

# The Effects of Artificial Intelligence and Modern Technology on Commercial Transactions for Commercial Transactions Law 2023

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## Abstracts

In light of the Fourth Industrial Revolution, the intervention of artificial intelligence in commercial transactions has expanded, and it has not remained a mere subject or object of the contract, whether it is a material or moral product, but has gone beyond that to have a fundamental and effective role in concluding the contract as an electronic agent that makes the contract automated and concluded in whole or in part in an automated manner without human intervention. The UAE legislator was interested in regulating its use, whether under the Electronic Transactions Law of 2006 and the current one of 2021, and referred to this possibility under the Trade through Modern Technology Law of 2023; It considers it an information program that represents the original principal and bears the effects of the transaction concluded with the intervention of artificial intelligence despite not granting the electronic agent legal personality. The integration of artificial intelligence and modern technology into commercial transactions has profoundly transformed the landscape of commercial law. Artificial intelligence techs, including natural language processing and machine learning algorithms, are increasingly utilized for contract formation, risk assessment, and dispute resolution. Such technologies enhance efficiency, decrease human error, and advance transactional processes, offering substantial advantages for businesses and consumers. Modern technology, consisting of digital currencies, smart contracts, and blockchain, has further revolutionized commercial transactions through offering unprecedented levels of security, transparency, and automation. Blockchain technology warrants irreversible and provable records, while smart contracts perform automatically when predefined conditions are met. This minimizes the need for intermediaries and enhances integrity of the transactions carried out. Additionally, this paper addresses the legal and regulatory responses to these technological advancements. Jurisdictions across the world are grappling with the need to update existing laws or come up with new ones in order to address the challenges posed by AI and modern tech in commerce. The dynamic nature of technology calls for a flexible and adaptive legal approach in order to make sure that commercial laws remain to be relevant and effective.

**Keywords:** Artificial intelligence, automated contract, electronic intermediary, regular agent, trade with modern technology.

## Introduction

Commercial transactions have witnessed several developments due to their association with commercial activity, which is characterized by rapid movement in time and space. The transformations experienced by transportation, media, and communication had a major impact on the emergence of multiple contracts and transactions (Berman, H. J., & Kaufman, C., 1978). There was a shift from dealing by barter and exchanging goods to exchanging for cash; then from traditional paper contracting to electronic dealing after the spread of e-commerce, which has several forms that may be between merchants (B to B) or between merchant and consumer (B to C) or between merchant and government (B to G) or government and consumer (G to C), and now the trend towards the intervention of artificial intelligence in transactions and the provision of government and private services, and the transition from regular government to e-government and then smart government (Jamal Qasim Hassan, Mahmoud Abdel Salam, 2021). In recent years, the use of artificial intelligence in business transactions has spread widely through what is known as the electronic or intelligent agent. The first electronic agent appeared in 1966 under the name Eliza by the German researcher Joseph Weizenbaum to conduct simple conversations with the user and answer questions. It was later developed to provide information about products offered for sale, with Alice being the latest updated version of it. After the development of the Internet, electronic agent programs were no longer restricted to the Massachusetts Institute of Technology and IBM and to simple functions (searching and providing information related to the needs of program users), but were later used in many countries that were pioneers in introducing the Internet into their activities (military or civilian), until the present time when the Internet has become open to everyone (Sameh Zeinhom Abdel Gawad, 2008).

In light of artificial intelligence's capacity for learning, certain transactions now depend on computer programs that carry out user commands or function independently without human involvement. These programs may make decisions about contracts after analyzing and processing the data they are given, sometimes even without the user's knowledge (Hermans, B., 1997). This gave rise to the adage that artificial intelligence contracts represent humanity's future frontiers. Artificial intelligence will give rise to a new, highly developed kind of human civilization once these boundaries are crossed (Aboelazm, K. S., & Ramadan, S. A., 2023). However, artificial intelligence's overarching tenet is that it cannot supersede human intelligence. Given the UAE's orientation towards leadership in the field of technological technology, there is a diversity in dealing with its guests, which was to facilitate life within the community and adopt the artificial intelligence strategy, I found a country working to make its independence keep pace with developments, especially away from the UAE trade market, electronics are advancing in Arab countries due to the high volume of sales and transactions, even Saudi Arabia, and this has developed through.

- Regulating electronic commerce and electronic transactions in general, starting with Federal Law No. 01 of 2006, the first building block for regulating electronic transactions.
- Federal Decree-Law No. 46 of 2021 regarding electronic transactions and trust services.
- Amending the provisions regulating commercial transactions to be suitable for real or virtual commercial businesses conducted in technical circles or through modern technology, pursuant to Federal Decree-Law No. 50 of 2022 issuing the Commercial Transactions Law, which considered the creation, sale, rental and management of platforms, websites, smart applications, data and artificial intelligence as professional commercial businesses.
- In Federal Decree-Law No. 14 of 2023, new rules were made for trade using modern technology. These rules say that trade through modern technology includes "the sale and purchase of goods, services, and related data in technical circles, or through modern technology means from websites, platforms, or smart applications, including those that take place through electronic or digital commerce or social networking sites, and includes non-digital goods and services that are obtained in reality or virtually through modern digital technology means or technical circles. Artificial intelligence and the use of smart applications are considered modern technological means.

Artificial intelligence (AI) can be found in commercial transactions in two different ways: either as the subject or location of the transaction, or as an intervening party (Jacquemin, H., & Hubin, J. B., 2017). AI is the technology that simulates machines and computer systems to mimic human intelligence to perform complex tasks. By examining the subject of "Artificial Intelligence Intervention in Commercial Transactions and Developments in Commercial Law through Modern Technology for the Year 2023, the research will concentrate on the second form. Relevance of the research: The UAE's interest in the Fourth Industrial Revolution and its reliance on the UAE National Strategy for Artificial Intelligence 2031, which aims to ensure the development of artificial intelligence and its uses in a safe and ethical environment, demonstrate the study topic's strategic importance. Its practical importance stems from the growing role that artificial intelligence plays in facilitating contractual relationships between merchants and regular people. Its legal significance arose from legislative action taken to create a regulatory framework for AI as a transaction partner, also known as the smart or automated intermediary. Federal Decree-Law No. 14 of 2023 established the legal framework for trade involving modern technology tools like AI.

The problem of artificial intelligence has a clear impact on transactions, especially after the widespread spread of e-commerce, which raises many legal problems: Given the UAE's interest in leadership in the field of modern technologies and artificial intelligence, how did the UAE legislator regulate the intervention of artificial intelligence in transactions as an active party either before or upon concluding the contract? Is it subject to the general rules of transactions and concluding the contract or to the provisions regulating electronic transactions? What is the position of such transactions concluded by the electronic agent in light of the developments in the content of Federal Decree-Law No. 14 of 2023 regarding trade through modern technology? Is the artificial intelligence intervening in transactions considered responsible as a legal person, or does the responsibility fall on the person using it or the person dealing on its behalf? The study

aims to shed light on the position of the UAE legislator on the legal regulation of the intervention of artificial intelligence as a party to a commercial transaction, whether in negotiation or contracting, especially in light of the current trend towards smart contracts that ensure automatic execution of the contract. All this is to determine the extent to which the applicable legislation embodies the principle of technological neutrality by not discriminating between the technologies used in contracting, and equating electronic transactions with regular ones, especially after the abolition of the Electronic Transactions Law of 2006 by the Electronic Transactions and Trust Service Law of 2021 and the recent legal regulation of trade through modern technology for the year 2023.

## Literature Review

This section presents a review of past information about the impact of artificial intelligence and the impact of commercial technology on the Specific Transactions Law of 2023. The intervention of artificial intelligence in commercial transactions, and developments in the Commercial Law through modern technology for the year 2023, will be by studying its role in the pre-contractual stage and in the contractual stage, after identifying the legislative provisions regulating contracting electronically using an electronic agent.

### 1.1 Legal regulation of artificial intelligence as a party to a commercial transaction and electronic agent

The development of information technology was a contributing factor in the emergence of the electronic contract, but automated systems also emerged as a result of the Internet's widespread use and openness, as well as the technology's constant advancement and myriad applications in transactions, including e-commerce, which is now conducted entirely online. One of its most important subjects is the electronic or smart mediator; contracts have also gone smart (Petit, N., 2017). Its goal is to assist the individual in carrying out tasks and lessen his financial and temporal stress. As far as electronic transaction regulation is concerned, UAE law is a trailblazer. Since the turn of the century, it has controlled electronic intermediaries and reformed them in accordance with laws enacted in 2022. Additionally, it made business dealings involving artificial intelligence governed by the recently published 2023 law on trade using modern technology. Consequently, we will first define artificial intelligence's role in the contract as an electronic intermediary or agent, and then we will look at what makes it unique (Andrade, F., Novais, P., Machado, J., & Neves, J., 2007).

#### 1.1.1 What is electronic agent (artificial intelligence involved in contracting)

The foundation of artificial intelligence is a robot's or digital computer's capacity to carry out actions often associated with conscious entities and adjust to changing environments. It can become involved in the contractual procedure as a party. The definition of the term "electronic agent" will be determined by first defining it from a jurisprudential and then from a legislative perspective. The notion of the executive director, which was later initiated by the legislator when he invented electronic transactions, including the structure of the electronic official, is subject to numerous jurisprudential definitions that aim to regulate it. It is well-known for depending only

on its purpose and the duties it completes (Franklin, S., & Graesser, A., 1996). Client programs participate in dialogues, negotiations, and information coordination. It can be characterized as an independent computer program that operates without human or other agent intervention and has some kind of control over its actions and internal state, and its environment affects its behavior and strategies for solving problems (Weitzenboeck, E. M., 2001) based on its unique features or characteristics. An electronic program, system, or any other electronic means ready to carry out an action or react automatically to electronic recordings and a particular will or performance, in full or in part, without referring to a real person, is another definition for it. Some describe it as a computer program that can react to data messages entirely or in part without the need for a human being to step in every time the system acts or reacts. It functions as an intermediary in electronic transactions, fulfilling the same function as a traditional agent who is a natural person, whether that person is legal or not. This role is represented by the agent acting on behalf of the client in a way that is known to be acceptable. Furthermore, some legal precedent suggests that the electronic agent may be preferred over the traditional agent in carrying out this role because of the benefits he receives that are not available to the traditional agent. However, using an electronic agent to conduct legal transactions has drawbacks.

Legislators have expressed interest in automated contracts and transactions completed with the assistance of an intelligent agent or middleman, despite the lack of precise statutory definitions for artificial intelligence (Aboelazm, K. S., 2023). Although Canadian and American laws have intervened in defining Emirati law since the turn of the 20th century, the UNCITRAL Electronic Commerce Act and the United Nations Convention on the Use of Electronic Communications in International Contracts influenced it. One of the laws that defined the electronic intermediary was the one from the United Arab Emirates. The definition of an electronic intermediary was first given in Article 2 of Dubai Emirate Law No. 02 of 2002, which dealt with electronic transactions and commerce. According to Price and Al Tamimi (2005), an electronic intermediary is a computer program or electronic system that can act or respond to an action independently, in whole or in part, without the supervision of any natural person at the time the action or response is performed. Since the electronic system or software is connected to the computer rather than information technology, this term is more precise. Next, by the Federal Law No. 1 of 2006 regarding electronic transactions and commerce, which was repealed, the automated electronic intermediary is defined as an electronic program or system for an information technology that operates automatically and independently, without the supervision of any natural person at the time the action or response is performed. This law carefully chose its terms and added the adjective automated, reflecting the legislator's position in the Dubai Emirate. The Federal Decree-Law No. 46 of 2021 regarding electronic transactions and trust services, which repealed the 2006 law, keeps the same name in UAE legislation to this day. It defines an electronic information system as an electronic information system that operates automatically and independently, in whole or in part, without the intervention of any natural person at the time the work is carried out or the response to it is made (Qouteschat, O. H., & Alawamleh, K. J., 2017).

### 1.1.2 Characteristics of the electronic medium

Some of the special characteristics of artificial intelligence will be examined to better comprehend its role in contracting as an agent or electronic mediator. According to Swarna, T., Kalyane, V. L., Prakasan, E. R., & Kumar, V. (2002), these attributes include those that deal with how much technology interferes in the transaction (the first branch) and others that are subjective. The most common application for an automated intermediary, electronic middleman, or electronic agent is in e-commerce. Making contracts is one of its features; it may be used for more than just searching for goods and services. Modern artificial intelligence or electronic agent is considered a complex matter, allocating fees by Federal Law No. 14, especially 2023, regarding trade through technology means, which means “any technical means used through trade through technical trade means, whether electronic, digital, biometric, artificial intelligence technology, smart block chain technologies blockchain or in technical mediation, whether by entering electronic websites or through applications, and is considered to be the intervener in its commercial activities through modern technology, which means all buying and selling products and services related data in technical mediation, or through technology means from websites, platforms or modern smart applications, including those that are done through electronic or digital commerce or social networking sites, and includes non-digital services that are obtained in reality or virtually through modern technology means or technical mediation (Wimmers, J., 2021).

AI intervention, which can be an electronic assistant agent lacking the independence of strong human intervention to make appropriate decisions, is an example of how the information system's role is to support human decision-making. AI is widely used in smartphones for speech recognition and translation (the Siri system in Apple phones). Furthermore, artificial intelligence (AI) intervenes in a more sophisticated way, either as an adviser to humans in the creation of new things, or as an autonomous system adopted by businesses and utilized in meetings for deliberation, or as the agent that intervenes automatically without human intervention, such as self-driving cars and Internet-connected objects (Sardar, P., Abbott, J. D., Kundu, A., Aronow, H. D., Granada, J. F., & Giri, J., 2019). The electronic agent's independence is what sets it apart from other programs the most. It's computer software that, with a margin of autonomy, takes the place of the user when carrying out a physical act or legal activity, saving human intervention during the task. It is a program that runs independently on certain inputs to produce a predefined output and functions as a virtual person without the need for human intervention. As a result, the term smart agent refers to an electronic program used to accomplish tasks and work on behalf of users without their direct influence or involvement. The benefits of being a smart agent include freedom, adaptability, and the capacity to engage and communicate with users and other agents. It is electronic media software that enables the medium to act or react to an event automatically and independently at the moment the event occurs (Aboelazm, K. S., 2024).

### 1.1.3 Distinguishing are intelligent agent and ordinary agent

It appears helpful to differentiate contracting through an electronic agent from contracting through a regular agent to better understand the former. This is accomplished by pointing out the distinctions and similarities between the two, concentrating on the degree to which the former enjoys legal existence while the latter never ceases to be a legal person (Padgham, L., &

Winikoff, M., 2005). Although the names of the agencies are similar, there are a few distinctions between the electronic agent and the traditional regular agent. The point of contact between the two is the agency or mediation between the contracting parties. The regular agent and the regular agent are similar in that regardless of the kind of action, the duty resulting from the contract that is completed through the conventional agent or the electronic agent has legal repercussions on the original principal's financial situation, whether it be rights, obligations, or liabilities. The nature of the agency, how it emerged, and the degree to which contracting forms allow the agency's limitations to be surpassed are some of the ways that the electronic agent varies from the traditional agent (Wooldridge, M., 1999).

There are differences in concept. The regular agency according to the UAE Civil Transactions Law is a contract whereby the principal appoints another person in his place in a permissible and known transaction, while the electronic agent according to the Electronic Transactions and Trust Service Law is an electronic information system that operates automatically and independently, in whole or in part, without the intervention of any natural person at the time the work is being done, or the response to it, it appears from this that the regular agency is a contract or agreement between two parties that requires matching of the offer and acceptance on a specific subject, while the electronic agency is created by a unilateral decision to establish an electronic program to intervene in transactions or to respond to communications while defining its powers because its work is linked to the information provided to it, to either prepare for the contract or negotiate or contract by expressing the will positively or acceptingly (Aljasmi, A. E., 2015).

Accordingly, the conditions for the validity of a regular agency differ from those of an electronic agency: The law regulated the regular agency in detail, from the creation of the contract to its termination and effects, and stipulated that the principal should own the right to dispose of what he was entrusted with, that the agent should not be prohibited from disposing of what he was entrusted with, and that the location of the agency should be known and capable of representation. As for the electronic agency, it is subject to the provisions of electronic transactions (Alustath, H., 2016). The regular agent is a legal person who has the existence and capacity to contract, unlike the electronic agent: to whom jurisprudence has tried to grant legal personality so that he has the will to contract and arrange the effects in the principal's possession, but despite that, the legislator did not intervene to grant him legal existence, but rather considered him a mere device that carries out the tasks assigned to him in an automated manner without prior human intervention, as confirmed by Bahraini, Kuwaiti and Jordanian law.

The normal agent and the electronic agent have different contracting forms. Jurisprudence believed that as the use of computers in transactions increased, there would be a shift away from regular agency and toward electronic agency. This shift could occur in transactions involving a legal person and an intelligent agent, between two intelligent agents, or in an information program. In these situations, the contract is entirely computer-generated and carried out without any human involvement, making it electronic and subject to the laws governing electronic transactions and trust services. Its application is limited, and it must adhere to general rules, particularly those about legal procedures and conditions, as well as obtain the approvals required by law for the sale of certain goods or services (Wettig, S., & Zehender, E., 2004). Since the

contract is defined as an agreement between the digital merchant and the consumer that documents the offer and acceptance, specifies the subject and details of the contract, its terms, and conditions through modern technology, and includes the electronic contract, the smart contract, and others used through modern technology, it is categorized as a digital contract to which the Commercial Law applies through modern technology. The digital merchant connects the natural or legal person who uses artificial intelligence to sell goods and services through modern technology with the consumer, who contracts with him to obtain goods and services to meet his or her needs or the needs of others, either for a fee or without. This law does not apply to smart applications used for non-commercial purposes. The transaction completed through the electronic agent is done in electronic writing and is for a fee when working with a business that specializes in these programs. In contrast to the regular agency, which is a written agreement that may be for a fee when both parties agree on it explicitly or implicitly, the transaction completed through the electronic agent is done in electronic writing and is for a fee.

The degree to which the agency's boundaries can be crossed both in its traditional and electronic forms: While the electronic agent, as an information program, is limited to the tasks assigned to him and cannot go beyond them, the ordinary agent is bound by the agency's bounds and can only exceed them in ways that are most advantageous to the principal; furthermore, due to advancements in artificial intelligence, the smart agent may be able to surpass the drawn limits by contracting even in the absence of a principal request (Poole, D. L., & Mackworth, A. K., 2010). If the items, for example, that are the subject of the contract do not suit the original principal's taste, the ordinary agent is still able to withdraw from the agreement; in contrast, the electronic agent executes the automatic implementation without considering such a scenario. The web or smart manager, or a highly developed and independent computer program, sees progress and openness to a world in which magic is an important part of human life independently of its user and meets its readiness for some information from it, where it becomes able to accomplish it electronically between the person and the natural machine or between one machine and another. Its role is not limited to searching for goods and services on the Internet but extends to concluding contracts, entering into negotiations, and bidding (Lynn Kaarst-Brown, M., & Robey, D., 1999). All of this is done without monitoring or control from the user as long as his work is independent, which calls into question the extent to which the electronic agent enjoys the legal capacity that enables him to conclude transactions. Opinions were divided into two sections: granting the electronic agent a virtual legal existence and personality and adhering to considering it a mere communication tool that does not rise to the level of being considered a legal person, as follows:

- Natural personality in law is the acquisition of rights and the bearing of obligations, according to your personal belief or taking it into consideration. First, the boat of artificial intelligence is excluded by the person because the natural human being alone is intelligent and has this description, and the intelligent agent does not have a real tangible existence but rather a virtual one due to its scope and field and the absence of feelings, awareness, and free will as is possible. Does this make him depart from the principle of the person in particular, which is a group of funds or a group of funds or individuals and an organization of funds and thus a specific goal or leavers involved in the project of controlling its existence, and is distinguished by its independence from the persons who compose it, and the jurisprudential opinions conflicted on



the basis of those groups. The legal existence is either the theory of tricker assumption or imagination or the theory of truth. It appears that the theory of imagination is compatible with the electronic agent, but it requires that you be affected to grant it legal personality. Who has not done so now?

- The second rejects the commercial law of the smart agent, but rather it is merely a tool for linking and mediating to conclude electronic transactions. and in everything necessary, three objectives must be applied to the legal framework of the electronic agent, represented in verifying the validity of the contract, then the responsibility of its users with protection and dealing with it, all of this to enhance electronic commerce and increase legality.
- Another trend emerged as a result of research into the responsibility of artificial intelligence, which relies on adherence to the theory of financial liability, by recognizing the electronic phone agent's financial liability with the adoption of the alliance system by subscribing to insurance with a specific registration and choosing to apply the allocation liability. The dealing merchant allocates an independent and distinct financial liability that he grants to the electronic mail agent to carry out a specific activity, which cannot be implemented by the merchant's creditors. It begins with the transfer of some of the merchant's assets, which are disposed of by the agent, and insurance is added to it.
- However, the CEO remains just an electronic program, machine, or device that performs the tasks assigned to him in an automated manner without any modern human influence. Moreover, the UAE legislator, after regulating trade through technology such as artificial intelligence, obligated the digital merchant to provide insurance coverage for transactions via technology to protect the consumer.

## 1.2 Role of artificial intelligence by transactions

The last years of the last century witnessed the development of these programs that became able to issue model offers through the data exchange system, as well as the registration and recognition of acceptance issued by the contracting parties (Draganov, M., Panicharova, M., & Madzhirova, N., 2018). The increase in information about the goods offered for sale and consumer behavior and needs due to the spread of e-commerce are motives that led to the exploitation of this information wealth (data and collected data) to facilitate commercial transactions by relying on the electronic mediator who intervenes in the transactions for the benefit of the client or principal and under his responsibility.

### 1.2.1 Role of artificial intelligence in the pre-subscription phase

There are several types of electronic intermediaries, depending on the function they perform: information, monitoring, assistance, and electronic commerce. They can be considered in two forms: an agent who performs physical work on behalf of the user and who searches for individual actions. This section will focus on the electronic intermediary who has a role in the pre-contractual stage, represented in searching for information that interests them and paves the way for their future contract and advertising the products and services that the new needs attract to the contracting parties (Giaglis, G. M., Klein, S., & O'Keefe, R. M., 2002). The smart program searches for information from the Internet accurately and makes it available to the user, filters

and analyzes the information obtained by choosing a specific product that the user is advised to buy based on his desires and the specifications he requests or based on consumer opinions, and in return provides information that benefits the seller merchant regarding the consumer's needs and requirements, which he obtains from websites, so he analyzes it because it reflects the consumer's behavior and provides him with suggestions that he can take in the future to improve his product and attract new customers (Segaran, T., 2007). Or monitor and follow up on the variables known to the World Wide Web that are of interest to the user to inform him of them so that he can benefit from them, or perform the tasks of the assistant due to his ability to learn and adapt and match his performance with the needs of his user and correct his mistakes, and help him filter mail and respond automatically to it, especially if he uses it as a basic means of communication in his dealings with his customers and those dealing with him.

The advertising field focuses on collecting consumer behavior information and indicators through social networking sites and electronic pages. Commercial projects in marketing use cookies and big data to understand customer preferences and tailor advertisements. Chatbots can be used to communicate with consumers, providing information and controlling them in private transactions (Yas, N., Al Qaruty, R., Hadi, S. A., & AlAdeedi, A., 2023). Artificial intelligence is particularly useful in financial transactions like insurance and loans, where natural persons do not intervene (Magnuson, W., 2020). Acting in the manner specified above is considered an electronic advertisement, provided that it meets the elements specified by UAE law when defining electronic advertising. Any advertisement by electronic means that aims to encourage the sale of a product or service, directly or indirectly, it must be done legally, in preparation for fair and legitimate commercial transactions, by avoiding fraudulent actions and misleading advertisements that may threaten the will of the consumer. Misleading advertising means advertising a product or service based on deceptive information or omitting essential or fundamental information related to the product or service that may affect the consumer's decision and push him to contract, such that he would not have contracted without that information (Bakos, Y., Marotta-Wurgler, F., & Trossen, D. R., 2014). The legislator also considered advertising fictitious or unreal prizes or discounts as misleading advertising, and not dealing misleadingly or providing incorrect data that does not give the true description of the product or service, while fulfilling the conditions and requirements approved by the competent authorities regarding promotional and marketing campaigns and exchanging data in this regard, are requirements for practicing trade through modern technology.

The act of promoting a product or service through a misleading advertisement or a method that includes incorrect data, as well as any form of advertising, promotion, mediation, or dealing in any way or encouraging dealing in virtual currency, digital currency, stored value unit, or any payment unit that is not officially recognized in the country or without obtaining a license from the competent authority, are considered crimes punishable by law if they are committed via the Internet, information technology means, or a website (Khamvan, A., 2016). The UAE legislature has also broadened the definition of criminality to encompass the development or alteration of electronic robots to transmit fraudulent information within the nation. All of this is done to ensure that the free consumer, or the second contracting party, is satisfied and informed. This is understandable for us; contracts are prohibited, particularly for vulnerable consumers, as the UAE consumer law helps to provide truthful information under the threat of legal penalties. In

this case, the advertiser is the electronic program that the party entering into the contract uses; the advertisement is no longer restricted to a person.

### 1.2.2 Effects of Artificial intelligence intervention on the contractual Stage

The electronic intermediary has grown in importance in both e-commerce and marketing for both the merchant and the customer as a result of the growth of e-commerce and the rise in transactions conducted electronically. Following the conclusion of this phase (negotiation), the contract will be automatically concluded and executed by the electronic intermediary acting as a representative of the merchant or the purchasing customer. By expressing either an affirmative or an acceptance to conclude a legal contract with the intervention to intervene (such as supplying his project, including his needs for raw materials made from it) or with (providing him with a good or service), it can be fully electronic to represent committed commercial parties. It can also be a representative of the buyer or seller. Additionally, it may prevent him from following up on the implementation of the digital good that is obtained over the network or transferred directly—in this case—from the customer's account to the seller's account using blockchain technology. If the sale is digital, ownership can be transferred from the account price to the seller's account immediately and automatically once the buyer or his electronic agent purchases the order from the merchant electronically or from the electronic intermediary (Ebers, M., Poncibò, C., & Zou, M., 2022). The viewpoint of the person intervening to advance his personal interests must be taken into account. If he is a customer, he will be in charge of meeting the legal criteria to make purchases of products and services using modern, appropriate technology. In addition, he will exercise due diligence in closely reviewing the specifics of the goods and services as well as the terms and conditions of the publicly announced digital contract in exchange for payment of the goods and services' value. He will not arbitrarily exercise his right to reject or return the goods or services obtained from the online retailer.

An automatically executed contract, also known as a smart contract, is made when the customer approves his order online and is automatically concluded and executed upon fulfillment of the pre-specified conditions or terms (sufficient information provided by the customer, funds in stock, and payment methods) (Poncibò, C., 2023). If the rest of the projects use the same automated inventory management programs, then the communication process will be carried out automatically and independently. Alternatively, the seller's automatic approval will be sent to the customer without the need for a human intermediary to voice his approval or ratification of the transaction (Yas, N., Elyat, M. N. I., Saeed, M., Shwede, F., & Lootah, S., 2024). Since the Internet of Things has spread, there are hypotheses about how artificial intelligence is currently developing. These hypotheses center on the use of sensors to send information messages that facilitate communication between projects as a result of the automatic communication of objects, programs, and information systems. An example of this would be a smart refrigerator that sends orders to an online store for missing items.

The benefit of these transactions is that they operate automatically and independently, either in whole or in part, without the intervention of a natural person at the time the work is being done or responded to. According to UAE law, these transactions are described as automated electronic transactions concluded or executed in whole or in part by a set of computer programs and information technology means designed to create, process, manage, store, and

exchange electronic information or the like (Aljneibi, K., 2014). He utilizes pens and paper to convey his intentions and make them known to the other contracting party because the technological intermediary is only a tool or means at his disposal. Because they are completed using contemporary technology between a digital merchant and a consumer, these transactions are categorized as digital contracts. This new class of contract comprises smart contracts, electronic contracts, and other contracts arising from contemporary technology (Blythe, S. E., 2007). As a result, the consumer gains insurance coverage and is protected throughout the contract by the Trade Law through Modern Technology of 2023, ensuring that the transaction with the digital merchant is transparent and includes information about the merchant's identity, the goods and services that are the subject of the contract, payment options, logistics services, and communication channels. The insurance coverage for obligations resulting from trade through modern technology means will be provided to the digital merchant. This coverage will include logistics services, digital payment methods, risks associated with electronic fraud, piracy, and other risks. However, in order to receive approval for the terms and conditions of this coverage, the Ministry of Economy must intervene and submit a recommendation. The provision of insurance coverage for services or activities pertaining to commerce, its parties, or the contemporary technology facilitated by it may also be mandated by the Council of Ministers.

1.2.3 The actions of the electronic agent are deemed to be issued by and on behalf of the originator

These transactions have the advantage of operating autonomously and independently, either entirely or in part, without requiring human participation when work is being done or responses are being made. According to UAE law, these deals are automated electronic transactions, which means they are done entirely or in part by a group of computer programs and IT tools that are meant to create, process, handle, store, and exchange electronic information or similar materials (Aljneibi, K., 2014). Since the technology middleman is merely a tool or means at his disposal, he uses pens and paper to communicate his goals and make them known to the other contracting party. These transactions are classified as digital contracts since they are carried out between a digital merchant and a consumer utilizing modern technology. Smart contracts, electronic contracts, and other contracts resulting from modern technology make up this new class of contracts (Blythe, S. E., 2007). This guarantees that the transaction with the digital merchant is transparent and includes information about the merchant's identity, the goods and services that are the subject of the contract, payment options, logistics services, and communication channels. Additionally, the consumer receives insurance coverage and is protected throughout the contract by the Trade Law through Modern Technology of 2023. The digital merchant will receive insurance coverage for liabilities arising from trading using contemporary technological methods. This coverage will encompass digital payment systems, logistics services, and dangers related to piracy and electronic fraud. However, the Ministry of Economy must step in and propose that the terms and conditions of this coverage be approved. The Council of Ministers may also require the supply of insurance coverage for services or activities related to trade, its participants, or the modern technology it facilitates.

The UAE legislator considers the electronic agent's notifications to be issued by the originator and on his behalf, since the first law under which electronic transactions were issued

in 2006, and it is responsible for the regulations that regulate the electronic agent and the authorized contract, and came to confirm its position with the validity and enforceability of such actions within a set of independent texts for it Federal Decree-Law No. (46) of 2021 regarding electronic transactions Trust.

- Which is considered one of its objectives to enhance trust, encourage and facilitate electronic transactions of all kinds, and protect the dealers, so it explicitly states that the contract does not lose its validity or evidentiary value or enforceability merely because it was made by one or more electronic documents.
- . The legislator considers that the actions of the electronic agent are issued by the originator and on his behalf.
- The aforementioned indicates that the electronic transaction is specifically linked to the originator as the source of the electronic document because the automated electronic program is set up to function automatically by the originator or on his behalf, or as the addressee because he confirmed receipt by sending a simple message via electronic, automated, or any other method. Even if there is no direct or personal involvement from any real person during the contract-making process in these systems, the agreement is nevertheless enforceable, valid, and has legal consequences. The law also allowed a person to enter into a contract with another person through an automated electronic information system if the other party is aware, or should be aware, that the contract will be automatically concluded or executed by the system. As per the United Nations' stance on the use of electronic messages in international contracts, contracts between smart information systems (also known as electronic intermediaries) can be made without the need for human intervention. Furthermore, these contracts are legitimate transactions that have electronic consequences.
- Thus, electronic transactions are equal to regular transactions, and the use of a smart application cannot be considered in any way a reason for the invalidity of the contract or the loss of its legal value. Artificial intelligence systems benefit from the equality between regular and electronic contracting systems, so contractors cannot evade their obligations because the contract is based on an independent smart program or mechanism.

The legislator intervened with an explicit legal text to regulate the legal validity of transactions conducted through modern technology, which are classified as a digital contract and accordingly considered that all activities and businesses related to trade through modern technology have the same validity as traditional trade. In other words, the legislator does not distinguish between transactions conducted through modern technology and those conducted through traditional methods, which are subject to the provisions of Federal Decree-Law No. (50) of 2021 issuing the Commercial Transactions Law, which remains applicable to all commercial transactions, regardless of the method or means adopted in cases where there is no explicit legal text regulating them (Sanz-Bas, D., del Rosal, C., Alonso, S. L. N., & Fernández, M. Á. E., 2021). This is confirmed by its text that the provisions and conditions specified in the legislation in force in the state shall be followed regarding the validity of contracts, as follows: - The status of the contracting parties is achieved when the requirements and conditions of the newly created digital identity are met through modern technology means that enable the identity of the

contracting parties to be verified. - The offer, acceptance, and contract arising from the fulfillment of the requirements of the digital identity and digital signature are achieved. It also agreed that those committed to ethics through technology are responsible; in other words, anyone who violates the provisions of Decree-Law No. 14 for the year 2023 shall bear the responsibility arising from the obligations that fall on him.

## **Methodology**

The descriptive method by identifying the electronic agent embodying the intervention of artificial intelligence in transactions compared to the regular agent, and the analytical method to understand the position of the UAE legislator in regulating the effects of artificial intelligence intervention in transactions by analyzing the applicable legal texts and the most important amendments made to the applicable laws.

## **Discussion**

Artificial intelligence and the modern technology have transformed commercial transactions, especially in the UAE, which has been proactive in regulating and incorporating these innovations. The legal regulation of AI as a party to commercial transactions, the role of electronic agents, and the features of these technologies are pivotal to understanding their effect. The UAE has been looking for ways through which it could regulate electronic transactions and the application of the artificial intelligence. Starting from the early 2000s, the state has put in place laws that are meant to govern electronic intermediaries, culminating in the 2023 law on trade using the modern tech. through this legal structure, the artificial intelligence has not only been positioned as a tool but as an active participant in the commercial transactions. This approach underscores the UAE's commitment when it comes to promoting a technologically advanced and legally sound commercial environment. Artificial intelligence, especially in the form of electronic agents, takes up a vital role in facilitating commercial transactions. An electronic agent, as indicated by the UAE law, refers to a computer program that runs independently of human intervention, capable of executing and responding to actions in commercial transactions (Qouteschat et al., 2017). Through this legal recognition, transactions that are executed by AI are considered to be binding and enforceable, offering a robust legal foundation for electronic commerce and other AI-driven commercial activities.

Electronic agents, personifying AI, execute functions traditionally carried out by human agents. These agents are capable of negotiating terms, execute contacts, and manage transactions autonomously. An electronic agent is able to carry out tasks autonomously, influenced by its environment and internal state. This autonomy and adaptability makes these electronic agents to be valuable in the modern commercial transactions. The UAE has established a legal framework that offers a comprehensive definition and regulation of electronic agents. These electronic agents have been outline in Dubai Emirate Law No. 02 of 2002 and subsequent legislation as independent entities which are capable of taking part in commercial transactions without direct

human supervision. This legislative clarity has facilitated the application of AI in commerce and ensured legal certainty, as well as trust in electronic transactions.

The integration of AI and modern tech into commercial transaction has revolutionized the way business is carried out in the UAE. Through the proactive legal regulation of AI as an electronic agent has made sure that these technologies can be applied effectively and securely (Aboelazm, 2023). Its characteristics like autonomy and adaptability, have made it to be a powerful tool in commercial transactions, especially in e-commerce. It is important to differentiate contracting through an electronic agent from contracting through a regular agent to better understand the latter. Although the names are similar in one way or another, there are several differences between electronic agents and traditional regular agents. The point of contact between the two is the agency between the parties involved in the contract (Aljasmi, 2015). Both agents, electronic and regular, despite of the kind of action, creates legal consequences on the original principal's financial situation – whether in obligations, rights, or liabilities.

According to the UAE Civil Transactions Law, the traditional agency is a contract that involves the principal appointing another individual in his or her place in a permissible and known transaction. On the other hand, the electronic agent has been defined as an electronic information system that operates automatically and independently, without human beings having to intervene at any given point (Alustath, 2016). This is an indication that a regular mediator is a contract or agreement between any two parties that requires matching of offer and acceptance on a particular subject. Conversely, an electronic agency is established through a unilateral decision to create an electronic program that intervenes in transactions or responds to communications, following on defined powers via information provided. While the electronic agent, as an information program, is limited to its assigned tasks and cannot exceed them, the ordinary agent is bound by the agency but can exceed them in ways that will benefit the principal. Through advances made in AI, the smart agent will surpass drawn limits by contracting even without a principal's request. If the contract items do not suit the original principal's taste, the ordinary agent can withdraw from the agreement (Poole, et al., 2010). In contrast, the electronic agent executes the implementation automatically without considering such scenario

## **Recommendation**

Legal action is required to defend the rights and interests of the contracting parties, particularly the weaker party, in transactions involving this new party that are based on mathematical algorithms that mimic human intellect. To be the legal framework that other nations use when passing legal texts connected to the electronic agent, encouraging international and regional movements to implement laws that control the smart agent, its uses, and the transactions it finishes. Due to the significant differences in Arab legislation in this area, which will impede economic development and deter investment, efforts are being made to unify Arab legislation governing electronic transactions and trade through modern technology. As a model to be emulated, the Emirati law will be adopted in order to achieve this goal. While certain laws, like the 2018 law in Algeria, are still in their infancy and have not yet controlled electronic agents, other laws in the Gulf Cooperation Council countries are keeping up with the current rate of

technological advancement. In order to maintain legal stability, legislative action must strike a balance between advancing e-commerce, safeguarding dealers, and advancing technical advancement. This is more fully addressed in the solutions outlined in the Trade Law through Modern Technology of 2023 with mandated insurance. In order for artificial intelligence, like any other technological advancement, to continue serving humanity, care must be taken to govern it at every stage of its application, from before contracting to during contracting. Simply establishing rules that govern the use of AI in contracting or as an intelligent agent is insufficient.

## Conclusion

It is important to make wise decisions and not just apply traditional solutions related to the classical theories of the legal personality theory, despite concerns about the near future and the emergence of increasingly intelligent devices that will lead to a number of legal issues. This is especially true now that a new pattern has emerged that is added to the known patterns of e-commerce from the relationships between the merchant and the government, the merchant and the consumer, and the merchant and the merchant, in which algorithms and information programs are parties. The following set of findings can be found by examining the UAE legislator's stance on limiting artificial intelligence's involvement in business transactions: The legislator consistently views the electronic agent as an automated program that mediates the conclusion and transfers from the originator, despite the fact that definitions of the term differ. Artificial intelligence differs from regular agents in many ways and has the potential to spread various technologies because of the web agent's lower impact than that of regular agents. Artificial intelligence is characterized by intervention in several characteristics related to the type it affects and its technical specificity. Its various impacts include the possibility of it intervening on behalf of the company or the merchant, and the fact that it was in the pre-contract stage as well as the potential for it to be in the subscription stage. Since it is regarded as a rented electronic firm and the contract it has is categorized as a digital contract connecting the vendor and the customer, thank you to the person who steps in to manage its finances. It was impacted by the harm caused or obtained as a result of the impact brought about by those impacts. As a result, in addition to the general guidelines for civil and commercial transactions with protection requirements, the contract that artificial intelligence mediates in its conclusion is subject to the Modern Trust Electronic Transactions Law 2021 and the Law of Commerce through the Technology Approved 2023.

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