



# The legal Control of Electronic Payment Systems in Electronic Commerce Operations in Arab Countries

– A comparative Study –

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## Abstract

The stability and growth of an economy is directly related to the strength, reliability, scalability and efficiency of payment systems. After the introduction of electronic payment methods and their wide spread acceptance in many developed countries, this technology has played an important role in stabilizing and growing their economies. But the use of electronic payment methods is still in infancy in Arab countries due to various incidents of frauds and identity thefts.

This research aimed to Identify the electronic payment methods and mechanisms, Identify the nature of banking supervision systems on electronic payment methods and their suitability for technical developments, Identify the challenges related to the e-banking environment, and to crystallize the concept of control of electronic payment methods in the framework of developing the performance of banking control units. To achieve this aims the researcher used the descriptive approach and compilation and analysis of information.



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The result showed that the use of electronic payment tools has become an unavoidable reality, which necessitates the development of cadres and training of staff to upgrade the level of services provided.

**Keywords:** Electronic-Payments, Electronic-Commerce, Control, Bank, Business.

## **Introduction**

Different countries in the developed world are witnessing a continuous revolution in the field of banking, where the transition from traditional banks with physical presence in the form of branches and transactions where the exchange of documents, coins and paper to virtual banks that rely on the pillars or electronic media, and the emergence of what is known as electronic money, And electronic banking.

The enormous technological progress since the launch of the Internet in the mid-1990s has shown the electronic banking, which relies on electronic data processing, which offers huge advantages in the field of cost and commerce. (Dahlman, 2012)

Despite the multiple advantages of e-banking, this work is risky, as there is a close correlation between these electronic processes and information security, which may lead to tampering with customers' own balances or making electronic transfers and payments through customer accounts. To face these challenges, banks have only to work hard to process these risks, which requires a great deal of responsibility to face them through the adoption of comprehensive risk management to identify these risks and reduce them through means of control and develop appropriate practical policies to process them. (Darwish & Hassan, 2012)



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E-banking allows people to interact with their online banking accounts, request information and implement most banking services such as balance reports, transfers between accounts and payment of bills from anywhere in the world, and offer many benefits to consumers in terms of ease and cost of transactions.

Electronic commerce is an electronic business performance, where is based on electronic data interchange, written or visual or audible, and it includes many of the commercial activities such as the exchange of goods, the completion of sales and purchase, delivery of the contents, marketing, and After-sale services include both goods and services, as well as traditional and non-traditional activities.

### **Questions**

In view of the above, the need is urgent for the development of the methods of control over electronic payment systems in the Arab countries to increase efficiency and efficiency and ensure the success and continued satisfaction of customers for the services provided.

Then, this research came to answer the following questions:

1. What are electronic payment systems and their risks and how controlled of them?
2. What is the types of electronic payment systems?
3. What are the risks associated with electronic payment systems?
4. What are the means of controlling electronic payment systems?

### **Objective**

This research seeks to achieve the following objectives:

1. Identify the electronic payment methods and mechanisms.



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2. Identify the nature of banking supervision systems on electronic payment methods and their suitability for technical developments.
3. Identify the challenges related to the e-banking environment.
4. To crystallize the concept of control of electronic payment methods in the framework of developing the performance of banking control units.

### **Methodology**

to achieve the objectives of this research, the researcher used the descriptive approach, compilation and analysis of information concerned with the legal control of electronic payment systems in electronic commerce operation in Arab countries.

### **The legal control of electronic payment systems**

In general, solutions to Internet banking security issues require the use of software-based or hardware-based systems or a combination of them

The payment systems are the backbone of any financial systems and the full economic life of an economy. The payment systems consist of several components including payment tools, rules, regulations, standards, best practices, technical solutions, financial, and non-financial bodies. The efficiency and reliability of a technical solution determines the transaction cost and time it takes to transfer funds. The time and cost of money transfer is very important in promoting financial activity. (Akhtar & Mansoor, 2014)

The e-payment system is an integrated system provided by the financial and banking institutions for making the electronic payment process safe and easy. This system usually consists of the systems and programs, and it is subject to a set of rules and laws that make



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all financial transactions and procedures are strictly confidential to ensure the protection and safety of the user.

The electronic banking infrastructure consists of three main components: (Darwish & Hassan, 2012)

1. Clients.
2. Servers.
3. Database.

Security is a combination of applications, systems, and internal controls used to protect data authenticity, integrity, operations, originality, and confidentiality. Proper security depends on the implementation and development of adequate security measures and security policies to operations within the Bank and to communication between the Bank and external parties. Security measures and policies can limit the risk of internal and external attacks on electronic banking systems and electronic financial systems, as well as reputation risks resulting from security breaches. (Holappa, 2001)

### **The types of electronic payments**

The e-payment tool has emerged with the emergence of e-commerce and is therefore closely related to ICTs, so that the electronic payment methods become a component of e-commerce. In below are some types of electronic payment:

1. Smart cards, such as electronic purses. These cards resemble other kinds of plastic money, except that they contain a microchip embedded in a small gold plate used to store a certain amount of value using cryptographic algorithms that can only be decrypted by an appropriate reader. (Guadamuz, 2003)



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2. Disposable and virtual pre-funded cards are a type of server-based e-money which physically appear in the form of a card. money deposited on the card itself is not stored, but on the server and can be used directly to paying at a content provider's website, Contrary to smart cards. (conference, 2004) As a form of server-based electronic money, these pre-funded and virtual funded cards fall within the scope of the new electronic funds directive. This type of card addresses the basic privacy requirements and allows consumers to make anonymous buy. (Commission of the European communities, 2008)
3. Mobile payment systems. Electronic funds can be integrated into mobile devices, or stored on a card or server, a wide range of mobile payment systems has been developed. These mobile payment systems can either deduct payments from the bank account or cardholder's credit card. Mobile payment schemes are typically common to minors to make purchases of limited value.
4. Money in virtual worlds. The virtual world is a three-dimensional world on the internet imagined and created by its inhabitants. there is a marketplace where residents trade virtual services and goods. virtual worlds have created their own currency that allows their users to work within their world. Virtual world currencies comply with all criteria: they are electronically stored, issued upon receipt of funds, for making payment transactions, and are accepted by other residents.

### **The electronic commerce operations**

The electronic commerce is a new term in the world of economics and a revolution in supply chain management and have enormous potential in manufacturing, retail and service operations.



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The electronic commerce operation is the process of exchanging goods and services electronically through electronic means via the Internet, it is a complete set of production, distribution, marketing and sale of products using electronic means.

E-commerce is an emerging area that includes direct and indirect operations related to the purchase, sale and circulation of products, services and information across computer networks - including the Internet. And its basis is generally linked with the nature of electronic exchanges. (Unctad, 2016)

Kalakota and Whinston defined the electronic commerce from these perspectives:

- communication perspective: the electronic commerce is the entity providing the information, services, products, or payments via telephone lines, computer networks or any other electronic means.
- business process perspective: the electronic commerce is the application of technology to workflow and the automation of business transactions.
- service perspective: the electronic commerce is a tool that processing the desire of consumers, companies, and management to reduce service costs and increasing the speed of delivery of services while improving the quality of goods.
- Online perspective: the electronic commerce is Provides the ability to buy and sell products and information online as well as other online services. (Gunasekaran et al, 2002)

### **the legal control of electronic payment system in electronic commerce operation**

The control process usually begins by establishing the foundations and rules necessary to follow up the business, from the stage of issuance of the payment instrument, through the



operation phase, and the settlement of the relationship with the customer. The basis of this control can be explained as follows:

1. Card issuance stage.

- Checking the completeness of all customer data, determining the suitability of the payment card required and the areas of use, the maximum amount to be included in the card (credit ceiling), informing the customer of the terms and conditions related to the issuance and use of the card in terms of the rights and obligations of the holder. (Kingston, 2018)
- Conducting an analysis of the customer's previous data, determining the number of points obtained, and whether they are within the bank's acceptable limits for granting a credit card, which can also determine the type, ceiling and conditions of the card to be awarded to him.
- A contract shall be signed with the customer and the card shall be issued encrypted, included on the necessary basic data. The card and its PIN are placed in a separate envelope and delivered to the customer. (Bijak, Mues et al, 2015)

2. Card Operation Stage.

This stage relates to the regulation of the relationship between the service parties represented by the bank and the merchant or the seller on the one hand and the customer on the other. where there are strict controls regulating the aspects of the relationship between the parties mentioned. Follow-up of customer data and withdrawals made on the card with the customer through the documents that reach the bank from the internet network related to the company that owns the credit card. (Murphy, 2013)

## **Conclusion**



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E-commerce includes all commercial transactions, from the sale and purchase of goods and services. This trade is based on a computerized information system, consisting of computer and its accessories such as the Internet, telephone and fax. It is done electronically through electronic transfers of money or shopping Payment and credit cards. the result of this research showed that:

- The use of electronic payment tools has become an unavoidable reality, which necessitates the development of cadres and training of staff to upgrade the level of services provided.
- The provision of banking services through the Internet leads to the development of the banking environment in addition to the technical characteristics of information network technology, which necessitates the existence of controls before entering electronic banking to mitigate the risks resulting from them.
- The importance of maintaining backup copies of the systems, programs and electronic files outside the work stations within the contingency plan to address any problems and ensure continuity of work.

**Recommendation:**

- Supporting the researchers of the development of electronic banking services to ensure and expand the spread of these services.
- The security and protection conditions of e-payments must be provided in terms of the maximum limits of what is stored in the card.
- take additional control measures on the issuance of means of payment through the availability of means of direct contact with the card issuer or the central operator to protect against counterfeiting.



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