor authentic. To this effect, the UNICITRAL Model Law on Convertible Electronic Records for 2017 provided for: The Model Law on Convertible Electronic Records is designed to pave the way for the legal use of the convertible e-records internally and across borders. The Model Law shall apply to the convertible e-records that are equivalent to convertible instruments or deeds. The convertible documents are hard documents that empower holder to claim performance of the provided for obligation and permits assignment of such claim through conversion of the instrument's title. Usually the convertible instruments include bills of lading, promissory notes and the warehouse receipts (<https://uncitral.un.org/ar/texts/ecommerce>).

The electronic instrument like the (ETTC) shall be convertible if it meets the conditions

of the negotiable instrument as outlined in the Trade Act with the exception of the writing clause as of the verification date by the stakeholders or the court if in dispute as provided for in Article (18) of the same law. Reference may be made to the commercially accepted authentication procedures if, at the time of application, the commercial circumstances of the e-transaction parties are observed, including:

- 1- E-transaction nature
- 2- Awareness of e-transaction parties
- 3- Volume of similar e-commercial transactions to which each party is bound
- 4- Availability of the alternative procedures either party refused to use
- 5- Cost of alternative procedures
- 6- Standard procedures of the transaction

The electronic authentication certificate aims to countersign the person's signature and verify veracity of given particulars non-adjustability (Fahmi, 2007) based on approved authentication procedures in line with Article (2) of the same law.

Therefore, acceptance of the electronic evidence depends on two conditions, namely:

- 1- Identification of the person originator of the electronic writing.
- 2- Keep the electronic evidence to secure safety against third parties. If the above conditions are satisfied, the electronic evidence shall be authentic (www.cyberworkers.com) .to sum, the approval of the electronic message, electronic record, the e-sign and the electronic instrument shall always be established if approved by the transaction parties or if meeting the validity as provided for in the Articles stated earlier of the Jordanian E-Transaction Law No (15) for 2015.

The Authentic E-Sign

The internet is the method by which mutual compromise is exchanged and contracts are concluded being open for all whether natural or legal persons.

There are different technical methods for conclusion of contracts online, most notably the e-mail and the web⁷. However, identification of the parties on internet and how far it is valid as a means of proof and provision of confidence, safety, and security to the so many commercial transactions remains a problem.

A significant means of proof is highlighted namely the manual signature or the seal or the fingerprint. Therefore, the writer whether official or unofficial gains legal authenticity towards the contract parties as it signifies ID of signatory in addition to the entire expression of volition in assuming the respective obligations (Ajlouni, 2002, P, 19).

Even if the above method works with the hard-traditional transactions, it does not work with the electronic contracts and transactions remotely concluded between absentees in terms of location. That is attributed to a lack of confidence and possible alteration or forgery through hacking. This makes the use of the above method insufficient and attention is paid to look for more reliable and credible technical alternatives for the online contractors to conclude contracts freely and fearlessly. Consequently, the alternatives will achieve the legal proof the right guarantor. Perhaps the currently used e-sign is the most common and most secure in the different commercial transactions.

It is understood that the e-sign contains authentic evolved several forms: among these forms:

Biometric signature: Biological or physiological features-based signature. It involves verification or encryption via fingerprint, retina, iris, or voice, and are increasingly emerging to ensure digital security. This type of signature is ideal for critical transactions where identity

must be certified and verified (Technology/Biometric signature ,Biology).. the full face is stored through a set of figures or digits in the computer memory or in the smartcard being used by clients in the ATM ⁸ and through a special camera taking pictures to the very person, instant picture to the iris. This may be verified with the digital record in the card or computer and thus the process is performed in case of verification, otherwise the card is withheld, and the order revoked by the ATM. The cardholder shall be punished for violating the permit granted to access the web by the stakeholder in line with the Articles (3, 4, 5) of the Electronic Crimes Law No. (27), 2015 and Article (6/A) of the Cybercrimes Law, 2019.

Handwritten digital signature (JOS. Dumotiee & Patrick, 1999): It is the signature created by adding one keyboard to the steering one that guides the letters printed on the network. Each board involves letter-designated zones where the person's signature is determined on one place on the keyboard on the computer. The zone is protected by a secret code to be used by the user when needed. Further, the handwritten digital signature may be inserted through a scanner.

Dynamic electronic signature: The person (user) signs his/her orders through a small machine no larger than the Bank's card in size. It is a calculator inside a small computer containing a mathematical formula that generates the password conceivably and dynamically every short interval. This method has been the safest against possible theft of the code as it is permanently variable. In the case the user desires to sign his/her transactions, he only needs to issue the order by inserting the number shown on the small screen to finalize the process. The machine is seal-protected. If used by non- authorized people the seal is destroyed spontaneously (Smadi, 2000).

The digital signature is based on the secret key and the public key. The whole system is based on the following major principles (Momani, 2002):

- a- Each party owns two keys: secret and public
- b- The public key is gained by the one-way mathematical function of the secret key so that the secret key may not be generated from the public one.
- c- The secret key shall be maintained by the key holder to use through encryption or code to deal with the outgoing or incoming messages by the parties through that key.
- d- The public key may be disclosed by the holder so that the users may use it for sending encrypted or coded messages and control or verify the authenticity of the e-signature (Monsif, 2000).

Plastic cards and password: The user may insert the ordinary or smart card⁹ into the ATM. By entering the password or PIN, the user may make and implement orders.

Therefore, the digital e-signature seeks to bring out several purposes to legitimize e-commerce, most notably the technology transfer contract. These purposes (Momani, 2002, PP 123-130) are as follows:

- 1- Confidence and safety are coming true in the e-message by the consignee and non-repudiation having the different technical technologies represented in encryption and coding of the password have been applied.¹⁰
- 2- Forgery and fraud are hard to conduct as the message is received with the same content as issued by the original issuer in presence of third parties¹¹ to secure safe arrival of the message. Third parties are represented by the certification authority that issues authentication certificates to the IDs of the electronic users and provide the same to the concerned people in line with Article (23) of the E-Transaction Law. To this end, Article (16) of the Electronic Crimes Law for 2018 provides for: whoever unjustly takes over, for himself or for others, any moveable or immovable or an instrument containing undertaking or discharge by drawing on any fraudulent method or get into invalid character through the network or the information system or the web (www.alrai.com).
- 3- The electronic message signed by the encoded digital signatures depending on the public

and secret keys and owned by both parties should be kept secret.

- 4- The message copies are considered authentic before judiciary in the case of disputes for justice.

The electronic signature is legalized if it meets the conditions of Article ((15) of the E-Crimes Law, as follows:

- a- If only applied by the lawful signatory to be distinguished from other signatories
 - b- If identifies the signatory
 - c- If the private key is under the control of the signatory at time of signing.
 - d- If associated with the electronic record in a way that does not permit amendments to that electronic record after being signed without bringing about alterations to that signature.
- The electronic authentication certificate issued by the electronic authority aims to verify the e-sign is attributed to a certain person based on approved authentication procedures in line with Article (2) of the same law.

The Second Section: Legislation Position on Proofing the Contract

The latest scientific surveys that have taken up the different electronic methods and their role in proof have had the greatest impact on drawing the attention of states to approve them in the e-commerce field particularly the technology transfer contract and enactment of legislations to keep up with the commercial, civil and banking transactions. That helped remove all traditional legislative obstacles that hindered progress and prosperity of the prevailing transactions.

Efforts were made nationally and globally to pass laws aiming to confer security and stability for all e-commerce users, most notably accession of states to the WTO, signing of the free trade agreements in addition to the UN Commission on International Trade Law that set the UNCITRAL Model Law on E-Commerce for 1996, UNCITRAL Law on E-Signatures for 2001 in line with the recognition of the authentic computer outputs and e-communication. The international consolidated law commission got through e-sign and recommended to accept and substantiate the e-sign for contracts. The European legislation introduced the European draft directive inspired by the UNCITRAL law to conclude harmonization on the acceptance of the e-instruments as full evidence and authentic at disputes just like the written evidence.

The European draft directive is the cornerstone within the European countries. It derived its legal provisions from the UN Commission on the International Trade Law. The most significant outcome was the UNCITRAL Model Law on e-commerce for 1996 and UNCITRAL law on e-sign for 2001.

In short, many international legislations proceeded after the European project. Some Arab countries like Tunisia, passed a law termed “Tunisian Exchanges and E- Commerce Law No (83) for 2000, Dubai passed e-transaction law No (2) for 2002 on e-transactions and trade. Egypt passed law No (15) for 2004 on e-sign regulation and created IT Industrial Development Authority (Atallah, 2007).

In Jordan, calls have been made to create a legal framework in conformity with the latest international legislation (Smadi, 2005). This resulted in the E- Commerce Law. The law provides for legalization of the e-transactions and messages, e-records and signatures, designation of the competent authorities for licensing the electronic authentication certificates.

Article 3/c of the law on industrial designs and models No (14) for 2000 provides that the computer may be used to register the industrial designs and models and the relevant data. The outputs that are certified by the registrar shall be authentic unless the stakeholder proves otherwise. Article (3/c) of the e-commerce law (33) for 1952 amending law (34), 1999 provides for the same above text: the computer may be used for registration of trademarks and the

outputs shall be authentic. Article (7/c) of the patents of invention law (32, 1999 provides for the above text. Therefore, Jordan is frontier of the Arab countries to pass laws promoting innovation and annul contracts with special conditions that would jeopardize the recipient (Mola, 2003).

The Jordanian legislator passed electronic proof in the financial services as is apparent in Securities Law (23), 1997, as amended; Jordanian Banking Law (28) for 2000, Jordan Evidence Law (30), 1952 as amended.

Reference to the Jordan E-Transaction Law (15), 2015, it is apparent that Articles 7, 8 and 9 indicate legislator's express recognition of the electronic record, contract, message and e-sign and that they produce legal ramifications similar to the traditional instruments in terms of being binding on the two parties, authenticity in legal proof. This is applicable to the (ETTC).

CONCLUSION

Based on the communication and information revolution, the world has become a small village.

The evolution of the electronic networks has had the most significant impact on the electronic commercial transactions being brought about in so complicated systems. They turned effective means to conduct exchanges, commercial and financial services, concluding contracts and finalizing payments through direct and indirect electronic means whether through e-mails or websites or e-cards.

The great paradox between the electronic means and the traditional is that the first is characterized by shortening time, effort, distance, low cost and conducting transactions personally by the user. The second is ranked lower than the first.

It is inevitable for the states to pass legislative rules to the prevailing electronic transactions in lieu of the public rules that fail to cover the e-commerce aspects taking into account that the new rules and laws derives power by reliance on the traditional theories. Also, it is apparent that the Arab, particularly, the Jordanian legislation has taken up the e-transactions seriously and at face value and has been the first respondent to pass draft laws to pave the way for promulgation of temporary or permanent laws for organization and regulation of the electronic contracting, method of proof notwithstanding the issuance of modern laws by several international and advanced countries.

On the other hand, legislations of the developed countries are effective weapons to the contract parties with a view to provide protection of interests and break free from dependence namely contracts with the technology exporting countries during globalization and through global communication devoid of political and geographical borders.

Results

- 1- Efforts of the Arab legislations are critically important in the e-transactions particularly following the UNCITRAL Model Law on E-Commerce for 1996 by the UN Commission on the International Trade Law that made the local laws consistent with international but kept localized however without breaking the constants and established principles except to the extent required to keep up with the technological progress worldwide.
- 2- In general, the technology transfer contract is an adhesion contract whereby the supplier has the bargaining power for monopoly of that technology. This requires the national and international legislation should protect the importer whether by rule of law or justice.
- 3- The computer and related programs are means of expression of will just like the other means like the phone and telex but in technical technicality.

- 4- Based on the practical and technical applications of the traditional or modern contracts, it is observed they both are established on expression of will.
- 5- The outstanding problem is the technology transfer contract while the supplier country and the importer's country are in dispute. No radical solution has emerged so far thereon that would defer the economic development of the developed countries and halt it from keeping up with the technological developments of the advanced states in all walks of life.

Recommendations

- 1- More freedom should be granted to the party of lower bargaining power for a certain degree of cooperation and mutual interests and equality and consequently bring to light a noble human message for all communities.
- 2- Online sale and purchase are among the most important e-commerce fields therefore there should be a website for the importer of technology to help direct payment at the contractual time and venue.
- 3- The importing states should pass national laws for regulation of relationship between the parties and annul the conditions that would limit liberty of the technology importer.
- 4- The legislator should draft legal texts to address shortcomings and deficiencies in the traditional laws particularly in relation to satisfaction, proof, and authenticity of the modern means of the e-commerce in the (ETTC). That would consequently make it easy for the contracting parties and promote the opportunity for concluding contracts freely and safely.
- 5- Certification authorities should be designated by the importer's state composed of experts technicians and jurists and concerned with trading transactions online and technology transfer of high cost like the war industries or microscopic synthesis or energy or employment of technical skills to exploit raw materials in the importer's state.
- 6- Help the developed countries promote their scientific and technological capacities through installation of technical training institutes and promote domestic economic research.

ENDNOTES

- 1- Article (73) of the law (17), 1999, the Egyptian legislator defined the technology transfer contract: an agreement whereby the technology supplier undertakes to transfer, with consideration, technical information to the technology importer to be used in producing or developing certain commodity or to run machines or to deliver services.
- 2- Chapter "5" of the Egyptian E-Commerce law defines proof as: the electronic signatures and instruments as well as the traditional signatures shall be equally authentic if they meet the regulatory rules.
- 3- Microfilm: a photographing film of different sizes 30 m long or 100 foot. It accommodates (4-8 k) pages; the movie thumbnails are the smallest space on which information and computer data may be uploaded. Kodak has made changes to this invention.
- 4- E-sign: according to Article (2) of the Jordan E-Transaction Law (15) for 2015: data in the form of characters or figures or codes, listed electronically or digitally or optically or other in the information message or added thereto or associated therewith. It may identify the person who signs it"
- 5- Article (2) of Jordan E-transaction law No (15), 2015 defined the information message: information created or sent or delivered or stored electronically or similarly including exchange of e-data or the email or graph or telex or telecopy
- 6- E-record: Articles (2) of the above law defines it as: the record or contract or information message created or sent or delivered or stored electronically.
- 7- The web pages also termed www subsidiary to internet through which written texts designs and TV images are exchanged.
- 8- Automated teller machine

- 9- Smart card, a plastic card on which information are stored electronically
- 10- According to chapter 1 (definitions) of the Egyptian E-Transaction Law, encryption is: conversion of data format to symbols or signals for protection against third parties or amendment or alternation.
- 11- Certification authority is a reliable party that verifies and certifies the digital ID and signatures of the parties. Usually it is a body corporate protected against fraud, forgery and identifies theft.

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Received: 30-Mar-2022, Manuscript No. JLERI-21-9710; **Editor assigned:** 02- Apr -2022, PreQC No. JLERI-21-9710 (PQ); **Reviewed:** 13-Apr -2022, QC No. JLERI-21-9710; **Revised:** 14-May-2022, Manuscript No. JLERI-21-9710 (R); **Published:** 23-May-2022.