

E-commerce in Arab Countries: Legal and Technical Framework in Light of Successful Arab and International Models

التجارة الإلكترونية في الدول العربية: الإطار القانوني والتقني في ظل نماذج دولية عربية ناجحة

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Abstract:

E-commerce has emerged as a highly important field, driven by its ongoing evolution as a result of technological progress. International legal systems have devoted significant attention to regulating electronic commercial transactions, while Arab countries are working to align themselves with these developments. This context raises important questions regarding the legal and technical frameworks governing e-commerce in Arab countries, based on available data, as a strategic step toward engaging in this promising sector.

This study seeks to clarify the concept of e-commerce, examine a range of Arab experiences in this field, and assess the current state of e-commerce across Arab countries.

Key words: E-Commerce; Arab experiences; legal and technical frameworks; International legal systems;

Introduction:

During the last decade of the twentieth century, the world experienced a profound transformation in information and communication technologies, which significantly influenced economic, social, and political spheres. In the commercial domain, the widespread adoption of modern digital tools across various sectors has encouraged their use in business activities, giving rise to what is now known as "e-commerce."

E-commerce, in this regard, represents a powerful new wave and a major opportunity to strengthen international trade by transcending geographical boundaries, reducing time and distance constraints, lowering costs, and enhancing competitiveness within the broader context of digitalization.

Moreover, e-commerce serves as an efficient and rapid mechanism for the promotion and distribution of goods and services, positioning it as a fundamental pillar of economic growth and a key driver of development. This has led Arab countries to embrace this model and adapt to ongoing digital transformations in the commercial sector.

In the Arab world, e-commerce has been expanding steadily, supported by improvements in digital infrastructure, increased Internet usage, and a growing population of technologically engaged youth. Despite this progress, several challenges remain. Consequently, examining e-commerce in Arab countries is crucial, particularly through analyzing its key components and classifications, identifying the major obstacles it encounters, and exploring potential pathways for its development to support economic growth.

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Based on the foregoing, the study raises the following research question:

To what extent have Arab e-commerce experiences managed to combine an effective legal framework with technological advancement?

1- Conceptual Framework of E-Commerce

Due to the rapid growth and global spread of e-commerce, the need to define it precisely has become essential, whether for academic research or for establishing appropriate legal and regulatory frameworks. Accordingly, this section addresses e-commerce by examining its definition and measurement methods (first), followed by its forms and objectives (second).

1.1- Definition of E-Commerce and Its Measurement Methods:

A wide range of definitions of e-commerce has been proposed, reflecting differing perspectives and contexts, and it remains a topic of debate among researchers. Some definitions are narrow in scope, while others are broader, and some focus on the type of technology used. Therefore, it is not possible to rely on a single comprehensive and universally accepted definition. The following presents some of the main definitions found in economic literature

1.1.1. Definition of E-Commerce:

The term **"e-commerce"** can be divided into two parts. The first, **"commerce,"** refers to any economic activity carried out by individuals anywhere in the world with the aim of generating profit. It includes the exchange of goods and services between individuals, institutions, and governments, and is subject to applicable laws, regulations, and prevailing commercial practices.

The second, **"electronic,"** refers to the method of conducting commercial activities through electronic means, particularly the Internet, local and global networks, and digital software used to organize and manage commercial operations.¹

- E-commerce has also been defined as a transaction between a seller and a buyer in which the Internet is used either fully or partially, whether by providing information about a product or service online or through another commercial network, with the aim of purchasing it. Payment may be made electronically, in cash upon delivery, or through other available methods, ensuring the completion of the transaction.²

International and regional organizations have also contributed to defining e-commerce. **The World Trade Organization (WTO)** defines it as: "All activities related to the production, distribution, and sale of goods and services via electronic means."³

The **Organization for Economic Co-operation and Development (OECD)** defines it as all forms of commercial information exchanged between businesses and individuals based on electronic data exchange, whether written, visual, or audio, as well as the effects of this exchange on institutions and supporting commercial processes.

The **Asia-Pacific Economic Cooperation (APEC)** forum defines e-commerce as any form of commercial transaction, whether involving goods or services, conducted electronically between parties, including person-to-person, person-to-computer, and computer-to-computer interactions.⁴

This definition differs from the previous one by including additional aspects, such as the inclusion of various types of contracts, including electronic sales contracts like purchasing goods, airline tickets, or supermarket products, as well as electronic service contracts such as purchasing software. These definitions range from those focusing on online transactions to broader ones that include all digital activities related to trade and services.

Based on the above, e-commerce does not yet have a unified definition. Rather, it remains a field of ongoing discussion and research, where scholars analyze different definitions in light of international and local experiences to develop a comprehensive understanding of digital commerce.

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1.1.2. E-Commerce Measuring Methods:

To determine the scale of e-commerce in any country and its economic impact, it is necessary to measure its effects and use them as indicators to evaluate the state of e-commerce in Arab countries:

- Direct Method:

E-commerce can be measured by identifying the value of commercial transactions carried out عبر the Internet. This method offers a realistic indication of the volume of digital economic activities. However, the main difficulty lies in the inability to separate commercial from non-commercial Internet use. Therefore, research institutions need to conduct field surveys involving stakeholders in the e-commerce sector in order to collect accurate data and statistics on individuals and organizations engaged in online purchasing and commercial browsing activities, distinguish between commercial and non-commercial uses of the Internet, and estimate expenditures on online transactions.⁵

- Indirect Methods:

These methods depend on collecting data related to the use of information and communication technologies as the infrastructure supporting e-commerce. This approach is easier in terms of data collection, but it reflects potential and possibilities rather than the actual state of e-commerce. Among these indicators we mention the following:⁶

- **Number of Internet Users:** The Internet forms the foundation of e-commerce, as it cannot exist without it. The growth of e-commerce is driven by the global network. To measure Internet availability in a country, the penetration rate is used, which indicates the percentage of Internet users in relation to the total population.
- **Number of Personal Computers:** Computers are a key resource for supporting e-commerce due to their strong ability to process and store data, which facilitates commercial activities. This indicator includes personal, portable, and small- to medium-sized computers connected to wired and wireless networks. It is calculated by multiplying the number of computers sold annually by their average lifespan, which varies between developed and less-developed countries due to factors such as lower prices, the continuous introduction of new software, and maintenance processes.
- **Number of Fixed and Mobile Phone Subscribers:** The growth of e-commerce is associated with the development of modern communication networks. Statistics related to these networks are essential for carrying out online commercial transactions. The total number of lines providing Internet access, whether fixed or mobile, is measured using the telephone density indicator, which represents the number of subscribers relative to the population. The increase in mobile subscribers, even when used for non-commercial purposes, is considered a positive sign of the expansion of commercial websites and online promotion, encouraging the development of mobile e-commerce.
- **Number of Internet Hosts:** An Internet host is a computer system linked to an IP address that provides website hosting by allocating storage space on its server. Some companies combine the roles of service provider and host. Given its role in helping companies with limited experience in e-commerce to create and manage their own websites, this indicator is important in assessing the scale and state of e-commerce.

1.2- Objectives of E-Commerce:

With the rapid development of e-commerce, its importance has emerged as a framework that organizes digital transactions, ensures the protection of participants, and maintains a balance between trade freedom and legal security in the digital environment. E-commerce also contributes to increasing productivity, economic growth, and efficiency in presenting goods and services, while facilitating commercial operations. It aims to:

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- Expanding the organization's share in the global market, improving efficiency, and increasing productivity.
- Attracting new customers while maintaining existing ones, and increasing revenues from electronic transactions.
- Converting organizational systems into automated systems based on computerized networks, facilitating the exchange of files and information between sellers and buyers, and supporting accurate and consistent decision-making.⁷
- Supporting small and medium-sized enterprises by reducing administrative and advertising costs, as well as providing consumers with free information about their products.
- Simplifying and organizing business operations, eliminating delays and errors, reducing costs to increase profitability, protecting business owners' rights, and transforming complex organizational structures into simpler ones relying on skilled and knowledgeable human resources.

Based on the above, e-commerce continues to expand in various forms among economic institutions, governments, and consumers, driven by the shift toward executing a large portion of traditional transactions electronically. This contributes to reducing time and costs, enhancing development and support, and enabling institutions to address challenges within a highly competitive global business environment.

2-Applications of E-Commerce in Arab Countries

In the last decades of the previous century, the world experienced rapid progress in information and communication technologies, which encouraged countries, including Arab states, to invest in them in order to build a digital economy that keeps up with global developments and affects production, investment, and consumption.

In this section, the experiences of Arab countries in adopting e-commerce are examined by highlighting the main legislative requirements (first) and technical requirements (second).

2.1- Arab Legislative Efforts to Protect E-Commerce

In this context, several Arab countries have introduced national legislation to ensure the necessary protection for electronic commercial transactions, including the United Arab Emirates, Kuwait, Algeria, and Qatar:

2.1.1. United Arab Emirates (UAE):

The UAE has enacted laws regulating e-commerce, with the aim of protecting the parties involved, ensuring the legal and financial security of transactions, supporting the digital economy, and attracting investments. It was the first Arab country to issue an independent law to combat cybercrime through Federal Law No. 2 of 2006, which contains 29 articles addressing types of cybercrimes and their penalties. The UAE also applied a proxy-based monitoring system and issued Federal Law No. 5 of 2012, later amended by Federal Law No. 5 of 2016, to strengthen efforts against cybercrime and safeguard electronic information.⁹

2.1.2. Kuwait

Kuwait has implemented a number of legal measures to protect e-commerce by issuing laws aimed at regulating electronic transactions and ensuring their security. The most notable include:

Law No. 30 of 2010 on Information Systems Crimes: It addresses crimes that may disrupt electronic transactions, such as unauthorized access to websites or information systems, the use of software for data theft or modification, and attacks on website content.

Law No. 63 of 2015 to Combat Information Technology Crimes: It strengthens the protection of electronic transactions, seeks to prevent breaches and attacks on digital data, ensures the security of information transmitted online, and establishes penalties for cybercrimes to achieve legal deterrence.

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It is noteworthy that Kuwaiti legislators aimed to enhance trust in e-commerce by establishing a legal framework that protects the rights of all parties and encourages both companies and individuals to use the Internet in business activities.¹⁰

2.1.3. Algeria

The following presents some laws that address e-commerce in Algeria, either directly or indirectly:

Law No. 04-02: It defines the rules governing commercial practices¹¹, in addition to the amendment of the Civil Code in 2005 under Article 323 bis related to electronic writing.

- Law No. 05-10¹² and Executive Decree No. 05-468: They determine the conditions for issuing and transmitting invoices electronically.

- Law No. 09-03: It concerns consumer protection and anti-fraud, emphasizing the obligation to inform consumers through all available means, including electronic communication.

- Law No. 15-04: It sets the general rules for electronic signatures and certification.

- Law No. 18-04: It relates to postal services and electronic communications.

Finally, Law No. 18-05 establishes the general rules governing e-commerce of goods and services.

2.1.4. Qatar

Qatar has also enacted laws to support e-commerce. The most important include:¹³

Federal Law No. 16 of 2010 on Electronic Transactions and Commerce: It is the first comprehensive law regulating electronic transactions and commerce in the country, issued by an Amiri decree on 19 August 2010. It covers all electronic dealings, including electronic signatures, electronic documents, authentication, consumer protection, and the protection of data exchanged online. It also grants the competent authorities the authority to issue licenses, set regulations and standards, and supervise the development of the legal and technical environment of e-commerce.

- Commercial Law No. 27 of 2006: It regulates general commercial activities, including aspects related to registration and licensing.

- Consumer Protection Law No. 8 of 2008: It obliges e-sellers to provide full disclosure of information, prices, return rights, and the protection of online consumers' rights.

- Penal Code No. 11 of 2004: It includes provisions related to fraud and manipulation of electronic data associated with digital transactions.

2.2- Technical Infrastructure of E-Commerce in Arab Countries

The Economic and Social Commission for Western Asia (ESCWA) defines e-commerce as "commercial transactions conducted through open networks such as the Internet, including transactions between companies and between companies and consumers."¹⁴ Several Arab countries have developed e-commerce practices by meeting various technical requirements. In this context, the experiences of Lebanon, Jordan, Egypt, and Algeria are reviewed:

2.2.1. Lebanon:

The initial signs of e-commerce in Lebanon appeared in the second half of the 1990s through certain major companies. For example, a Lebanese liquor company created a website in 1998, starting by providing information about its products and later expanding its exports, which increased threefold within one year.

Similarly, ready-made food companies followed the same approach, adopting new commercial methods through partnerships to distribute products between businesses (Business-to-Business), particularly in foreign markets. At the same time, the Lebanese government began establishing an "electronic city" modeled after Dubai Internet City, with the aim of improving services and promoting e-commerce.

2.2.2. Jordan

Since 1995, the Jordanian government has worked to support e-commerce by encouraging the use of the Internet and computers, including exempting computers from taxes and customs

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duties to promote computer literacy among citizens. The Amman Chamber of Industry, the Export Development Corporation, and commercial centers have contributed to promoting e-commerce through awareness campaigns and by supporting small and medium enterprises in creating websites, in addition to establishing a national authority specialized in promotion and technical support.

Business-to-business (B2B) transactions represent the most common form of e-commerce in Jordan, mainly oriented toward imports, while some Jordanian companies export their products through B2B transactions to wholesale markets abroad.¹⁶

2.2.3. Egypt

Egypt has facilitated the use of electronic payments, with the number of credit card users exceeding six million by the end of 2005. This resulted from significant efforts to develop e-commerce, including coordination between four ministries and government bodies to adopt electronic signatures, electronic wallets, online transactions, and the payment of taxes and customs duties via the Internet.¹⁷

2.2.4. Algeria

Algeria has shown a tendency to integrate modern technology into the national economy; however, the impact of the Internet on economic development remains limited, representing only about 1% of GDP. The high cost of Internet services also restricts the growth of e-commerce, which requires strong infrastructure. Although electronic debit cards have been available since 1997, their use remains limited compared to other countries. According to Bayt Algeria statistics, their usage in Tunisia exceeded that of Algeria by 15 times as of 2018.¹⁸

Nevertheless, the recent launch of an e-payment card in Algeria represents a significant step forward in the development of e-banking.

3- Ranking and Evaluating the Arab Experience in E-Commerce Implementation

This section reviews the ranking of Arab countries in adopting technologies and legislation that support e-commerce, through illustrative tables, and provides an evaluative overview of the Arab countries' experience in this field:

3.1. Ranking of Arab Countries in E-Commerce Implementation

The following table summarizes the above discussion, showing Arab countries based on the availability of the laws and regulations required for the implementation of e-commerce, as well as the protection of both online consumers and e-commerce enterprises.

Table n°1: Legal and regulatory aspects of E-commerce

Country	Does the country have a legal framework for e-commerce transactions?	Does the country have a legal framework to protect consumer rights in online purchases?	Does the country have a legal framework to protect customers' data online?
UAE	Yes	No	No
Bahrain	Yes	Yes	Draft
Kuwait	Yes	Yes	Yes
Lebanon	Draft	Draft	Draft
Saudi Arabia	Yes	No	No
Tunisia	Yes	Yes	Yes
Egypt	Yes	Draft	Draft
Algeria	Yes	Draft	No
Iraq	Yes	No	Draft
Libya	No	No	No

Source: Noura Boualaqa, The Reality of E-Commerce Implementation in the Arab World: Country Experiences, Ma'arif, Issue 1, 2019, p. 435.

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The table above presents the legal and regulatory aspects of e-commerce in Arab countries. Most countries possess a legal framework that allows companies to carry out these activities, except for Lebanon, which is still in the implementation phase, and Libya, which entirely lacks such legislation. With regard to the protection of online customer data, the UAE, Saudi Arabia, Algeria, and Libya show notable shortcomings, while Bahrain, Lebanon, Jordan, Egypt, and Iraq have recently been working on developing this framework. As for the protection of consumer rights in online transactions, Bahrain, Kuwait, and Tunisia have effective legal frameworks, whereas Lebanon, Egypt, and Algeria are working toward their implementation, while the remaining countries continue to lack sufficient protection in this area.

3.2. Evaluation of the Arab Experience in E-Commerce Implementation:

Some estimates suggest that the level of e-commerce in Arab countries remains low compared to the global level, reflecting their limited contribution in this field. This is mainly due to the relatively recent adoption of the Internet for commercial purposes, which only began to spread widely in the early 1990s, requiring more time to establish its use in consumer, financial, and banking sectors.

Indicators related to the number of users per ten thousand inhabitants also indicate a clear decline in Arab countries compared to developed countries and even some middle-income countries. However, e-commerce in these countries is expected to experience gradual growth as their economies become increasingly integrated into the global economy and regional cooperation improves.¹⁹

In addition, many Arab governments are working to adopt e-government by digitizing public services, developing legal frameworks such as electronic contracting, adopting electronic payment methods, and implementing electronic signatures.

Based on available data, total Arab spending on e-commerce does not exceed 95 million dollars, with more than 70% focused on the purchase of software and computer hardware. The remaining percentage is distributed among books and gifts. Moreover, 80% of purchases are conducted through non-Arab websites due to the limited number of Arabic websites, which account for only 0.5% of total Internet content. This indicates that Arab countries are still behind in the field of e-business.²⁰

In Algeria, despite continuous efforts, e-commerce remains very limited, to the extent that it lags not only behind developed countries but also behind some Arab countries such as Tunisia, the UAE, and Egypt, which have given priority to this sector due to its expected role in future economic activities.²¹

Conclusion:

At the end of this research paper, a number of findings are presented along with several recommendations:

Findings:

- Differences in the definitions of e-commerce have resulted in variations in the measures and statistical indicators used to assess it, which makes it difficult to compare data across countries or between different studies.
- E-commerce represents a modern approach to exchanging goods and services through electronic means, mainly the Internet. It includes the presentation of products, their sale and purchase, distribution, and promotion, benefiting from the ability of electronic networks to connect participants worldwide quickly and efficiently.
- In most Arab countries, e-commerce remains in its early stages, which calls for caution regarding the challenges that these emerging markets may face. At the same time, there is a pressing need to develop legal frameworks and supportive legislation to enable these countries to keep pace with technologically advanced economies in the field of digital commerce.

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Recommendations:

- Establish unified Arab e-commerce laws in a comprehensive manner to facilitate transactions between Arab countries, with clear definition of the rights of sellers and buyers, as well as standards for data protection and privacy.
- Develop joint Arab e-commerce platforms and create a unified Arab market that brings together merchants and consumers, in order to facilitate trade between Arab countries and reduce individual marketing costs.
- Organize training programs and courses in digital marketing through cooperation among Arab countries.
- Introduce e-commerce as a subject within the curriculum of private law studies.
- Strengthen cooperation among local Arab banks to facilitate digital financing and banking services for emerging e-commerce businesses, such as small loans or credit cards dedicated to digital merchants.
- Establish an Arab digital system for verifying the digital identity of users and companies, with the aim of reducing fraud and enhancing the security of e-commerce in the Arab region.

References:

- ¹ Ali Khalaf Salman Al-Rukabi, E-Commerce and Its Usage at the Arab Level, New Economy Journal, issue 02, January 2010, p. 12.
- ² Waddan Bouabdallah, Reality and Challenges of E-Commerce in Arab Countries, Bawadex Papers, issue 2, 2019, p. 50.
- ³ Mariam Sararma, E-Commerce in Algeria: Obstacles and Activation Mechanisms, Shu'aa Journal of Economic Studies, vol. 6, issue 01, 2022, p. 41.
- ⁴ Ibid., same page.
- ⁵ Saleh Hamidatu, Sara Messi, Atiya Al-Arabi, E-Commerce in Algeria: Reality and Challenges, Algerian Journal of Economic and Administrative Studies, vol. 2, issue 02, 2022, p. 49.
- ⁶ Ibid., p. 50.
- ⁷ Hajaj Mustafa, E-Commerce, pedagogical material directed to first-year Master students, specialization: Finance and International Trade, Department of Commercial Sciences, Faculty of Economic Sciences, Commercial Sciences and Management Sciences, Ibn Khaldun University, Tiaret, Algeria, 2022/2023, p. 77.
- ⁸ Hussein Mohamed Al-Taher Khalifa, Mohamed Ahmed Hamdto Ahmed, E-Commerce: Reality, Challenges and Future, Al-Rushd Library, first edition, 2016, p. 72.
- ⁹ Mouzali Nour Eddine, Cybercrimes in the Framework of E-Commerce and Ways to Combat Them, Journal of Legal Studies, University of Yahia Fares, Medea, Algeria, p. 193.
- ¹⁰ Mouzai Nour Eddine, the previous reference, p. 193.
- ¹¹ Law No. 04-02.
- ¹² Law No. 05-10.
- ¹³ Mouzai Nour Eddine, previous reference, p. 193.
- ¹⁴ The Economic and Social Commission for Western Asia (ESCWA) is one of five regional commissions under the authority of the United Nations Economic and Social Council. It aims to promote regional economic and social development for Arab member states. It includes 21 Arab countries: Jordan, United Arab Emirates, Bahrain, Tunisia, Algeria, Syrian Arab Republic, Djibouti, Sudan, Somalia, Iraq, Oman, State of Palestine, Qatar, Kuwait, Lebanon, Libya, Egypt, Morocco, Kingdom of Saudi Arabia, Mauritania, and Yemen. See ESCWA website: <https://www.unescwa.org/ar>, access date: 04/04/2026, 09:30.
- ¹⁵ Ali Khalaf Salman Al-Rukabi, E-Commerce and Its Usage at the Arab Level, New Economy Journal, issue 2, January 2010, p. 22.

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¹⁶ Ibid., p. 23.

¹⁷ Ibid., same page.

¹⁸ Waddan Bouabdallah, p. 60.

¹⁹ Waddan Bouabdallah, previous reference, p. 59.

²⁰ Karima Sira', Reality and Prospects of E-Commerce in Algeria, Master's thesis in Legal Sciences, specialization: Strategy, Faculty of Economic Sciences, Management Sciences and Commercial Sciences, University of Oran, 2013/2014, p. 114.

²¹ Waddan Bou Abdallah, previous reference, p. 59.