

Methods of Concluding Electronic Contracts

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Abstract

Today, information technology has made it possible for many commercial transactions, exchanges, and service provisions to be conducted via the Internet. The widespread nature of these transactional and commercial relationships among individuals within society and at the international level is sometimes accompanied by legal issues concerning the rules governing contractual relationships, including contract interpretation and the applicable legal framework. The electronic environment of the Internet is considered one of the most modern means for concluding contracts and fulfilling the obligations arising from them, particularly in the realm of commercial transactions. The nature of electronic contracts in terms of their validity, form, and conformity with the general rules and regulations of civil law concerning contracts is a subject of discussion, as understanding and analyzing the legal relationships and consequences arising from them depend on the structural characteristics of the electronic environment and the recognized concepts of communication technology in this field. In principle, electronic contracts do not have a fundamentally different nature from traditional contracts. However, the structural characteristics of the electronic environment have introduced new features and concepts into this type of contract. Given this aspect, it can be stated that the structural framework and technical characteristics of the electronic environment have brought about a modern and extensive transformation in various dimensions of contract law, which has the potential to influence the prevailing concepts regarding the methods of contract formation.

Keywords: electronic contract formation, electronic offer, electronic acceptance, traditional method, modern method.

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1. Introduction

Before the advent of information and communication technologies, evidence existed only in its traditional forms, including confession, paper documents, testimony, presumptions, and oath, with paper being the primary medium for storing information. However, over the past century, remarkable inventions in information and communication technologies have emerged. Innovations such as the telegraph, telephone, facsimile, microfilm, computers, and the Internet have introduced new means of communication, significantly enhancing ease and efficiency. The rapid adoption of these tools in commercial and even daily transactions has led to the development of electronic commerce—a method of exchanging commercial information without

using paper. Additionally, computer-based tools have become so precise and intelligent that they not only serve as instruments for storing and transmitting information but also autonomously generate and process data without direct human intervention.

The use of electronic tools in contract formation is not a novel phenomenon. For many years, merchants have used telephones, telegrams, and telex systems to conclude contracts. However, the advent of computers in the twentieth century has accelerated and expanded this process. Today, electronic commerce and the legal frameworks governing it have become focal points for legal scholars and legislators worldwide.

The Iranian legal system, like others, cannot ignore these developments and must establish appropriate legal frameworks. These frameworks should reflect the general rules of contract law, as computers are merely new instruments through which contracts are formed, and the type of tool should not inherently affect the application of general legal principles. However, in certain cases, the nature of electronic contracts necessitates the formulation of specific legal provisions. Computers and global electronic communication networks represent significant transformations in contemporary electronic communication technologies. These developments, which impact all aspects of human life, including economic, commercial, and legal spheres, have necessitated the reevaluation of legal concepts and the establishment of new standards in communication law, ultimately leading to the emergence of a new category of electronic contracts.

The existing legal regulations in this domain primarily focus on the commercial aspects of these transactions, aiming to facilitate electronic commerce. The introduction of numerous legal concepts and relationships based on the various applications of the Internet has increased the necessity of examining the legal implications of new electronic communication tools. This ensures a balance between the interests of individuals and the protection of their rights. Currently, electronic commerce law remains underdeveloped and relatively unfamiliar in Iran. Consequently, the publication of legal scholars' opinions—whether in descriptive, review-based, analytical, or research-oriented formats—will play a crucial role in expanding electronic commerce and developing appropriate regulations for its implementation.

Based on the time of invention and the degree of widespread use, modern means of communication used for expressing intent can be categorized into two groups. The first group includes postal services, telegraph, telephone, and telex, which are considered modern means. The second group consists of tools that have become prevalent over the past two decades, such as facsimile (fax) and dedicated computer networks, which are classified as postmodern means.

2. Contracts Concluded Using Traditional Means

This section examines contracts formed through modern communication tools, including postal services, telegram, telephone, and telex, in the following order:

a) Postal Services

Postal services, or the system of delivering letters to another location, are considered one of the modern means of expressing intent. However, this does not imply that postal services were newly invented; rather, their use as a medium for expressing intent and forming commercial contracts is relatively recent. As humanity placed greater trust in written correspondence for declaring intent and forming contracts, legal systems began recognizing and regulating postal services accordingly.

b) Telegram

At the beginning of the nineteenth century, efforts were made to transmit messages using electrical currents. In 1832, Samuel F. B. Morse invented the first electric telegraph, which operated based on Morse code (Motamed Nejad, 1992).

Subsequently, more advanced versions of the device were developed, and due to their ease of use and low cost, telegraphs became widely popular among the public. Before the invention and advancement of the telephone, the telegraph was the most commonly used means of communication. In legal matters, particularly in the formation of commercial contracts over long distances, the telegraph played a significant role. The first international communication treaty regarding telegraph technology was adopted in 1865 when Napoleon III invited representatives from 20 European countries to Paris.

Thus, the telegraph can be regarded as a long-distance communication system that enables the rapid transmission of written messages using coded signals (Cahen & Sobelle, 1999). With further advancements, the telegraph was eventually replaced by the telex system.

c) Telephone

The telephone was invented in 1876 by Alexander Graham Bell and Thomas Watson, revolutionizing communication technologies. This innovation not only overcame spatial and temporal limitations in direct communications, such as distance and time, but also enabled humans, for the first time in history, to establish immediate verbal communication with distant individuals. This laid the foundation for the development of auditory communication (Motamed Nejad, 1992).

In 1890, Strowger successfully invented an automatic telephone system, leading to the rapid expansion of telephone communications. Subsequently, various types of automatic magnetic telephone exchanges were developed. Today, public switched telephone networks (PSTN) have advanced significantly and exist in various forms. Large corporations typically utilize private automatic branch exchange (PABX) systems, which rely on digital signal technology. Furthermore, the widespread availability of wireless telephones, most of which use chemically generated electricity (cell phones), has significantly simplified verbal communication.

d) Telex

The advancement of the telegraph led to the development of telex systems, which combined telecommunication lines with teleprinters (teletype or teletypewriter).

In this system, rotary dialing was used to connect to a teleprinter, and the message was then transmitted automatically using a specific code known as the Baudot code. This type of telex is referred to as "Type A Telex," which remains in widespread use. However, if numerical keys on a keyboard are used to send a message, the system is known as "Type B Telex."

An advanced form of the telex system, known as Teletypewriter Exchange Service (TWX), has been in use since 1930. Today, telex systems can transmit up to 66 words per minute. Although computer-based transactions offer even faster speeds, telex remains a reliable communication method in situations where computer-based connections are unavailable or when no one answers a telephone call.

Currently, there are approximately three million telex lines worldwide, with around 400,000 in Germany and 350,000 in the United States. Beyond governmental, administrative, and military applications, one of the most important uses of telex is in the remote formation of commercial and civil contracts.

3. Contracts Concluded Using Modern Tools Based on Advanced Technologies

The contemporary era, known as the age of communication, has witnessed the emergence of tools that, despite their novelty, have rapidly expanded and influenced the world to the extent that many individuals, whether willingly or unwillingly, have become familiar with and utilize them. Among these tools are facsimile (fax) and computers. In this section, these tools will be examined in terms of their historical background and methods of application.

a) Facsimile (Fax)

In Iranian law, since facsimile allows for the transmission of an image of an individual's declaration of intent, it holds a significant position in legal discussions. The term "fax" or "facsimile," also referred to as *telecopier*, *telefacsimile*, or simply *fax*, denotes the remote electronic reproduction of written documents, images, and maps onto paper or microfilm. Linguistically, "facsimile" is derived from the prefix "fax," meaning likeness or resemblance, and the word "smil," related to "similar," which altogether signifies replication or the exact reproduction of original documents (Sadeghi Neshat, 2000). The technology underlying fax machines originates from the efforts of Rudolf Hell in 1929, though the patent for this device was issued in 1934 to Alexander Bain, a Scottish inventor.

A fax machine consists of both a transmitting and a receiving unit connected to telephone lines, with image transmission occurring via telephone lines using microwave technology. In modern fax systems, the transmission of each page takes less than 10 seconds, with image resolution reaching 1728 pixels. The widespread use of fax technology began in the 1980s, particularly for transmitting legal and judicial documents, as well as for the offer and acceptance of contracts.

The only formal legal text in Iran that demonstrates the legislator's and the economic-legal system's acceptance of fax as a means of expressing intent remotely and concluding contracts is the *Electronic Commerce Act* of the Islamic Republic of Iran. Clause 1-2 of this act defines "data" as follows:

"Any representation of fact, information, or concept that is generated, sent, received, stored, or processed through electronic means or new information technologies developed in the future, including computer systems, telegrams, telex, and fax."

As noted, the function of facsimile is to transmit images of written texts or figures remotely. Therefore, its distinction from telegrams and telex lies in the fact that, in the latter two, the original message and personal intent are transmitted in written form. However, with facsimile, an image of an offer or acceptance that has already been written is sent. For this reason, faxed documents do not possess the same evidentiary value as telex and telegram messages, nor do they provide real-time communication. There may be a time gap between the drafting of an offer or acceptance and its transmission via fax. Although some legal writings do not differentiate among telephone, telegram, and fax, treating all three as equivalent to in-person contracts (Katouzian, 1998), it appears that even if fax is accepted as a direct declaration of intent comparable to telex and telephone, a faxed document, being merely an image, cannot be legally equated with telex and telegram in terms of attribution and authentication.

b) Computer Networks

The use of computers for contract formation and their interconnection via networks is a relatively new phenomenon. From a practical perspective, a computer refers to a device capable of processing information to produce desired outcomes. A *computer network* is defined as the interconnection of multiple computers and related devices through communication facilities, enabling them to share resources (Network). Computers within these networks are categorized into servers and clients.

The connection between these computers may be either permanent or temporary. A *permanent connection* is established through network cables linking computers within an organization or a confined space, known as a *Local Area Network (LAN)*. A *temporary connection* occurs via telephone lines and other telecommunication infrastructures, such as satellite antennas, covering a larger geographical area beyond a single organization, known as a *Wide Area Network (WAN)*.

The primary rationale for the existence of computer networks is the exchange of information and the establishment of communication between computers for shared use, which in turn reduces costs, minimizes time, and offers scalability and reliability (Ebrahimi, 2000, pp. 13-15). In wide-area networks, computers or users are interconnected over long distances through telecommunication lines. When local networks are linked, users from each network can access information and shared resources from other networks.

For communication between client and server computers, specific protocols and rules governing data transmission and reception are defined, referred to as *protocols*. These protocols, though invisible, function as software-based communication frameworks that facilitate data exchange. Essentially, a protocol serves as a shared computational language that enables computers to interpret and respond to each other's requests. Local network connections are established through telephone lines, communication cables, fiber optics, satellite systems, and other telecommunication methods.

The largest and most significant wide-area computer network in the modern world is the *Internet*. This network, which is central to the discussion of electronic contracts, is the most extensive and universal system, composed of thousands of interconnected networks and computers using the *Transmission Control Protocol/Internet Protocol (TCP/IP)*. The Internet operates without centralized management and offers unrestricted services (Ebrahimi, 2000).

In Iranian law, regarding the formation and validity of contracts, computer-based contracts must comply with the fundamental conditions for the validity of transactions outlined in Article 190 of the Civil Code. The key issue in this regard is whether sending a message via computer can constitute a definitive expression of a party's intent and demonstrate mutual agreement.

The response to this question is affirmative. Given the principle of consensual contract formation in Iranian law and the exceptional nature of formal requirements for contract conclusion, as well as the fact that computers represent an advanced communication tool compared to telegrams, telex, fax, and telephones—offering not only audio-visual transmission but also data processing capabilities—it is reasonable to regard the declaration and transmission of intent through computers as a definitive statement of will, reflecting the intent and consent of the contracting parties. Naturally, the individual expressing intent must possess legal capacity, specify a known and definite subject for contract formation, and ensure that the contract's purpose is lawful.

4. Modern Methods of Expressing Intent in Electronic Contracts

Significant technological advancements in our era have transcended traditional and previously recognized boundaries, profoundly transforming various social, economic, and political norms. In this context, legal norms, particularly in the realm

of contract law, have not remained unaffected by these transformations. The increasing volume of communication in commercial transactions serves as clear evidence of this claim. The following discussion provides a detailed analysis of modern methods of expressing intent, examining both traditional remote contract formation methods and modern, technology-based approaches to contract formation.

4.1. *Traditional Methods of Remote Contract Formation*

The technical renaissance in our world has led to the emergence of new means that facilitate faster, more precise, and easier communication among individuals. The development of these tools began in the late nineteenth century and has continued to the present day. Among these means are postal services, telegrams, telephones, and telex systems, which are examined separately in the following sections.

a) Contract Formation via Postal Services

In Iranian law, the system of mail delivery has long been in use among humans. However, its application as a means for expressing intent and concluding commercial contracts does not have a long historical precedent. As humanity placed increasing trust in written correspondence for declaring intent and forming contracts, the legal system recognized and regulated its use.

When an offer and acceptance occur in the physical presence of both parties, no significant legal issues arise regarding how intent is expressed or the time and place of contract formation. However, complexities arise when parties are not physically present with each other and intend to conclude a contract remotely using a communication tool. It is evident that the simultaneous physical presence of contracting parties is often impractical, particularly when additional factors such as differences in nationality further complicate the process.

One of the most commonly used methods in such cases is correspondence through letters, facilitated by a postal system that ensures delivery. In this scenario, parties utilize written communication to express their intent, combined with postal transmission as a means of communication.

Although written contracts formed through correspondence have not been explicitly and independently discussed in Imami jurisprudence, a review of jurists' opinions indicates that they generally uphold the principle that a contract is concluded solely through the mutual consent of the parties (principle of consensuality in legal transactions) (Khoei, 1986; Mohaghegh, 1997; Mufid, 1989). According to this principle, no additional formalities are required for contract formation, and the offeree's knowledge of acceptance or the irrevocability of the acceptance is not a precondition for contract conclusion. Consequently, among the four primary legal theories regarding remote contracts, Imami jurisprudence predominantly supports the *declaration of acceptance* theory. This is particularly relevant given that Imami jurisprudence prioritizes *internal intent* over explicit statements, meaning that the formation of a contract is determined not only by what is verbally expressed but also by the parties' *underlying intent*. As a result, in cases of conflict between internal and external intent, internal intent prevails (Naeini Khansari, 1997; Najafi, 1981).

The formation of contracts through postal services in Iranian legal doctrine and statutory law has been subject to detailed examination. Legal scholars in Iran, analyzing Article 191 of the Civil Code and its wording "... *provided that it is accompanied by something indicative of intent*", argue that Iranian law endorses the *declaration of acceptance* theory over the *receipt of acceptance* theory. Specifically, among the four major theories regarding remote contracts, the doctrine of *sending acceptance* is preferred (Katouzian, 1998; Safai, 2005).

First, merely writing an acceptance letter does not indicate a definitive intent to enter into a contract, as the letter remains under the control of the sender. A written document that has not been sent or presented cannot typically serve as an expression of intent, meaning that mere authorship of an acceptance letter does not necessarily constitute a conclusive contractual intent (Safai, 2005; Shahidi, 2016).

Second, when a person mails an acceptance letter, knowing that it is beyond their control and will be delivered by the postal service to the offeror, the act of mailing the letter is considered an unequivocal indication of intent. In other words, handing the letter to the postal service is deemed a declaration of intent and a valid method of expressing acceptance (Katouzian, 1998).

Third, if mailing the acceptance letter itself is sufficient to establish intent and form a contract, then additional formalities—such as the recipient's receipt of the letter or the offeror's awareness of its content—are unnecessary. According to Article 191 of the Civil Code, an intention to contract is valid as long as it is *accompanied by something indicative of intent*, even if the offeror becomes aware of the acceptance at a later stage. This principle is also supported by other legal provisions, such as Article 376 of the Commercial Code and Articles 196, 339, and 1149 of the Civil Code.

b) Contract Formation via Telegram and Telex

In Iranian law, individuals can use telegrams and telex systems to transmit their contractual declarations remotely in written form. Since telegram and telex technologies emerged relatively recently, no independent jurisprudential theories specifically address these means. However, considering contemporary jurists' endorsement of the *principle of consensuality* in transactions, these tools can be regarded as valid methods of expressing intent through writing.

In Iranian legal doctrine, few scholars have directly and separately analyzed the legal status of telegram and telex. However, most legal scholars, referring to the broad interpretation of Articles 191 and 193 of the Civil Code—both of which confirm that, except in exceptional cases, a contract can be concluded by any means or action—accept that declarations of intent made using modern communication tools are valid as long as they clearly express an individual's internal intent (Shahidi, 2016).

A close examination of intent declaration via telegram and telex suggests two distinct scenarios, each of which carries specific legal implications:

The first scenario occurs when an acceptance sent via telegram or telex is received immediately upon transmission, creating a real-time exchange between the parties. This situation, which primarily applies to telex communications, eliminates the typical time delay between offer and acceptance, effectively making the contract formation process equivalent to in-person transactions. In such cases, the time of contract conclusion is deemed to be the moment of acceptance, and the location of the contract is considered the place where the acceptance was declared (Katouzian, 1998).

The second scenario occurs when, after an acceptance is sent via telex or telegram, the recipient does not immediately become aware of it, resulting in a delay between acceptance and its acknowledgment by the offeror. This scenario, which is more common in telegram-based transactions, raises more complex legal questions regarding the time and place of contract formation.

Since offer and acceptance do not occur simultaneously, the contract cannot be classified as one concluded between physically present parties. Instead, it falls under the category of contracts formed *between absent parties*. In such cases, determining the time of contract formation depends on one of three theories: the *declaration of acceptance*, the *receipt of acceptance*, or the *awareness of acceptance* theories. Based on international legal customs, the moment of contract formation is generally recognized as the moment when the acceptance reaches the offeror (Sadeghi Neshat, 2000).

In light of Iranian legal principles concerning contracts formed between absent parties, telegram and telex communications should be treated similarly to letters sent via regular postal services. Thus, the contract is deemed concluded at the moment the acceptance is *declared* via telex or telegram—an event that aligns with the moment of transmission. Consequently, the place of contract formation is determined by the location where the acceptance was declared or transmitted.

c) Contract Formation via Telephone

In Iranian law, the telephone is a tool that facilitates the transmission of verbal communications between parties over long distances. Therefore, in telephone contracts, the verbal exchange itself constitutes the primary means of contract formation, while the telephone technology merely serves as a medium for transmitting speech. Moreover, no written documentation is involved in telephone contracts, as all communications occur verbally between the contracting parties. Given the absence of jurisprudential theories, statutory provisions, or judicial precedents specifically addressing this issue, it is necessary to examine the subject within Iranian legal doctrine.

Iranian legal scholars who have analyzed this issue argue that, due to the simultaneous occurrence of offer and acceptance in telephone contracts, such agreements should be regarded as contracts between *present parties* in terms of timing. Consequently, the contract is formed immediately upon acceptance, provided that all essential contractual conditions are met. However, in terms of the *place of contract formation*, since the parties are not physically co-located, the contract should be classified as one formed between *absent parties*. If the contracting parties have not explicitly or implicitly agreed on the place

of contract formation, the contract is considered to be concluded at the location where the acceptance is declared (Katouzian, 1997b).

4.2. Modern and Technology-Based Methods of Remote Contract Formation

This section examines the legal aspects of expressing intent in modern, technology-based methods of contract formation.

a) Contract Formation via Facsimile (Fax)

The absence of jurisprudential and statutory provisions regarding contract formation through facsimile in Iranian law is well established. The only formal legal text indicating the Iranian legislature's and economic-legal system's inclination to recognize facsimile as a means of expressing intent and concluding contracts remotely is the *Electronic Commerce Act* of the Islamic Republic of Iran. This law defines "data" as follows:

"Any representation of fact, information, or concept that is generated, sent, received, stored, or processed through electronic means or emerging information technologies, including computer systems, telegrams, telex, and facsimile."

The functionality of facsimile is such that it transmits images of written documents or illustrations remotely. Therefore, its distinction from telegrams and telex systems lies in the fact that the latter transmit the *original text* of the message and the *explicit intent* of the sender in written form. In contrast, facsimile transmits an *image* of an offer or acceptance that was previously written.

As a result, it appears that faxed documents do not possess the same evidentiary weight as telex and telegram messages and do not exhibit the element of real-time communication. There may be a time delay between the drafting of an offer or acceptance and its transmission via facsimile. Although certain legal writings have not distinguished between telephone, telegram, and facsimile, treating all three as *contracts between present parties* (Katouzian, 1998, p. 371), facsimile should not be legally equated with telex and telegram in terms of authenticity and attribution.

Nevertheless, given that Iranian law adopts the *sending acceptance* theory, if the recipient receives the facsimile in real-time, the contract may be considered a contract *between present parties*, and if the content of the facsimile indicates acceptance of a prior offer, the contract is concluded at that moment. Consequently, the *place of contract formation* would be where the acceptance is sent. However, if the recipient does not immediately receive the facsimile and becomes aware of it later, the contract should be regarded as one between *absent parties*. Based on the *sending acceptance* theory, the *time and place* of contract formation in Iranian law can be determined accordingly (Rafiei Moghadam, 2011).

b) Contract Formation via Computer Networks

In Iranian law, the emergence of computers and, more significantly, the interconnection of computers in both small-scale and large-scale networks has profoundly transformed the field of communications. This development has also reshaped legal communications between individuals and contract formation, necessitating new legal principles.

The legislative history of remote contract formation via computer networks can be traced to the drafting and adoption of the *Electronic Commerce Act*, enacted on January 14, 2004. Despite the existence of statutory laws in other countries governing electronic contract formation, Iran lacked any specific legal text in this regard. Consequently, on May 19, 2002, the Iranian Council of Ministers, following a proposal submitted on November 7, 2001, by the Secretariat of the High Council of Informatics, enacted a resolution titled "*The Electronic Commerce Policy of the Islamic Republic of Iran*" under Article 138 of the Iranian Constitution.

This resolution pursued two primary objectives:

1. Establishing the fundamental infrastructure and legal-executive frameworks necessary for the utilization of electronic commerce.
2. Expanding the use of the Internet for conducting electronic commerce in Iran and implementing measures to regulate its content.

This resolution, which essentially served as Iran's gateway into the digital communication era and the global information society, led to the drafting and eventual adoption of the *Electronic Commerce Act* in late 2003 (Rafiei Moghadam, 2011).

This law, which consists of five chapters, seeks to comprehensively address the technical, legal, and commercial aspects of electronic communications. However, the legal dimensions of electronic commerce have been largely overshadowed by its commercial and technical aspects. As a result, interpreting the provisions regarding intent declaration through computer

networks often requires reliance on general principles of contract law and established legal doctrines. In other words, the brief provisions within the *Electronic Commerce Act* are insufficient to fully address the legal complexities of this subject. The following section specifically examines the legal aspects of expressing intent and forming electronic contracts via computer networks.

c) Offer via the Internet

An *internet-based offer*, like any other offer, must contain two essential elements: *definiteness* and *specificity*.

The definiteness of an offer means that it must reflect the offeror's unequivocal intent to enter into a binding contract, such that the contract is concluded immediately upon acceptance. Distinguishing between advertisements, promotional content, and preliminary discussions on websites or via email from actual contractual offers can often be challenging. Generally, if an online advertisement (*Annonce*) does not grant the user the *unilateral right* to accept the offer definitively—such as by clicking a button or confirming the proposal through another method—the announcement merely constitutes an advertisement, a promotional statement, or an invitation to negotiate, rather than a legally binding offer (Bondoit).

Additional factors, such as restrictions on the availability of the advertised goods, limitations on sales to specific individuals, and the requirement for the offeror's confirmation of acceptances, also play a significant role in distinguishing an offer from an *invitation to treat* (Smith, 2002).

The specificity of an offer manifests in two key aspects:

1. The *type of contract* must be clearly identified by the offeror. For instance, it must be specified whether the proposal constitutes a *trial offer*, a *free offer*, a *binding contract*, or a *standard agreement* (Bondoit).
2. The *essential contractual terms* must be clearly defined. In Iranian law, the primary contractual elements—such as the subject matter of the contract and its consideration—must be explicitly stated in the offer (Katouzian, 1997b). For example, under general sales contract principles in Iranian law, the *type, quantity, and quality* of the goods must be clearly specified in the offer so that they can be distinguished from other items. The classification of goods (whether *specific goods*, *generic goods in a specified category*, or *generic goods subject to future delivery*) also affects the required level of detail in the offer (Katouzian, 1997a).

The *Electronic Commerce Act* of Iran defines *data messages* in Article 2(a) as:

"Any representation of an event, information, or concept generated, sent, stored, or processed using electronic, optical, or new information technologies."

Additionally, Article 2(f) defines *computer systems* as:

"Any device or set of interconnected hardware-software systems that process data messages through automated programs."

Furthermore, Article 2(j) defines *electronic signatures* as:

"A mark attached to a data message indicating the sender's identity."

Thus, in Iranian law, sending a message via computer is legally recognized as a legitimate and systematic means of declaring intent and forming contracts, eliminating any legal uncertainty in this regard.

Acceptance through computer networks must be *definitive and unconditional*; otherwise, it may itself constitute a counteroffer (Smith, 2002). *Implicit acceptance* has no meaning in electronic contracts since machines are incapable of inferring an implicit intent to conclude a contract (Cahen, 1999: [http:// Juriscom agat Net/uni/mem/05/presentation htm](http://Juriscom.agat.Net/uni/mem/05/presentation.htm)).

Acceptance in online contracts can take various forms. For example, a user may click on the desired product or on the word "Yes" using a computer mouse. In some cases, a *double-click mechanism* is used to ensure that the user does not mistakenly click once (Bondoit). In other cases, acceptance may be confirmed by filling out a response form, sending an email, making a telephone call, or sending a facsimile or telex message. The specific method of acceptance depends on the offeror's stipulations in the terms of the offer (Smith, 2002).

The validity of acceptance by clicking in electronic contracts can be justified based on the general principles of contract formation. Just as in traditional contract law, acceptance can occur through a simple act without the need for verbal confirmation, online acceptance also occurs through a straightforward action that leaves no room for ambiguity or doubt (Cahen & Sobelle, 1999).

In the *Electronic Commerce Act* of the Islamic Republic of Iran, considering the recognition of *electronic data messages* as a legitimate means of expressing intent, acceptance through electronic communication undoubtedly holds legal significance. However, Article 30 of the Act explicitly states that the legal consequences of a data message depend on the *general principles of contract law*. Therefore, the Act does not specifically address the *form and characteristics* of acceptance, requiring recourse to established legal doctrines and principles.

5. Conclusion

Electronic contracts concluded via the Internet fall under the general principles and rules of contract law. The alignment of legal terminology and traditional contractual rules with the technical features of the electronic environment, the regulation of parties' rights and obligations to maintain fairness and protect interests in internet-based contracts, and the rules governing various electronic contract formation methods and the fulfillment of obligations through the Internet are among the challenges that introduce uncertainty in the validity of electronic contracts.

The primary reason for these challenges lies in the fact that many of the concepts and provisions in Iran's *Electronic Commerce Act*, which govern electronic contracts, lack historical precedence in the country's legal traditions and are relatively unfamiliar compared to the dominant legal principles in Iranian law. While the *Electronic Commerce Act* does not appear to conflict with general provisions of civil and commercial law, it also lacks substantial integration with the formal and technical rules established in primary legal sources, such as the Civil Code and Commercial Code. As a result, its applicability to legal aspects of electronic contracts remains *highly limited*.

Fundamentally, the operation of electronic contracts is based on an *information system* and the *exchange of data messages*. This information constitutes either the *expression of intent* (offer and acceptance) or the *content of the electronic product* that is being transacted within the contract. Electronic contracts are inherently classified as *written contracts*, and electronic signatures are recognized as a fundamental mechanism for validating the expression of intent in electronic transactions. Ideally, these provisions should have been incorporated into civil law regulations, covering *all* types of electronic transactions.

Many substantive and formal issues applicable to civil contracts are equally relevant in the electronic environment and require *comprehensive and inclusive* legal regulations. However, incorporating these provisions under the *Electronic Commerce Act* has resulted in *conceptual fragmentation* and *limitations* in the applicability of legal principles to electronic contracts.

Key principles governing the formation of electronic contracts—such as the *rule of correspondence between offer and acceptance*, the *international nature of electronic commerce transactions*, the *need for clarity in the subject matter of commercial contracts*, and the *scope of permissible subject matters in electronic commerce*—have been examined, with findings compared to those in *traditional commerce*.

The primary recommendation of this study is to establish a *coherent regulatory framework* for electronic commercial contracts in accordance with contemporary requirements and based on the *higher-level legislative frameworks* of the Islamic Republic of Iran.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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