

Article

# The impact of the legal framework of electronic payment on the digital economy

Tareck Alsamara<sup>1</sup>, Farouk Ghazi<sup>2,\*</sup><sup>1</sup> College of law, Prince Sultan University, P.O. Box No. 66833 Rafha Street, Riyadh 11586, Saudi Arabia<sup>2</sup> Public Law Department, Badji Mokhtar Annaba University, P. O Box 12, Annaba 23000, Algeria\* **Corresponding author:** Farouk Ghazi, [ghazifarouk1@gmail.com](mailto:ghazifarouk1@gmail.com)

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**Abstract:** African countries have shown interest in developing the legal framework for electronic payment as part of digital law. The article aims to analyze the role of the legal framework for electronic payment in the field of digital economy. It relies on a legal methodology through analyzing legal texts related to electronic payment. It also relies on the comparative and descriptive approaches whenever there is a scientific necessity. The article concluded that the legal framework plays an important role in the field of digital economy. This framework appears in the general rules of civil and commercial laws or through the laws of money and credit. Other laws also play a complementary role, such as criminal law and personal data protection laws.

**Keywords:** electronic payment; digital economy; e-commerce; economy; digital law

## 1. Introduction

The digital economy defined as that part of the economy that depends on digital content (Brynjolfsson and Kahin, 2002; Carlsson, 2004). It differs from the traditional economy in terms of the mechanisms that regulate it. It is important to differentiate between the digital economy and e-commerce. E-commerce is the reliance on modern technologies in the business process (Dhali, 2023; Meskic et al., 2022). Several countries have adopted digital transformation strategies, i.e., shifting from the traditional economy to the digital economy. This is due to the advantages of the digital economy imposed by technological developments in information technology (Lichtenthaler, 2021). Financial payment systems have adopted several developments that allow making payments by telephone. Several applications have appeared that allow the electronic payment process with ease and flexibility (Bezovski, 2016; Khahro, 2021; Susanto et al., 2002). These and other developments have significantly increased the significance of the digital economy. Increasing electronic payment and e-commerce have raised significant new customer privacy issues, (Albakjaji et al., 2020). For example, recent activities on the web have raised information problems (Guerbouj et al., 2019). Several countries have resorted to providing a more secure environment for electronic commerce by enacting deterrent legislation to combat electronic crimes (Neogi, 2021). The emergence of electronic payment is one of the results of the development of commerce in general and electronic commerce in particular, not only in Africa but also in most countries of the world. In Africa, the trend of some customers is to buy their daily supplies via the Internet, whether from global sites such as Amazon, Ali Express, “Shein”, “Modanisa” and other sites, or from local sites active in Africa, such as “Jumia site”

and “Hayla site” and others. Internet shopping also extends to ordering goods or services from certain stores that deal with electronic payment. Both electronic commerce and electronic payment are a natural result of the technological and technical development that the world has known, especially in recent years, as most countries have tended to impose legislation commensurate with the nature of these developments, and facilitate the process of electronic payment to ensure the speed and credit imposed by trade. Although electronic payment may be associated mostly with commerce, it is not limited to that. It may include some financial transfers between individuals for purposes other than trade, such as people who conduct their business via the Internet for foreign companies and receive their salaries from them, and other transactions. Africa has been imposing a set of legislation commensurate with the nature of these developments, to protect the users of this method and to ensure safety in commercial transactions. The electronic payment method has developed more in recent years, in Egypt we refer to the Egyptian E-Commerce Law is the law that regulates e-commerce in Egypt and defines the legal framework for businesses conducted over the Internet. This law was issued in 1999 and was amended in 2020. In Algeria the Law 18-05 related to electronic commerce, which precisely defined the provisions of electronic payment. In addition, there is Law 18-04, which defines the general rules related to postal and electronic communications, and which added the term electronic communications after it was limited to communications only (Kouachi and Qadi, 2022).

## **2. Literature review**

Khanin et al. in their paper titled: “Improving the level of economic effectiveness of electronic payment services in a global digital economy” explain precisely the importance of electronic payment in the digital economy (Khanin et al., 2022). The paper by Korobeynikova describes the responsibilities of the national payment system and regional payment market digital innovation. To address these issues, a general algorithm for developing a digital financial ecosystem that connects markets and sectors of the economy using novel payment system and payment service platforms and technologies is offered. The proposed directions realize the main tasks of the digital economy for the national payment system and its regional components; their implementation will promote payment service accessibility as well as the growth of financial and digital literacy through the development of a knowledge society based on innovative digital technologies (Korobeynikova, 2018). The paper by Nwankwo and Eze discusses the electronic payment in cashless economy of Nigeria: Problems and Prospects. The study found that while electronic payment systems have a substantial impact on Nigeria’s cashless economy, they also result in decreased deposit mobilization and credit extension by Nigerian deposit money institutions. The authors suggest focusing on developing an e-payment system first to familiarize people with cashless payments before discussing a cashless economy. This is because the majority of the Nigerian economy is driven by small and medium-sized enterprises and petty traders. (Nwankwo, 2023). Bolonin and Balykin analyze the payment systems in the digital economy. Financial Markets Evolution: From Classical Model to Ecosystem. The study “Challenges, Risks, and

New Features” contrasts traditional payment methods against virtual ones. The study object is payment and settlement systems, and the research subject is the features of payment systems that make payments and settlements in cyberspace and are based on blockchain technology (Bolonin and Balykin, 2021). We should refer to Kazachenok and Lavrentyeva’s study, “New Digital Payment Facilities: An Analysis of Institutional and Legal Regulation.” Their article examined the definition of e-money and how it is transferred, as well as the changes in the institutional framework of transactions in the financial sector of the economy as a result of the digital social transformation. The study’s objective is to investigate digital payment facilities as a new object of civil rights (Kazachenok and Lavrentyeva, 2019).

### **3. Results and discussion**

#### **3.1. The concept of electronic payment**

Electronic payment is a modern method imposed by the inevitability of technical development known to most countries of the world. To shed light on this method, it must be defined and its advantages, disadvantages, and challenges described. Electronic payment is defined as a means of payment of obligations resulting from transactions made electronically, or it is a secure electronic cycle to transfer funds from the buyer to the seller through financial institutions at the lowest possible cost. This method has the advantage that financial and banking institutions make the online payment process safe and easy (Jawaliya et al., 2022; Mahrez and Said, 2010). The law defined electronic payment under Article 6 of Law 18–05 of 10 May 2018, related to electronic commerce as: “Every payment method authorized following the applicable legislation enables its owner to make a payment closely or remotely, through an electronic system.” The law has codified some aspects of this method and defined its legal framework to organize it and facilitate financial movements in secrecy and safety.

#### **3.2. Advantages of electronic payment**

It is known that electronic payment has many advantages, as this method facilitates commercial exchanges involving buying and selling quickly and easily and without the need to use and trade physical currencies. This method also is very rapid and saves large amounts of time. Through this method, the services of banking institutions are used throughout the week, even during holidays (Mahrez and Said, 2010). Furthermore, electronic payment is of an international nature, and makes it easier for individuals to carry out transactions across international borders easily.

It is worth noting that electronic payment is a means that provides payment for the development of the digital economy in Africa through improving financial management, saving time and cost, and benefiting from financial services with high quality, cost, and less effort (Qaroumi and Dahhak, 2014). It is also clear in this regard that the electronic payment method provides financial and banking institutions with large financial profits through fees and interest imposed on credit cards, (Barakat and Tibi, 2019). To enjoy the advantages of electronic payment, the law has guaranteed a set of advantages related to electronic payment that facilitates

the use of this method by national and international customers. For example, electronic payments are exempted from the procedures of controlling foreign trade and exchange, including the sale through electronic communications of a good or service by a local electronic supplier, when this commodity does not exceed the limit stipulated in the legislation and regulation in force. However, it is required that these proceeds be transferred after payment to the supplier's account in the country in a bank approved by the national bank. Also exempted from foreign trade and exchange control procedures is the purchase of digital goods and/or services intended exclusively for personal use by an electronic consumer residing in the country from an electronic supplier located in a foreign country, provided that the value of this service does not exceed the limit stipulated in the legislation and regulation. The electronic payment in this case is covered in hard currency, (Article 7 of Law 18–05 relating to electronic commerce). The law also stipulated in another law related to electronic commerce (Law 18–05) that if the payment is electronic, it must be made through payment platforms designated for this purpose, established and operated exclusively by banks approved by the Bank of Algeria and Algeria Post and connected to any type of terminal electronic payment through the network of the public customer of telecommunications. In the case of cross-border commercial transactions, electronic payment is made remotely through electronic means of communication, (Article 27 of Law 18–05). The law also stipulated that the connection of the website in the case of remote payment of the electronic supplier to the electronic payment platform be secured by the electronic system, (Articles 28 and 29 of Law 18–05 relating to electronic commerce).

### **3.3. Disadvantages and challenges of electronic payment**

Although payment in cash provides the person with the possibility of receiving his money directly and without obstacles, it poses problems, including the possibility that money can be forged or stolen (Tebbi and Sheroun, 2020). Among the disadvantages of electronic payment are the risk of borrowing and spending beyond the purchaser's financial capacity, as well as the failure of the cardholder to pay within the specified time. This increases the consumption rate for those dealing with this method and thus results in a doubling of debts (Qaroumi and Dahhak, 2014). Also, one of the defects of this method of payment is that it is not reversible. The law stipulates in Article 543 bis 24 that: "The order or obligation to pay given under the payment card is irrevocable and the payment cannot be objected to, except in the event of the loss or theft of the card, legally authorized, judicial settlement, or bankruptcy of the beneficiary. Moreover, African's lack of experience in dealing with global electronic payment methods hinders international exchange. Moreover, the fluctuations of the internet connectivity in Africa and the frequent interruptions that it occasions hinder the effectiveness of the electronic payment method. It is noted that there is a large group of African society that does not favor dealing with modern technology and does not trust electronic transactions but rather prefers the traditional method, which is cash payment (Mahrez and Said, 2010). It is worth noting, based on the defects presented previously, that the most important challenge

facing electronic payment in Africa is the challenge of proof and reliability (Masoudi, 2016).

### **3.4. Electronic payment tools**

#### **3.4.1. Payment cards**

A payment card is a card issued by banks or legally recognized financial institutions that open to its owner credit for a specific amount of money. The financial institution deducts the amount that the customer deals with after any purchase or services from the customer's balance for the benefit of the merchant who dealt with him. In Article 543 of the Commercial Code, the law defined a payment card as: “. . . every card issued by legally qualified banks and financial institutions that allows its owner to withdraw or transfer funds (Dabouz and Farhi, 2021; Adimi, 2022).

#### **3.4.2. Payment by electronic bank transfer**

Electronic bank transfer means the process in which funds or values are transferred between two accounts, at the request of the orderer for the benefit of another person called the beneficiary, whether it takes place from a bank to one of its branches or from a bank to another bank or from an account to another account in the same bank, whether in the same country or between two different countries (Tebbi and Sheron, 2020).

#### **3.4.3. Payment by transfer companies**

The payment system through transfer companies is known as the quick cash payment system, which allows the possibility of receiving payments through the transfer of international funds through the local agent of the company dealing with it, within a maximum of a day. The amount is received by mail, and this method provides the option to pay in foreign or local currency. Among the most important of these companies working in this field that facilitate this service in Africa is Western Union, where transactions of this company reached \$ 850 million in 2020, with much of the increase attributable to the Covid 19 pandemic.

### **3.5. The least used means of electronic payment**

There are also many less common means, among them the method of payment through websites or accounts. Payment through websites or accounts is a service provided by some websites to transfer money from one person to another, or for secure electronic shopping. Although the African laws did not specify the definition and provisions for dealing with an electronic check, it is not that he started dealing with this method through the law related to cash and imposition, through which he referred to the payment methods that use technology, as well as through Order 05–06 related to smuggling, where explicitly referred to electronic payment methods (Kurdi, 2017).

### **3.6. Legislative instruments in the digital transformation**

The topic of digital transformation leads us to discuss the legislative tools of digital transformation. For the success of the digital transformation process it is

recognized that laws should provide the legal architecture to ensure the digital transformation process. Legislative instruments emerge through the establishment of a solid legal system for digital business operations, and it must be noted that in African there are several laws that secure the process of digital transformation. It is important to note that intellectual property protection laws that also apply to the digital environment are now modern. In addition, advertising and e-marketing laws directly related to the digital economy exist, as well as e-contracting laws which are important in making e-companies more flexible. Moreover, arbitration and electronic litigation rules play a key role in stimulating the digital economy, adding more protection to the electronic consumer. Legal texts on the aforementioned topics exist. For example, a law specializing in electronic commerce is Act No. 18-05 of 10 May 2018. These laws encourage an active digital transformation process. All legal rules must protect investors and customers equally. It is important to note that even criminal law rules are important in providing protection to actors in the digital economy in terms of providing legal framework. The rules of the Criminal Code for the Protection of Persons and Institutions exist—for example Act No. 18-07 of June 2018 on the Protection of Persons in the Processing of Personal Data. African's interest in providing a favorable legal environment is demonstrated by the criminalization of acts of unlawful access to data and offences affecting intellectual property. Reference should be made to Act No. 09-04 of 5 August 2009. Dealing with special rules on prevention and combating crimes related to information and communication technology, it provides a legislative framework for the protection of all parties to the digital economy.

#### **4. Conclusion**

The study showed the importance of the legal framework for electronic payment in the field of the digital economy. Moreover, this legal framework represents an essential part of digital law. We find that this legal framework appears through general texts such as civil law, commercial law, as well as monetary law, or special texts such as electronic commerce laws. In addition, other branches of law play a complementary role, such as criminal law and personal data protection laws.

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